Oracle® Enterprise Manager

Licensing Information

12*c* Release 4 (12.1.0.4)

E24474-36

May 2015

ORACLE®

Oracle Enterprise Manager Licensing Information, 12*c* Release 4 (12.1.0.4)

E24474-36

Contents

3   Oracle Middleware Enterprise Management

4 Identity Management Enterprise Management

5 Other Infrastructure Management

6 Application Performance and Regression Testing

7 End User Monitoring

8 Packaged Application Management

9 Cloud Management

10 Base Enterprise Manager Functionality

A Third-Party Licenses

B   Third-Party Licenses for Oracle Enterprise Manager Ops Center

C Oracle Licenses for Oracle Enterprise Manager Ops Center

Index

Preface

This document, which is part of the Program Documentation under the terms of your Oracle licensing agreement, is intended to help you understand the features, functionality, and options available for Oracle Programs. If you have questions about licensing needs, please contact your Oracle sales representative or refer to the resources listed in Related Documents for more information.

Oracle Enterprise Manager 12*c* is available in multiple editions, each suitable for different development and deployment scenarios. Oracle also offers several Enterprise Manager options that enhance the capabilities of Oracle Enterprise Manager for specific application requirements. Oracle Enterprise Manager Licensing Information provides information on these optional products.

This Preface contains the following topics:

- Intended Audience
- Documentation Accessibility
- Related Documents
- Conventions
- What's Changed

Intended Audience

This book is intended for all purchasers of Oracle Enterprise Manager 12.1.

Documentation Accessibility

For information about Oracle's commitment to accessibility, visit the Oracle Accessibility Program website at
`http://www.oracle.com/pls/topic/lookup?ctx=acc&id=docacc`.

Access to Oracle Support

Oracle customers have access to electronic support through My Oracle Support. For information, visit `http://www.oracle.com/pls/topic/lookup?ctx=acc&id=info` or visit `http://www.oracle.com/pls/topic/lookup?ctx=acc&id=trs` if you are hearing impaired.

Related Documents

For more information, see the following documents in the Oracle documentation set:

- *Oracle Database Licensing Information*

- *Oracle Application Server Licensing Information*
- *Oracle Enterprise Manager Concepts*

You can access these documents from the Oracle Technology Network:

http://www.oracle.com/technology/documentation/index.html

Additionally, the Oracle Software Investment Guide is available for downloading at:

http://www.oracle.com/corporate/pricing/sig.html

Conventions

The following text conventions are used in this document:

Convention	Meaning
boldface	Boldface type indicates graphical user interface elements associated with an action, or terms defined in text or the glossary.
italic	Italic type indicates book titles, emphasis, or placeholder variables for which you supply particular values.
`monospace`	Monospace type indicates commands within a paragraph, URLs, code in examples, text that appears on the screen, or text that you enter.

What's Changed

This table provides a brief overview of the document changes for the latest publication of the *Oracle Enterprise Manager Cloud Control 12c Licensing Information Guide*:

Part Number	Change Summary
E24474-36	
E24474-35	Added the In-Memory Advisor feature to the Oracle Tuning Pack.
E24474-34	Minor editorial updates.
E24474-33	Updated Management Pack Plus for Identity Management Features to include supported features for Java Virtual Machines (JVMs).
	Updated the Features of Management Pack for WebCenter in Chapter 3, "Oracle Middleware Enterprise Management."
	Updated the following sections in Chapter 9, "Cloud Management":
	▪ Oracle Cloud Management Pack for Oracle Database Features
	▪ Accessing Oracle Cloud Management Pack for Oracle Database Licensed Links
	▪ Oracle Cloud Management Pack for Oracle Database Licensed EMCLI Verbs
	Minor content updates for the Accessing Oracle Real User Experience Insight Licensed Links section.
	Added a new Software Standardization Advisor feature to the Database Lifecycle Management Pack for Oracle Database.
	Added Apache HTTP Server support content for System Monitoring Plug-Ins for Non-Oracle Middleware.
	Added Jettison 1.0 to Appendix A, "Third-Party Licenses."
	Minor typographical edits for Application Management Suite for Oracle E-Business Suite.
E24474-32	Added Rapid Home Provisioning for Oracle Database Lifecycle Management Pack Features section.
E24474-31	Removed the minimal license requirements from the Application Performance and Regression Testing chapter.
E24474-30	Added a new Rapid Home Provisioning feature to the Database Lifecycle Management Pack for Oracle Database.

Part Number	Change Summary
E24474-29	Added two new "legacy" sections:
	■ Legacy: Oracle Data Masking Pack for Oracle and Non-Oracle Databases
	■ Legacy: Oracle Test Data Management Pack for Oracle and Non-Oracle Databases
	Updated the Disaster Recovery via Site Guard feature's note to specify either WebLogic Server Management Pack Enterprise Edition or Database Lifecycle Management Pack for Oracle Database are required. Also, added this feature to the Configuration Management Pack for Applications.
	Added an Index chapter at the end of the document.

1

Introduction

Oracle Enterprise Manager Cloud Control 12*c* is Oracle's single, integrated solution for managing all aspects of the Oracle Cloud and the applications running on it. Cloud Control couples a potent, top-down monitoring approach to delivering the highest quality of service for applications with a cost-effective automated configuration management, provisioning, and administrative solution. This powerful combination provides unequaled management for any size Oracle data center.

Oracle also offers several options, management packs, management plug-ins, and other products that enhance the capabilities of Oracle Enterprise Manager for specific purposes. This guide describes the separately licensed Oracle Enterprise Manager management packs, management plug-ins, and other products you can purchase to enhance the capabilities of Oracle Enterprise Manager in specific environments. This guide contains the following chapters and appendix:

- Chapter 2, "Enterprise Database Management"

- Chapter 3, "Oracle Middleware Enterprise Management"

- Chapter 4, "Identity Management Enterprise Management"

- Chapter 5, "Other Infrastructure Management"

- Chapter 6, "Application Performance and Regression Testing"

- Chapter 7, "End User Monitoring"

- Chapter 8, "Packaged Application Management"

- Chapter 9, "Cloud Management"

- Chapter 10, "Base Enterprise Manager Functionality"

- Appendix A, "Third-Party Licenses"

- Appendix B, "Third-Party Licenses for Oracle Enterprise Manager Ops Center"

- Appendix C, "Oracle Licenses for Oracle Enterprise Manager Ops Center"

1.1 License Authorization Requirement

You cannot use the options, packs, reports, licensed repository views, or Command Line Interface (CLI) verbs described in these chapters without the appropriate licenses. Although these options, Management Packs, or products may be included in product CDs or downloads, or described in documentation that you receive, this does not authorize you to use them without the appropriate licenses.

1.2 Showing Management Pack Information

Enterprise Manager indicates licensed links by showing an abbreviation for a pack beside the licensed link. The default is to not show these abbreviations. To enable this feature, do the following:

1. Access any **Enterprise Manager Cloud Control** page.

   For example, click **Targets**, then select **Systems**. On the Systems page, select a system name to display that system's home page.

2. Click **Setup** (in the upper-right corner of the page), then **Management Packs**, and finally **Enable Annotations**. Once enabled, any page requiring a licensed pack will show the pack's abbreviation:

   - Target's home page menu - click the target's home page menu to see which pages require a licensed pack.

   - Licensed link - the abbreviation for the licensed pack will appear on the page. Clicking the link will display the Management Packs page showing information about all management packs (for example, abbreviation of the pack, pack name, and a brief description of the pack).

You can view the list of management packs any time. Click **Setup**, then **Management Packs**, and finally **License Information**.

1.3 Enabling and Disabling the Oracle Enterprise Manager Packs

To enable or disable the functionality for most packs in Oracle Enterprise Manager Cloud Control 12*c*:

1. Log in to Enterprise Manager Cloud Control 12*c* as a super administrator.

   To check your Cloud Control version, click **Help** (in the upper right corner of the page), then **About Oracle Enterprise Manager**. A pop-up window will appear to display the version.

2. Click **Setup** (in the upper right corner of the page), **Management Packs**, then **Management Pack Access**.

   The Management Pack Access page allows you to enable or disable access for each Management Pack on each listed target. Select **Licensable Targets** (default) or **All Targets** to view management pack access information. The Pack Access view options are:

   - **Target Based** - For each target listed, you can enable or disable the management packs associated with the target. For the target listed in the **Name** column, select the management packs for which you have access and click the box for that pack.

     For a new target, click the box in the **Pack Access Agreed** column to agree to the terms of the licensing agreement. The Pack Access Agreed option is available for selection only for a newly added target for which you have not accepted the terms of the Licensing Agreement. By default, the Pack Access Agreed option is not selected.

     Click **Apply** to save your changes.

   - **Pack Based Batch Update** - You can enable or disable management packs as a group across all licensable targets or for a specific target type. Select the type from the drop-down list. The Available Packs list will update based on your selection.

Select the pack you want to enable/disable. Hold the Control key to select multiple packs. Click **Move** and then either the **Enable** or **Disable** access options.

Click **Apply** to save your changes.

■ **Auto Licensing** - Enterprise Management users do not need to manually enable or disable management packs every time a new target is discovered. By using the Auto Licensing feature, you can define for each target type what packs a new target will be entitled to upon discovery.

For example, if you add an additional database target, then all associated packs (such as, Oracle Database Lifecycle Management Pack, Database Tuning Pack) will be auto granted to the newly discovered database target. If you do not want these packs automatically enabled for new targets, you must disable Auto Licensing for the associated packs.

Select the pack you want to enable/disable. Hold the Control key to select multiple packs. Click **Move** and then either the **Enable** or **Disable** Auto Licensing options. By default, Auto Licensing is enabled.

If you disable any pack, it will appear in the Auto Licensing Disable List. Both the management pack name and the associated type will be included. Also, all targets of the associated target type discovered in the future will not get the pack by default.

Click **Apply** to save your changes.

When you disable a Management Pack, links that are part of that pack will either be disabled or, when a link is clicked, a message will indicate that the associated pack is not licensed for use. After performing the previous steps to disable a pack, any administrator who logs in to Oracle Enterprise Manager Cloud Control 12*c* cannot access any Management Pack functionality that you have disabled.

1.4 Additional Database and Fusion Middleware Information

For additional information about licensed products associated with either Oracle Database 11*g*, Oracle Fusion Middleware, or Oracle WebLogic Server, see the following documentation on the Oracle Technology Network:

http://www.oracle.com/technetwork

■ Oracle Database Licensing Information

■ Oracle Fusion Middleware Licensing Information

1.5 Enterprise Manager Restricted-use License

■ Enterprise Manager includes a restricted-use license of the Oracle Database for use only with the Oracle Management Repository or other complementary repositories included with Enterprise Manager (such as, AWR Warehouse, Ops Center, Real User Experience Insight, Load Testing, and Test Manager).

Additional database options or additional servers for disaster recovery require separate licensing. Customers receive one single-instance database with the Cloud Control, or RMAN, repository. To protect the repository with Data Guard, customers need to purchase a license for the standby site. To protect the repository with Oracle Real Application Clusters, customers must license the second node for the database, and both nodes require an Oracle Real Application Clusters license.

- Use of Oracle WebLogic Server with Oracle Enterprise Manager is restricted to servlet functionality. A restricted-use license for WebLogic clustering is included, to support deployment of cluster of Oracle Business Intelligence Publisher servers, only when used with Oracle Enterprise Manager.

- Use of Oracle Virtual Assembly Builder is licensed, as long as a the assemblies are deployed through Enterprise Manager.

- Oracle Enterprise Manager includes restricted use of Oracle Business Intelligence Publisher and Business Intelligence Mobile for use with Enterprise Manager functions and interfaces only. This restricted BI Publisher license will allow reporting only against the Enterprise Manager repository and against data dictionary (including AWR data) of target databases. In order to report against other data sources, it is necessary to have BI Publisher license.

- Restricted-use license of Oracle ZFS Storage Appliance Cloning (Part #7102338) is included with Enterprise Manager Snap Clone, a feature of Oracle Cloud Management Pack for Oracle Database.

2

Enterprise Database Management

This chapter describes the management packs offered by Enterprise Manager in support of Oracle Database. The following management packs are included:

- Oracle Diagnostics Pack
- Oracle Tuning Pack
- Database Lifecycle Management Pack for Oracle Database
- Oracle Data Masking and Subsetting Pack for Oracle and Non-Oracle Databases
- Legacy: Configuration Management Pack for Oracle Database
- Legacy: Change Management Pack for Oracle Database
- Legacy: Provisioning and Patch Automation Pack for Oracle Database
- Legacy: Oracle Data Masking Pack for Oracle and Non-Oracle Databases
- Legacy: Oracle Test Data Management Pack for Oracle and Non-Oracle Databases

These management packs can be purchased only with Enterprise Edition. The features in these packs are accessible through Oracle Enterprise Manager Database Control, Oracle Enterprise Manager Cloud Control, Oracle Enterprise Manager Database Express, and APIs provided with Oracle Database software.

> **Note:** Oracle Enterprise Manager Cloud Control 12*c* supports management of Oracle Database Standard Edition One, Oracle Database Standard Edition, and Oracle Database Enterprise Edition. Other editions of Oracle Database, such as Oracle Database Personal Edition, which provides single-user development and deployment environments, is not supported by Oracle Enterprise Manager. For more information about the Oracle Database product family, see:
>
> http://docs.oracle.com/cd/E16655_
> 01/license.121/e17614/editions.htm#DBLIC110

2.1 Oracle Diagnostics Pack

The Oracle Diagnostics Pack provides automatic performance diagnostic and advanced system monitoring functionality. The following sections describe this management pack offered by Enterprise Manager:

- Oracle Diagnostics Pack Features
- Accessing Oracle Diagnostic Pack Licensed Links
- Accessing Oracle Diagnostic Pack Features Through Command-Line APIs

- [Oracle Diagnostic Pack Licensed Reports](#)

- [Oracle Diagnostic Pack Licensed Repository Views](#)

2.1.1 Oracle Diagnostics Pack Features

The Oracle Diagnostics Pack includes the following features:

Feature	Description
Performance monitoring and diagnostics	Measure performance and diagnose performance issues.
Automatic Workload Repository (AWR)	Capture statistics automatically, including snapshot data, active session history data, and workload reports.
AWR Warehouse	Seamlessly retain AWR data beyond the default retention period and perform historical performance analysis tasks using Active Session History (ASH) Analytics, AWR, and Compare Period Reports.
Automatic Database Diagnostic Monitor (ADDM)	Automatic performance analysis based on AWR data.
Compare Period ADDM	Comparative analysis of performance across two time periods.
Real Time ADDM	Allow analysis of transient performance issues and hung databases
Active Session History (ASH)	Always-On capture of database performance activity using one-second samples of the session state.
ASH analytics	Provides insight to the database workload profile across various performance dimensions using ASH data.
Performance Hub	Provides a single view of database performance with access to ADDM, SQL Tuning, Real-Time SQL Monitoring, and ASH Analytics under the same hood.
Replay Compare Period Report	Provides accurate performance analysis using the ASH infrastructure for capture/replay sessions.
Exadata Cell Grid Administration	Provides the following information: - IORM settings - Disk Objective Trends - Average throttle time for Disk I/Os: All and individual Databases - Disk utilization by all databases
Exadata Cell Grid Performance	Provides the following trending information: - IOPS, throughput, Cell Disk I/O load - All CPU, memory, and Network utilization - Flash cache usage Provides average response time information for all hard disks and flash disks. Provides Workload Distribution information across all databases.

Feature	Description
Exadata Cell Group Health Overview Page	Provides an integrated health overview from the Database Instance performance page. Provides historical trend information of availability, including: ■ ASM Diskgroup health ■ Cell health ■ Network health ■ Cell Configuration health
Exadata Resource Utilization	Provides the following Compute node resource information ■ Database CPU utilization ■ Database placement ■ Cluster placement Provides the following Storage Server resource information: ■ Database I/O utilization ■ Disk group space allocation
Blackouts	Suspend monitoring on targets to support scheduled maintenance periods.
Notifications	Define and use different notification methods including e-mail, running custom OS scripts, PL/SQL procedures and SNMP traps; repeat notifications, use of notification-related actions in incident rule sets, administrator notification schedules.
Metric and Alert/Event History	View metric and alert/event history and its associated details.
User-Defined Metrics and Metric Extensions	Create new metrics to monitor conditions specific to customer environments.
Management Connectors	Helpdesk (ticketing) connectors open helpdesk tickets for incidents raised in Enterprise Manager. Event connectors share event information with other management systems.
Dynamic metric baselines and Adaptive metric thresholds	Capture "baselines" of workload performance metrics during "normal" performance and compares against the same metrics during poor performance to diagnose the causes. Set adaptive thresholds using a pre-defined baseline to accurately detect alert conditions when a system has predictably varying workloads.
Monitoring Templates and Template Collections	Monitoring Templates encapsulate target monitoring settings and can later be applied against many targets. Template Collections (with administration groups) automate the deployment of management settings on targets as they join the group.
Bottleneck detection and Component top wait event analysis	Support functionality to perform per stream bottleneck detection and per component top wait event analysis
Memory access mode	Retrieve performance statistics directly from the Shared Global Area (SGA).

In order to use the features listed above, you must purchase licenses for Oracle Diagnostics Pack. The CONTROL_MANAGEMENT_PACK_ACCESS initialization parameter controls access to Oracle Diagnostics Pack and Oracle Tuning Pack. This parameter can be set to one of three values:

- `DIAGNOSTIC+TUNING`: Oracle Diagnostics Pack and Oracle Tuning Pack functionally is enabled in the database server.

- `DIAGNOSTIC`: Only Oracle Diagnostics Pack functionality is enabled in the server.

- `NONE`: Oracle Diagnostics Pack and Oracle Tuning Pack functionally is disabled in the database server.

Any and all methods of accessing Oracle Diagnostics Pack functionality, whether through Enterprise Manager Console, Desktop Widgets, command-line APIs, or direct access to the underlying data, requires an Oracle Diagnostics Pack license.

2.1.2 Accessing Oracle Diagnostic Pack Licensed Links

To determine which links in Enterprise Manager are part of Oracle Diagnostics Pack, click the **Setup** link on the top right-hand part of the Enterprise Manager Home page.

- When you click the **Setup** link, the navigation bar contains the **Management Pack Access** link. Click this link.

- This will take you to the **Management Pack Access** page, which allows you to grant and remove access from all the management packs.

  - For Enterprise Manager Database Control, click the **Remove Access** radio button for the Diagnostics Pack and click **Apply**.

  - For Enterprise Manager Cloud Control, click the appropriate check box for the Diagnostics Pack and click **Apply**.

This procedure disables all the links and tabs associated with Oracle Diagnostics Pack in Enterprise Manager. All the disabled links and tabs are part of Oracle Diagnostics Pack and therefore require a pack license.

2.1.3 Accessing Oracle Diagnostic Pack Features Through Command-Line APIs

Oracle Diagnostic Pack features can also be accessed by way of the following database server APIs and command-line interfaces:

- The `DBMS_WORKLOAD_REPOSITORY` package is part of this pack.

- The `DBMS_ADDM` package is part of this pack.

- The `DBMS_ADVISOR` package is part of this pack if you specify ADDM as the value of the `advisor_name` parameter, or if you specify for the value of the `task_name` parameter any value starting with the ADDM prefix.

- The `DBMS_WORKLOAD_REPLAY.COMPARE_PERIOD_REPORT` function is part of this pack.

- The `V$ACTIVE_SESSION_HISTORY` dynamic performance view and its underlying table, `X$ASH`, are part of this pack.

- The `DBA_STREAMS_TP_PATH_BOTTLENECK` view is part of this pack.

- All views beginning with `DBA_ADDM_` are part of this pack.

- Some data in `DBA_STREAMS_TP_COMPONENT_STAT` requires Oracle Diagnostics Pack. The following filter clause to any query on `DBA_STREAMS_TP_COMPONENT_STAT` shows Diagnostics-Pack-dependent data:

  ```
  where STATISTIC_UNIT  = 'PERCENT'
  ```

  For example, the following query shows Diagnostics-Pack-dependent data only:

  ```
  SELECT * FROM DBA_STREAMS_TP_COMPONENT_STAT
     where STATISTIC_UNIT = 'PERCENT';
  ```

- All data dictionary views beginning with the prefix `DBA_HIST_` are part of this pack, along with their underlying tables.The only exception are the views: `DBA_HIST_SNAPSHOT`, `DBA_HIST_DATABASE_INSTANCE`, `DBA_HIST_SNAP_ERROR`, `DBA_HIST_SEG_STAT`, `DBA_HIST_SEG_STAT_OBJ`, and `DBA_HIST_UNDOSTAT`. They can be used without the Oracle Diagnostics Pack license.

- All data dictionary views with the prefix `DBA_ADVISOR_` are part of this pack if queries to these views return rows with the value `ADDM` in the `ADVISOR_NAME` column or a value of `ADDM*` in the `TASK_NAME` column or the corresponding `TASK_ID`.

2.1.4 Oracle Diagnostic Pack Licensed Reports

The following reports found in the `/rdbms/admin/` directory of the Oracle home directory are part of the Oracle Diagnostic Pack:

awrrpt.sql	addmrpt.sql	awrsqrpi.sql
awrrpti.sql	addmrpti.sql	awrsqrpt.sql
awrgrpt.sql	ashrpt.sql	awrextr.sql
awrgrpti.sql	ashrpti.sql	awrload.sql
awrgdrpt.sql	awrddrpt.sql	awrinfo.sql
awrgdrpi.sql	awrddrpi.sql	spawrrac.sql

2.1.5 Oracle Diagnostic Pack Licensed Repository Views

The following repository views are part of the Diagnostics Pack for Oracle Database:

Monitoring Views

MGMT$ALERT_ANNOTATIONS	MGMT$METRIC_COLLECTIONS
MGMT$ALERT_CURRENT	MGMT$METRIC_CURRENT
MGMT$ALERT_HISTORY	MGMT$METRIC_DAILY
MGMT$ALERT_NOTIF_LOG	MGMT$METRIC_DETAILS
MGMT$AVAILABILITY_CURRENT	MGMT$METRIC_HOURLY
MGMT$AVAILABILITY_HISTORY	MGMT$TARGET_METRIC_COLLECTIONS
MGMT$BLACKOUT_HISTORY	MGMT$TARGET_METRIC_SETTINGS
MGMT$BLACKOUTS	

Template Views

MGMT$TEMPLATES
MGMT$TEMPLATE_METRIC_COLLECTION
MGMT$TEMPLATE_METRIC_SETTINGS
MGMT$TEMPLATE_POLICY_SETTINGS

2.2 Oracle Tuning Pack

Oracle Tuning Pack provides database administrators with expert performance management for the Oracle environment, including SQL tuning and storage optimizations. Oracle Diagnostics Pack is a prerequisite product to Oracle Tuning Pack. Therefore, to use Oracle Tuning Pack, you must also have Oracle Diagnostics Pack.

The following sections describe this management pack offered by Enterprise Manager:

- Oracle Tuning Pack Features

- [Accessing Oracle Tuning Pack Licensed Links](#)
- [Accessing Oracle Tuning Pack Features Through Command-Line APIs](#)
- [Oracle Tuning Pack Licensed Reports](#)

2.2.1 Oracle Tuning Pack Features

Oracle Tuning Pack includes the following features:

Feature	Definition
In-Memory Advisor	Analyzes database workload and makes recommendations on which database objects to place in the Database In-Memory Store for optimal database performance.
SQL Access Advisor	Recommends schema changes needed to improve database performance.
SQL Tuning Advisor	Analyze SQL statements and make recommendations for better execution. Includes an automatic mode to run during system maintenance windows as a maintenance task.
SQL Tuning Sets	A database object that captures and manages SQL workloads.
Automatic SQL Tuning	Automatically selects high-load SQL queries in the system and generates recommendations on how to tune them. Executes during the system maintenance window.
SQL Profiles	Enables transparent tuning of queries without requiring any application changes.
Real-time Database Operations Monitoring	Provides live visual displays to track the progress of SQL and PL/SQL queries associated with a business operation.
Real-time SQL and PL/SQL Monitoring	Monitor execution of long-running or parallel SQL statements in real-time.
Reorganize objects	Reorganizes database space usage for objects or tablespaces to improve performance.

In order to use the features listed above, you must purchase licenses for Oracle Tuning Pack, with two exceptions:

1. SQL Tuning Sets can be used if you have licensed either Oracle Tuning Pack or Oracle Real Application Testing.

2. Use of In-Memory Advisor for databases where Database In-Memory option has not yet been deployed does NOT require Oracle Tuning Pack license.

A new initialization parameter, CONTROL_MANAGEMENT_PACK_ACCESS, is introduced to control access to Oracle Diagnostics Pack and Oracle Tuning Pack in the database server. This parameter can be set to one of three values:

- DIAGNOSTIC+TUNING: Oracle Diagnostics Pack and Oracle Tuning Pack functionally is enabled in the database server.

- DIAGNOSTIC: Only Oracle Diagnostics Pack functionality is enabled in the server.

- NONE: Oracle Diagnostics Pack and Oracle Tuning Pack functionally is disabled in the database server.

Any and all methods of accessing Oracle Tuning Pack functionality, whether through Enterprise Manager Console, Desktop Widgets, command-line APIs, or direct access to the underlying data, requires an Oracle Tuning Pack license.

2.2.2 Accessing Oracle Tuning Pack Licensed Links

To determine which links in Enterprise Manager are part of Oracle Tuning Pack, click the **Setup** link on the top right-hand part of the Enterprise Manager Home page.

- When you click the **Setup** link, the navigation bar contains the **Management Pack Access** link. Click this link.

- This will take you to the Management Pack Access page, which allows you to grant and remove access from all the management packs.

  - For Enterprise Manager Database Control, click the **Remove Access** radio button for the Tuning Pack and click **Apply**.

  - For Enterprise Manager Cloud Control, click the appropriate check box for the Tuning Pack and click **Apply**.

This procedure disables all the links and tabs associated with Oracle Tuning Pack in Enterprise Manager. All the disabled links and tabs are part of Oracle Tuning Pack and therefore require a pack license.

2.2.3 Accessing Oracle Tuning Pack Features Through Command-Line APIs

Oracle Tuning Pack features can also be accessed by way of the following database server APIs and command-line interfaces:

- `DBMS_ADVISOR`, when the value of the `advisor_name` parameter is either SQL Tuning Advisor or SQL Access Advisor.

- `DBMS_SQLTUNE`

- `V$SQL_MONITOR`

- `V$SQL_PLAN_MONITOR`

2.2.4 Oracle Tuning Pack Licensed Reports

The `sqltrpt.sql` report in the `/rdbms/admin/` directory of the Oracle home directory is part of this pack.

2.3 Database Lifecycle Management Pack for Oracle Database

The Database Lifecycle Management Pack is a comprehensive solution that helps database, system, and application administrators automate the processes required to manage the Oracle Database Lifecycle. It eliminates manual and time consuming tasks related to discovery, initial provisioning, patching, configuration management and ongoing change management. In addition the Database Lifecycle Management pack provides compliance frameworks for reporting and management of industry and regulatory compliance standards.

The Database Lifecycle Management covers the entire lifecycle of the databases, including:

- Discovery and Inventory tracking: the ability to discover your assets and track them.

- Initial provisioning: the ability to rollout databases in minutes.

- Ongoing Change Management: end-to-end management of patches, upgrades, schema and data changes.

- Configuration Management: track inventory, configuration drift. and detailed configuration search.

- Compliance Management: reporting and management of industry and regulatory compliance standards.

The Database Lifecycle Management pack is also a prerequisite for the Oracle Cloud Management Pack for Oracle Database. The following sections describe this management pack offered by Enterprise Manager:

- Oracle Database Lifecycle Management Pack Features

- Oracle Database Lifecycle Management Pack Licensed Parameters

- Accessing Oracle Database Lifecycle Management Pack Licensed Links

- Oracle Database Lifecycle Management Pack Licensed Reports

- Oracle Database Lifecycle Management Pack Licensed CLI Verbs

- Oracle Database Lifecycle Management Pack Licensed Repository Views

2.3.1 Oracle Database Lifecycle Management Pack Features

The Database Lifecycle Management Pack for Oracle Database includes the following features, which you can use after purchasing a license:

Feature	Definition
Change Activity Plans	Provide the ability to plan, track in real time, and execute data-centerwide change activities. Activities include: PSU patch rollouts, database consolidation to Exadata, etc.
Client System Analyzer	Enable your system administrators to collect and analyze configuration information and data from end-user systems. Using the pre-installed application enables you to collect end-user configuration information without setting up a separate Web server. The Management Agents collect, analyze, and upload the end-user configuration information to the Management Repository.
Compliance	Compliance Frameworks, Standards and extensibility to meet industry and regulatory compliance requirements.
Configuration Collection Extensibility	Create custom configuration collections and extend current collections.
Configuration Compare	Compare configurations, one-to-one, one-to-many.
Configuration History	Report and notify on configuration or relations changes during a specific time frame.
Configuration Instance Browser	View Configuration Items and associations associated with a target.
Configuration Save	Save configurations for reference, baselines or Gold Standards.
Configuration Search	Search for Configuration Items on a specific target or across relationships.
Configuration Topology	View topology for a specified target and its dependencies along with other targets that are dependent on it.
Copy Objects	Copy database objects with data, with a subset of data, or without data.
Database Patching	End-to-end patch automation for Oracle Database and Real Application Cluster (RAC).

Feature	Definition
Database Provisioning	Provision Oracle Database and Real Application Cluster (RAC).
Enterprise Data Governance	Automatically discover, scan and, identify databases of sensitive nature in the enterprise. Allows administrators to run deep scans in flagged databases for sensitive artifacts, pin-pointing its location within the database.
Upgrade existing Oracle Database and/or Oracle Grid Infrastructure	Supports upgrade of databases across major release versions (for example, 11.2.0.x to 12.1.0.1, also 11.2.0.x to other 11.2.0.x versions).
	Upgrade Standalone Databases, RAC (including Grid Infrastructure and RAC Database) and Dataguard Databases. Dataguard Databases both Primary and Standby are upgraded in rolling method using Transient Logical Standby method.
Disaster Recovery via Site Guard	Automate complete site failover of Oracle Fusion Middleware and Oracle Database and extend to include other data center components.
	Note:
	Usage of Site Guard requires licenses for *either* WebLogic Server Management Pack Enterprise Edition *or* Database Lifecycle Management Pack.
File Synchronization	Synchronize configuration file differences during a comparison.
Notifications	Notification on configuration changes or differences.
RAC Scale Back	Delete or scale back a single instance database from RAC.
RAC Scale Out	Extend single instance databases to RAC.
Rapid Home Provisioning	Deploy software homes to nodes in a cloud computing environment from a single cluster where you create, store, and manage templates of Oracle homes as images of Oracle software, such as databases, middleware, and applications.
	See Feature Notes: Rapid Home Provisioning below for additional information.
Real-time configuration change detection	Provide real-time configuration change detection and automation of compliance frameworks along with automated observation authorization using a Change Management Connector.
Real-time schema change detection	Track schema changes in real time to identify unwanted or unplanned changes.
Schema and Data Comparisons	Automate the comparison of database schema and data across Databases or saved baselines.
Schema and Data Synchronization	Propagate database objects and schemas with or without data, and update database object definitions.
Schema Change Plans	Allows developers to add changes to the schema in a plan that can be applied to multiple database.
Schema Comparisons	Compare database objects in two databases or baselines in Enterprise Manager or SQL developer.
Software Standardization Advisor	Recommends software configurations to become standardized. This feature helps to reduce the proliferation of the software variances based on patch levels across your existing Database fleet.
User Defined Deployment Procedures (UDDP)	Automate custom processes by creating a procedure from scratch by inserting the required phases, steps, and variables.

Feature	Definition
Pluggable Database (PDB) Create/Plug/Unplug	Create PDB from seed, plug PDB from unplugged PDB, and unplug PDB (multiple targets operations or performed using a customized deployment procedure).
PDB Clone	Create a clone of an existing PDB.
PDB Migrate	Migrate Non-Container Databases (CDB) database to a PDB.

2.3.1.1 Feature Notes: Rapid Home Provisioning

- When deployed across multiple clusters or access to the home server to provision on a remote cluster, this feature requires the Database Lifecycle Management license for the remote clusters.

  Note: A *remote cluster* is considered as the server where the clients are installed pointing to a different cluster as a home server.

- When using Enterprise Manager Cloud Control, deployment procedures and patch plans are used on the Rapid Home Provisioning server to:

  - Provision

  - Patch clusters or Oracle homes

2.3.1.2 Additional Licensed Features

With the purchase of the Database Lifecycle Management Pack for Oracle Database, you also are entitled to the features listed below. These features are restricted to the Oracle Database targets in the Oracle Database Home and the Platform (hardware and operating system) for the CPUs you have licensed.

- Application Configuration Console

- The oplan Utility (The basic OPlan feature is free for everyone that has an Oracle Support contract. Use of OPlan metadata to drive orchestration logic from either Enterprise Manager or custom/third-party scripts is part of the Database Lifecycle Management Pack for Oracle Database.)

- Migrate to ASM

- Self Update

2.3.2 Oracle Database Lifecycle Management Pack Licensed Parameters

The init.ora parameter ENABLE_DDL_LOGGING is licensed as part of the Database Lifecycle Management Pack when set to TRUE. When set to TRUE, the database reports schema changes in real time into the database alert log under the message group schema_ddl. The default setting is FALSE.

2.3.3 Accessing Oracle Database Lifecycle Management Pack Licensed Links

The following licensed links, features and functions apply only to the Oracle Database target and the associated host an Oracle Database is deployed on. For management on non-Oracle Database targets, you must purchase the appropriate management pack.

The following are the licensed pages and links for the Database Lifecycle Management Pack for Oracle Database:

Licensed Page/Link	How to Access
Database Provisioning Procedures	From the Enterprise Manager home page, click the **Enterprise** menu, **Provisioning and Patching**, then **Procedure Library**. All Procedures that Clone and Provision a Database are licensed with the Database Lifecycle Management Pack.
	From the Enterprise Manager home page, click the **Enterprise** menu, **Provisioning and Patching**, then **Database Provisioning**. All features, functions, links, buttons, and drill-downs on this menu are licensed as part of the Database Lifecycle Management Pack.
	From the Oracle database or cluster database target home page, click the **Oracle Database** menu, then **Provisioning**. All features, functions, links, buttons, and drill-downs on this menu are licensed as part of the Database Lifecycle Management Pack.
	From the Oracle Container Database home page, click the **Oracle Database** menu, then **Provision Pluggable Databases**. On the Provision Pluggable Databases page, all operations are licensed except for those explicitly mentioned in the Base Database Management Features section.
Database Upgrade	From the Enterprise Manager home page, click the **Enterprise** menu, **Provisioning and Patching**, then **Procedure Library**. All Procedures that Upgrade a Database are licensed with the Database Lifecycle Management Pack.
	From the Oracle database or cluster database target home page (includes Primary and Standby Databases), click the **Oracle Database** menu, then **Provisioning**. All features, functions, links, buttons, and drill-downs on this menu are licensed as part of the Database Lifecycle Management Pack.
User Defined Deployment Procedures (UDDP)	From the Enterprise Manager home page, click the **Enterprise** menu, **Provisioning and Patching**, then **Procedure Library**. On the Provisioning Library page, from the list of actions, the Create New option is licensed as part of the Database Lifecycle Management Pack.
RAC Scale Out and Scale Back	From the Enterprise Manager home page, click the **Enterprise** menu, **Provisioning and Patching**, then **Procedure Library**. All Procedures that Extend or Scale a database or RAC are licensed with the Database Lifecycle Management Pack.
	From the Enterprise Manager home page, click the **Enterprise** menu, **Provisioning and Patching**, then **Database Provisioning**. All features, functions, links, buttons, and drill-downs on this menu are licensed as part of the Database Lifecycle Management Pack.
	From the Oracle cluster database target home page, click the **Oracle Database** menu, then **Provisioning**. All features, functions, links, buttons, and drill-downs on this menu are licensed as part of the Database Lifecycle Management Pack.
Database Patching	From the Enterprise Manager home page, click the **Enterprise** menu, **Provisioning and Patching**, then **Procedure Library**. All Procedures that patch a database, Clusterware or Real Application Clusters are licensed with the Database Lifecycle Management Pack.

Licensed Page/Link	How to Access
Offline Patching	From the Enterprise Manager home page, click the **Setup** menu, **Provisioning and Patching**, then **Offline Patching**. From the **Online and Offline Setting** tab, the **Connection**, **Offline** setting is licensed with the Database Lifecycle Management Pack.
Configuration Instance Browser	From the Enterprise Manager home page, click on **Targets**, **Databases**, and select a Database. From the database home page, click on **Oracle Database**, **Configuration**. All features, functions, links, buttons, and drill-downs on this menu, excluding Topology, are licensed as part of the Database Lifecycle Management Pack.
	If the Target Home Page is accessed directly or by other paths:
	From the database home page, click on **Oracle Database**, **Configuration**. All features, functions, links, buttons, and drill-downs on this menu, excluding Topology, are licensed as part of the Database Lifecycle Management Pack.
Configuration Search	From the Enterprise Manager home page, click the **Enterprise** menu, then **Configuration and Search**. All features, functions, links, buttons, and drill-downs on this page are licensed as part of the Database Lifecycle Management Pack.
Configuration History	From the Enterprise Manager home page, click the **Enterprise** menu, then **Configuration and History**. All features, functions, links, buttons, and drill-downs on this page are licensed as part of the Database Lifecycle Management Pack.
Configuration Compare	From the Enterprise Manager home page, click the **Enterprise** menu, then **Configuration and Compare**. All features, functions, links, buttons, and drill-downs on this page are licensed as part of the Database Lifecycle Management Pack.
Configuration Save	From the Enterprise Manager home page, click the **Enterprise** menu, then **Configuration and Save**. All features, functions, links, buttons, and drill-downs on this page are licensed as part of the Database Lifecycle Management Pack.
Configuration Topology	From the Target Home Page, click on **Oracle Database**, **Configuration**, **Topology**. In the View Dropdown, **Used By** is licensed as part of the Database Lifecycle Management Pack.
	From the Target Home Page, click on **Oracle Database**, **Configuration**, **Topology**, **Customization**. All features, functions, links, buttons, and drill-downs on this menu are licensed as part of the Database Lifecycle Management Pack.
	If the Target Home Page is accessed directly or by other paths:
	■ From the Target Home Page, click on **Oracle Database**, **Configuration**, **Topology**. In the View drop-down, **Used By** is licensed as part of the Database Lifecycle Management Pack.
	■ From the Target Home Page, click on **Oracle Database**, **Configuration**, **Topology**, **Customization**. All features, functions, links, buttons, and drill-downs on this menu are licensed as part of the Database Lifecycle Management Pack

Licensed Page/Link	How to Access
Configuration Collection Extensibility	From the Enterprise Manager home page, click the **Enterprise** menu, then **Configuration and Custom**. All features, functions, links, buttons, and drill-downs on this page are licensed as part of the Database Lifecycle Management Pack.
Change Activity Plans	From the Enterprise Manager home page, click the **Enterprise** menu, then **Configuration**. The **Change Activity Plans** and **My Tasks** items are licensable as part of the Database Lifecycle Management Pack.
File Synchronization	When viewing comparison results differences as described in the Configuration Compare feature, select the configuration specification in the tree on the left. Select **Enable File Synchronization**. All features, functions, links, buttons, and drill-downs on this page are licensed as part of the Database Lifecycle Management Pack for Oracle Database.
Schema Comparison	From the Enterprise Manager home page, click on **Targets**, **Databases**, and then select a **Database**. From the database home page, click on **Schema**, **Change Management**. All features, functions, links, buttons, and drill-downs on this menu are licensed as part of the Database Lifecycle Management Pack.
	If the Target Home Page is accessed directly or by other paths:
	From the database home page, click on **Schema**, **Change Management**. All features, functions, links, buttons, and drill-downs on this menu are licensed as part of the Database Lifecycle Management Pack.
Schema and Data Comparisons	From the Enterprise Manager home page, click on **Targets**, **Databases**, and then select a **Database**. From the database home page, click on **Schema**, **Change Management**. All features, functions, links, buttons, and drill-downs on this menu are licensed as part of the Database Lifecycle Management Pack.
	If the Target Home Page is accessed directly or by other paths:
	From the database home page, click on **Schema**, **Change Management**. All features, functions, links, buttons, and drill-downs on this menu are licensed as part of the Database Lifecycle Management Pack.
Schema and Data Synchronization	From the Enterprise Manager home page, click on **Targets**, **Databases**, and then select a **Database**. From the database home page, click on **Schema**, **Change Management**. All features, functions, links, buttons, and drill-downs on this menu are licensed as part of the Database Lifecycle Management Pack.
	If the Target Home Page is accessed directly or by other paths:
	From the database home page, click on **Schema**, **Change Management**. All features, functions, links, buttons, and drill-downs on this menu are licensed as part of the Database Lifecycle Management Pack.

Licensed Page/Link	How to Access
Software Standardization Advisor	On the Enterprise Manager home page, click the **Targets** menu and select **Databases** (represents all Databases monitored within your Enterprise Manager environment). From the database home page, click the **Maintenance** menu and select **Database**. On the Database Maintenance page, all features, functions, links, buttons, and drill-downs on this page are licensed as part of the Database Lifecycle Management Pack.
Copy Objects	From the Enterprise Manager home page, click on **Targets**, **Databases**, and then select a **Database**. From the database home page, click on **Schema**, **Change Management**. All features, functions, links, buttons, and drill-downs on this menu are licensed as part of the Database Lifecycle Management Pack.
	If the Target Home Page is accessed directly or by other paths:
	From the database home page, click on **Schema**, **Change Management**. All features, functions, links, buttons, and drill-downs on this menu are licensed as part of the Database Lifecycle Management Pack.
Real-Time Schema Change Detection	From the Targets menu on the Enterprise Manager home page, select **Databases**. On the Databases page select a database from the Search List view or Database Load Map view. On the Database home page, select **Administration**, then **Initialization Parameters**. On the Initialization Parameters page, change the `enable_ddl_logging` option to **TRUE** to enable this feature, which is licensed as part of the Database Lifecycle Management Pack.
Real-time Configuration Change Detection and Compliance	From the Enterprise Manager home page, click the **Enterprise** menu and **Compliance**. All features, functions, links, buttons, and drill-downs associated with the Library, Real-time Observations, and Results pages are licensed as part of the Database Lifecycle Management Pack.

2.3.4 Oracle Database Lifecycle Management Pack Licensed Reports

The following reports are part of the Database Lifecycle Management Pack for Oracle Database. All reports in each of these sections are licensed as part of this pack. To access the reports go to the **Enterprise Manager** home page, click the **Reports**, **Information Publisher Reports** or **BI Publisher Enterprise Reports**.

The following reporting areas, reports, and sub-reports under Information Publisher Reports are licensed as part of the Database Lifecycle Management Pack:

- Compliance

- Deployment and Configuration

- Sample Host reports, Configuration Reports

- Security

The following reporting areas, reports and sub-reports under BI Publisher Enterprise Reports are licensed as part of the Database Lifecycle Management Pack:

- Compliance

- Deployment and Configuration

- Sample Host reports, Configuration Reports

- Security

2.3.5 Oracle Database Lifecycle Management Pack Licensed CLI Verbs

The following Enterprise Manager command line interface (CLI) verbs are licensed as part of the Database Lifecycle Management Pack:

associate_cs_targets	get_oms_config_property
config_compare	get_procedure_types
config_db_service_target	get_procedure_xml
configure_log_archive_locations	get_procedures
confirm_instance	get_retry_argument
clone_database	get_saved_configs
create_database	ignore_instance
describe_instance	import_compliance_object
describe_procedure_input	list_oms_config_properties
disable_config_history	remove_cs_target_association
enable_config_history	reschedule_instance
export_compliance_group	resume_instance
export_compliance_standard_rule	run_config_search
export_facet	save_procedure
export_standard	set_config_history_retention_period
fix_compliance_state	stop_instance
get_config_searches	submit_procedure
get_config_templates	suspend_instance
get_executions	update_and_retry_step
get_instance_data	update_procedure_input
get_instance_status	upgrade_database
get_instances	

2.3.6 Oracle Database Lifecycle Management Pack Licensed Repository Views

The following repository views are part of the Database Lifecycle Management Pack for Oracle Database:

Compliance Views

MGMT$CCC_ALL_OBS_BUNDLES	MGMT$CS_HA_INFO
MGMT$CCC_ALL_OBSERVATIONS	MGMT$CS_HIERARCHY
MGMT$CCC_DIAG_ANALYTICS	MGMT$CS_KEYWORD
MGMT$CCC_DIAG_QUEUEBACKLOG	MGMT$CS_RQS_HIERARCHY
MGMT$COMPLIANCE_STANDARD	MGMT$CS_RULE_ATTRS
MGMT$COMPLIANCE_STANDARD_GROUP	MGMT$CS_RULEFOLDER
MGMT$COMPLIANCE_STANDARD_RULE	MGMT$CS_RULE_EVAL_SUMMARY
MGMT$COMPOSITE_CS_EVAL_SUMMARY	MGMT$CS_TARGET_ASSOC
MGMT$CS_ASM_DISKGRP_SETTINGS	MGMT$CS_TGT_ASSOC_TXF_REQ
MGMT$CS_DB_CONTROL_FILE_COUNT	MGMT$CSG_HIERARCHY
MGMT$CS_DB_INIT_PARAMS	MGMT$CSG_SUBGROUP
MGMT$CS_DB_RBS_IN_SYSTEM	MGMT$CSR_CURRENT_VIOLATION
MGMT$CS_DB_REC_SEG_SETTINGS	MGMT$CSR_TARGET_ASSOC
MGMT$CS_DB_REC_TS_SETTINGS	MGMT$CSR_VIOLATION_CONTEXT
MGMT$CS_DB_REC_USER_SETTINGS	MGMT$CSRF_TARGET_ASSOC
MGMT$CS_DB_REDO_LOG_COUNT	MGMT$EM_CS_RULE_EVENT_ERROR
MGMT$CS_DB_REDO_LOGS	MGMT$EM_RULE_VIOL_CTXT_DEF
MGMT$CS_DB_TABLESPACES	MGMT$ICS_TARGET_ASSOC
MGMT$CS_DB_TBSP_SEGSPACE_MGMT	MGMT$REPOSITORY_RULE_PARAMS
MGMT$CS_EVAL_SUMMARY	MGMT$REPOSITORY_RULE_BIND_VARS
MGMT$CS_FEATURE_USAGE	MGMT$REPO_RULE_CHK_DETAILS
MGMT$CS_GROUP_EVAL_SUMMARY	MGMT$RULE_KEYWORD
MGMT$CS_GROUP_KEYWORD	

Provisioning and Patching Views

EM$PROV_APPTYPES	EM$PROVAPP_TAGS
EM$PROVAPP_METADATA	EM$PROVAPP_TAG_PROPERTIES
EM$PROVAPP_METADATA_VERSION	MGMT$PA_RECOM_METRIC_SOURCE

Patching Views

GC$EM_PC_PLAN_PATCHES	MGMT$ARU_PRODUCT_RELEASE_MAP
GC$EM_PC_PLANS	MGMT$ARU_PRODUCTS
GC$EM_PC_PLAN_TARGETS	MGMT$ARU_RELEASES
GC_PC_EXECUTION_INSTANCES	MGMT$ARU_TARGETS
GC_PC_PLAN_ANALYSIS_RS	MGMT$PA_AFFTED_HOST_GUID_OH
GC_PC_PLAN_REMEDY	MGMT$PA_AFFTED_HOST_OH
GC_PC_PLAN_REMEDY_DETAILS	MGMT$PA_AFFTED_TARGETS
GC_PC_PLAN_USERS	MGMT$PA_FINAL_PATCH_LIST
GC_PC_TARGETS	MGMT$PA_TARGET_MAPPING
MGMT$APPLIED_PATCHES	MGMT$PR_APPL_PATCHES_TO_OH
MGMT$APPLIED_PATCHSETS	MGMT$PR_APPL_PATCHES_TO_OH_TGT
MGMT$ARU_FAMILY_PRODUCT_MAP	MGMT$PR_HOME_INFO
MGMT$ARU_LANGUAGES	MGMT$PR_HOMES_AFFECTED_COUNT
MGMT$ARU_PATCH_RECOMMENDATIONS	MGMT$RECOM_METRIC_SOURCE
MGMT$ARU_PLATFORMS	

Configuration Views

GC$ECM_CONFIG_SUMMARY	MGMT$DB_INIT_PARAMS
GC$ECM_COMP_PROPERTIES	MGMT$DB_LICENSE
GC$ECM_CURR_CONFIG	MGMT$DB_OPTIONS
GC$ECM_CURR_CONFIG_FLAT_MEMS	MGMT$DB_REDOLOGS
GC$ECM_CURR_CONFIG_SNAPSHOTS	MGMT$DB_ROLLBACK_SEGS
GC$ECM_CURR_TARGET_SNAPSHOTS	MGMT$DB_SGA
GC$ECM_DATA_RETENTION_TIME	MGMT$DB_TABLESPACES
GC$ECM_GEN_SNAPSHOT	MGMT$DB_TABLESPACES_ALL
GC$ECM_SAVED_CONFIG	MGMT$ECM_CMP_JOB_LAST_RESULTS
GC$ECM_SAVED_CONFIG_FLAT_MEMS	MGMT$ECM_CMP_JOBS
GC$ECM_SAVED_CONFIG_SNAPSHOTS	MGMT$ECM_CMP_RPT_CCS_DS
GC$ECM_SAVED_CONFIG_TARGETS	MGMT$ECM_CMP_RPT_CCS_DS_DTLS
GC$ECM_SAVED_TARGET_SNAPSHOTS	MGMT$ECM_CMP_RPT_CCS_PD_ALL
MGMT$CCS_DATA	MGMT$ECM_CMP_RPT_CCS_PD_DIFFS
MGMT$CCS_DATA_SOURCE	MGMT$ECM_CMP_RPT_CI_DIFFS
MGMT$CCS_DATA_SOURCE_VISIBLE	MGMT$ECM_CMP_VISIBLE_CONFIGS
MGMT$CCS_DATA_VISIBLE	MGMT$ECM_CURRENT_SNAPSHOTS
MGMT$DB_CONTROLFILES	MGMT$ECM_VISIBLE_SNAPSHOTS
MGMT$DB_DATAFILES	MGMT$SERVICETAG_INSTANCES
MGMT$DB_DBNINSTANCEINFO	MGMT$SERVICETAG_REGISTRY
MGMT$DB_FEATUREUSAGE	MGMT$UNPATCHABLE_DB_TARGETS

Oracle Home Patching Views

MGMT$APPLIED_PATCHES	MGMT$OH_DEP_HOMES
MGMT$APPLIED_PATCHSETS	MGMT$OH_FILE
MGMT$APPL_PATCH_AND_PATCHSET	MGMT$OH_HOME_INFO
MGMT$CPF_ADVISORY_INFO	MGMT$OH_INSTALLED_TARGETS
MGMT$CPF_HOMES_INFO	MGMT$OH_INV_SUMMARY
MGMT$CPF_PATCH_INFO	MGMT$OH_PATCH
MGMT$EM_HOMES_PLATFORM	MGMT$OH_PATCHED_COMPONENT
MGMT$HOMES_AFFECTED	MGMT$OH_PATCHED_FILE
MGMT$OH_CLONE_PROPERTIES	MGMT$OH_PATCH_FIXED_BUG
MGMT$OH_COMP_DEP_RULE	MGMT$OH_PATCHSET
MGMT$OH_COMP_INST_TYPE	MGMT$OH_VERSIONED_PATCHV
MGMT$OH_COMPONENT	MGMT$PATCH_ADVISORIES
MGMT$OH_CRS_NODES	

Security Views

MGMT$ESA_ALL_PRIVS_REPORT	MGMT$ESA_EXMPT_ACCESS_REPORT
MGMT$ESA_ANY_DICT_REPORT	MGMT$ESA_KEY_OBJECTS_REPORT
MGMT$ESA_ANY_PRIV_REPORT	MGMT$ESA_OH_OWNERSHIP_REPORT
MGMT$ESA_AUDIT_SYSTEM_REPORT	MGMT$ESA_OH_PERMISSION_REPORT
MGMT$ESA_BECOME_USER_REPORT	MGMT$ESA_POWER_PRIV_REPORT
MGMT$ESA_CATALOG_REPORT	MGMT$ESA_PUB_PRIV_REPORT
MGMT$ESA_CONN_PRIV_REPORT	MGMT$ESA_SYS_PUB_PKG_REPORT
MGMT$ESA_CREATE_PRIV_REPORT	MGMT$ESA_TABSP_OWNERS_REPORT
MGMT$ESA_DBA_GROUP_REPORT	MGMT$ESA_TRC_AUD_PERM_REPORT
MGMT$ESA_DBA_ROLE_REPORT	MGMT$ESA_WITH_ADMIN_REPORT
MGMT$ESA_DIRECT_PRIV_REPORT	MGMT$ESA_WITH_GRANT_REPORT

Client Configuration Views

`MGMT$CSA_COLLECTIONS`	`MGMT$CSA_HOST_OS_COMPONENTS`
`MGMT$CSA_FAILED`	`MGMT$CSA_HOST_OS_FILESYSEMS`
`MGMT$CSA_HOST_COOKIES`	`MGMT$CSA_HOST_OS_PROPERTIES`
`MGMT$CSA_HOST_CPUS`	`MGMT$CSA_HOST_RULES`
`MGMT$CSA_HOST_CUSTOM`	`MGMT$CSA_HOST_SW`
`MGMT$CSA_HOST_IOCARDS`	`MGMT$ECM_CONFIG_HISTORY`
`MGMT$CSA_HOST_NICS`	

2.4 Oracle Data Masking and Subsetting Pack for Oracle and Non-Oracle Databases

The Oracle Data Masking and Subsetting Pack facilitates the creation of production like data for non-production environments by replacing production data with fictitious yet realistic values. Generation of the fictitious data can be performed during export or on a separate staging server. The Subsetting functionality provides the ability to mask a portion of the original data. Subsetting can also be used without masking to extract a portion of the original data.

Oracle Data Masking and Subsetting Pack includes the following components and features:

1. Application Data Modeling

2. Data Masking Formats

3. Data Masking Definitions

4. Data Subsetting Definitions

5. Application Data Modeling, Data Masking and Subsetting Enterprise Manager Command Line Interface (CLI) verbs

6. Application Data Modeling accelerator for select versions of Oracle E-Business Suite

7. Application Data Modeling accelerator for select versions of Oracle Fusion Applications

8. Data Masking templates for select versions of Oracle Fusion Applications

9. Data Masking templates for select versions of Oracle E-Business Suite

The Oracle Data Masking and Subsetting Pack for non-Oracle Databases includes the following restricted use licenses:

- Database Gateway for APPC

- Database Gateway for DRDA

- Database Gateway for Informix

- Database Gateway for SQL Server

- Database Gateway for Sybase

- Database Gateway for Teradata

If you want to use the Oracle Database Gateways listed above not solely for the purposes of Oracle Data Masking and Subsetting Pack, then you must purchase full-use licenses for the Oracle Database Gateways. When using the Oracle Data Masking and Subsetting Pack for non-Oracle databases, the Oracle Database Gateways

stage the data in a separately licensed Oracle database. Oracle Data Masking and Subsetting functionality cannot be executed directly against the non-Oracle database.

Oracle Data Masking and Subsetting Pack must be licensed for:

1. The source database server, that is, the databases from which the data originates.

2. The staging database server on which masking and subsetting operations are executed.

2.4.1 Accessing Oracle Data Masking and Subsetting Pack Licensed Links

The following are the licensed pages and links for the Oracle Data Masking and Subsetting Pack within Oracle Enterprise Manager:

Licensed Page/Link	How to Access
Application Data Modeling	On the Enterprise Summary home page, click the **Enterprise** menu, then **Quality Management**, then **Application Data Modeling**.
	From the Oracle database or cluster database target home page, click the **Security** menu, then **Application Data Modeling**.
	All features, functions, links, buttons, and drill-downs on these menus are licensed as part of the Oracle Data Masking and Subsetting Pack.
Data Masking Definitions	On the Enterprise Summary home page, click the **Enterprise** menu, then **Quality Management**, then **Data Masking Definitions**.
	From the Oracle database or cluster database target home page, click the **Security** menu, then **Data Masking Definitions**.
	All features, functions, links, buttons, and drill-downs on these menus are licensed as part of the Oracle Data Masking and Subsetting Pack.
Data Masking Formats	On the Enterprise Summary home page, click the **Enterprise** menu, then **Quality Management**, then Data **Masking Formats**.
	From the Oracle database or cluster database target home page, click the **Security** menu, then **Data Masking Formats**.
	All features, functions, links, buttons, and drill-downs on these menus are licensed as part of the Oracle Data Masking and Subsetting Pack.
Data Subsetting Definitions	On the Enterprise Summary home page, click the **Enterprise** menu, then **Quality Management**, then **Data Subsetting Definitions**.
	From the Oracle database or cluster database target home page, click the **Security** menu, then select **Data Masking and Subsetting**, then **Data Subsetting Definitions**.
	All features, functions, links, buttons, and drill-downs on these menus are licensed as part of the Oracle Data Masking and Subsetting Pack..

Notes:

1. Oracle Data Masking and Subsetting Pack incorporates the previous Data Masking Pack and Test Data Management Pack.

2. Application Data Modeling was previously called as Data Discovery and Modeling.

2.5 Legacy: Configuration Management Pack for Oracle Database

Enterprise Manager Cloud Control no longer offers the Configuration Management Pack for Oracle Database. Enterprise Manager 10*g* and 11*g* customers who purchased the Configuration Management Pack for Oracle Database can utilize the Configuration Management Pack features in Enterprise Manager Cloud Control as described in the following sections:

- Oracle Configuration Management Pack Features
- Accessing Oracle Configuration Management Pack Licensed Links
- Oracle Configuration Management Pack Licensed Reports
- Oracle Configuration Management Pack Licensed Repository Views

2.5.1 Oracle Configuration Management Pack Features

You are entitled to use the following features with a previously purchased Configuration Management Pack for Oracle Database License:

Feature	Definition
Compliance	Compliance Frameworks, Standards and extensibility to meet industry and regulatory compliance requirements.
Configuration Collection Extensibility	Create custom configuration collections and extend current collections.
Configuration Compare	Compare configurations, one-to-one, one-to-many, file sync.
Configuration History	Report on configuration or relations changes during a specific time frame.
Configuration Instance Browser	View Configuration Items and associations associated with a target.
Configuration Save	Save configurations for reference, baselines or Gold Standards.
Configuration Search	Search for Configuration Items on a specific target or across relationships.
Configuration Topology	View topology for a specified target and its dependencies along with other targets that are dependent on it.
Exadata Database Machine Configuration	Provide Configuration Information for all components of the DB Machine including, Storage Cells, Database and InfiniBand Switches.
Exadata Database Machine Configuration Actions	Provides the ability to compare and search. Provides history and compliance information.
File Synchronization	Synchronize configuration file differences during a comparison.
Real-time configuration change detection	Provide real-time configuration change detection and automation of compliance frameworks.

2.5.1.1 Additional Licensed Features

With the previous purchase of the Configuration Management Pack for Oracle Database, you also are entitled to the features described in the following sections. These features are restricted to the Oracle Database targets in the Oracle Database Home and the Platform (hardware and operating system) for the CPUs you have licensed.

Licensed Feature	Description
Application Configuration Console	Provides IT infrastructure teams with an automated "gold master" approach to infrastructure configuration management.
	Application Configuration Console includes a restricted-use license for Oracle Database (Enterprise Edition) solely for the purpose of running the Application Configuration Console Server.
Self Update	From the Enterprise Manager home page, click the **Setup** menu, then **Extensibility and Self Update**. The downloading and applying any updates associated with Configuration and Compliance are licensed as part of the Configuration Management Pack for Oracle Database.

2.5.2 Accessing Oracle Configuration Management Pack Licensed Links

The following licensed links, features, and functions apply only to the Oracle Database target and the associated host an Oracle Database is deployed on. For management on non-Oracle Database targets, you must purchase the appropriate management pack.

You are entitled to use the following features with a previously purchased Configuration Management Pack for Oracle Database License:

Licensed Page/Link	How to Access
Configuration Instance Browser	From the Enterprise Manager home page, click on **Targets**, **Databases**, and select a **Database**. From the database home page, click on **Oracle Database**, **Configuration**. All features, functions, links, buttons, and drill-downs on this menu, excluding Topology, are licensed as part of the Configuration Management Pack for Oracle Database.
	If the Target Home Page is accessed directly or by other paths:
	From the database home page, click on **Oracle Database**, **Configuration**. All features, functions, links, buttons, and drill-downs on this menu, excluding Topology, are licensed as part of the Configuration Management Pack for Oracle Database.
Configuration Search	From the Enterprise Manager home page, click the **Enterprise** menu, then **Configuration and Search**. All features, functions, links, buttons, and drill-downs on this page are licensed as part of the Configuration Management Pack for Oracle Database.
Configuration History	From the Enterprise Manager home page, click the **Enterprise** menu, then **Configuration and History**. All features, functions, links, buttons, and drill-downs on this page are licensed as part of the Configuration Management Pack for Oracle Database.
Configuration Compare	From the Enterprise Manager home page, click the **Enterprise** menu, then **Configuration and Compare**. All features, functions, links, buttons, and drill-downs on this page are licensed as part of the Configuration Management Pack for Oracle Database.

Licensed Page/Link	How to Access
File Synchronization	When viewing comparison results differences as described in the Configuration Compare feature, select the configuration specification in the tree on the left. Select **Enable File Synchronization**. All features, functions, links, buttons, and drill-downs on this page are licensed as part of the Configuration Management Pack for Oracle Database.
Configuration Save	From the Enterprise Manager home page, click the **Enterprise** menu, then **Configuration and Save**. All features, functions, links, buttons, and drill-downs on this page are licensed as part of the Configuration Management Pack for Oracle Database.
Configuration Topology	From the Target Home Page, click on **Oracle Database**, **Configuration**, **Topology**. In the View Dropdown, **Used By** is licensed as part of the Configuration Management Pack for Oracle Database. From the Target Home Page, click on **Oracle Database**, **Configuration**, **Topology**, **Customization**. All features, functions, links, buttons, and drill-downs on this menu are licensed as part of the Configuration Management Pack for Oracle Database. If the Target Home Page is accessed directly or by other paths: ■ From the Target Home Page, click on **Oracle Database**, **Configuration**, **Topology**. In the View drop-down, **Used By** is licensed as part of the Configuration Management Pack for Oracle Database. ■ From the Target Home Page, click on **Oracle Database**, **Configuration**, **Topology**, **Customization**. All features, functions, links, buttons, and drill-downs on this menu are licensed as part of the Configuration Management Pack for Oracle Database.
Configuration Collection Extensibility	From the Enterprise Manager home page, click the **Enterprise** menu, then **Configuration and Custom**. All features, functions, links, buttons, and drill-downs on this page are licensed as part of the Configuration Management Pack for Oracle Database.
Real-time Configuration Change Detection and Compliance	From the Enterprise Manager home page, click the **Enterprise** menu and **Compliance**. All features, functions, links, buttons, and drill-downs associated with the Library, Results, and Real-Time Observations pages are licensed as part of the Configuration Management Pack for Oracle Database.

2.5.3 Oracle Configuration Management Pack Licensed Reports

The following reports can be used with an existing license for the Configuration Management Pack for Oracle Database. The following reports and associated features apply only to the Oracle Database target and the associated host an Oracle Database is deployed on. For management on non Oracle Database targets, you must purchase the appropriate management pack.

All database reports in each of these sections are licensed for this pack. To access the reports go to the Enterprise Manager home page, click the **Reports**, **Information Publisher Reports** or **BI Publisher Enterprise Reports**.

The following reporting areas, reports, and sub-reports under Information Publisher Reports are licensed as part of the Configuration Management Pack for Oracle Database:

- Compliance
- Configuration

The following reporting areas, reports and sub-reports under BI Publisher Enterprise Reports are licensed as part of the Configuration Management Pack for Oracle Database:

- Compliance
- Configuration

2.5.4 Oracle Configuration Management Pack Licensed Repository Views

The following repository views are part of the previously purchased Configuration Management Pack for Oracle Database license:

Configuration Views	
MGMT$CCS_DATA	MGMT$DB_INIT_PARAMS
MGMT$CCS_DATA_SOURCE	MGMT$DB_LICENSE
MGMT$CCS_DATA_SOURCE_VISIBLE	MGMT$DB_OPTIONS
MGMT$CCS_DATA_VISIBLE	MGMT$DB_REDOLOGS
MGMT$CS_ASM_DISKGRP_SETTINGS	MGMT$DB_ROLLBACK_SEGS
MGMT$CS_DB_CONTROL_FILE_COUNT	MGMT$DB_SGA
MGMT$CS_DB_INIT_PARAMS	MGMT$DB_TABLESPACES
MGMT$CS_DB_RBS_IN_SYSTEM	MGMT$DB_TABLESPACES_ALL
MGMT$CS_DB_REC_SEG_SETTINGS	MGMT$ECM_CURRENT_SNAPSHOTS
MGMT$CS_DB_REC_TS_SETTINGS	MGMT$ECM_VISIBLE_SNAPSHOTS
MGMT$CS_DB_REC_USER_SETTINGS	MGMT$HW_CPU_DETAILS
MGMT$CS_DB_REDO_LOG_COUNT	MGMT$HW_IO_DEVICES
MGMT$CS_DB_REDO_LOGS	MGMT$HW_NIC_BONDS
MGMT$CS_DB_TABLESPACES	MGMT$J2EE_APPLICATION
MGMT$CS_DB_TBSP_SEGSPACE_MGMT	MGMT$J2EEAPP_EJBCOMPONENT
MGMT$CS_FEATURE_USAGE	MGMT$J2EEAPP_JRFWS
MGMT$CS_HA_INFO	MGMT$J2EEAPP_JRFWSOPER
MGMT$DB_CONTROLFILES	MGMT$J2EEAPP_JRFWSPOLICY
MGMT$DB_DATAFILES	MGMT$J2EEAPP_JRFWSPORT
MGMT$DB_DBNINSTANCEINFO	MGMT$J2EEAPP_WEBAPPCOMPONENT
MGMT$DB_FEATUREUSAGE	MGMT$J2EEAPP_WSCONFIG

Compliance Views

MGMT$CCC_ALL_OBS_BUNDLES	MGMT$WEBLOGIC_CLUSTER
MGMT$CCC_ALL_OBSERVATIONS	MGMT$WEBLOGIC_DOMAIN
MGMT$CCC_DIAG_ANALYTICS	MGMT$WEBLOGIC_EJBCOMPONENT
MGMT$CCC_DIAG_QUEUEBACKLOG	MGMT$WEBLOGIC_JDBCDATASOURCE
MGMT$COMPLIANCE_STANDARD	MGMT$WEBLOGIC_JDBCMULTIDS
MGMT$COMPLIANCE_STANDARD_GROUP	MGMT$WEBLOGIC_JMSCONNFACTORY
MGMT$COMPLIANCE_STANDARD_RULE	MGMT$WEBLOGIC_JMSQUEUE
MGMT$COMPOSITE_CS_EVAL_SUMMARY	MGMT$WEBLOGIC_JMSTOPIC
MGMT$CS_EVAL_SUMMARY	MGMT$WEBLOGIC_JOLTCONNPOOL
MGMT$CS_GROUP_EVAL_SUMMARY	MGMT$WEBLOGIC_MACHINE
MGMT$CS_RULE_EVAL_SUMMARY	MGMT$WEBLOGIC_NETWORK_CHANNELS
MGMT$CS_TARGET_ASSOC	MGMT$WEBLOGIC_NODEMANAGER
MGMT$J2EEAPP_WSPORTCONFIG	MGMT$WEBLOGIC_RACONFIG
MGMT$OS_INIT_SERVICES	MGMT$WEBLOGIC_RAOUTBOUNDCONFIG
MGMT$OS_KERNEL_PARAMS	MGMT$WEBLOGIC_RESOURCECONFIG
MGMT$OS_LIMITS	MGMT$WEBLOGIC_SERVER
MGMT$OS_MODULES	MGMT$WEBLOGIC_STARTSHUTCLASSES
MGMT$OS_PROPERTIES	MGMT$WEBLOGIC_VIRTUALHOST
MGMT$SERVICETAG_INSTANCES	MGMT$WEBLOGIC_WEBAPPCOMPONENT
MGMT$SERVICETAG_REGISTRY	MGMT$WEBLOGIC_WORKMANAGER
MGMT$UNPATCHABLE_DB_TARGETS	MGMT$WEBLOGIC_WSCONFIG
MGMT$WEBLOGIC_APPLICATIONS	

Oracle Home Patching Views

MGMT$APPLIED_PATCHES	MGMT$OH_DEP_HOMES
MGMT$APPLIED_PATCHSETS	MGMT$OH_FILE
MGMT$APPL_PATCH_AND_PATCHSET	MGMT$OH_HOME_INFO
MGMT$CPF_ADVISORY_INFO	MGMT$OH_INSTALLED_TARGETS
MGMT$CPF_HOMES_INFO	MGMT$OH_INV_SUMMARY
MGMT$CPF_PATCH_INFO	MGMT$OH_PATCH
MGMT$EM_HOMES_PLATFORM	MGMT$OH_PATCHED_COMPONENT
MGMT$HOMES_AFFECTED	MGMT$OH_PATCHED_FILE
MGMT$OH_CLONE_PROPERTIES	MGMT$OH_PATCHSET
MGMT$OH_COMP_DEP_RULE	MGMT$OH_PATCH_FIXED_BUG
MGMT$OH_COMP_INST_TYPE	MGMT$OH_VERSIONED_PATCHV
MGMT$OH_COMPONENT	MGMT$PATCH_ADVISORIES
MGMT$OH_CRS_NODES	

Security Views

MGMT$ESA_ALL_PRIVS_REPORT	MGMT$ESA_EXMPT_ACCESS_REPORT
MGMT$ESA_ANY_DICT_REPORT	MGMT$ESA_KEY_OBJECTS_REPORT
MGMT$ESA_ANY_PRIV_REPORT	MGMT$ESA_OH_OWNERSHIP_REPORT
MGMT$ESA_AUDIT_SYSTEM_REPORT	MGMT$ESA_OH_PERMISSION_REPORT
MGMT$ESA_BECOME_USER_REPORT	MGMT$ESA_POWER_PRIV_REPORT
MGMT$ESA_CATALOG_REPORT	MGMT$ESA_PUB_PRIV_REPORT
MGMT$ESA_CONN_PRIV_REPORT	MGMT$ESA_SYS_PUB_PKG_REPORT
MGMT$ESA_CREATE_PRIV_REPORT	MGMT$ESA_TABSP_OWNERS_REPORT
MGMT$ESA_DBA_GROUP_REPORT	MGMT$ESA_TRC_AUD_PERM_REPORT
MGMT$ESA_DBA_ROLE_REPORT	MGMT$ESA_WITH_ADMIN_REPORT
MGMT$ESA_DIRECT_PRIV_REPORT	MGMT$ESA_WITH_GRANT_REPORT

Client Configuration Views

MGMT$CSA_COLLECTIONS	MGMT$ECM_CONFIG_HISTORY_KEY6
MGMT$CSA_FAILED	MGMT$HW_NIC
MGMT$CSA_HOST_COOKIES	MGMT$OS_COMPONENTS
MGMT$CSA_HOST_CPUS	MGMT$OS_FS_MOUNT
MGMT$CSA_HOST_CUSTOM	MGMT$OS_HW_SUMMARY
MGMT$CSA_HOST_IOCARDS	MGMT$OS_HW_SUMMARY
MGMT$CSA_HOST_NICS	MGMT$OS_PATCHES
MGMT$CSA_HOST_OS_COMPONENTS	MGMT$OS_SUMMARY
MGMT$CSA_HOST_OS_PROPERTIES	MGMT$SOFTWARE_COMPONENT_ONEOFF
MGMT$CSA_HOST_OS_FILESYSEMS	MGMT$SOFTWARE_COMPONENTS
MGMT$CSA_HOST_RULES	MGMT$SOFTWARE_COMP_PATCHSET
MGMT$CSA_HOST_SW	MGMT$SOFTWARE_DEPENDENCIES
MGMT$ECM_CONFIG_HISTORY	MGMT$SOFTWARE_HOMES
MGMT$ECM_CONFIG_HISTORY_KEY1	MGMT$SOFTWARE_ONEOFF_PATCHES
MGMT$ECM_CONFIG_HISTORY_KEY2	MGMT$SOFTWARE_OTHERS
MGMT$ECM_CONFIG_HISTORY_KEY3	MGMT$SOFTWARE_PATCHES_IN_HOMES
MGMT$ECM_CONFIG_HISTORY_KEY4	MGMT$SOFTWARE_PATCHSETS
MGMT$ECM_CONFIG_HISTORY_KEY5	

2.6 Legacy: Change Management Pack for Oracle Database

Enterprise Manager Cloud Control no longer offers the Change Management Pack for Oracle Database. Enterprise Manager 10*g* and 11*g* Customers who purchased the Change Management Pack for Oracle Database can utilize the Change Management features in Enterprise Manager Cloud Control as described in the following sections:

- Oracle Change Management Pack Features
- Accessing Oracle Change Management Pack Licensed Links
- Oracle Change Management Pack Licensed Reports
- Oracle Change Management Pack Licensed Parameters

2.6.1 Oracle Change Management Pack Features

You are entitled to use the following features with a Change Management Pack for Oracle Database License:

Feature	Description
Schema Comparisons	Compare database objects in two databases or baselines in Enterprise Manager or SQL developer.
Schema and Data Comparisons	Automate the comparison of database schema and data across Databases or saved baselines.
Schema and Data Synchronization	Propagate database objects and schemas with or without data, and update database object definitions.
Copy Objects	Copy database objects with data, with a subset of data, or without data.
Real-time schema change detection	Track schema changes in real time to identify unwanted or unplanned changes.

2.6.1.1 Additional Licensed Features

With the previous purchase of the Change Management Pack for Oracle Database, you also are entitled to the features described in the following sections. These features are

restricted to the Oracle Database targets in the Oracle Database Home and the Platform (hardware and operating system) for the CPUs you have licensed.

Licensed Feature	Description
Self Update	From the Enterprise Manager home page, click the **Setup** menu, then **Extensibility and Self Update**. The downloading and applying any updates associated with Database Change Management are licensed as part of the Change Management Pack for Oracle Database.

2.6.2 Accessing Oracle Change Management Pack Licensed Links

The following Licensed Links, features, and functions apply only to the Oracle Database target and the associated host an Oracle Database is deployed on. For management on non-Oracle Database targets, you must purchase the appropriate management pack.

The following are the licensed pages, links, features, and functions that can be use with an existing Change Management Pack for Oracle Database License:

Licensed Page/Link	How to Access
Schema Comparison	From the Enterprise Manager home page, click on **Targets**, **Databases**, and then select a **Database**. From the database home page, click on **Schema**, **Change Management**. All features, functions, links, buttons, and drill-downs on this menu are licensed as part of the Change Management Pack for Oracle Database.
	If the Target Home Page is accessed directly or by other paths:
	From the database home page, click on **Schema**, **Change Management**. All features, functions, links, buttons, and drill-downs on this menu are licensed as part of the Change Management Pack for Oracle Database.
Schema and Data Comparisons	From the Enterprise Manager home page, click on **Targets**, **Databases**, and then select a **Database**. From the database home page, click on **Schema**, **Change Management**. All features, functions, links, buttons, and drill-downs on this menu are licensed as part of the Change Management Pack for Oracle Database.
	If the Target Home Page is accessed directly or by other paths:
	From the database home page, click on **Schema**, **Change Management**. All features, functions, links, buttons, and drill-downs on this menu are licensed as part of the Change Management Pack for Oracle Database.
Schema and Data Synchronization	From the Enterprise Manager home page, click on **Targets**, **Databases**, and then select a **Database**. From the database home page, click on **Schema**, **Change Management**. All features, functions, links, buttons, and drill-downs on this menu are licensed as part of the Change Management Pack for Oracle Database.
	If the Target Home Page is accessed directly or by other paths:
	From the database home page, click on **Schema**, **Change Management**. All features, functions, links, buttons, and drill-downs on this menu are licensed as part of the Change Management Pack for Oracle Database.

Licensed Page/Link	How to Access
Copy Objects	From the Enterprise Manager home page, click on **Targets**, **Databases**, and then select a **Database**. From the database home page, click on **Schema**, **Change Management**. All features, functions, links, buttons, and drill-downs on this menu are licensed as part of the Change Management Pack for Oracle Database.
	If the Target Home Page is accessed directly or by other paths:
	From the database home page, click on **Schema**, **Change Management**. All features, functions, links, buttons, and drill-downs on this menu are licensed as part of the Change Management Pack for Oracle Database.
Real-Time Schema Change Detection	From the Enterprise Manager home page, click on **Targets**, **Databases**, and then select a **Database**. From the database home page, click on **Schema**, **Change Management**. All features, functions, links, buttons, and drill-downs on this menu are licensed as part of the Change Management Pack for Oracle Database.
	If the Target Home Page is accessed directly or by other paths:
	From the database home page, click on **Schema**, **Change Management**. All features, functions, links, buttons, and drill-downs on this menu are licensed as part of the Change Management Pack for Oracle Database.

2.6.3 Oracle Change Management Pack Licensed Reports

The following reports are part of the Change Management Pack for Oracle Database. All Oracle Database reports in each of these sections are licensed for this pack. To access the reports go to the Enterprise Manager home page, click the **Reports**, **Information Publisher Reports** or **BI Publisher Enterprise Reports**.

The following reporting areas, reports, and sub-reports under Information Publisher Reports are licensed as part of the Change Management Pack for Oracle Database:

- Database Change Management

The following reporting areas, reports, and sub-reports under BI Publisher Enterprise Reports are licensed as part of the Change Management Pack for Oracle Database:

- Database Change Management

2.6.4 Oracle Change Management Pack Licensed Parameters

The `init.ora` parameter `ENABLE_DDL_LOGGING` is licensed as part of the Change Management Pack for Oracle Database when set to TRUE. The default is FALSE.

2.7 Legacy: Provisioning and Patch Automation Pack for Oracle Database

Enterprise Manager Cloud Control no longer offers the Provisioning and Patch Automation Pack for Oracle Database. Enterprise Manager 10*g* and 11*g* customers who purchased the Provisioning and Patch Automation Pack for Oracle Database can utilize the Provisioning and Patch Automations features in Enterprise Manager Cloud Control as described in the following sections:

- Oracle Provisioning and Patch Automation Pack Features

- Accessing Oracle Provisioning and Patch Automation Pack Licensed Links

- Oracle Provisioning and Patch Automation Pack Licensed Reports
- Oracle Provisioning and Patch Automation Pack Licensed CLI Verbs
- Oracle Provisioning and Patch Automation Pack Licensed Repository Views

2.7.1 Oracle Provisioning and Patch Automation Pack Features

You are entitled to use the following features with a previously purchased Provisioning and Patch Automation Pack for Oracle Database license:

Feature	Description
Database Patching	End-to-end patch automation for Oracle Database and RAC.
Database Provisioning	Provision databases and Oracle Homes.
Database Upgrade	Upgrade existing Oracle Database.
Patch Recommendations	My Oracle Support Critical Patch Recommendations.
Patching Planning	My Oracle Support Patching Plans, patch Validation and Download.
Provisioning Procedures	Deploy operating system and Oracle Database and Real Application Clusters.
RAC Scale Out and Scale Back	Extend single instance databases to RAC.

2.7.1.1 Additional Licensed Features

With the previous purchase of the Provisioning and Patch Automation Pack for Oracle Database, you also are entitled to the features described in the following sections. These features are restricted to the Oracle Database targets in the Oracle Database Home and the Platform (hardware and operating system) for the CPUs you have licensed.

- The `oplan` Utility (The basic OPlan feature is free for everyone that has an Oracle Support contract. Use of OPlan metadata to drive orchestration logic from either Enterprise Manager or custom/third-party scripts is part of the Provisioning and Patch Automation Pack for Oracle Database.)

- Migrate to ASM

- Self Update

2.7.2 Accessing Oracle Provisioning and Patch Automation Pack Licensed Links

The following licensed links, features, and functions apply only to the Oracle Database target and the associated host an Oracle Database is deployed on. For management of non-Oracle Database targets, you must purchase the appropriate management pack:

Licensed Page/Link	How to Access
Provisioning Procedures	From the Enterprise Manager home page, click the **Enterprise** menu, **Provisioning and Patching**, then **Procedure Library**. All Procedures that Clone, Provision, Patch, and Upgrade a Database are licensed with the Provisioning and Patch Automation Pack for Oracle Database.
	From the Enterprise Manager home page, click the **Enterprise** menu, **Provisioning and Patching**, then **Database Provisioning**. All features, functions, links, buttons, and drill-downs on this menu are licensed as part of the Provisioning and Patch Automation Pack for Oracle Database.
	From the Oracle database or cluster database target home page, click the **Oracle Database** menu, then **Provisioning**. All features, functions, links, buttons, and drill-downs on this menu are licensed as part of the Provisioning and Patch Automation Pack for Oracle Database.
Database Upgrade	From the Enterprise Manager home page, click the **Enterprise** menu, **Provisioning and Patching**, then **Procedure Library**. All procedures that upgrade a Database are licensed with the Provisioning and Patch Automation Pack for Oracle Database.
	From the Enterprise Manager home page, click the **Enterprise** menu, **Provisioning and Patching**, then **Database Provisioning**. All features, functions, links, buttons, and drill-downs on this menu are licensed as part of the Provisioning and Patch Automation Pack for Oracle Database.
	From the Oracle database or cluster database target home page, click the **Oracle Database** menu, then **Provisioning**. All features, functions, links, buttons, and drill-downs on this menu are licensed as part of the Provisioning and Patch Automation Pack for Oracle Database.
Database Provisioning and Cloning	From the Enterprise Manager home page, click the **Enterprise** menu, **Provisioning and Patching**, then **Procedure Library**. All procedures that Clone and Provision a Database are licensed with the Provisioning and Patch Automation Pack for Oracle Database.
	From the Enterprise Manager home page, click the **Enterprise** menu, **Provisioning and Patching**, then **Database Provisioning**. All features, functions, links, buttons, and drill-downs on this menu are licensed as part of the Provisioning and Patch Automation Pack for Oracle Database.
	From the Oracle database or cluster database target home page, click the **Oracle Database** menu, then **Provisioning**. All features, functions, links, buttons, and drill-downs on this menu are licensed as part of the Provisioning and Patch Automation Pack for Oracle Database.

Licensed Page/Link	How to Access
RAC Scale Out and Scale Back	From the Enterprise Manager home page, click the **Enterprise** menu, **Provisioning and Patching**, then **Procedure Library**. All Procedures that Extend or Scale a database or RAC are licensed with the Provisioning and Patch Automation Pack for Oracle Database.
	From the Enterprise Manager home page, click the **Enterprise** menu, **Provisioning and Patching**, then **Database Provisioning**. All features, functions, links, buttons, and drill-downs on this menu are licensed as part of the Provisioning and Patch Automation Pack for Oracle Database.
	From the Oracle cluster database target home page, click the **Oracle Database** menu, then **Provisioning**. All features, functions, links, buttons, and drill-downs on this menu are licensed as part of the Provisioning and Patch Automation Pack for Oracle Database.
Database Patching	From the Enterprise Manager home page, click the **Enterprise** menu, **Provisioning and Patching**, then **Procedure Library**. All Procedures that patch a database, Clusterware or Real Application Clusters are licensed with the Provisioning and Patch Automation Pack for Oracle Database.
Offline Patching	From the Enterprise Manager home page, click the **Setup** menu, **Provisioning and Patching**, then **Offline Patching**. From the **Online and Offline Setting** tab, the **Connection**, **Offline** setting is licensed with the Provisioning and Patch Automation Pack for Oracle Database.

2.7.3 Oracle Provisioning and Patch Automation Pack Licensed Reports

The following reports are part of the Provisioning and Patch Automation Pack for Oracle Database. The following reports and associated features apply only to the Oracle Database target and the associated host an Oracle Database is deployed on. For management of non-Oracle Database targets, you must purchase the appropriate management pack.

All reports in each of these sections are licensed for this pack. To access the reports go to the Enterprise Manager home page, click the **Reports**, **Information Publisher Reports** or **BI Publisher Enterprise Reports**.

The following reporting areas, reports, and sub-reports under Information Publisher Reports are licensed as part of the Provisioning and Patch Automation Pack for Oracle Database:

- Deployment and Configuration

The following reporting areas, reports and sub-reports under BI Publisher Enterprise Reports are licensed as part of the Provisioning and Patch Automation Pack for Oracle Database:

- Deployment and Configuration

2.7.4 Oracle Provisioning and Patch Automation Pack Licensed CLI Verbs

The following Enterprise Manager command line interface (CLI) verbs are licensed as part of the Provisioning and Patch Automation Pack for Oracle Database:

clone_database	get_retry_argument
confirm_instance	ignore_instance
create_database	reschedule_instance
describe_instance	resume_instance
describe_procedure_input	save_procedure
get_executions	stop_instance
get_instance_data	submit_procedure
get_instance_status	suspend_instance
get_instances	update_and_retry_step
get_procedure_types	update_procedure_inpu
get_procedure_xml	upgrade_database
get_procedures	

2.7.5 Oracle Provisioning and Patch Automation Pack Licensed Repository Views

The following repository views are licensed as part a previously purchased
Provisioning and Patch Automation Pack for Oracle Database license:

Provisioning and Patching Views

EM$PROV_APPTYPES	EM$PROVAPP_TAG_PROPERTIES
EM$PROVAPP_METADATA	EM$PROVAPP_TAGS
EM$PROVAPP_METADATA_VERSION	MGMT$PA_RECOM_METRIC_SOURCE

Oracle Home Patching Views

MGMT$APPLIED_PATCHES	MGMT$OH_DEP_HOMES
MGMT$APPLIED_PATCHSETS	MGMT$OH_FILE
MGMT$APPL_PATCH_AND_PATCHSET	MGMT$OH_HOME_INFO
MGMT$CPF_ADVISORY_INFO	MGMT$OH_INSTALLED_TARGETS
MGMT$CPF_HOMES_INFO	MGMT$OH_INV_SUMMARY
MGMT$CPF_PATCH_INFO	MGMT$OH_PATCH
MGMT$EM_HOMES_PLATFORM	MGMT$OH_PATCHED_COMPONENT
MGMT$HOMES_AFFECTED	MGMT$OH_PATCHED_FILE
MGMT$OH_CLONE_PROPERTIES	MGMT$OH_PATCHSET
MGMT$OH_COMPONENT	MGMT$OH_PATCH_FIXED_BUG
MGMT$OH_COMP_DEP_RULE	MGMT$OH_VERSIONED_PATCHV
MGMT$OH_COMP_INST_TYPE	MGMT$PATCH_ADVISORIES
MGMT$OH_CRS_NODES	

Patching Views

GC$EM_PC_PLAN_PATCHES	MGMT$ARU_RELEASES
GC$EM_PC_PLAN_TARGETS	MGMT$ARU_TARGETS
GC$EM_PC_PLANS	MGMT$PA_AFFTED_HOST_GUID_OH
GC_PC_EXECUTION_INSTANCES	MGMT$PA_AFFTED_HOST_OH
GC_PC_PLAN_ANALYSIS_RS	MGMT$PA_AFFTED_TARGETS
GC_PC_PLAN_REMEDY	MGMT$PA_FINAL_PATCH_LIST
GC_PC_PLAN_REMEDY_DETAILS	MGMT$PA_TARGET_MAPPING
GC_PC_PLAN_USERS	MGMT$PR_APPL_PATCHES_TO_OH
GC_PC_TARGETS	MGMT$PR_APPL_PATCHES_TO_OH_TGT
MGMT$APPLIED_PATCHES	MGMT$PR_HOMES_AFFECTED_COUNT
MGMT$APPLIED_PATCHSETS	MGMT$PR_HOME_INFO
MGMT$ARU_FAMILY_PRODUCT_MAP	MGMT$RECOM_METRIC_SOURCE
MGMT$ARU_LANGUAGES	
MGMT$ARU_PATCH_RECOMMENDATIONS	
MGMT$ARU_PLATFORMS	
MGMT$ARU_PRODUCTS	
MGMT$ARU_PRODUCT_RELEASE_MAP	

2.8 Legacy: Oracle Data Masking Pack for Oracle and Non-Oracle Databases

Oracle Enterprise Manager Cloud Control no longer offers the Oracle Data Masking Pack. Customers who purchased the legacy Oracle Data Masking Pack are entitled to use the following components and features of Oracle Data Masking and Subsetting Pack:

1. Application Data Modeling

2. Data Masking Formats

3. Data Masking Definitions

4. Data Subsetting Definitions excluding the Table Rules and Rule Parameters tabs

5. Application Data Modeling and Data Masking Enterprise Manager Command Line Interface (CLI) verbs

6. Application Data Modeling accelerator for select versions of Oracle E-Business Suite

7. Application Data Modeling accelerator for select versions of Oracle Fusion Applications

8. Data Masking templates for select versions of Oracle Fusion Applications

9. Data Masking templates for select versions of Oracle E-Business Suite

The Oracle Data Masking Pack for non-Oracle Databases includes the following restricted use licenses:

- Database Gateway for APPC

- Database Gateway for DRDA

- Database Gateway for Informix

- Database Gateway for SQL Server

- Database Gateway for Sybase

If you want to use the Oracle Database Gateways listed above not solely for the purposes of Oracle Data Masking Pack, then you must purchase full-use licenses for

the Oracle Database Gateways. When using the Oracle Data Masking Pack for non-Oracle databases, the Oracle Database Gateways stage the data in a separately licensed Oracle database. Oracle Data Masking functionality cannot be executed directly against the non-Oracle database.

2.8.1 Accessing Oracle Data Masking Pack Licensed Links

The following are the licensed pages and links for the Oracle Data Masking Pack within Oracle Enterprise Manager.

Licensed Page/Link	How to Access
Application Data Modeling	From the Enterprise Summary home page, click the **Enterprise** menu, then **Quality Management**, then **Application Data Modeling**.
	From the Oracle database or cluster database target home page, click the **Security** menu, then **Application Data Modeling**.
	All features, functions, links, buttons, and drill-downs on these menus are licensed as part of the Oracle Data Masking Pack.
Data Masking Definitions	On the Enterprise Summary home page, click the **Enterprise** menu, then **Quality Management**, then **Data Masking Definitions**.
	From the Oracle database or cluster database target home page, click the **Security** menu, then **Data Masking Definitions**.
	All features, functions, links, buttons, and drill-downs on these menus are licensed as part of the Oracle Data Masking and Subsetting Pack.
Data Masking Formats	On the Enterprise Summary home page, click the **Enterprise** menu, then **Quality Management**, then Data **Masking Formats**.
	From the Oracle database or cluster database target home page, click the **Security** menu, then **Data Masking Formats**.
	All features, functions, links, buttons, and drill-downs on these menus are licensed as part of the Oracle Data Masking and Subsetting Pack.
Data Subsetting Definitions	On the Enterprise Summary home page, click the **Enterprise** menu, then **Quality Management**, then **Data Subsetting Definitions**.
	From the Oracle database or cluster database target home page, click the **Security** menu, then select **Data Masking and Subsetting**, then **Data Subsetting Definitions**.
	All features, functions, links, buttons, and drill-downs on these menus are licensed as part of the Oracle Data Masking and Subsetting Pack..

2.9 Legacy: Oracle Test Data Management Pack for Oracle and Non-Oracle Databases

Oracle Enterprise Manager Cloud Control no longer offers the Oracle Test Data Management Pack. Customers who purchased the Oracle Test Data Management Pack are entitled to use the following components and features of Oracle Data Masking and Subsetting Pack:

1. Application Data Modeling

2. Data Subsetting Definitions

3. Application Data Modeling and Data Subsetting Enterprise Manager Command Line Interface (CLI) verbs

4. Application Data Modeling accelerator for select versions of Oracle E-Business Suite

5. Application Data Modeling accelerator for select versions of Oracle Fusion Applications

The Oracle Test Data Management Pack for non-Oracle Databases includes the following restricted use licenses:

- Database Gateway for APPC

- Database Gateway for DRDA

- Database Gateway for Informix

- Database Gateway for SQL Server

- Database Gateway for Sybase

If you want to use the Oracle Database Gateways listed above not solely for the purposes of Oracle Test Data Management Pack, then you must purchase full-use licenses for the Oracle Database Gateways. When using the Oracle Test Data Management Pack for non-Oracle databases, the Oracle Database Gateways stage the data in a separately licensed Oracle database. Oracle Test Data Management functionality cannot be executed directly against the non-Oracle database.

2.9.1 Accessing Oracle Test Data Management Pack Licensed Links

The following are the licensed pages and links for the Oracle Test Data Management Pack within Oracle Enterprise Manager:

Licensed Page/Link	How to Access
Application Data Modeling	From the Enterprise Summary home page, click the **Enterprise** menu, then **Quality Management**, then **Application Data Modeling**.
	From the Oracle database or cluster database target home page, click the **Security** menu, then **Application Data Modeling**.
	All features, functions, links, buttons, and drill-downs on these menus are licensed as part of the Oracle Test Data Management Pack.
Data Subsetting Definitions	On the Enterprise Summary home page, click the **Enterprise** menu, then **Quality Management**, then **Data Subsetting Definitions**.
	From the Oracle database or cluster database target home page, click the **Security** menu, then select **Data Masking and Subsetting**, then **Data Subsetting Definitions**.
	All features, functions, links, buttons, and drill-downs on these menus are licensed as part of the Oracle Data Masking and Subsetting Pack..

3

Oracle Middleware Enterprise Management

This chapter describes the licensed features and links about the management packs offered by Enterprise Manager in support of Oracle Middleware Enterprise Management:

- WebLogic Server Management Pack Enterprise Edition
- SOA Management Pack Enterprise Edition
- Management Pack for WebCenter
- Management Pack for Oracle Coherence
- Management Pack for Oracle Data Integrator
- Oracle Application Replay Pack
- Business Intelligence Management Pack
- Oracle Real User Experience Insight

3.1 WebLogic Server Management Pack Enterprise Edition

The WebLogic Server Management Pack Enterprise Edition offers a solution for managing Oracle Fusion Middleware, Oracle WebLogic Server, Oracle GlassFish Server, and Oracle Application Server. This pack provides capabilities that span the solution areas of application performance management, administration, business transaction management, service level management as well as lifecycle management that span many of these products and components.

> **Note:** All Oracle Enterprise Manager Fusion Middleware Control 12*c*, Oracle Enterprise Manager Fusion Middleware Control 11*g* and Oracle Enterprise Manager 10*g* Application Server Control functionality is included with each edition of Oracle Fusion Middleware. The links and areas that require the WebLogic Server Management Pack Enterprise Edition are outside of Fusion Middleware Control and Application Server Control.

The following sections describe the licensed features and links of this management pack offered by Enterprise Manager:

- Oracle WebLogic Server Management Pack Features
- Accessing Oracle WebLogic Server Management Pack Licensed Links
- Oracle WebLogic Server Management Pack Licensed Repository Views

- Oracle WebLogic Server Management Pack Licensed Reports

- Oracle WebLogic Management Pack Licensed CLI Verbs

- WebLogic Server Management Pack Enterprise Edition Restricted Use License

3.1.1 Oracle WebLogic Server Management Pack Features

The following general features are available with this pack and, unless otherwise stated, are available from Oracle Enterprise Manager Cloud Control 12*c*:

- Application performance management features.

- Administration features.

- Service level management features.

- Coherence management features.

- Business Transaction Management features are available in Oracle Enterprise Manager Business Transaction Management 12*c*.

- Lifecycle management features (spanning configuration management, compliance management, provisioning and patching).

- Java Mission Control (JMC) is available, which is applicable for Application Servers and standalone Java applications.

The following functional areas provide feature overviews for each of the multiple products associated with WebLogic Server Management Pack Enterprise Edition:

- Application Performance Management
- Coherence Management
- Business Transaction Management
- Lifecycle Management
- Administration

3.1.1.1 Application Performance Management

The WebLogic Server Management Pack Enterprise Edition delivers comprehensive management and modeling capabilities for pure Java EE and web service environments, as well as business transaction monitoring for applications running in Oracle WebLogic Server. By combining contextual drill-down modeling capabilities with extensive metrics that can span containers horizontally as well as the entire vertical stack for Java EE, this pack significantly reduces the cost and complexity of managing Java EE-based environments in development, testing, staging, and production environments.

Unless otherwise stated, the following Application Performance Management features apply to Oracle WebLogic Server, Oracle Application Server, and Oracle GlassFish Server environments, as appropriate.

Feature	Description
"Always on" low overhead monitoring, notifications, and dashboards	Diagnose past problems, receive early warnings of outages, see a single view of the status of all applications.
Application Dependency and Performance *(Does not apply for GlassFish)*	Automatic modeling of application infrastructure with dynamic and static dependency analysis to identify the root cause of problems in a multi-tier Java EE application or web services.

WebLogic Server Management Pack Enterprise Edition

Feature	Description
Blackouts	Suspend monitoring on targets to support scheduled maintenance periods.
Business Application Management	Create and monitor business application targets to provide an intuitive representation of the relationship between your applications and business transactions and the underlying IT infrastructure.
Business transaction monitoring *(Applies only to Oracle WebLogic Server)*	Provide transaction request visibility across multi-tier architecture for WebLogic applications, including individual transaction tracing and aggregated metrics.
Composite Application Management	Provide full visibility across all members and tiers of a composite application.
Contextual visibility into Java EE and web service metrics *(Does not apply for GlassFish)*	Provide drill-down contextual visibility into Java EE and web service metrics.
Cross-tier trace with Oracle Database	View the impact of database problems on all associated applications and JVMs, and isolate problems between Java and the database
Diagnostic Snapshot *(Does not apply for GlassFish)*	Preserves snapshots of both JVM monitoring and diagnostics data in correlation with the WebLogic Server log files.
Differential heap analysis	Use memory leak analysis in production, and simplify memory growth and leak analysis.
Exalogic Elastic Cloud Management	Obtain summary views of the WebLogic Domains and Coherence Clusters that are on an Oracle Exalogic Elastic Cloud system.
Historical performance monitoring	Track availability and performance data over time.
Interactive JVM transaction trace	Provide JVM thread tracing. View the response time breakdowns in each layer (servlet, JSP, EJB, JDBC, and SQL) of a JVM container.
JVM Diagnostics Agent hot deployment	Deploy JVM Diagnostics Agent without application server restarts or configuration changes.
Log Viewer *(Does not apply for GlassFish)*	Access Oracle Fusion Middleware log files quickly and easily - no matter where they are stored on the file system. Search and correlate log messages across all Oracle Fusion Middleware components' logs based on properties such as time, severity or Execution Context ID (ECID).
Management Connectors	Helpdesk (ticketing) connectors open helpdesk tickets for incidents raised in Enterprise Manager. Event connectors share event information with other management systems.
Metric and Alert/Event History	View metric and alert/event history and its associated details.
Metric Extensions	Create new metrics to monitor conditions specific to customer environments.
Metrics visibility for any layer *(Does not apply for GlassFish)*	Generate customized dashboards and views automatically.
Middleware Diagnostics Advisor *(Does not apply for GlassFish)*	Provide detailed advice and recommendations based on performance and configuration data for the entire middleware and database stack.

Feature	Description
Monitoring Templates and Template Collections	Monitoring Templates encapsulate target monitoring settings and can later be applied against many targets. Template Collections (with administration groups) automate the deployment of management settings on targets as they join the group.
Notifications	Define and use different notification methods including e-mail, running custom OS scripts, PL/SQL procedures and SNMP traps; repeat notifications, use of notification-related actions in incident rule sets, administrator notification schedules.
Real-time visibility into a JVM and application state without instrumentation overhead	Eliminate need to reproduce problems in a test environment.
Request performance	Provide historical views that show the response times for end-user requests from the context of WebLogic Server as well as the underlying JVM. Response time breakdowns are available in each layer (servlet, JSP, EJB, JDBC, and SQL) of an OC4J container.
Service-level objectives	Provide service-level objectives (SLOs) at any point within the architecture for indicators and alerts.
Trace in-flight transactions	View request performance problems in real time. Analyze time spent in each resource bottleneck and Java method.
JVM pool monitoring	Monitor all JVMs of an application together with uniform monitoring settings.

Note: Within the WebLogic Server Management Pack Enterprise Edition and the Business Transaction Management (BTM) product which is installed separately from Enterprise Manager Cloud Control, licensing is restricted to Java EE and web service components with respect to the Application Dependency and Performance pages in Enterprise Manager Cloud Control and does not include SOA, BPEL, WebCenter, Portal, OSB, ESB, AIA, or Pageflow components.

3.1.1.2 Coherence Management

The Coherence Management features within the WebLogic Server Management Pack Enterprise Edition provide comprehensive monitoring and management capabilities for Coherence. The features provide complete cluster visibility by supplying detailed metrics of various cluster artifacts and their interdependencies. You can monitor more than one Coherence cluster from a single console.

Note: The WebLogic Server Management Pack Enterprise Edition license covers Coherence Management when Coherence runs on the same CPU as WebLogic Server. If Oracle Coherence runs in different CPU from WebLogic Server, then you must license the Management Pack for Oracle Coherence.

Coherence Management within the WebLogic Server Management Pack Enterprise Edition includes the following features:

Feature	Description
Automate deployment	Automate the deployment and setup of the Coherence cluster with multiple nodes.
Complete cluster visibility	Provide detailed metrics for all Coherence components.
Configuration management	Change run-time configuration parameters of multiple nodes, caches, and services from the central user interface console.
Monitor multiple clusters	Monitor multiple clusters from a single console.
Start and stop nodes	Stop existing nodes and start new ones in a Coherence cluster.
Start and stop the cluster	Start and stop the entire Coherence cluster.

3.1.1.3 Business Transaction Management

The WebLogic Server Management Pack Enterprise Edition includes Business Transaction Management (BTM) features only for Java EE and web service components running on WebLogic Server, as shown below.

> **Note:** Business Transaction Management is separately installed from Enterprise Manager Cloud Control 12*c*.

Feature	Description
Contextual visibility	Provide drill-down contextual visibility into Java EE.
Exception management	Provide transaction alerts and searches to locate exceptions and errors in transactions that span multiple application components.
Transaction discovery	Discover, record, and correlate transactions as they flow across components that may span multiple WebLogic and/or Oracle Application Server instances.
Transaction-level agreements	Provide transaction-level objectives (TLOs) that span multiple interacting components.

BTM technologies licensed as part of the WebLogic Server category are as follows:

- JAX-WS
- JAX-RPC
- JDBC
- EJB
- JMS
- Java
- JSP/Servlet
- Web Application

For BTM licensed links, see Licensed Links Applicable to Business Transaction Management.

3.1.1.4 Business Transaction Management Restricted-use Licensing

Oracle includes a restricted-use license of Oracle Service Bus (and its subcomponents) for the express purpose of monitoring endpoints for Enterprise Manager Business Transaction Management, covering creation of Proxy and Business Service in pass-through mode only. Oracle Service Bus may be configured with the Business

Transaction Management observer agent in single instance and an additional instance of Oracle Service Bus may be configured for Proxy failover purposes.

3.1.1.5 Lifecycle Management

The lifecycle management features of WebLogic Server Management Pack Enterprise Edition help administrators automate the processes required to manage the lifecycle of Oracle middleware software such as Oracle WebLogic Server, Oracle GlassFish Server, and Oracle Application Server. It eliminates manual and time-consuming tasks related to provisioning, patching, configuration management, and compliance management.

> **Note:** License to provision the following Oracle products is included as part of WebLogic Server Management Pack Enterprise Edition (including both out-of-the-box and user-defined deployment procedures):
>
> - WebLogic Server
> - Forms, Reports
> - Oracle HTTP Server
> - Oracle Traffic Director
> - Oracle Coherence
> - Oracle GlassFish
> - Oracle Application Server
>
> Provisioning for the following Fusion Middleware components is not included in the WebLogic Server Management Pack Enterprise Edition license:
>
> - SOA Suite
> - BPM Suite
> - Oracle Service Bus
> - AIA
> - WebCenter Suite
> - Oracle Identity Management
> - Oracle Business Intelligence Enterprise Edition

Unless otherwise stated, the following Lifecycle Management features apply to Oracle WebLogic Server, Oracle Application Server, and Oracle GlassFish Server environments, as appropriate:

Feature	Description
Change Activity Plans *(Does not apply for GlassFish)*	Provide the ability to plan, track in real time, and execute data-centerwide change activities. Activities include: PSU patch rollouts, etc.
Compliance	Provide compliance frameworks, standards, and extensibility to meet industry and regulatory compliance requirements. This feature includes integration of former BEA Guardian Signatures into the Enterprise Manager Cloud Control console as WebLogic Signature Rules.

Feature	Description
Configuration Collection Extensibility	Create custom configuration collections and extend current collections.
Configuration Compare	Compare configurations, one-to-one, one-to-many.
Configuration History	Report and notify on configuration or relations changes during a specific time frame.
Configuration Instance Browser	View configuration items and associations associated with a target.
Configuration Save	Save configurations for reference, baselines, or gold standards.
Configuration Search	Search for configuration items on a specific target or across relationships.
Configuration Topology	View topology for a specified target and its dependencies along with other targets that are dependent on it.
Disaster Recovery via Site Guard *(Does not apply for GlassFish)*	Automate complete site failover of Oracle Fusion Middleware and Oracle Database and extend to include other data center components. **Note:** Usage of Site Guard requires licenses for *either* WebLogic Server Management Pack Enterprise Edition *or* Database Lifecycle Management Pack for Oracle Database.
Notifications	Provide notification of configuration changes or differences.
Patching	Provide end-to-end patch automation for Oracle WebLogic Server and Oracle Application Server.
Provisioning Deployment Procedures	■ Clone WebLogic Domain and/or Middleware Home from reference installation or from software library. ■ Clone Oracle Application Server. ■ Scale up or out WebLogic Domain. ■ Deploy/redeploy/undeploy Java EE applications to Oracle WebLogic Domain(s). ■ Perform first-time provisioning of Middleware Home and/or WebLogic Domains from installation media stored in the software library.
User Defined Deployment Procedures (UDDP)	Automate custom processes by creating a procedure from scratch by inserting the required phases, steps, and variables.
Patch Recommendations *(Only applicable to Oracle Application Server and WebLogic Server)*	Provide My Oracle Support security patch update recommendations.
Real-time configuration change detection	Provide real-time configuration change detection and automation of compliance frameworks along with automated observation authorization using a Change Management Connector.
Routing Topology	Understand relationships and health of a Fusion Middleware Farm/WebLogic Domain and their related targets.
Self Update	Download and apply updates associated with Patching, Provisioning, and Compliance of Oracle WebLogic Server and Oracle Application Server targets.

Feature	Description
Synchronization of WebLogic Server Configuration Files	Synchronize WebLogic Server-related configuration files (for example, config.xml) from Enterprise Manager Cloud Control if differences are detected between WebLogic Domains or WebLogic Servers during a configuration comparison operation. This feature is useful to make the configurations the same.

3.1.1.6 Administration

The administration features of WebLogic Server Management Pack Enterprise Edition help administrators perform common administration operations in a WebLogic Server environment directly from Enterprise Manager Cloud Control; thereby, removing the need to drill down and log in to the Oracle Enterprise Manager Fusion Middleware Control console or to the Oracle WebLogic Server Administration Console.

The following features apply to Oracle WebLogic Server environments (not Oracle Application Server nor Oracle GlassFish Server environments):

Feature	Description
Change Center	Lock a domain configuration and save changes. You lock a configuration prior to making changes to prevent other administrators from making changes during your edit session. View all changes that have been saved, view the server instances that must be restarted for configuration changes to take effect, release a lock, and activate or undo changes
System MBean Browser	View, configure, and use MBeans for a specific Oracle WebLogic Server or Application Deployment target.
Manage JDBC Data Sources	Create, edit, delete, control, and test JDBC data sources.
Record configuration actions	Record configuration actions performed as a series of WebLogic Scripting Tool (WLST) commands. You can use WLST to replay the commands to help automate the task of configuring a domain. You can start, stop or view a recording.
Log Configuration for Oracle Fusion Middleware components	Configure log file settings for Oracle WebLogic Server, Application Deployment, SOA Infrastructure, Essbase Server, Directory Integration Platform Server, Oracle Virtual Directory, Oracle Reports Application, Oracle Reports Bridge, Oracle Reports Server, and Oracle Reports Tools targets.
Selective Tracing for Oracle Fusion Middleware	Perform selective tracing from Enterprise Manager Cloud Control. Selective tracing enables administrators to gain more fine-grained logging data but limit the data such that it applies to a specific application name, as well as other specific attributes of a request (for example, user name, client host, and/or web service port).
WebLogic Cluster Administration	View and edit settings for the WebLogic Cluster.
WebLogic Domain Administration	View and edit settings for the WebLogic Domain.
WebLogic Server Administration	View and edit settings for the WebLogic Server.
Machine Administration	View and edit settings for a Machine.
Server Template Administration	View and edit settings for a Server Template (this feature is applicable to WebLogic Server version 12*c* and not applicable to earlier versions).

3.1.1.7 Oracle Traffic Director

The Oracle Traffic Director (OTD) features within the WebLogic Server Management Pack Enterprise Edition provide comprehensive monitoring and management capabilities for Oracle Traffic Director. The features provide complete cluster visibility by supplying detailed metrics of various cluster artifacts and their inter-dependencies. You can monitor more than one Oracle Traffic Director from a single console.

Oracle Traffic Director within the WebLogic Server Management Pack Enterprise Edition includes the following features:

Feature	Description
Dashboards	Provide Oracle Traffic Director dashboards.
Complete cluster visibility	Provide detailed metrics for all Oracle Traffic Director configuration and cluster.
Configuration management	Change run-time configuration parameters of multiple nodes, caches, and services from the central user interface console.
Monitor multiple Oracle Traffic Director instances	Monitor multiple Oracle Traffic Director instances from a single console.
Start and stop OTD instances	Stop existing Oracle Traffic Director instances.
Refresh Oracle Traffic Director Targets	Refresh OTD targets.
Oracle Traffic Director (OTD) monitoring	Provide trusted partition/vCPU licensing report.

3.1.2 Accessing Oracle WebLogic Server Management Pack Licensed Links

To use any of the features described above, you must purchase licenses to the WebLogic Server Management Pack Enterprise Edition. The following sections itemize the Enterprise Manager links that require licensing of the WebLogic Server Management Pack Enterprise Edition, and should not be accessible if the WebLogic Server Management Pack Enterprise Edition has been disabled. In general, the links identified below apply to the following Oracle Fusion Middleware target types (Table 3–1) and Oracle Application Server target types (Table 3–2):

Table 3–1   Oracle Fusion Middleware Target Types

■ Oracle Fusion Middleware Farm	■ Clustered Application Deployment	■ Oracle Coherence	■ Oracle Traffic Director
■ Oracle GlassFish Domain	■ Domain Application Deployment	■ VoiceXML Driver	■ Oracle User Messaging Service
■ Oracle GlassFish Cluster	■ Application Deployment	■ Oracle Forms Services	■ User Messaging Email Driver
■ Oracle GlassFish Server	■ Oracle HTTP Server (installed either collocated with a WebLogic Domain or as a standalone domain)	■ Oracle Portal	■ Java Virtual Machine
■ Oracle WebLogic Domain		■ Oracle Reports Application	■ Java Virtual Machine Pool
■ Oracle WebLogic Cluster		■ XMPP Driver	■ Exalogic Elastic Cloud
■ Oracle WebLogic Server		■ Oracle Reports Bridge	
■ Business Application	■ Oracle Web Cache	■ Oracle Reports Server	
■ SMPP Driver		■ Oracle Reports Tools	

Table 3–2   Oracle Application Server Target Types

■ Oracle Application Server Farm	■ Oracle Forms Services
■ Oracle Application Server Cluster	■ Oracle Reports
■ DCM-Managed Oracle Application Server Cluster	■ Oracle Portal
■ OC4J	■ BC4J
■ Oracle HTTP Server	■ Oracle Workflow
■ Oracle Web Cache	■ Oracle Application Server Wireless

The WebLogic Server Management Pack Enterprise Edition does not include features for Business Process Execution Language (BPEL), Oracle Service Bus (OSB), Oracle SOA Infra, and Oracle SOA Composite. For these Oracle Fusion Middleware components, the SOA Management Pack Enterprise Edition must be licensed.

> **Note:**   While Enterprise Manager functionality to manage Oracle WebLogic Server is rather consistent across versions of Oracle WebLogic Server, the specific licensable links under the WebLogic Server Management Pack Enterprise Edition and the navigation to those links may be different across different versions of Oracle WebLogic Server. Consequently, some of the following sections distinguish between licensed links for different WebLogic Server versions.

The following licensed links sections are presented:

- Licensed Links Outside of Target-Specific Pages

- Licensed Links Applicable to GlassFish Server

- Licensed Links Applicable to Administration Features

- Licensed Links Applicable to WebLogic Server Versions 9, 10, and 12

- Licensed Links Applicable to Oracle HTTP Server

- Licensed Links Applicable to WebLogic Server Version 8

- Licensed Links Applicable to Service Level Management

- Licensed Links Applicable to Coherence Management

- Licensed Links Applicable to Business Transaction Management

- Licensed Links Applicable to Business Application

- Licensed Links Applicable to Exalogic Elastic Cloud Management

- Licensed Links Applicable to Oracle Application Server 10g

3.1.2.1 Licensed Links Outside of Target-Specific Pages

Licensed Page/Link	How to Access
Application Performance Management	From the Enterprise Manager home page, click the **Setup** menu, then select **Middleware Management**, and finally **Application Performance Management**. On the Application Performance Management Page, the ability to register and manage Application Performance Management Engines and other items are licensable as part of the WebLogic Server Management Pack Enterprise Edition, SOA Management Enterprise Edition, or Real User Experience Insight depending on the type of engine that is added.
Client System Analyzer	From the Enterprise Manager home page, click the **Enterprise** menu, then **Configuration**. The Client System Analyzer and Client Configurations items are licensable as part of the WebLogic Server Management Pack Enterprise Edition.
Compliance	From the Enterprise Manager home page, click the **Enterprise** menu and then **Compliance**. All features, functions, links, buttons, and drill-downs associated with the Library, Real-time Observations, and Results pages are licensed as part of the WebLogic Server Management Pack Enterprise Edition.
Configuration Collection Extensibility	From the Enterprise Manager home page, click the **Enterprise** menu, then **Configuration and Custom**. All features, functions, links, buttons, and drill-downs on this page are licensed as part of the WebLogic Server Management Pack Enterprise Edition.
Configuration Compare	From the Enterprise Manager home page, click the **Enterprise** menu, then **Configuration and Compare**. All features, functions, links, buttons, and drill-downs on this page are licensed as part of the WebLogic Server Management Pack Enterprise Edition.
Configuration History	From the Enterprise Manager home page, click the **Enterprise** menu, then **Configuration and History**. All features, functions, links, buttons, and drill-downs on this page are licensed as part of the WebLogic Server Management Pack Enterprise Edition.
Configuration Instance Browser	From the Enterprise Manager home page, click **Targets**, then **Middleware**. Select a Fusion Middleware related target identified above. From the target's menu, click the **Configuration** submenu. All features, functions, links, buttons, and drill-downs from this submenu, excluding Topology, are licensed as part of the WebLogic Server Management Pack Enterprise Edition.
Configuration Save	From the Enterprise Manager home page, click the **Enterprise** menu, then **Configuration and Save**. All features, functions, links, buttons, and drill-downs on this page are licensed as part of the WebLogic Server Management Pack Enterprise Edition.
Configuration Search	From the Enterprise Manager home page, click the **Enterprise** menu, then **Configuration and Search**. All features, functions, links, buttons, and drill-downs on this page are licensed as part of the WebLogic Server Management Pack Enterprise Edition.

Licensed Page/Link	How to Access
Configuration Topology	From the Enterprise Manager home page, click the **Enterprise** menu, then **Configuration and Topology**. In the View drop-down menu, Used By is licensed as part of the WebLogic Server Management Pack Enterprise Edition.
	From the Enterprise Manager home page, click the **Enterprise** menu, then **Configuration and Topology, Customization**. All features, functions, links, buttons, and drill-downs on this menu are licensed as part of the WebLogic Server Management Pack Enterprise Edition.
Change Activity Plans	From the Enterprise Manager home page, click the **Enterprise** menu, then **Configuration**. The **Change Activity Plans** and **My Tasks** items are licensable as part of the WebLogic Server Management Pack Enterprise Edition.
Middleware Provisioning	From the Enterprise Manager home page, click the **Enterprise** menu, then **Provisioning and Patching**, and finally **Procedure Library**. The following predefined procedures are licensed with the WebLogic Server Management Pack Enterprise Edition:
	■ Provision Middleware
	■ Scale up/Scale Out Middleware
	■ Application Server Deployment 10.1.3
	■ Application Server Deployment 10.1.3.x SOA
	■ Deploy/Undeploy Java EE Applications
	■ Coherence Node Provisioning
	From the Enterprise Manager home page, click the **Enterprise** menu, then **Provisioning and Patching**, and finally **Middleware Provisioning**. All features, functions, links, buttons, and drill-downs on the Middleware Provisioning page are licensed as part of the WebLogic Server Management Pack Enterprise Edition - with the exception of SOA Artifacts Provisioning, Deploy SOA Composite, BPEL Process Provisioning, and Oracle Service Bus Resource Provisioning deployment procedures (these are licensable via the SOA Management Pack Enterprise Edition).
	From the WebLogic Domain target home page, click the **WebLogic Domain** menu, then **Provisioning**. All features, functions, links, buttons, and drill-downs on this menu are licensed as part of the WebLogic Server Management Pack Enterprise Edition - with the exception of SOA Artifacts Provisioning, Deploy SOA Composite, WebCenter Artifacts, and Deploy WebCenter Application (these are licensable via the SOA Management Pack Enterprise Edition and Management Pack for WebCenter).
Offline Patching	From the Enterprise Manager home page, click **Setup**, then **Provisioning and Patching**, and finally **Offline Patching**. From the Online and Offline Setting tab, the Connection, Offline setting is licensed with the WebLogic Server Management Pack Enterprise Edition.
User Defined Deployment Procedures (UDDP)	From the Enterprise Manager home page, click the **Enterprise** menu, **Provisioning and Patching**, then **Procedure Library**. On the Provisioning Library page, from the list of actions, the Create New option is licensed as part of the WebLogic Server Management Pack Enterprise Edition.

Licensed Page/Link	How to Access
Real-time Configuration Change Detection	From the Enterprise Manager home page, click the **Enterprise** menu, then **Compliance**. All features, functions, links, buttons, and drill-downs associated Library, Results and Real-Time Observations pages are licensed as part of the WebLogic Server Management Pack Enterprise Edition.
Self Update	From the Enterprise Manager home page, click **Setup**, then **Extensibility**, and finally **Self Update**. The downloading and applying any updates associated with Patching, Provisioning, and Compliance of middleware targets identified above are licensed as part of the WebLogic Server Management Pack Enterprise Edition.
WebLogic Server Patching	From the Enterprise Manager home page, click the **Enterprise** menu, then **Provisioning and Patching**, and finally **Patches and Updates**. From this page, the Patch Recommendations and Patch Plans regions and their content/links related to WebLogic Server are licensed as part of the WebLogic Server Management Pack Enterprise Edition.

3.1.2.2 Licensed Links Applicable to GlassFish Server

The following links are licensable for GlassFish Domain, GlassFish Cluster, and GlassFish Server targets:

Licensed Page/Link	How to Access
The following pages/links are related to general monitoring features:	
General monitoring links for the following sections: ■ Monitoring and Diagnostics ■ Servers ■ Resource Usage	From the Enterprise Manager home page, click the **Targets** menu, then **Middleware**. Select a **GlassFish Cluster** target from the list. On the GlassFish Cluster home page, the links in the sections listed are licensed.
GlassFish Server page	From the Enterprise Manager home page, click the **Targets** menu, then **Middleware**. Select a **GlassFish Server** target from the list. On the GlassFish Server home page, all links on the page are licensed except the link to the GlassFish Server Administration Console. This drill-down link to the console is not licensed.
Diagnostics	GlassFish Domain: ■ From the Enterprise Manager home page, click the **Targets** menu, then **Middleware**. Select a **GlassFish Domain** target from the list. On the GlassFish Domain home page, click **Diagnostics**. All links are licensable under this menu. GlassFish Server: ■ From the Enterprise Manager home page, click the **Targets** menu, then **Middleware**. Select a **GlassFish Server** target from the list. On the GlassFish Server home page, click **Diagnostics**. All links are licensable under this menu.

Licensed Page/Link	How to Access
Create Blackout	GlassFish Domain:
	▪ From the Enterprise Manager home page, click the **Targets** menu, then **Middleware**. Select a **GlassFish Domain** target from the list. On the GlassFish Domain home page, click **Create Blackout**. The Create Blackout wizard is licensed.
	▪ From the Enterprise Manager home page, click the **Targets** menu, then **Middleware**. Select a **GlassFish Domain** target from the list. On the GlassFish Domain home page, click the **GlassFish Domain** menu, then **Monitoring**, and finally **Blackouts**. Click **Create**. The Create Blackout wizard is licensed.
	GlassFish Cluster:
	▪ From the Enterprise Manager home page, click the **Targets** menu, then **Middleware**. Select a **GlassFish Cluster** target from the list. On the GlassFish Cluster home page, click **Create Blackout**. The Create Blackout wizard is licensed.
	▪ From the Enterprise Manager home page, click the **Targets** menu, then **Middleware**. Select a **GlassFish Cluster** target from the list. On the GlassFish Cluster home page, click the **GlassFish Cluster** menu, then **Monitoring**, and finally **Blackouts**. Click **Create**. The Create Blackout wizard is licensed.
	GlassFish Server:
	▪ From the Enterprise Manager home page, click the **Targets** menu, then **Middleware**. Select a **GlassFish Server** target from the list. On the GlassFish Server home page, click **Create Blackout**. The Create Blackout wizard is licensed.
	▪ From the Enterprise Manager home page, click the **Targets** menu, then **Middleware**. Select a **GlassFish Server** target from the list. On the GlassFish Server home page, click the **GlassFish Cluster** menu, then **Monitoring**, and finally **Blackouts**. Click **Create**. The Create Blackout wizard is licensed.
End Blackout	GlassFish Domain:
	▪ From the Enterprise Manager home page, click the **Targets** menu, then **Middleware**. Select a **GlassFish Domain** target from the list. On the GlassFish Domain home page, click **End Blackout**.
	GlassFish Cluster:
	▪ From the Enterprise Manager home page, click the **Targets** menu, then **Middleware**. Select a **GlassFish Cluster** target from the list. On the GlassFish Cluster home page, click **End Blackout**.
	GlassFish Server:
	▪ From the Enterprise Manager home page, click the **Targets** menu, then **Middleware**. Select a **GlassFish Server** target from the list. On the GlassFish Server home page, click **End Blackout**.

Licensed Page/Link	How to Access
Performance Summary	GlassFish Server: ■ From the Enterprise Manager home page, click the **Targets** menu, then **Middleware**. Select a **GlassFish Server** target from the list. On the GlassFish Server home page, select **Monitoring**, and finally **Performance Summary**.
JVM Performance	GlassFish Server: ■ From the Enterprise Manager home page, click the **Targets** menu, then **Middleware**. Select a **GlassFish Server** target from the list. On the GlassFish Server home page, select **Monitoring**, and finally **JVM Performance**.
All Metrics	GlassFish Domain: ■ From the Enterprise Manager home page, click the **Targets** menu, then **Middleware**. Select a **GlassFish Domain** target from the list. On the GlassFish Domain home page, select the **GlassFish Domain** target menu, select **Monitoring**, and finally **All Metrics**. GlassFish Cluster: ■ From the Enterprise Manager home page, click the **Targets** menu, then **Middleware**. Select a **GlassFish Cluster** target from the list. On the GlassFish Cluster home page, select the **GlassFish Cluster** target menu, select **Monitoring**, and finally **All Metrics**. GlassFish Server: ■ From the Enterprise Manager home page, click the **Targets** menu, then **Middleware**. Select a **GlassFish Server** target from the list. On the GlassFish Server home page, select the **GlassFish Server** target menu, select **Monitoring**, and finally **All Metrics**.
Alert History	GlassFish Domain: ■ From the Enterprise Manager home page, click the **Targets** menu, then **Middleware**. Select a **GlassFish Domain** target from the list. On the GlassFish Domain home page, select the **GlassFish Domain** target menu, select **Monitoring**, and finally **Alert History**. GlassFish Cluster: ■ From the Enterprise Manager home page, click the **Targets** menu, then **Middleware**. Select a **GlassFish Cluster** target from the list. On the GlassFish Cluster home page, select the **GlassFish Cluster** target menu, select **Monitoring**, and finally **Alert History**. GlassFish Server: ■ From the Enterprise Manager home page, click the **Targets** menu, then **Middleware**. Select a **GlassFish Server** target from the list. On the GlassFish Server home page, select the **GlassFish Server** target menu, select **Monitoring**, and finally **Alert History**.

Licensed Page/Link	How to Access
Blackouts	GlassFish Domain:
	■ From the Enterprise Manager home page, click the **Targets** menu, then **Middleware**. Select a **GlassFish Domain** target from the list. On the GlassFish Domain home page, select the **GlassFish Domain** target menu, select **Monitoring**, and finally **Blackouts**.
	GlassFish Cluster:
	■ From the Enterprise Manager home page, click the **Targets** menu, then **Middleware**. Select a **GlassFish Cluster** target from the list. On the GlassFish Cluster home page, select the **GlassFish Cluster** target menu, select **Monitoring**, and finally **Blackouts**.
	GlassFish Server:
	■ From the Enterprise Manager home page, click the **Targets** menu, then **Middleware**. Select a **GlassFish Server** target from the list. On the GlassFish Server home page, select the **GlassFish Server** target menu, select **Monitoring**, and finally **Blackouts**.
The following pages/links are related to the configuration management features:	
Last Collected	GlassFish Domain:
	■ From the Enterprise Manager home page, click the **Targets** menu, then **Middleware**. Select a **GlassFish Domain** target from the list. On the GlassFish Domain home page, select the **GlassFish Domain** target menu, select **Configuration**, and finally **Last Collected**.
	GlassFish Cluster:
	■ From the Enterprise Manager home page, click the **Targets** menu, then **Middleware**. Select a **GlassFish Cluster** target from the list. On the GlassFish Cluster home page, select the **GlassFish Cluster** target menu, select **Configuration**, and finally **Last Collected**.
	GlassFish Server:
	■ From the Enterprise Manager home page, click the **Targets** menu, then **Middleware**. Select a **GlassFish Server** target from the list. On the GlassFish Server home page, select the **GlassFish Server** target menu, select **Configuration**, and finally **Last Collected**.

Licensed Page/Link	How to Access
Compare	GlassFish Domain:
	■ From the Enterprise Manager home page, click the **Targets** menu, then **Middleware**. Select a **GlassFish Domain** target from the list. On the GlassFish Domain home page, select the **GlassFish Domain** target menu, select **Configuration**, and finally **Compare**.
	GlassFish Cluster:
	■ From the Enterprise Manager home page, click the **Targets** menu, then **Middleware**. Select a **GlassFish Cluster** target from the list. On the GlassFish Cluster home page, select the **GlassFish Cluster** target menu, select **Configuration**, and finally **Compare**.
	GlassFish Server:
	■ From the Enterprise Manager home page, click the **Targets** menu, then **Middleware**. Select a **GlassFish Server** target from the list. On the GlassFish Server home page, select the **GlassFish Server** target menu, select **Configuration**, and finally **Compare**.
Search	GlassFish Domain:
	■ From the Enterprise Manager home page, click the **Targets** menu, then **Middleware**. Select a **GlassFish Domain** target from the list. On the GlassFish Domain home page, select the **GlassFish Domain** target menu, select **Configuration**, and finally **Search**.
	GlassFish Cluster:
	■ From the Enterprise Manager home page, click the **Targets** menu, then **Middleware**. Select a **GlassFish Cluster** target from the list. On the GlassFish Cluster home page, select the **GlassFish Cluster** target menu, select **Configuration**, and finally **Search**.
	GlassFish Server:
	■ From the Enterprise Manager home page, click the **Targets** menu, then **Middleware**. Select a **GlassFish Server** target from the list. On the GlassFish Server home page, select the **GlassFish Server** target menu, select **Configuration**, and finally **Search**.
History	GlassFish Domain:
	■ From the Enterprise Manager home page, click the **Targets** menu, then **Middleware**. Select a **GlassFish Domain** target from the list. On the GlassFish Domain home page, select the **GlassFish Domain** target menu, select **Configuration**, and finally **History**.
	GlassFish Cluster:
	■ From the Enterprise Manager home page, click the **Targets** menu, then **Middleware**. Select a **GlassFish Cluster** target from the list. On the GlassFish Cluster home page, select the **GlassFish Cluster** target menu, select **Configuration**, and finally **History**.
	GlassFish Server:
	■ From the Enterprise Manager home page, click the **Targets** menu, then **Middleware**. Select a **GlassFish Server** target from the list. On the GlassFish Server home page, select the **GlassFish Server** target menu, select **Configuration**, and finally **History**.

Licensed Page/Link	How to Access
Saved	GlassFish Domain: ■ From the Enterprise Manager home page, click the **Targets** menu, then **Middleware**. Select a **GlassFish Domain** target from the list. On the GlassFish Domain home page, select the **GlassFish Domain** target menu, select **Configuration**, and finally **Saved**. GlassFish Cluster: ■ From the Enterprise Manager home page, click the **Targets** menu, then **Middleware**. Select a **GlassFish Cluster** target from the list. On the GlassFish Cluster home page, select the **GlassFish Cluster** target menu, select **Configuration**, and finally **Saved**. GlassFish Server: ■ From the Enterprise Manager home page, click the **Targets** menu, then **Middleware**. Select a **GlassFish Server** target from the list. On the GlassFish Server home page, select the **GlassFish Server** target menu, select **Configuration**, and finally **Saved**.
Topology	GlassFish Domain: ■ From the Enterprise Manager home page, click the **Targets** menu, then **Middleware**. Select a **GlassFish Domain** target from the list. On the GlassFish Domain home page, select the **GlassFish Domain** target menu, select **Configuration**, and finally **Topology**. GlassFish Cluster: ■ From the Enterprise Manager home page, click the **Targets** menu, then **Middleware**. Select a **GlassFish Cluster** target from the list. On the GlassFish Cluster home page, select the **GlassFish Cluster** target menu, select **Configuration**, and finally **Topology**. GlassFish Server: ■ From the Enterprise Manager home page, click the **Targets** menu, then **Middleware**. Select a **GlassFish Server** target from the list. On the GlassFish Server home page, select the **GlassFish Server** target menu, select **Configuration**, and finally **Topology**.

The following pages/links are related to the compliance management features:

Licensed Page/Link	How to Access
Results	GlassFish Domain:
	■ From the Enterprise Manager home page, click the **Targets** menu, then **Middleware**. Select a **GlassFish Domain** target from the list. On the GlassFish Domain home page, select the **GlassFish Domain** target menu, select **Compliance**, and finally **Results**.
	GlassFish Cluster:
	■ From the Enterprise Manager home page, click the **Targets** menu, then **Middleware**. Select a **GlassFish Cluster** target from the list. On the GlassFish Cluster home page, select the **GlassFish Cluster** target menu, select **Compliance**, and finally **Results**.
	GlassFish Server:
	■ From the Enterprise Manager home page, click the **Targets** menu, then **Middleware**. Select a **GlassFish Server** target from the list. On the GlassFish Server home page, select the **GlassFish Server** target menu, select **Compliance**, and finally **Results**.
Standard Associations	GlassFish Domain:
	■ From the Enterprise Manager home page, click the **Targets** menu, then **Middleware**. Select a **GlassFish Domain** target from the list. On the GlassFish Domain home page, select the **GlassFish Domain** target menu, select **Compliance**, and finally **Standard Associations**.
	GlassFish Cluster:
	■ From the Enterprise Manager home page, click the **Targets** menu, then **Middleware**. Select a **GlassFish Cluster** target from the list. On the GlassFish Cluster home page, select the **GlassFish Cluster** target menu, select **Compliance**, and finally **Standard Associations**.
	GlassFish Server:
	■ From the Enterprise Manager home page, click the **Targets** menu, then **Middleware**. Select a **GlassFish Server** target from the list. On the GlassFish Server home page, select the **GlassFish Server** target menu, select **Compliance**, and finally **Standard Associations**.

3.1.2.3 Licensed Links Applicable to Administration Features

The following list of links and navigation to them correspond with the administration features for Oracle WebLogic Server and are licensed as part of the WebLogic Server Management Pack Enterprise Edition.

> **Note:** You must first log in to the domain before accessing these features.
>
> If you have not saved your preferred credentials for accessing these administration features, then you will be prompted to log in to the domain.
>
> From the log in page, you have the option to save the credentials as *preferred credentials*, if they are not already saved. With preferred credentials, you are automatically taken to the page with no log in required.

Links/Menu Items	How to Access
Selective Tracing feature	From the Enterprise Manager home page, click the **Targets** menu, then **Middleware**. Select a domain target link to go to the Domain Home page. On the Domain Home page, click the **Domain** menu, select **Logs**, and finally **Selective Tracing**.
Configuration of Log File Settings feature	From the Enterprise Manager home page, click the **Targets** menu, then **Middleware**. Select a WebLogic Server target link to go to the WebLogic Server Home page. On the WebLogic Server page, click the **WebLogic Server** menu, select **Logs**, and finally **Log Configuration**.
Change Center	From the Enterprise Manager home page, click the **Targets** menu, then **Middleware**. Select a domain target link to go to the Domain Home page. Assuming you have logged in to the domain (e.g. via preferred credentials) and have attempted to access an administration operation, on the Domain Home page in the upper left-hand corner there is a region labelled "Change Center". From the Change Center region, click the **Changes** drop-down menu. All links in the Changes drop-down menu are licensed with WebLogic Server Management Pack Enterprise Edition.
System MBean Browser	From the Enterprise Manager home page, click the **Targets** menu, then **Middleware**. Select a domain target link to go to the Domain Home page. On the Domain Home page, click the **Domain** menu, select **System MBean Browser**.
Manage JDBC Data Sources	From the Enterprise Manager home page, click the **Targets** menu, then **Middleware**. Select a domain target link to go to the Domain Home page. On the Domain Home page, click the **Domain** menu, select **JDBC Data Sources**.
Record configuration actions	From the Enterprise Manager home page, click the **Targets** menu, then **Middleware**. Select a domain target link to go to the Domain Home page. Assuming you have logged in to the domain (e.g. via preferred credentials) and have attempted to access an administration operation, on the Domain Home page in the upper left-hand corner there is a region labelled "Change Center". From the Change Center region, click the **Recording** drop-down menu. All links in the Recording drop-down menu are licensed with WebLogic Server Management Pack Enterprise Edition.
WebLogic Domain Administration	From the Enterprise Manager home page, click the **Targets** menu, then **Middleware**. Select a domain target link to go to the Domain Home page. On the Domain Home page, click the **Domain** menu, select **Administration**.
WebLogic Cluster Administration	From the Enterprise Manager home page, click the **Targets** menu, then **Middleware**. Select a cluster target link to go to the Cluster Home page. On the Cluster Home page, click the **Cluster** menu, select **Administration**.
WebLogic Server Administration	From the Enterprise Manager home page, click the **Targets** menu, then **Middleware**. Select a WebLogic Server target link to go to the WebLogic Server Home page. On the WebLogic Server Home page, click the **WebLogic Server** menu, select **Administration**. *Note: Under the Administration submenu, the **Start/Stop** menu item is not licensed under WebLogic Server Management Pack Enterprise Edition.*

Links/Menu Items	How to Access
Server Templates Administration	From the Enterprise Manager home page, click the **Targets** menu, then **Middleware**. Select a domain target link to go to the Domain Home page. On the Domain Home page, click the **Domain** menu, then select **Environment**, then **Server Templates**.
Machines Administration	From the Enterprise Manager home page, click the **Targets** menu, then **Middleware**. Select a domain target link to go to the Domain Home page. On the Domain Home page, click the **Domain** menu, then select **Environment**, then **Machines**.

3.1.2.4 Licensed Links Applicable to WebLogic Server Versions 9, 10, and 12

The following list of links and navigation to them correspond with managing Oracle WebLogic Server versions 9, 10, and 12 in Oracle Enterprise Manager Cloud Control 12*c*, and are licensed as part of the WebLogic Server Management Pack Enterprise Edition.

Links/Menu Items	How to Access
Application Deployment page	From the Enterprise Manager home page, click the **Targets** menu, then **Middleware**. Drill down to a WebLogic Domain home page, then click on an **Application Deployment** target. All links and menu items on this page are licensed.
Clustered Application Deployment page	From the Enterprise Manager home page, click the **Targets** menu, then **Middleware**. Drill down to a WebLogic Domain home page, then click on a **Clustered Application Deployment** target. All links and menu items on this page are licensed.
Middleware-related target pages	From the Enterprise Manager home page, click the **Targets** menu, then **Middleware**. Click on links in the Name column to be taken to a target home page. (Note: target home pages can be accessed via other paths as well.) Links and menu items on target home pages are licensed.

Note:

While home pages for Middleware-related targets are not licensed, the links and menu items on the pages are licensed.

3.1.2.5 Licensed Links Applicable to Oracle HTTP Server

The following list of links and navigation to them correspond with managing Oracle HTTP Server in Oracle Enterprise Manager Cloud Control 12*c* and are licensed as part of the WebLogic Server Management Pack Enterprise Edition.

Licensed Page/Link	How to Access
The following are related to general monitoring features:	
Home page	From the Enterprise Summary page, click the **Targets** menu, then select **Middleware**, and then select standalone **Oracle HTTP Server** home page. On this page, all links are licensed.

Licensed Page/Link	How to Access
Create Blackout	From the Enterprise Summary page, click the **Targets** menu, then select **Middleware**, and then select standalone **Oracle HTTP Server** home page. On this page, select **Create Blackout**. All links, menu items, tabs, and sections on this page are licensed.
	From the Enterprise Summary page, click the **Targets** menu, then select **Middleware**, and then select standalone **Oracle HTTP Server** home page. On this page, select the **Target** menu, then **Control**, and finally **Create Blackout**. All links, menu items, tabs, and sections on this page are licensed
End Blackout	From the Enterprise Summary page, click the **Targets** menu, then select **Middleware**, and then select standalone **Oracle HTTP Server** home page. On this page, select **End Blackout**. All links, menu items, tabs, and sections on this page are licensed.
	From the Enterprise Summary page, click the **Targets** menu, then select **Middleware**, and then select standalone **Oracle HTTP Server** home page. On this page, select the **Target** menu, then **Control**, and finally **End Blackout**. All links, menu items, tabs, and sections on this page are licensed
Performance Summary	From the Enterprise Summary page, click the **Targets** menu, then select **Middleware**, and then select standalone **Oracle HTTP Server** home page. On this page, select the **Target** menu, then **Monitoring**, and finally **Performance Summary**. All links, menu items, tabs, and sections on this page are licensed
All Metrics	From the Enterprise Summary page, click the **Targets** menu, then select **Middleware**, and then select standalone **Oracle HTTP Server** home page. On this page, select the **Target** menu, then **Monitoring**, and finally **All Metrics**. All links, menu items, tabs, and sections on this page are licensed
Status History	From the Enterprise Summary page, click the **Targets** menu, then select **Middleware**, and then select standalone **Oracle HTTP Server** home page. On this page, select the **Target** menu, then **Monitoring**, and finally **Status History**. All links, menu items, tabs, and sections on this page are licensed
Alert History	From the Enterprise Summary page, click the **Targets** menu, then select **Middleware**, and then select standalone **Oracle HTTP Server** home page. On this page, select the **Target** menu, then **Monitoring**, and finally **Alert History**. All links, menu items, tabs, and sections on this page are licensed
Blackouts	From the Enterprise Summary page, click the **Targets** menu, then select **Middleware**, and then select standalone **Oracle HTTP Server** home page. On this page, select the **Target** menu, then **Monitoring**, and finally **Blackouts**. All links, menu items, tabs, and sections on this page are licensed
Log Viewer	From the Enterprise Summary page, click the **Targets** menu, then select **Middleware**, and then select standalone **Oracle HTTP Server** home page. On this page, select the **Target** menu, then **Monitoring**, and finally **View Log Messages**. All links, menu items, tabs, and sections on this page are licensed

Licensed Page/Link	How to Access
The following are related to configuration management features:	
Last Collected	From the Enterprise Summary page, click the **Targets** menu, then select **Middleware**, and then select standalone **Oracle HTTP Server** home page. On this page, select the **Target** menu, then **Configuration**, and finally **Last Collected**. All links, menu items, tabs, and sections on this page are licensed
Compare	From the Enterprise Summary page, click the **Targets** menu, then select **Middleware**, and then select standalone **Oracle HTTP Server** home page. On this page, select the **Target** menu, then **Configuration**, and finally **Compare**. All links, menu items, tabs, and sections on this page are licensed
Search	From the Enterprise Summary page, click the **Targets** menu, then select **Middleware**, and then select standalone **Oracle HTTP Server** home page. On this page, select the **Target** menu, then **Configuration**, and finally **Search**. All links, menu items, tabs, and sections on this page are licensed
History	From the Enterprise Summary page, click the **Targets** menu, then select **Middleware**, and then select standalone **Oracle HTTP Server** home page. On this page, select the **Target** menu, then **Configuration**, and finally **History**. All links, menu items, tabs, and sections on this page are licensed
Saved	From the Enterprise Summary page, click the **Targets** menu, then select **Middleware**, and then select standalone **Oracle HTTP Server** home page. On this page, select the **Target** menu, then **Configuration**, and finally **Saved**. All links, menu items, tabs, and sections on this page are licensed
Topology	From the Enterprise Summary page, click the **Targets** menu, then select **Middleware**, and then select standalone **Oracle HTTP Server** home page. On this page, select the **Target** menu, then **Configuration**, and finally **Topology**. All links, menu items, tabs, and sections on this page are licensed
The following are related to compliance management features:	
Results	From the Enterprise Summary page, click the **Targets** menu, then select **Middleware**, and then select standalone **Oracle HTTP Server** home page. On this page, select the **Target** menu, then **Compliance**, and finally **Results**. All links, menu items, tabs, and sections on this page are licensed
Standard Associations	From the Enterprise Summary page, click the **Targets** menu, then select **Middleware**, and then select standalone **Oracle HTTP Server** home page. On this page, select the **Target** menu, then **Compliance**, and finally **Standard Associations**. All links, menu items, tabs, and sections on this page are licensed

3.1.2.6 Licensed Links Applicable to WebLogic Server Version 8

The following list of links and navigation to them correspond with managing Oracle WebLogic Server version 8 in Oracle Enterprise Manager Cloud Control 12*c* and are licensed as part of the WebLogic Server Management Pack Enterprise Edition.

Licensed Page/Link	How to Access
Oracle WebLogic Server Domain page	From the Enterprise Summary page, click the **Targets** menu, then **Middleware**. Click the **Type** column to sort the target types. Select a target from the **Name** column with the Oracle WebLogic Server Domain type. On this page, all links, menu items, tabs, and sections on this page are licensed.
Oracle WebLogic Server Cluster page	From the Enterprise Summary page, click the **Targets** menu, then **Middleware**. Click the **Type** column to sort the target types. Select a target from the **Name** column with the Oracle WebLogic Server Cluster type. On this page, all links, menu items, tabs, and sections on this page are licensed.
Oracle WebLogic Managed Server page	From the Enterprise Summary page, click the **Targets** menu, then **Middleware**. Click the **Type** column to sort the target types. Select a target from the **Name** column with the Oracle WebLogic Managed Server type. On this page, all links, menu items, tabs, and sections on this page are licensed

3.1.2.7 Licensed Links Applicable to Service Level Management

See Enterprise Manager Cloud Control Service Level Management in Chapter 7, "End User Monitoring.".

3.1.2.8 Licensed Links Applicable to Coherence Management

See Accessing Management Pack for Oracle Coherence Licensed Links of the "Management Pack for Oracle Coherence" section for the Coherence Management links.

3.1.2.9 Licensed Links Applicable to Business Transaction Management

Licensed Page/Link	How to Access
All pages, links, menus, etc., begin from the Oracle Business Transaction Management Administrative console:	
Administration page	Select the **Administration** menu.
Alerts page	Select the **Alerts** menu.
Dashboards page	Select the **Dashboards** menu.
Maps page	Select the **Maps** menu.
MyView page	Select the **MyView** menu.
Policies page	Select the **Policies** menu.
Usage page	Select the **Usage** menu.
All navigation tree nodes as well as all tabbed pane links and data available on these pages are licensed.	

3.1.2.10 Licensed Links Applicable to Business Application

The following links are licensable for Business Application targets:

Licensed Page/Link	How to Access
Real User Experience (RUEI) Data	From the Enterprise Manager home page, click the **Targets** menu, then select **Business Application**. Select a Business Application target from the list. On the Business Application home page, select the **Business Application** target menu, then select **Real User Experience (RUEI)**, and finally **RUEI** data. All links in the page are licensed by the Real User Experience Insight pack.
RUEI Session Diagnostics	From the Enterprise Manager home page, click the **Targets** menu, then select **Business Application**. Select a Business Application target from the list. On the Business Application home page, select the **Business Application** target menu, the select **Real User Experience (RUEI)**, and finally **RUEI Session Diagnostics**. All links in the page are licensed by the Real User Experience Insight pack.
RUEI Metrics	From the Enterprise Manager home page, click the **Targets** menu, then select **Business Application**. Select a Business Application target from the list. On the Business Application home page, select the **Business Application** target menu, then **select Real User Experience (RUEI)**, and finally **RUEI Session Diagnostics**. All links in the page are licensed by the Real User Experience Insight pack.
Business Transaction Drill-Down Page	From the Enterprise Manager home page, click the **Targets** menu, then select **Business Application**. Select a Business Application target from the list. On the Business Application home page, select any link within the Business Transaction Region.

From the Business Application menu, access is available to the home page. There are licensable links on regions that could be part of the home page under Real User Experience Insight. These licensable links could include the following regions:

Business Application home page	All functions of the mentioned regions are licensed by Real User Experience Insight.
- RUEI - Key Performance Indicators (KPI) - RUEI - Top Executed User Requests - RUEI - Top user and application Violations - RUEI - Top Users - RUEI - User Flows - Service Test Status - SLA Dashboard - SLA Summary Region	

3.1.2.11 Licensed Links Applicable to Exalogic Elastic Cloud Management

The following links are licensable for Exalogic Elastic Cloud Management:

Licensed Page/Link	How to Access
WebLogic Domains Summary page	From the Enterprise Manager home page, click the **Targets** menu, then select **Exalogic**. Select an Exalogic target from the list. On the Exalogic target's home page, select the **Exalogic Elastic Cloud** target menu, then select **WebLogic Domains**, and finally **Summary**. All links in the page are licensed by the WebLogic Server Management Pack Enterprise Edition.

Licensed Page/Link	How to Access
WebLogic Domains Members page	From the Enterprise Manager home page, click the **Targets** menu, then select **Exalogic**. Select an Exalogic target from the list. On the Exalogic target's home page, select the **Exalogic Elastic Cloud** target menu, then select **WebLogic Domains**, and finally **Members**. All links in the page are licensed by the WebLogic Server Management Pack Enterprise Edition.
Coherence Clusters page	From the Enterprise Manager home page, click the **Targets** menu, then select **Exalogic**. Select an Exalogic target from the list. On the Exalogic target's home page, select the **Exalogic Elastic Cloud** target menu, then select **Coherence Clusters**. All links in the page are licensed by the WebLogic Server Management Pack Enterprise Edition.

3.1.2.12 Licensed Links Applicable to Oracle Application Server 10g

Licensed Page/Link	How to Access
Patch link	From the Oracle Application Server home page, this link in the Related Links section is licensed.
Deployments section links	From the Oracle Application Server Administration page, all links in the Deployment section are licensed
Oracle Application Server Target Types	
Metrics link	From the Middleware sub-tab, click an **Oracle Application Server Cluster** link. On the Oracle Application Server Cluster page, this link is licensed.
■ Availability in the General section ■ Alert History and notifications functionality in the Related Links section ■ All Metrics and Blackouts in the Related Links section	From the Middleware sub-tab, click an **Oracle Middleware** link. On the Oracle Application Server page, these links are licensed. From the Application Serer page: ■ Click an **OC4J** link. On the OC4J page, these links are licensed. ■ Click an **Oracle HTTP Server** link. On the Oracle HTTP Server page, these links are licensed. ■ Click a **Web Cache** link. On the Web Cache page, these links are licensed.
Performance Links section links	From the Oracle Application Server page, click the **Performance** tab. On the Application Server Performance page, all links in the Performance Links section are licensed. From the OC4J page, click the **Performance** tab. On the OC4J Performance page, all links in the Performance Links section are licensed. From the Oracle HTTP Server page, click the **Server Performance** tab. On the HTTP Server Performance page, all links in the Performance Links section are licensed. From the Web Cache page, click the **Performance** tab. On the Web Cache Performance page, all links in the Performance Links section are licensed.
Virtual Host Performance tab	From the HTTP Server Home page, click the **Virtual Host Performance** tab. This tab is a licensed.
Application Server Instance Page	

Licensed Page/Link	How to Access
Oracle home link	From the Middleware page, click a link for an **Oracle Application Server**. On the Oracle Application Server Instance page, this link in the General section is licensed.
Policies link	From the Middleware page, click a link for an **Oracle Application Server**. On the Oracle Application Server Instance page, click the **Metric and Policy Settings** link in the Related Links section. On the Metric and Policy Settings page, this link is licensed.
■ Alerts and Policy Violations links ■ Disabled Policies links	From the Middleware page, click a link for an **Oracle Application Server**. On the Oracle Application Server Instance page, click the **Reports** link in the Related Links section. On the Report Definitions page, these links in the Monitoring section are licensed.
■ Configuration section ■ Configuration Searches section	From the Middleware page, click a link for an **Oracle Application Server**. On the Oracle Application Server Instance page, click the **Administration** sub-tab. All links in these sections are licensed.
Policy Violations link	From the Middleware page, click a link for an **Oracle Application Server**. On the Oracle Application Server Instance page, click the **Topology** sub-tab. On the Topology page, select a target on the page. This link in the Selection Details section is licensed.
Oracle HTTP Server Pages	
Oracle home link	From the Middleware page, click a link for an **Oracle HTTP Server**. On the Oracle HTTP Server page, this link in the General section is licensed.
Policy Violations links	From the Middleware page, click a link for an **Oracle HTTP Server**. On the Oracle HTTP Server Instance page, these links in the Policy Violations section are licensed.
Security links	From the Middleware page, click a link for an **Oracle HTTP Server**. On the Oracle HTTP Server Instance page, all links in the Security section are licensed.
Policies link	From the Middleware page, click a link for an **Oracle HTTP Server**. On the Oracle HTTP Server Instance page, click the **Metric and Policy Settings** link in the Related Links section. On the Metric and Policy Settings page, this link is licensed.
■ Alerts and Policy Violations links ■ Disabled Policies links	From the Middleware page, click a link for an **Oracle HTTP Server**. On the Oracle HTTP Server Instance page, click the **Reports** link in the Related Links section. On the Report Definitions page, these links in the Monitoring section are licensed.
■ Configuration section ■ Configuration Searches section	From the Middleware page, click a link for an **Oracle HTTP Server**. On the Oracle HTTP Server Instance page, click the **Administration** sub-tab. All links in these sections are licensed.
Web Cache Target	
Oracle home link	From the Middleware page, click a link for an **Oracle Web Cache**. On the Oracle Web Cache page, this link in the General section is licensed.
Policy Violations links	From the Middleware page, click a link for an **Oracle Web Cache**. On the Oracle Web Cache page, these links in the Policy Violations section are licensed.

Licensed Page/Link	How to Access
Security links	From the Middleware page, click a link for an **Oracle Web Cache**. On the Oracle Web Cache page, all links in the Security section are licensed.
Policies link	From the Middleware page, click a link for an **Oracle Web Cache**. On the Oracle Web Cache page, click the **Metric and Policy Settings** link in the Related Links section. On the Metric and Policy Settings page, this link is licensed.
■ Alerts and Policy Violations links ■ Disabled Policies links	From the Middleware page, click a link for an **Oracle Web Cache**. On the Oracle Web Cache page, click the **Reports** link in the Related Links section. On the Report Definitions page, these links in the Monitoring section are licensed.
■ Configuration section ■ Configuration Searches section	From the Middleware page, click a link for an **Oracle Web Cache**. On the Oracle Web Cache page, click the **Administration** sub-tab. All links in these sections are licensed.
OC4J Target	
Oracle home link	From the Middleware page, click a link for an **OC4J**. On the OC4J page, this link in the General section is licensed.
Policies link	From the Middleware page, click a link for an **OC4J**. On the OC4J page, click the **Metric and Policy Settings** link in the Related Links section. On the Metric and Policy Settings page, this link is licensed.
■ Alerts and Policy Violations links ■ Disabled Policies links	From the Middleware page, click a link for an **OC4J**. On the OC4J page, click the **Reports** link in the Related Links section. On the Report Definitions page, these links in the Monitoring section are licensed.
■ Configuration section ■ Configuration Searches section	From the Middleware page, click a link for an **OC4J**. On the OC4J page, click the **Administration** sub-tab. All links in these sections are licensed.
Policy Violations links	From the Middleware page, click a link for an **OC4J**. On the OC4J page, these links in the Policy Violations section are licensed.
Security links	From the Middleware page, click a link for an **OC4J**. On the OC4J page, all links in the Security section are licensed.
Other Oracle Application Server 10g Components	
From the Middleware sub-tab, access is available to other Oracle Application Server 10g components (such as Oracle Forms Services). There are licensable links on these additional component home pages under the WebLogic Server Management Pack Enterprise Edition. These licensable links could include the following:	
Oracle home link	In the General section, if a link to Oracle home exists, the link is licensed.

Licensed Page/Link	How to Access
Policies link	In the Related Links section, click the **Metric and Policy Settings** link. On the Metric and Policy Settings page, this link is licensed
	On the Oracle Application Server Integration B2B page, click the **Metric and Policy Settings** link in the Related Links section. On the Metric and Policy Settings page, this link is licensed.
	On the Oracle Workflow page, click the **Metric and Policy Settings** link in the Related Links section. On the Metric and Policy Settings page, this link is licensed.
	On the Oracle CMSDK page, click the **Metric and Policy Settings** link in the Related Links section. On the Metric and Policy Settings page, this link is licensed.
▪ Alerts and Policy Violations links ▪ Disabled Policies links	In the Related Links section, click the **Reports** link. On the Report Definitions page, these links in the Monitoring section are licensed.
	On the Oracle Application Server Integration B2B page, click the **Reports** link in the Related Links section. On the Report Definitions page, these links in the Monitoring section are licensed.
	On the Oracle Workflow page, click the **Reports** link in the Related Links section. On the Report Definitions page, these links in the Monitoring section are licensed.
	On the Oracle CMSDK page, click the **Reports** link in the Related Links section. On the Report Definitions page, these links in the Monitoring section are licensed.
Oracle Application Server Farm Pages	
Policy Violation links	From the Middleware page, select a **farm**. On the Oracle Application Server Farm page, these links in the Policy Violation section are licensed.
	From the Middleware page, select a **farm**. On the Oracle Application Server Farm page, click the **Topology** sub-tab. The Policy Violations link in the Selection Details section is licensed.
Changes links	From the Middleware page, select a **farm**. On the Oracle Application Server Farm page, these links in the Configuration Changes section are licensed.
Security Policy Violations links	From the Middleware page, select a **farm**. On the Oracle Application Server Farm page, these links in the Security Policy Violations section are licensed.
▪ Alerts and Policy Violations links ▪ Disabled Policies links	From the Middleware page, select a **farm**. On the Oracle Application Server Farm page, click the **Reports** link in the Related Links section. On the Report Definitions page, these links in the Monitoring section are licensed.
▪ Deployments section ▪ Configuration Searches section	From the Middleware page, select a **farm**. On the Oracle Application Server Farm page, click the **Administration** sub-tab. All links in these sections are licensed.
Policy Violations section	From the Middleware page, select a **farm**. On the Oracle Application Server Farm page, click the **Members** sub-tab. All links in this section are licensed.

Licensed Page/Link	How to Access
Policy Violations column	From the Middleware page, select a **farm**. On the Oracle Application Server Farm page, Metrics page, Administration page, and Members page, click the **Launch Dashboard** button. All links in this column are licensed.
Oracle Application Server Cluster Pages	
Policy Violation links	From the Middleware page, select a **cluster**. On the Oracle Application Server Cluster page, these links in the Policy Violation section are licensed.
	From the Middleware page, select a **Cluster**. On the Oracle Application Server Cluster page, click the **Topology** sub-tab, then select a **target** on the page. This link in the Selection Details section is licensed.
Changes links	From the Middleware page, select a **Cluster**. On the Oracle Application Server Cluster page, these links in the Configuration Changes section are licensed.
Security Policy Violations links	From the Middleware page, select a **Cluster**. On the Oracle Application Server Cluster page, these links in the Security Policy Violations section are licensed.
■ Alerts and Policy Violations links ■ Disabled Policies links	From the Middleware page, select a **Cluster**. On the Oracle Application Server Cluster page, click the **Reports** link in the Related Links section. On the Report Definitions page, these links in the Monitoring section are licensed.
■ Deployments section ■ Configuration Searches section	From the Middleware page, select a **Cluster**. On the Oracle Application Server Cluster page, click the **Administration** sub-tab. All links in these sections are licensed.
Policy Violations section	From the Middleware page, select a **Cluster**. On the Oracle Application Server Cluster page, click the **Members** sub-tab. All links in this section are licensed.
Policy Violations column	From the Middleware page, select a **Cluster**. On the Oracle Application Server Cluster page, J2EE Applications page, Metrics page, Administration page, and Members page, click the **Launch Dashboard** button. All links in this column are licensed.
HTTP Server HA Group	
You can access HTTP Server HA Group pages from the **All Targets** sub-tab. To display the available HTTP Server HA Group, select **HTTP Server HA Group** from the Search list, then click **Go**. Select a HTPP Server HA Group from the search results to display its home page.	
Configuration Changes links	On the HTTP Server HA Group Home page, these links in the Configuration Changes section are licensed.
Policy Violation links	On the HTTP Server HA Group Home page, these links in the Policy Violation section are licensed.
Security Policy Violation links	On the HTTP Server HA Group Home page, these links in the Security Policy Violation section are licensed.
Critical Patch Advisories for Oracle Homes links	On the HTTP Server HA Group Home page, these links in the Critical Patch Advisories section are licensed.
■ Alerts and Policy Violations links ■ Disabled Policies links	On the HTTP Server HA Group Home page, click the **Reports** link in the Related Links section. On the Report Definitions page, these links in the Monitoring section are licensed.
■ Deployments section ■ Configuration section	On the HTTP Server HA Group Home page, click the **Administration** sub-tab. All links in these sections are licensed.

Licensed Page/Link	How to Access
Policy Violation section	On the HTTP Server HA Group Home page, click the **Members** sub-tab. This section is licensed.
Policy Violations column	On the HTTP Server HA Group Home page, Charts page, Administration page, and Members page, click the **Launch Dashboard** button. All links in this column are licensed.
OC4J HA Group	
You can access OC4J HA Group pages from the **All Targets** sub-tab. To display the available OC4J HA Group, select **OC4J HA Group** from the Search list, then click **Go**. Select an OC4J HA Group from the search results to display its home page.	
Configuration Changes links	On the OC4J HA Group page, these links in the Configuration Changes section are licensed.
Policy Violation links	On the OC4J HA Group page, these links in the Policy Violation section are licensed.
Security Policy Violation links	On the OC4J HA Group page, these links in the Security Policy Violation section are licensed.
Critical Patch Advisories for Oracle Homes links	On the OC4J HA Group page, these links in the Critical Patch Advisories section are licensed.
■ Alerts and Policy Violations links ■ Disabled Policies links	On the OC4J HA Group page, click the **Reports** link in the Related Links section. On the Report Definitions page, these links in the Monitoring section are licensed.
■ Deployments section ■ Configuration section	On the OC4J HA Group page, click the **Administration** sub-tab. All links in these sections are licensed.
Policy Violation section	On the OC4J HA Group page, click the **Members** sub-tab. This section is licensed.
Policy Violations column	On the OC4J HA Group page, Administration page, Charts page, and Members page, click the **Launch Dashboard** button. All links in this column are licensed.

3.1.3 Oracle WebLogic Server Management Pack Licensed Repository Views

The following repository views are part of the WebLogic Server Management Pack Enterprise Edition:

Blackout Views	Inventory Views
MGMT$BLACKOUT_HISTORY MGMT$BLACKOUTS	MGMT$METRIC_CATEGORIES MGMT$GROUP_FLAT_MEMBERSHIPS

Monitoring Views	Compliance Views
MGMT$ALERT_ANNOTATIONS	MGMT$COMPLIANCE_STANDARD_RULE
MGMT$ALERT_NOTIF_LOG	MGMT$COMPLIANCE_STANDARD
MGMT$TARGET_METRIC_COLLECTIONS	MGMT$COMPLIANCE_STANDARD_GROUP
MGMT$TARGET_METRIC_SETTINGS	MGMT$CS_EVAL_SUMMARY
MGMT$AVAILABILITY_CURRENT	MGMT$COMPOSITE_CS_EVAL_SUMMARY
MGMT$AVAILABILITY_HISTORY	MGMT$CS_RULE_EVAL_SUMMARY
MGMT$ALERT_CURRENT	MGMT$CS_GROUP_EVAL_SUMMARY
MGMT$ALERT_HISTORY	MGMT$CS_TARGET_ASSOC
MGMT$METRIC_DETAILS	MGMT$CCC_ALL_OBSERVATIONS
MGMT$METRIC_CURRENT	MGMT$CCC_ALL_OBS_BUNDLES
MGMT$METRIC_HOURLY	MGMT$CCC_DIAG_ANALYTICS
MGMT$METRIC_DAILY	MGMT$CCC_DIAG_QUEUEBACKLOG

Configuration Views	
MGMT$EMAS_GLASSFISH_DOMAIN	MGMT$WEBLOGIC_JDBCDATASOURCE
MGMT$EMAS_GLASSFISH_NODES	MGMT$WEBLOGIC_JDBCMULTIDS
MGMT$EMAS_GLASSFISH_DATASOURCE	MGMT$WEBLOGIC_JMSCONNFACTORY
MGMT$EMAS_GLASSFISH_SVR_PROP	MGMT$WEBLOGIC_JMSQUEUE
MGMT$EMAS_GLASSFISH_DS_PROP	MGMT$WEBLOGIC_JMSTOPIC
MGMT$EMAS_GLASSFISH_SERVER	MGMT$WEBLOGIC_JOLTCONNPOOL
MGMT$EMAS_GLASSFISH_NW_LSTNR	MGMT$WEBLOGIC_MACHINE
MGMT$J2EE_APPLICATION	MGMT$WEBLOGIC_NETWORK_CHANNELS
MGMT$J2EEAPP_EJBCOMPONENT	MGMT$WEBLOGIC_NODEMANAGER
MGMT$J2EEAPP_JRFWS	MGMT$WEBLOGIC_OPSSSYSPROP
MGMT$J2EEAPP_JRFWSOPER	MGMT$WEBLOGIC_RACONFIG
MGMT$J2EEAPP_JRFWSPOLICY	MGMT$WEBLOGIC_RAOUTBOUNDCONFIG
MGMT$J2EEAPP_JRFWSPORT	MGMT$WEBLOGIC_RESOURCECONFIG
MGMT$J2EEAPP_WEBAPPCOMPONENT	MGMT$WEBLOGIC_SERVER
MGMT$J2EEAPP_WSCONFIG	MGMT$WEBLOGIC_STARTSHUTCLASSES
MGMT$J2EEAPP_WSPORTCONFIG	MGMT$WEBLOGIC_VIRTUALHOST
MGMT$WEBLOGIC_APPLICATIONS	MGMT$WEBLOGIC_WEBAPPCOMPONENT
MGMT$WEBLOGIC_CLUSTER	MGMT$WEBLOGIC_WORKMANAGER
MGMT$WEBLOGIC_DOMAIN	MGMT$WEBLOGIC_WSCONFIG
MGMT$WEBLOGIC_EJBCOMPONENT	

Oracle HTTP Server (OHS) Configuration Views	
MGMT$OHS_CIPHERSUITES	MGMT$EMAS_OHS_COMPRESSION
MGMT$OHS_CONFIGFILES	MGMT$EMAS_OHS_FUSAPPS
MGMT$OHS_GENERAL	MGMT$EMAS_OHS_GENERAL
MGMT$OHS_LISTENADDRESSES	MGMT$EMAS_OHS_PERFRELATED
MGMT$OHS_PERFRELATED	MGMT$EMAS_OHS_ROUTINGGENERAL
MGMT$OHS_VIRTUALHOSTS	MGMT$EMAS_OHS_ROUTINGLOCATIONS
MGMT$WEBCACHE_TO_OHS_ROUTING	

3.1.4 Oracle WebLogic Server Management Pack Licensed Reports

The following reports are part of the WebLogic Server Management Pack Enterprise Edition:

- All reports in the category of **Oracle Home Patch Advisories** that pertain to Oracle Application Server targets are licensable.

- WebLogic Server Health Check Report.

3.1.5 Oracle WebLogic Management Pack Licensed CLI Verbs

The following Enterprise Manager command-line interface (CLI) verbs are licensed as part of the WebLogic Server Management Pack Enterprise Edition.

add_beacon	get_siteguard_configuration
add_siteguard_script_hosts	get_siteguard_credential_association
add_swlib_storage_location	get_siteguard_script_hosts
apply_template_tests	get_siteguard_scripts
assign_test_to_target	list_aru_languages
clone_as_home	list_aru_platforms
create_diag_snapshot	list_aru_products
create_fmw_domain_profile	list_aru_releases
create_fmw_home_profile	list_patch_plans
create_inst_media_profile	list_swlib_entities
create_jeeappcomp	list_swlib_entity_subtypes
create_operation_plan	list_swlib_entity_types
create_patch_plan	list_swlib_folders
create_siteguard_configuration	list_swlib_storage_locations
create_siteguard_credential_association	provision
create_siteguard_script	refer_swlib_entity_files
create_swlib_entity	reimport_swlib_metadata
create_swlib_folder	remove_beacon
delete_operation_plan	remove_swlib_storage_location
delete_siteguard_configuration	run_prechecks
delete_siteguard_credential_association	search_patches
delete_siteguard_script	set_availability
delete_siteguard_script_hosts	set_connection_mode
delete_test	set_key_beacons_and_tests
describe_patch_plan_input	set_patch_plan_data
disable_test	show_patch_plan
enable_test	submit_operation_plan
extend_as_home	submit_patch_plan
extract_template	submit_procedure
get_connection_mode	sync_beacon
get_instances	update_operation_plan
get_operation_plan_details	update_siteguard_configuration
get_operation_plans	update_siteguard_credential_association
get_patch_plan_data	update_siteguard_script
get_procedure_types	update_swlib_entity
get_procedure_xml	upload_jeeappcomp_file
get_procedures	upload_swlib_entity_files

3.1.6 WebLogic Server Management Pack Enterprise Edition Restricted Use License

WebLogic Server Management Pack Enterprise Edition includes the full capabilities of Enterprise Manager Cloud Control Service Level Management.

See Enterprise Manager Cloud Control Service Level Management in Chapter 7 for more information.

3.2 SOA Management Pack Enterprise Edition

This pack delivers comprehensive management and modeling capabilities for a Service-Oriented Architecture (SOA)-based environment. By combining SOA run-time governance, business-IT alignment, model-driven metrics, and SOA infrastructure management with Oracle's system management solution, Enterprise Manager Cloud

Control significantly reduces the cost and complexity of managing SOA-based environments.

This pack supports the following Cloud Control SOA targets:

- Business Process Execution Language (BPEL)
- Oracle Service Bus (service-bus)
- Oracle Service Bus Cluster
- Oracle SOA Suite Infrastructure (soa-infra)
- Oracle SOA Suite Infrastructure Cluster
- Oracle SOA Suite SOA Composites
- Scheduling Service (ESS)

This pack also supports the following Application Dependency and Performance (ADP) targets:

- Business Process Execution Language (BPEL)
- Oracle Enterprise Service Bus (OESB)
- Oracle Service Bus (service-bus)
- Oracle SOA Suite SOA Composites

This pack also supports Business Transaction Management features within the SOA Management Pack Enterprise Edition.

Note: License to provision SOA Suite, BPM Suite, Oracle Service Bus (OSB), or AIA or related discovered components of those platforms is included as part of SOA Management Pack Enterprise Edition (including user-defined and the built-in "Provision Middleware" deployment procedures).

The following sections provide SOA Management Pack Enterprise Edition licensing information for Cloud Control and Business Transaction Management target types:

- Licensing for Cloud Control SOA Targets
- Licensing for Targets Related to Application Dependency and Performance
- Licensing for Business Transaction Management

3.2.1 Licensing for Cloud Control SOA Targets

This portion of the pack delivers comprehensive management and modeling capabilities for an SOA-based environment. The following sections describe the licensed features and links of this management pack offered by Enterprise Manager:

- Features
- Accessing the Licensed Links

3.2.1.1 Features

The SOA Management Pack Enterprise Edition Cloud Control targets include the following features:

Feature	Description
Adapter metrics	Provide throughput and error metrics for different adapters in graphical format.
Application dependency and performance	Provide a model-driven, top-down approach within development, quality assurance (QA), staging, and production environments.
Blackouts	Suspend monitoring on targets to support scheduled maintenance periods.
Business-IT alignment	Provide integration for business KPIs and system metrics in one system for correlation and trending.
Centralized management console	Monitor and manage all enterprise components from a central location.
Change Activity Plans	Provide the ability to plan, track in real time, and execute data-centerwide change activities. Activities include: PSU patch rollouts, database consolidation to Exadata, etc.
Configuration management	Collect configuration information for the BPEL Process Manager server/domains/processes and Oracle Service Bus.
Deployment automation	Automate deployment of BPEL suitcases, OSB resources, OSB Domains, SOA artifacts, SOA domains, and SOA composites.
Discovery and service modeling	Provide discovery of Oracle BPEL processes, Oracle Service Bus-based business and proxy services. Provide automated system modeling capabilities for the SOA infrastructure.
End-to-end transaction tracing	Trace transactions across distributed application components, and monitor and measure performance characteristics of each component.
Historical analysis and reporting	Store collected metric and configuration data in a central repository.
Infrastructure management	Monitor availability and performance of SOA infrastructure components.
Management Connectors	Helpdesk (ticketing) connectors open helpdesk tickets for incidents raised in Enterprise Manager. Event connectors share event information with other management systems.
Metric and Alert/Event History	View metric and alert/event history and its associated details.
Metric Extensions	Create new metrics to monitor conditions specific to customer environments.
Monitoring Templates and Template Collections	Monitoring Templates encapsulate target monitoring settings and can later be applied against many targets. Template Collections (with administration groups) automate the deployment of management settings on targets as they join the group.
Notifications	Define and use different notification methods including e-mail, running custom OS scripts, PL/SQL procedures and SNMP traps; repeat notifications, use of notification-related actions in incident rule sets, administrator notification schedules.
Runtime governance	Define SOAP tests to measure and record availability and performance of partner links (or any Web service) and business/proxy services for historical trending, troubleshooting, and root cause analysis purposes

Feature	Description
Service level management	Monitor services from the end-user's perspective using service tests or synthetic transactions, model relationships between services and underlying IT components, and report on achieved service levels

3.2.1.2 Accessing the Licensed Links

Licensed Page/Link	How to Access
BPEL Process Manager target pages	From the Enterprise Summary page, select **Oracle BPEL Process Manager** from the Target Search drop-down menu, then click **Go**. A list of BPEL Process Manager targets appears. All target pages linked from this list are licensed.
Process List page	From the Oracle BPEL Process Manager page, click the **Processes** link at the top of the page. The BPEL Process List page appears, which shows all the deployed BPEL processes. All links and controls on the Process List page are licensed.
Oracle BPEL Process page	From the Oracle BPEL Process Manager page, click on one of the **processes** in the list. The Oracle BPEL Process page appears. All links and controls on the Oracle BPEL Process page are licensed.
Oracle Service Bus targets	From the Enterprise Summary page, select **Oracle Service Bus** from the Target Search drop-down menu, then click **Go**. A list of Oracle Service Bus targets appears. All target pages linked from this list are licensed.
■ SOA Artifacts Provisioning ■ Deploy SOA Composites ■ BPEL Process Provisioning	From the Deployments tab, click the **Deployment Procedures** link. These deployment procedure links are licensed.
■ SOA Home link ■ Application Dependency and Performance link	From the Enterprise Manager Cloud Control Middleware tab, these links are licensed.
■ Policy Enforcement Dashboard ■ Registered Services ■ Saved Tests	From the WebLogic Domain drop-down menu, select **Web Services**. These selections are licensed.
Save Test button	From the Web Services selection above, select the **Test Web Services** menu item. This button is licensed.
■ Faults and Rejected Messages tab ■ Deployed Composites tab ■ Dehydration Diagnostics tab	From the SOA Infrastructure menu accessible as a sub-target of a WebLogic Domain, these tabs are licensed.
■ Monitoring menu ■ Provisioning menu ■ Configuration menu	From the SOA Infrastructure menu accessible as a sub-target of a WebLogic Domain, these menus and all sub-items are licensed.
Blackouts	From the SOA Infrastructure menu accessible as a sub-target of a WebLogic Domain, this item under the Control menu is licensed.

Licensed Page/Link	How to Access
Change Activity Plans	From the Enterprise Manager home page, click the **Enterprise** menu, then **Configuration**. The **Change Activity Plans** and **My Tasks** items are licensable as part of the SOA Management Pack Enterprise Edition.
Faults tab	From the SOA Infrastructure menu accessible as a sub-target of a WebLogic Domain, select the **Service Engine** menu item, then the **BPEL Engine** sub-menu item. On the BPEL Engine page, this tab is licensed.

3.2.2 Licensing for Targets Related to Application Dependency and Performance

Oracle Enterprise Manager contains functionality related to application dependencies and performance for SOA, Portal, and Java Enterprise Edition applications. The following sections describe the licensed features and links of this management pack offered by Enterprise Manager:

- Features
- Accessing the Licensed Links
- Licensed Reports
- Licensed Command Line Interface (CLI) Verbs

3.2.2.1 Features

The SOA Management Pack Enterprise Edition includes the following application dependency and performance features only for SOA components:

Feature	Description
Automatic modeling and discovery	Automatically model and discover management applications displaying multiple views of the application, including the topology, function/flow, and architectural views.
Contextual visibility into SOA metrics	Provide drill-down contextual visibility into SOA metrics.
Service-level objectives	Provide service-level objectives (SLOs) at any point within the architecture for indicators and alerts.

> **Note:** Within the SOA Management Pack Enterprise Edition, application dependency and performance licensing is restricted to SOA, ESB, and OSB components and does not include Portal, Pageflow, Java EE, or Web Service components.

3.2.2.2 Accessing the Licensed Links

Licensed Page/Link	How to Access
- Oracle Enterprise Manager - BPEL Processes link, sub-nodes - ESB link, all sub-nodes - OSB link, all sub-nodes - Composites link, all sub-nodes - AIA link, all sub-nodes - Web Services link, all sub-nodes - Integration link, all sub-nodes - Processes link, all sub-nodes	From the Enterprise Summary page, click the **Targets** menu, then **Middleware**. On the Middleware page, click the **Application Dependency and Performance** link at the bottom of the page. From the upper-left navigation pane in the resulting view, click the **Monitor** tab. These links and sub-nodes, including all of the associated links in the right-hand pane, and any pages, views, or links as well as the items they contain are licensed.
In addition to the links and sub-nodes, all tabbed pane links and data available in the right-hand pane as well as all links available from any of the items in the tool bar or by double-clicking an item in the right-hand pane are licensed.	
- Applications link, all sub-nodes - Resources link, all sub-nodes	
In addition to the links and sub-nodes, all tabbed pane links and data available in the right-hand pane as well as all links available from any of the items in the tool bar or by double-clicking an item in the right-hand pane are licensed, except for these sub-nodes, which are excluded if they appear: Portals, WebCenter, Services, Pageflows.	
Application Dependency and Performance User Interface page	From the Application Dependency and Performance User Interface default view, all drop-down menu items and sub-items, navigation bars, lower information bar (bottom of interface), and time frame modification features at the top of the interface are licensed.
Configure page	From the Application Dependency and Performance User Interface default view, click the **Configure** tab. All navigation tree nodes as well as all tabbed pane links and data available in the right pane are licensed.
SOA Diagnostic Job	From the SOA Infrastructure target menu, select the **Diagnostics** sub-menu and then either select **Schedule SOA Diagnostic Job** to schedule a new job or select **SOA Diagnostic Job** to view previously submitted jobs.

3.2.2.3 Licensed Reports

All reports associated with the following target types are part of the SOA Management Pack Enterprise Edition:

- Oracle BPEL Process Manager
- Oracle Service Bus
- SOA Composite
- SOA Infrastructure
- SOA Partition

3.2.2.4 Licensed Command Line Interface (CLI) Verbs

The following Enterprise Manager CLI verbs are licensed as part of the SOA Management Pack Enterprise Edition.

```
get_instances                          get_procedure_types
get_instance_data_xml                  get_procedure_xml
get_procedures                         submit_procedure
```

3.2.3 Licensing for Business Transaction Management

The SOA Management Pack Enterprise Edition includes the following Business Transaction Management features only for Oracle Service Bus and Oracle SOA Suite:

Feature	Description
Contextual visibility	Provide drill-down contextual visibility into SOA and OSB metrics.
Exception management	Provide transaction alerting and searching to locate exceptions and errors in transactions that span multiple application components
Transaction discovery	Discover, record, and correlate transactions as they flow across components that span multiple JVMs, containers, and platforms.
Transaction-level agreements	Provide transaction-level objectives (TLOs) that span multiple interacting components.

3.2.3.1 Business Transaction Management Restricted-use Licensing

Oracle includes a restricted-use license of Oracle Service Bus (and its subcomponents) for the express purpose of monitoring endpoints for Oracle Enterprise Manager Business Transaction Management, covering creation of Proxy and Business Service in pass-through mode only. Oracle Service Bus may be configured with the Business Transaction Management observer agent in single instance and an additional instance of Oracle Service Bus may be configured for Proxy failover purposes.

3.3 Management Pack for WebCenter

The Management Pack for WebCenter provides monitoring and management for the WebCenter Content: Server, WebCenter Portal: Spaces, WebCenter Portal: Services, and WebCenter Portal: Framework. The Management Pack for WebCenter includes:

- Availability and monitoring of all components.
- Basic provisioning.
- Configuration management.
- Performance monitoring of all components.
- Historical analysis and reporting.
- Thresholds and events.
- Dashboard monitoring.

The following sections describe the licensed features and links of this management pack offered by Enterprise Manager:

- Features of Management Pack for WebCenter
- Accessing Management Pack for WebCenter Licensed Links
- WebCenter Management Pack Restricted Use License

3.3.1 Features of Management Pack for WebCenter

The Management Pack for WebCenter includes the following features:

Feature	Description
Business Application Management	Create and monitor business Application targets to provide an intuitive representation of the relationship between your applications and the end user experience and the underlying IT infrastructure.
Monitoring Templates and Template Collections	Monitoring Templates encapsulate target monitoring settings and can later be applied against many targets. Template Collections (with administration groups) automate the deployment of management settings on targets as they join the group.
Contextual visibility into Portal, Web Services, and J2EE metrics	Provide drill-down contextual visibility into Portal, Content, Web Services, and J2EE metrics
Infrastructure management	Monitor availability and performance of WebCenter infrastructure components.
Metrics visibility at any layer	Automatically generate customized dashboards and views to view metrics at any layer in the application through graphs and tables.
Historical analysis and reporting	Store collected metric and configuration data in a central repository.
Metric and Alert/Event History	View metric and alert/event history and its associated details.
Automatic modeling and discovery	Automatically model and discover management applications displaying multiple views of the application, including the topology, function/flow, and architectural views.
Configuration management	Collect configuration information for the WebCenter server/domains/processes and related artifacts.
Basic provisioning and deployment automation	Automate deployment of WebCenter applications, WebCenter resources, WebCenter Domains, WebCenter artifacts and composites.
Notifications	Define and use different notification methods including e-mail, running custom OS scripts, PL/SQL procedures and SNMP traps; repeat notifications, use of notification-related actions in incident rule sets, administrator notification schedules.
Advanced alert management	Provide notification methods, rules and schedules, metric history and associated drill-downs, ability to set blackouts, associate corrective actions with alert, user-defined metrics, metric snapshots, and monitoring templates.
Blackouts	Suspend monitoring on targets to support scheduled maintenance periods.
Service level management	Monitor services from the end-user's perspective using service tests or synthetic transactions, model relationships between services and underlying IT components, and report on achieved service levels.
Runtime governance	Define SOAP tests to measure and record availability and performance of partner links (or any Web service) and business/proxy services for historical trending, troubleshooting, and root cause analysis purposes.

Feature	Description
Metric Extensions	Create new metrics to monitor conditions specific to customer environments.

> **Note:** License to provision WebCenter Suite products or related discovered components of those platforms via user-defined procedures is included as part of Management Pack for WebCenter.

3.3.2 Accessing Management Pack for WebCenter Licensed Links

Licensed Page/Link	How to Access
■ WebCenter right-hand pane ■ Portlet Producer right-hand pane	From the Enterprise Manager Home page, select **Oracle WebCenter** from the Target Search drop-down menu, then click **Go**. A list of Oracle WebCenter targets appears. Click on any target. All alert, policy violation, and historical links in these panes are licensed.
■ Oracle Enterprise Manager link ■ Portals link, all sub-nodes ■ WebCenter link, all sub-nodes ■ Web Services link, all sub-nodes ■ Pageflows link, all sub-nodes ■ Services link, all sub-nodes ■ Processes link, all sub-nodes ■ Applications link, all sub-nodes ■ Resources link, all sub-nodes	From the Enterprise Manager Home page, click the **Targets** menu, then **Middleware**. Click **Application Performance and Dependency** under Related Links. Within the Management Pack for WebCenter Suite, licensing is restricted to Web Services, J2EE, Portal, WebCenter, and Pageflow components, and does not include BPEL, ESB, AIA, Composites, or OSB components. From the Application Dependency and Performance dashboard page, click the **Monitor** tab. These links and menu items are licensed

In addition to all links and sub-nodes, all tabbed pane links and data available in the right-hand pane as well as all links available from any of the items in the tool bar or by double-clicking an item in the right-hand pane are licensed.

■ WebCenter ■ ADF ■ All ■ Day ■ 2 hours	Select one of the applications under the **Application Deployment** node in the left-hand navigation tree, then click the **Application Deployment** drop-down menu on the page to list the contents. All pages and links from these menu items are licensed.
■ Status History ■ Alert History ■ Blackouts ■ Policy Violations ■ Policy Trend Overview	From the Portlet Producer page, click the **Portlet Producer** menu, then **Monitoring**. These links and menu items are licensed.

Licensed Page/Link	How to Access
Create/End Blackout… page	From the Portlet Producer page, click the **Portlet Producer** menu, then **Control**. This page is licensed.
	Click the **WebCenter** menu, then **Control**. This page is licensed.
■ Performance Summary ■ Service Metrics ■ Historical Service Metrics ■ Group Space Metrics ■ Historical Group Space Metrics ■ Status History ■ Alert History ■ Blackouts ■ Policy Violation ■ Policy Trend Overview	Click the **WebCenter** menu, then **Monitoring**. These links and menu items are licensed.
Configure tab link	From the upper-left navigation area, click the **Configure** tab link. All navigation tree nodes as well as all tabbed pane links and data available in the right pane are licensed.
Resources tab link	From the upper-left navigation area, click the **Resources** tab link. All navigation tree nodes as well as all tabbed pane links and data available in the right pane are licensed.
Custom Views tab link	From the upper-left navigation area, click the **Custom Views** tab link. All navigation tree nodes in the lower-left navigation tree as well as all tabbed pane links and data available in the right pane are licensed.
Middleware Provisioning	From the Enterprise Manager home page, click the **Enterprise** menu, then **Provisioning and Patching**, and finally **Procedure Library**. The following predefined procedures are licensed with the WebCenter Management Pack: ■ Provision Middleware ■ Scale up/Scale Out Middleware From the Enterprise Manager home page, click the **Enterprise** menu, then **Provisioning and Patching**, and finally **Middleware Provisioning**. All features, functions, links, buttons, and drill-downs on the Middleware Provisioning page are licensed as part of the WebCenter Management Pack - with the exception of SOA Artifacts Provisioning, Deploy SOA Composite, BPEL Process Provisioning, and Oracle Service Bus Resource Provisioning deployment procedures (these are licensable via the SOA Management Pack Enterprise Edition). Only the provisioning of WebLogic domains and artifacts required to run the WebCenter application are included in the pack. From the WebCenter Domain target home page, click the **WebCenter Domain** menu, then **Provisioning**. All features, functions, links, buttons, and drill-downs on this menu are licensed as part of the WebCenter Management - with the exception of SOA Artifacts Provisioning and Deploy SOA Composite (these are licensable via the SOA Management Pack Enterprise Edition).

3.3.3 WebCenter Management Pack Restricted Use License

WebCenter Management Pack includes the full capabilities of Enterprise Manager Cloud Control Service Level Management.

See Enterprise Manager Cloud Control Service Level Management in Chapter 7 for more information.

3.4 Management Pack for Oracle Coherence

The Management Pack for Oracle Coherence provides comprehensive monitoring, cluster management, cache management and configuration management capabilities for Coherence. This pack provides complete cluster visibility by supplying detailed metrics of various cluster artifacts and their interdependencies. The performance views can be completely customized and saved. The topology view gives graphical representation of dependencies of the components and performance hotspots. Enterprises can monitor more than one Coherence cluster from a single console. Organizations can keep track of node configuration over period of time and also change runtime configuration parameters for caches and nodes.

Enterprise Manager provides out-of-box support for metric alerts, enabling users to proactively monitor the cluster health. Various performance charts show real-time and historical performance trends. The cache data management features gives ability to perform several operations on any cache in the Coherence cluster (for example, view, import, export, purge, add index, remove index, etc.). Enterprise Manager automates the mundane tasks of setting up Coherence software and creating a cluster on distributed machines. Enterprise Manager also enables users to start and stop new nodes in an already monitored Coherence cluster. Similarly, users can also start and stop the entire cluster. User can monitor the node log files by setting patterns. Enterprise Manager generates alert when the patterns are found matching.

The following sections describe the licensed features and links of this management pack offered by Enterprise Manager:

- Features of Management Pack for Oracle Coherence
- Accessing Management Pack for Oracle Coherence Licensed Links

3.4.1 Features of Management Pack for Oracle Coherence

The Management Pack for Oracle Coherence includes the following features:

Feature	Description
Automate deployment	Automate the deployment and setup of the Coherence cluster with multiple nodes.
Blackouts	Suspend monitoring on targets to support scheduled maintenance periods.
Cache data management	Perform operations such as view, export, purge, etc., on cache data.
Complete cluster visibility	Provide detailed metrics for all Coherence components.
Configuration management	Keep track of node configuration over period of time, change runtime configuration parameters of caches, nodes and services.
Customizable performance views	Create custom performance views by selecting metrics from the metrics pallet, overlay multiple metrics on the chart, save different views.

Feature	Description
Log file monitoring	Monitor the node log files by setting patterns.
Management Connectors	Helpdesk (ticketing) connectors open helpdesk tickets for incidents raised in Enterprise Manager. Event connectors share event information with other management systems.
Metric and Alert/Event History	View metric and alert/event history and its associated details.
Metric Extensions	Create new metrics to monitor conditions specific to customer environments.
Monitor multiple clusters	Monitor multiple clusters from a single console.
Monitoring Templates and Template Collections	Monitoring Templates encapsulate target monitoring settings and can later be applied against many targets. Template Collections (with administration groups) automate the deployment of management settings on targets as they join the group.
Notifications	Define and use different notification methods including e-mail, running custom OS scripts, PL/SQL procedures and SNMP traps; repeat notifications, use of notification-related actions in incident rule sets, administrator notification schedules.
Start and stop nodes	Stop existing nodes and start new ones in a Coherence cluster.
Start and stop the cluster	Start and stop the entire Coherence cluster.
Topology view	Graphical representation of the Coherence caches, nodes and hosts with related in context performance alerts.

> **Note:** License to provision Coherence products via user-defined procedures is included as part of Management Pack for Oracle Coherence.

3.4.2 Accessing Management Pack for Oracle Coherence Licensed Links

Licensed Page/Link	How to Access
Oracle Coherence Cluster type links	From the Enterprise Summary page, click the **Targets** menu, then **Middleware**. All links and subordinate pages of the Oracle Coherence Cluster type in the table are licensed.

3.5 Management Pack for Oracle Data Integrator

Management Pack for Oracle Data Integrator leverages Oracle Enterprise Manager Cloud Control best-in-class application performance management, service level management, and configuration management capabilities to provide a centralized management solution for Oracle Data Integrator Enterprise Edition.

The following sections describe the licensed features and links of this management pack offered by Enterprise Manager:

- Features of Management Pack for Oracle Data Integrator

- Accessing Management Pack for Oracle Data Integrator Licensed Links

3.5.1 Features of Management Pack for Oracle Data Integrator

The Management Pack for Oracle Data Integrator includes the following features:

Feature	Description
Advanced alert management	Provide notification methods, rules and schedules, metric history and associated drill-downs, ability to set blackouts, associate corrective actions with alert, user-defined metrics, metric snapshots, and monitoring templates.
Automatic modeling and discovery	Automatically model and discover management applications displaying multiple views of the application, including the topology, function/flow, and architectural views.
Centralized management console	Monitor and manage all enterprise components including ODI domains from a central location.
Configuration management	Collect configuration information for the ODI Agents.
Historical analysis and reporting	Store collected metric and configuration data in a central repository.
Infrastructure management	Monitor availability and performance of ODI infrastructure components: Agents, Repositories, Sources and Targets.
Load Plan and Session Monitoring	Monitor end-to-end Oracle Data Integrator Load Plans and Sessions activity, review execution statistics and drill-down from a particular Task into a detailed report of Oracle databases activity.
Metric and Alert/Event History	View metric and alert/event history and its associated details.
Metric Extensions	Create new metrics to monitor conditions specific to customer environments.
Monitoring Templates and Template Collections	Monitoring Templates encapsulate target monitoring settings and can later be applied against many targets. Template Collections (with administration groups) automate the deployment of management settings on targets as they join the group.
Notifications	Define and use different notification methods including e-mail, running custom OS scripts, PL/SQL procedures and SNMP traps; repeat notifications, use of notification-related actions in incident rule sets, administrator notification schedules.
Performance monitoring	Provide real-time and historical performance monitoring.
Service level management	Monitor services from the end-user's perspective using service tests or synthetic transactions, model relationships between services and underlying IT components, and report on achieved service levels.

3.5.2 Accessing Management Pack for Oracle Data Integrator Licensed Links

Description	How to Access
Oracle Data Integrator homepage links	From the Enterprise Summary page, click the **Targets** menu, then **Middleware**. From the Middleware page, click on **Middleware Features** and select **ODI Home**. All links and subordinate pages of the Oracle Data Integrator Home page are licensed.

Description	How to Access
Oracle Data Integrator target type links	From the Enterprise Summary page, click the **Targets** menu, then **All Targets**. On the All Targets page, select any of the ODI target types. From the Oracle Data Integrator target target menu, these items are licensed.

3.6 Oracle Application Replay Pack

Oracle Application Replay Pack enables you to perform realistic, production scale testing of your Web and packaged Oracle applications. Unlike traditional application testing tools, it uses real production workloads to generate load against applications under test and does not require any script development or maintenance. Oracle Application Replay Pack significantly reduces testing time. It provides the most efficient, optimized and highest quality testing for validating application infrastructure changes.

The following sections describe the licensed features and links of this management pack offered by Enterprise Manager:

- Oracle Application Replay Pack Requirements
- Oracle Application Replay Pack Features
- Accessing Oracle Application Replay Pack Licensed Links
- Oracle Application Replay Pack Restricted-use Licensing

3.6.1 Oracle Application Replay Pack Requirements

Oracle Application Replay Pack requires Oracle Real User Experience Insight 12.1.0.0 for workload capture. See Chapter 7, "End User Monitoring" for more information.

3.6.2 Oracle Application Replay Pack Features

The Oracle Application Replay Pack includes the following features

Feature	Description
Workload capture	Provide workload capture support with zero overhead.
Workload replay	Replays workload with characteristics identical to production.
Reporting and analysis	Provide rich reporting support for analysis and problem detection.

3.6.3 Accessing Oracle Application Replay Pack Licensed Links

Licensed Page/Link	How to Access
Application Replay page	From the Enterprise Summary page, click the **Enterprise** menu, **Quality Management**, then **Application Replay**. All links and subordinate pages of the Application Replay page are licensed.

3.6.4 Oracle Application Replay Pack Restricted-use Licensing

Oracle Enterprise Manager Application Replay Pack includes the following restricted-use licenses:

■ Restricted-use licenses of Real User Experience Insight Accelerators for Oracle E-Business Suite, Fusion Applications, Siebel, PeopleSoft, JD Edwards EnterpriseOne applications are included under the Application Replay license.

■ Restricted-use licenses of Oracle Load Testing Developer Edition and its scripting platform OpenScript for modifying the correlation rules used for handling dynamic application parameters or session information are included under the Oracle Application Replay Pack.

3.7 Business Intelligence Management Pack

This pack provides an integrated solution for ensuring the performance and availability of Oracle Business Intelligence Enterprise Edition (Oracle BI EE) for both Release 11*g* and Release 10*g*. Using the pack, you can receive proactive alerts on impending problems for the application, examine run-time statistics to troubleshoot and tune performance, compare configurations across different environments, and keep track of configuration changes to avoid configuration-related problems.

You can use the pack with other Oracle Enterprise Manager management packs and plug-ins to achieve end-to-end management of the entire application environment, including both Oracle and non-Oracle databases, operating systems, storage, and network devices.

The following sections describe the licensed features and links of this management pack offered by Enterprise Manager:

■ Business Intelligence Management Pack Features

■ Accessing Licensed Links for BI Management Pack - Oracle BI EE 11g

■ Accessing Licensed Links for BI Management Pack - Oracle BI EE 10g

3.7.1 Business Intelligence Management Pack Features

The Business Intelligence Management Pack includes the following features:

Feature	Description
Automatic discovery	Provide support to efficiently and quickly discover targets.
Blackouts	Suppress unnecessary alerts during maintenance windows, and provide more accurate availability reporting.
Change history	Search collected configuration data and view the history of configuration changes for diagnostic and regulatory purposes.
Configuration comparison	Provide configuration diagnostics quickly. Replicate configuration in development/staging to production. Make sure that configuration settings amongst Oracle BI components in a clustered environment are consistent.
Configuration snapshot	Allow known effective configuration information to be retained for future analysis. Save configurations to a configuration file (XML file) or to the Management Repository.
Dashboard reports	Provide key query statistics for usage trending analysis.
Dashboards and reports	Visualize in one stop the health status of the BI environment.
Historical metrics	Measure usage and performance metrics for monitored Oracle BI targets. Diagnose performance problems by identifying bottlenecks in any of the monitored Oracle BI targets.

Feature	Description
Management Connectors	Helpdesk (ticketing) connectors open helpdesk tickets for incidents raised in Enterprise Manager. Event connectors share event information with other management systems.
Metric and Alert/Event History	View metric and alert/event history and its associated details.
Metric Extensions	Create new metrics to monitor conditions specific to customer environments.
Monitoring Templates and Template Collections	Monitoring Templates encapsulate target monitoring settings and can later be applied against many targets. Template Collections (with administration groups) automate the deployment of management settings on targets as they join the group.
Notifications	Define and use different notification methods including e-mail, running custom OS scripts, PL/SQL procedures and SNMP traps; repeat notifications, use of notification-related actions in incident rule sets, administrator notification schedules.
Performance charts	See detailed performance charts in a historical view to perform usage analysis and diagnose production problems.
Service level rule	Define service-level objectives based on business requirements.
Service tests and beacons	Record service tests to simulate key end-user activities, and actively measure performance and availability from an end-user perspective.

Note: License to provision Oracle Business Intelligence Enterprise Edition via user-defined procedures is included as part of Business Intelligence Management Pack.

3.7.2 Accessing Licensed Links for BI Management Pack - Oracle BI EE 11*g*

The following licensed pages and links of this pack apply to Oracle Business Intelligence-specific targets within Enterprise Manager. These targets include:

- Oracle BI Instance
- Oracle BI Cluster Controller
- Oracle BI Java Host
- Oracle BI Presentation Server
- Oracle BI Server
- Oracle BI Scheduler
- Essbase Server
- Essbase Application

Feature	How to Access
Oracle BI Instance	
- Logs* - Job Activity - Dashboard Reports - Scheduler Reports - Configuration - Compliance	From the Enterprise Summary page, click the **Targets** menu, then **All Targets**. On the All Targets page, select a target of type **Oracle BI Instance**. From the Oracle BI Instance target target menu, these items are licensed. **Note:** *The log viewer functionality is licensed with the WebLogic Server Management Pack Enterprise Edition.*

Feature	How to Access
Control	From the Enterprise Summary page, click the **Targets** menu, then **All Targets**. On the All Targets page, select a target of type **Oracle BI Instance**. From the Oracle BI Instance target Control menu, these items are licensed: ■ Create Blackout ■ End Blackout
Monitoring	From the Enterprise Summary page, click the **Targets** menu, then **All Targets**. On the All Targets page, select target of type **Oracle BI Instance**. From the Oracle BI Instance target Monitoring menu, these items are license: ■ Performance Summary ■ Status History ■ Alert History ■ Blackouts
Availability	From the Enterprise Summary page, click the **Targets** menu, then **All Targets**. On the All Targets page, select a target of type **Oracle BI Instance**. The **Availability** tab and all its sub-tabs are licensed.
Oracle BI Cluster Controller	
■ Job Activity ■ Configuration ■ Compliance	From the Enterprise Summary page, click the **Targets** menu, then **All Targets**. On the All Targets page, select a target of type **Oracle BI Cluster Controller**. On the Oracle BI Cluster Controller target menu, these items and all sub-items are licensed.
Monitoring	From the Enterprise Summary page, click the **Targets** menu, then **All Targets**. On the All Targets page, select a target of type **Oracle BI Cluster Controller**. From the Oracle BI Cluster Controller target Monitoring menu, these items are licensed: ■ Performance Summary ■ Status History ■ Alert History ■ Blackouts
Control	From the Enterprise Summary page, click the **Targets** menu, then **All Targets**. On the All Targets page, select a target of type **Oracle BI Cluster Controller**. From the Oracle BI Cluster Controller target Control menu, these items are licensed: ■ Create Blackout ■ End Blackout
Oracle BI Java host	
■ Job Activity ■ Configuration ■ Compliance	From the Enterprise Summary page, click the **Targets** menu, then **All Targets**. On the All Targets page, select a target of type **Oracle BI Java host**. On the Oracle BI Java host target menu, these items and all sub-items are licensed.

Feature	How to Access
Monitoring	From the Enterprise Summary page, click the **Targets** menu, then **All Targets**. On the All Targets page, select a target of type **Oracle BI Java host**. From the Oracle BI Java host target Monitoring menu, these items are licensed: ■ Performance Summary ■ Status History ■ Alert History ■ Blackouts
Control	From the Enterprise Summary page, click the **Targets** menu, then **All Targets**. On the All Targets page, select a target of type **Oracle BI Java host**. From the Oracle BI Java host target Control menu, these items are licensed: ■ Create Blackout ■ End Blackout
Oracle BI Presentation Server	
■ Job Activity ■ Configuration ■ Compliance	From the Enterprise Summary page, click the **Targets** menu, then **All Targets**. On the All Targets page, select a target of type **Oracle BI Presentation Server**. On the Oracle BI Presentation Server target menu, these items and all sub-items are licensed.
Monitoring	From the Enterprise Summary page, click the **Targets** menu, then **All Targets**. On the All Targets page, select a target of type **Oracle BI Presentation Server**. From the Oracle BI Presentation Server target Monitoring menu, these items are licensed: ■ Performance Summary ■ Status History ■ Alert History ■ Blackouts
Control	From the Enterprise Summary page, click the **Targets** menu, then **All Targets**. On the All Targets page, select a target of type **Oracle BI Presentation Server**. From the Oracle BI Presentation Server target Control menu, these items are licensed: ■ Create Blackout ■ End Blackout
Oracle BI Server	
■ Job Activity ■ Configuration ■ Compliance	From the Enterprise Summary page, click the **Targets** menu, then **All Targets**. On the All Targets page, select a target of type **Oracle BI Server**. On the Oracle BI Server target menu, these items and all sub-items are licensed.
Monitoring	From the Enterprise Summary page, click the **Targets** menu, then **All Targets**. On the All Targets page, select a target of type **Oracle BI Server**. From the Oracle BI Server target Monitoring menu, these items are licensed: ■ Performance Summary ■ Status History ■ Alert History ■ Blackouts

Feature	How to Access
Control	From the Enterprise Summary page, click the **Targets** menu, then **All Targets**. On the All Targets page, select a target of type **Oracle BI Server**. From the Oracle BI Server target Control menu, these items are licensed: ■ Create Blackout ■ End Blackout
Oracle BI Schedule	
■ Job Activity ■ Configuration ■ Compliance	From the Enterprise Summary page, click the **Targets** menu, then **All Targets**. On the All Targets page, select a target of type **Oracle BI Scheduler**. On the Oracle BI Scheduler target menu, these items and all sub-items are licensed.
Monitoring	From the Enterprise Summary page, click the **Targets** menu, then **All Targets**. On the All Targets page, select a target of type **Oracle BI Scheduler**. From the Oracle BI Scheduler target Monitoring menu, these items are licensed: ■ Performance Summary ■ Status History ■ Alert History ■ Blackouts
Control	From the Enterprise Summary page, click the **Targets** menu, then **All Targets**. On the All Targets page, select a target of type **Oracle BI Scheduler**. From the Oracle BI Scheduler target Control menu, these items are licensed: ■ Create Blackout ■ End Blackout
Essbase Server	
■ Job Activity ■ Configuration ■ Compliance	From the Enterprise Summary page, click the **Targets** menu, then **All Targets**. On the All Targets page, select a target of type **Essbase Server**. On the Essbase target menu, these items and all sub-items are licensed.
Monitoring	From the Enterprise Summary page, click the **Targets** menu, then **All Targets**. On the All Targets page, select a target of type **Essbase Server**. From the Essbase target Monitoring menu, these items are licensed: ■ Performance Summary ■ Status History ■ Alert History ■ Blackouts
Control	From the Enterprise Summary page, click the **Targets** menu, then **All Targets**. On the All Targets page, select a target of type **Essbase Server**. From the Essbase target Control menu, these items are licensed: ■ Create Blackout ■ End Blackout
Essbase Application	
■ Job Activity ■ Configuration ■ Compliance	From the Enterprise Summary page, click the **Targets** menu, then **All Targets**. On the All Targets page, select a target of type **Essbase Application**. On the Essbase Application target menu, these items and all sub-items are licensed.

Feature	How to Access
Monitoring	From the Enterprise Summary page, click the **Targets** menu, then **All Targets**. On the All Targets page, select a target of type **Essbase Application**. From the Essbase Application target Monitoring menu, these items are licensed: ■ Performance Summary ■ Status History ■ Alert History ■ Blackouts
Control	From the Enterprise Summary page, click the **Targets** menu, then **All Targets**. On the All Targets page, select a target of type **Essbase Application**. From the Essbase Application target Control menu, these items are licensed: ■ Create Blackout ■ End Blackout

3.7.3 Accessing Licensed Links for BI Management Pack - Oracle BI EE 10*g*

The following licensed pages and links of this pack apply to Oracle Business Intelligence-specific targets within Enterprise Manager. These targets include:

■ Oracle BI Analytics Server

■ Oracle BI Cluster Controller

■ Oracle BI Presentation Server

■ Oracle BI Scheduler

■ Oracle BI Suite Enterprise Edition

■ Oracle BI Data Warehouse Administration Console (DAC) Server

■ Hosts Running BI Components

Feature	How to Access
Oracle BI Analytics Server	
■ Monitoring ■ Control ■ Job Activity ■ Information Publisher Reports ■ Configuration ■ Compliance ■ Target Setup	From the Enterprise Summary page, click the **Targets** menu, then **All Targets**. On the All Targets page, select a target of type **Oracle BI Analytics Server**. From the Oracle BI Analytics Server target menu, these items are licensed.
Oracle BI Analytics Server Performance page	From the Enterprise Summary page, click the **Targets** menu, then **All Targets**. On the All Targets page, select an **Oracle BI Analytics Server** name. On the Oracle BI Analytics Server page, click the **Performance** sub-tab. All features on this page are licensed.
Oracle BI Analytics Server Dashboard Reports page	From the Enterprise Summary page, click the **Targets** menu, then **All Targets**. On the All Targets page, select an **Oracle BI Analytics Server** name. On the Oracle BI Analytics Server page, click the **Dashboard** sub-tab. All features on this page are licensed.

Feature	How to Access
Oracle BI Cluster Controller	
Oracle BI Cluster Controller Members page	From the Enterprise Summary page, click the **Targets** menu, then **All Targets**. On the All Targets page, select a target of type **Oracle BI Cluster Controller**. On the Oracle BI Cluster Controller page, click the **Members** sub-tab. All features on this page are licensed.
▪ Monitoring ▪ Control ▪ Job Activity ▪ Information Publisher Reports ▪ Configuration ▪ Compliance ▪ Target Setup	From the Enterprise Summary page, click the **Targets** menu, then **All Targets**. On the All Targets page, select a target of type **Oracle BI Cluster Controller**. From the Oracle BI Cluster Controller target menu, these items are licensed.
Oracle BI Presentation Server	
▪ Monitoring ▪ Control ▪ Job Activity ▪ Information Publisher Reports ▪ Configuration ▪ Compliance ▪ Target Setup	From the Enterprise Summary page, click the **Targets** menu, then **All Targets**. On the All Targets page, select a target of type **Oracle BI Presentation Server**. From the Oracle BI Presentation Server target menu, these items are licensed.
Oracle BI Presentation Server Performance page	From the Enterprise Summary page, click the **Targets** menu, then **All Targets**. On the All Targets page, select an **Oracle BI Presentation Server** name. On the Oracle BI Presentation Server page, click the **Performance** sub-tab. All features on this page are licensed.
Oracle BI Scheduler	
▪ Monitoring ▪ Control ▪ Job Activity ▪ Information Publisher Reports ▪ Configuration ▪ Compliance ▪ Target Setup ▪ Failed BI Jobs Scheduler section ▪ Next Schedule Jobs section ▪ All links in the System and Service section	From the Enterprise Summary page, click the **Targets** menu, then **All Targets**. From the All Targets page, select a target of type **Oracle BI Scheduler** name. From the Oracle BI Scheduler target menu, these items are licensed.

Feature	How to Access
Oracle BI Suite Enterprise Edition	
■ Failed BI Jobs Scheduler section ■ All links in the System and Service section ■ All links in the Alerts section ■ All links in the Policy Violations section	From the Enterprise Summary page, click the **Targets** menu, then **All Targets**. On the All Targets page, select target of type **Oracle BI Suite EE**. On the Oracle BI Suite EE page, these items are licensed.
Oracle BI Suite EE Members page	From the Enterprise Summary page, click the **Targets** menu, then **All Targets**. From the All Targets page, select an **Oracle BI Suite EE** name. On the Oracle BI Suite EE page, click the **Members** sub-tab. All features on this page are licensed.
System Home page ■ System Charts page ■ System Administration page ■ System Components page ■ System Topology page	From the Enterprise Summary page, click the **Targets** menu, then **All Targets**. From the All Targets page, select an **Oracle BI Suite EE** name. On the Oracle BI Suite EE page, select a **System name** in the System and Service section. On the System home page, all features on the page are licensed. From the System home page: ■ Select the **Charts** sub-tab. All features on this page are licensed. ■ Select the **Administration** sub-tab. All features on this page are licensed. ■ Select the **Components** sub-tab. All features on this page are licensed. ■ Select the **Topology** sub-tab. All features on this page are licensed.
System Charts page	From the Enterprise Summary page, click the **Targets** menu, then **All Targets**. From the All Targets page, select an **Oracle BI Suite EE** name. From the Oracle BI Suite EE page, select one of the following items: ■ System name ■ Service name On the corresponding page, select the **Charts** sub-tab. All features on this page are licensed.
System Administration page	From the Enterprise Summary page, click the **Targets** menu, then **All Targets**. From the All Targets page, select an **Oracle BI Suite EE** name. From the Oracle BI Suite EE page, select a **System name** in the System and Service section. On the System Home page, select the **Administration** sub-tab. All features on this page are licensed.
System Components page	From the Enterprise Summary page, click the **Targets** menu, then **All Targets**. From the All Targets page, select an **Oracle BI Suite EE** name. From the Oracle BI Suite EE page, select a **System name** in the System and Service section. On the System Home page, select the **Components** sub-tab. All features on this page are licensed.

Feature	How to Access
▪ System Topology page	From the Enterprise Summary page, click the **Targets** menu, then **All Targets**. From the All Targets page, select an **Oracle BI Suite EE** name. From the Oracle BI Suite EE page, select one of the following items: ▪ System name ▪ Service name On the corresponding page, select the **Topology** sub-tab. All features on these pages are licensed.
▪ Black Out button ▪ Availability link ▪ All links in the Key Component Summary section ▪ All links in the Related Links section	From the Enterprise Summary page, click the **Targets** menu, then **All Targets**. On the All Targets page, select an **Oracle BI Suite EE** name. On the Oracle BI Suite EE page, select a **Service name** in the System and Service section. These items are licensed.
Service System page	From the Enterprise Summary page, click the **Targets** menu, then **All Targets**. From the All Targets page, select an **Oracle BI Suite EE** name. From the Oracle BI Suite EE page, select a **Service name** in the System and Service section. On the Service Home page, select the **System** sub-tab. All features on this page are licensed. On the Service System home page, all features on the page are licensed. From the Service System home page: ▪ Select the **Charts** sub-tab. All features on this page are licensed. ▪ Select the **Test Performance** sub-tab. All features on this page are licensed. ▪ Select the **System** sub-tab. All features on this page are licensed. ▪ Select the **Topology** sub-tab. All features on this page are licensed. ▪ Select the **Monitoring Configuration** sub-tab. All features on this page are licensed.
▪ System Configuration, Root Cause Analysis Configuration, Service Tests and Beacons, Availability Definition, Performance Metrics, and Usage Metrics links ▪ All links in the Related Links section	From the Enterprise Summary page, click the **Targets** menu, then **All Targets**. From the All Targets page, select an **Oracle BI Suite EE** name. From the Oracle BI Suite EE page, select a **Service name** in the System and Service section. On the Service Home page, select the **Monitoring Configuration** sub-tab. These items are licensed.
Oracle BI Data Warehouse Administration Console (DAC) Server	
▪ Monitoring ▪ Control ▪ Job Activity ▪ Information Publisher Reports ▪ Configuration ▪ Compliance ▪ Target Setup	From the Enterprise Summary page, click the **Targets** menu, then **All Targets**. On the All Targets page, select target of type **Oracle BI DAC Server**. On the Oracle BI DAC Server target menu, these items are licensed.

Feature	How to Access
Oracle BI DAC Server Performance page	From the Enterprise Summary page, click the **Targets** menu, then **All Targets**. On the All Targets page, select an **Oracle BI DAC Server** name. On the Oracle BI DAC Server page, click the **Performance** sub-tab. All features on this page are licensed.

4

Identity Management Enterprise Management

This chapter describes the licensed features and links of the following management pack offered by Enterprise Manager in support of Identify Management:

- Management Pack Plus for Identity Management

4.1 Management Pack Plus for Identity Management

The Management Pack Plus for Identity Management enables enterprises to proactively monitor the availability, performance, load, and security metrics of various Identity Management components. The Management Pack Plus for Identity Management helps improve performance and availability, and reduce the cost and complexity of managing Identity Management deployments, including the following environments:

■ Oracle Internet Directory	■ Oracle Identity Federation
■ Directory Integration Platform	■ Oracle Access Manager
■ Oracle Directory Server Enterprise Edition (formerly Sun Java Directory Server Enterprise Edition)	■ Oracle Identity Manager
	■ Oracle Adaptive Access Manager
■ Oracle Virtual Directory	■ Oracle Mobile & Social

> **Note:** License to provision Oracle Identity Management products via user-defined procedures is included as part of Management Pack Plus for Identity Management.

The following sections describe the licensed features and links of this management pack offered by Enterprise Manager:

- Management Pack Plus for Identity Management Features

- Management Pack Plus for Identity Management Targets

- Accessing Management Pack Plus for Identity Management Licensed Links

- Management Pack Plus for Identity Management Restricted Use License

4.1.1 Management Pack Plus for Identity Management Features

The Management Pack Plus for Identity Management includes the following features:

> **Note:** A management pack license is required to use the features described below in the Enterprise Manager graphical user interface, command-line interface, and published repository views.

Feature	Definition
Beacons	Measure availability and performance from representative key user locations.
Blackouts	Suspend monitoring on targets to support scheduled maintenance periods.
Complete service monitoring	Monitor service availability, performance, usage, and service level compliance.
Configuration	Track configuration metrics, take configuration snapshots, and compare configurations for Oracle Access Manager 10g components, Oracle Internet Directory 11g, Oracle Directory Integration Platform 11g, Oracle Virtual Directory 11g, Oracle Identity Federation 11g, and Oracle Directory Server Enterprise Edition 6.x, 7.x, and 11gR1.
Management Connectors	Helpdesk (ticketing) connectors open helpdesk tickets for incidents raised in Enterprise Manager. Event connectors share event information with other management systems.
Metric and Alert/Event History	View metric and alert/event history and its associated details.
Metric Extensions	Create new metrics to monitor conditions specific to customer environments.
Monitoring and diagnostics	Receive real-time metrics, historical data, and alert notifications. Proactively monitor the Oracle Identity Management environment. Out-of-box collection of key performance metrics for monitored components facilitates rapid time to value.
Monitoring Templates and Template Collections	Monitoring Templates encapsulate target monitoring settings and can later be applied against many targets. Template Collections (with administration groups) automate the deployment of management settings on targets as they join the group.
Notifications	Define and use different notification methods including e-mail, running custom OS scripts, PL/SQL procedures and SNMP traps; repeat notifications, use of notification-related actions in incident rule sets, administrator notification schedules.
Service modeling	Model critical business functions based on a wide range of supported protocols.

Feature	Definition
Single-step discovery	Perform single-step discovery of Identity Management 10g and Identity Management 11g components.
	The supported Identity Management 10g components include Oracle Access Manager (OAM) 10g, Oracle Identity Manager (OIM) 9.x, Oracle Identity Federation (OIF) 10g, and Oracle Identity Management Suite 10g (including Oracle Internet Directory, Directory Integration Platform, Delegated Administration Services, and Single Sign-On).
	The supported Identity Management 11g components include Oracle Internet Directory, Oracle Directory Integration Platform, Oracle Virtual Directory, Oracle Identity Federation, Oracle Access Manager, Oracle Identity Manager, and Oracle Adaptive Access Manager. Single-step discovery enables you to quickly set up your monitoring environment.
	A simple target discovery is also provided for Oracle Directory Server Enterprise Edition (formerly Sun Java Directory Server Enterprise Edition) 6.x, 7.x, and 11g

The following features are licensed for WebLogic-based containers included in the Identity Management product restricted-use licensing that are licensed and managed by the Management Pack Plus for Identity Management:

Features	Description
"Always on" low overhead monitoring, notifications, and dashboards	Diagnose past problems, receive early warnings of outages, see a single view of the status of all applications.
Blackouts	Suspend monitoring on targets to support scheduled maintenance periods.
Business Application Management	Create and monitor business application targets to provide an intuitive representation of the relationship between your applications and business transactions and the underlying IT infrastructure.
Composite Application Management	Provide full visibility across all members and tiers of a composite application.
Contextual visibility into Java EE and web service metrics *(Does not apply for GlassFish)*	Provide drill-down contextual visibility into Java EE and web service metrics.
Cross-tier trace with Oracle Database *(Does not apply for GlassFish)*	View the impact of database problems on all associated applications and JVMs, and isolate problems between Java and the database.
Diagnostic Snapshot *(Does not apply for GlassFish)*	Preserves snapshots of both JVM monitoring and diagnostics data in correlation with the WebLogic Server log files.
Differential heap analysis *(Does not apply for GlassFish)*	Use memory leak analysis in production, and simplify memory growth and leak analysis.
Historical performance monitoring	Track availability and performance data over time.
Interactive JVM transaction trace *(Does not apply for GlassFish)*	Provide JVM thread tracing. View the response time breakdowns in each layer (servlet, JSP, EJB, JDBC, and SQL) of a JVM container.

Features	Description
JVM Diagnostics Agent hot deployment *(Does not apply for GlassFish)*	Deploy JVM Diagnostics Agent without WebLogic Server restarts or configuration changes.
Log Viewer *(Does not apply for GlassFish)*	Access Oracle Fusion Middleware log files quickly and easily - no matter where they are stored on the file system. Search and correlate log messages across all Oracle Fusion Middleware components' logs based on properties such as time, severity or Execution Context ID (ECID).
Management Connectors	Helpdesk (ticketing) connectors open helpdesk tickets for incidents raised in Enterprise Manager. Event connectors share event information with other management systems.
Metric and Alert/Event History	View metric and alert/event history and its associated details.
Metric Extensions	Create new metrics to monitor conditions specific to customer environments.
Metrics visibility for any layer *(Does not apply for GlassFish)*	Generate customized dashboards and views automatically.
Middleware Diagnostics Advisor *(Does not apply for GlassFish)*	Provide detailed advice and recommendations based on performance and configuration data for the entire middleware and database stack.
Monitoring Templates and Template Collections	Monitoring Templates encapsulate target monitoring settings and can later be applied against many targets. Template Collections (with administration groups) automate the deployment of management settings on targets as they join the group.
Notifications	Define and use different notification methods including e-mail, running custom OS scripts, PL/SQL procedures and SNMP traps; repeat notifications, use of notification-related actions in incident rule sets, administrator notification schedules.
Real-time visibility into a JVM and application state without instrumentation overhead *(Applies to applications deployed to both Oracle Application Server and WebLogic Server)*	Eliminate need to reproduce problems in a test environment.
Request performance	Provide historical views that show the response times for end-user requests from the context of WebLogic Server as well as the underlying JVM. Response time breakdowns are available in each layer (servlet, JSP, EJB, JDBC, and SQL) of an WebLogic container.
Service-level objectives *(Does not apply for GlassFish)*	Provide service-level objectives (SLOs) at any point within the architecture for indicators and alerts.
Trace in-flight transactions *(Does not apply for GlassFish)*	View request performance problems in real time. Analyze time spent in each resource bottleneck and Java method.

Features	Description
WebLogic Domain/JVM pool monitoring *(Does not apply for GlassFish)*	Monitor all JVMs of an application together with uniform monitoring settings.

The following features are licensed for Oracle Access Manager Coherence-based containers included in the Identity Management product restricted-use licensing that are licensed and managed by the Management Pack Plus for Identity Management:

Feature	Description
Automate deployment	Automate the deployment and setup of the Coherence cluster with multiple nodes.
Blackouts	Suspend monitoring on targets to support scheduled maintenance periods.
Cache data management	Perform operations such as view, export, purge, etc., on cache data.
Complete cluster visibility	Provide detailed metrics for all Coherence components.
Configuration management	Change run-time configuration parameters of multiple nodes, caches, and services from the central user interface console. Keep track of node configuration over period of time, change runtime configuration parameters of caches, nodes and services.
Customizable performance views	Create custom performance views by selecting metrics from the metrics pallet, overlay multiple metrics on the chart, save different views.
Log file monitoring	Monitor the node log files by setting patterns.
Management Connectors	Helpdesk (ticketing) connectors open helpdesk tickets for incidents raised in Enterprise Manager. Event connectors share event information with other management systems.
Metric and Alert/Event History	View metric and alert/event history and its associated details.
Metric Extensions	Create new metrics to monitor conditions specific to customer environments.
Monitor multiple clusters	Monitor multiple clusters from a single console.
Monitoring Templates and Template Collections	Monitoring Templates encapsulate target monitoring settings and can later be applied against many targets. Template Collections (with administration groups) automate the deployment of management settings on targets as they join the group.
Notifications	Define and use different notification methods including e-mail, running custom OS scripts, PL/SQL procedures and SNMP traps; repeat notifications, use of notification-related actions in incident rule sets, administrator notification schedules.
Start and stop nodes	Stop existing nodes and start new ones in a Coherence cluster.
Start and stop the cluster	Start and stop the entire Coherence cluster.
Topology view	Graphical representation of the Coherence caches, nodes and hosts with related in context performance alerts.

The following features are licensed for Oracle Identity Manager SOA-based containers included in the Identity Management product restricted-use licensing that are licensed and managed by the Management Pack Plus for Identity Management:

Feature	Description
Adapter metrics	Provide throughput and error metrics for different adapters in graphical format.
Blackouts	Suspend monitoring on targets to support scheduled maintenance periods.
Business-IT alignment	Provide integration for business KPIs and system metrics in one system for correlation and trending.
Centralized management console	Monitor and manage all enterprise components from a central location.
Change Activity Plans	Provide the ability to plan, track in real time, and execute data-centerwide change activities. Activities include: PSU patch rollouts, database consolidation to Exadata, etc.
Configuration management	Collect configuration information for the BPEL Process Manager server/domains/processes and Oracle Service Bus.
Deployment automation	Automate deployment of BPEL suitcases, OSB resources, SOA artifacts, and SOA composites.
Discovery and service modeling	Provide discovery of Oracle BPEL processes, Oracle Service Bus-based business and proxy services. Provide automated system modeling capabilities for the SOA infrastructure.
Historical analysis and reporting	Store collected metric and configuration data in a central repository.
Infrastructure management	Monitor availability and performance of SOA infrastructure components.
Management Connectors	Helpdesk (ticketing) connectors open helpdesk tickets for incidents raised in Enterprise Manager. Event connectors share event information with other management systems.
Metric and Alert/Event History	View metric and alert/event history and its associated details.
Metric Extensions	Create new metrics to monitor conditions specific to customer environments.
Monitoring Templates and Template Collections	Monitoring Templates encapsulate target monitoring settings and can later be applied against many targets. Template Collections (with administration groups) automate the deployment of management settings on targets as they join the group.
Notifications	Define and use different notification methods including e-mail, running custom OS scripts, PL/SQL procedures and SNMP traps; repeat notifications, use of notification-related actions in incident rule sets, administrator notification schedules.
Runtime governance	Define SOAP tests to measure and record availability and performance of partner links (or any Web service) and business/proxy services for historical trending, troubleshooting, and root cause analysis purposes
Service level management	Monitor services from the end-user's perspective using service tests or synthetic transactions, model relationships between services and underlying IT components, and report on achieved service levels

4.1.2 Management Pack Plus for Identity Management Targets

The following section summarizes the target items for the Management Pack Plus for Identity Management:

- Identity Management 10g Targets
- Identity Management 11g Targets
- Oracle Directory Server Enterprise Edition Targets

4.1.2.1 Identity Management 10g Targets

■ Access Manager — Access Server	■ Directory Integration Platform Server
■ Access Manager — Identity Server	■ Oracle Internet Directory
■ Access Manager — Access System	■ Single Sign-On Server
■ Access Manager — Identity System	■ Hosts running Identity Management components
■ Identity Federation Server	■ Generic Service or Web Application targets associated with Access Manager - Access System, Access Manager - Identity System, Identity Federation System, and Identity Manager System Hosts running Identity Management components
■ Identity Federation System	
■ Identity Manager Repository	
■ Identity Manager Server	
■ Identity Manager System	
■ Delegated Administration Server	

4.1.2.2 Identity Management 11g Targets

■ Oracle Internet Directory	■ Oracle Adaptive Access Manager Cluster
■ Oracle Unified Directory	■ Oracle Identity Manager
■ Identity Federation Server	■ Oracle Identity Manager Cluster
■ Directory Integration Platform Server	■ Hosts running Identity Management components
■ Oracle Virtual Directory	■ Generic Service & Identity and Access System targets associated with Identity Management 11g components
■ Oracle Access Manager	
■ Oracle Access Manager Cluster	
■ Oracle Adaptive Access Manager	

4.1.2.3 Oracle Directory Server Enterprise Edition Targets

With the Oracle System Monitoring Plug-in for Oracle Directory Server, a simple target discovery is also provided for Oracle Directory Server Enterprise Edition (formerly Sun Java Directory Server Enterprise Edition) 6.x and 7.x, as well as ODSEE 11gR1. The following Oracle DSEE target types are supported:

■ Directory Server Enterprise	■ Directory Server Group
■ Directory Server Enterprise Edition Server	■ Hosts running Oracle DSEE components

4.1.3 Accessing Management Pack Plus for Identity Management Licensed Links

The following licensed pages and links of this pack apply to the following Identity Management-specific targets within Enterprise Manager:

Licensed Page/Link	How to Access
Identity and Access page	From the Enterprise Summary page, click the **Targets** menu, then **Middleware**. On the Middleware page, click the **Middleware Features** menu, then **Identity and Access**. All links and drop-down menu items on this page are licensed.
Identity Management 11g Targets	From the Enterprise Summary home page, click the **Targets** menu, then **All Targets**. On the All Targets page, select any of the target types referenced from Identity Management 11g Targets. All links and drop-down menu items are licensed.
Oracle Directory Server Enterprise Edition Targets	From the Enterprise Summary home page, click the **Targets** menu, then **All Targets**. On the All Targets page, select any of the target types referenced from Oracle Directory Server Enterprise Edition Targets. All links and drop-down menu items are licensed.
Access Manager - Access Server page: ■ Black Out button ■ Availability link ■ Associated Directory Server Information section ■ Alerts section ■ Host Alerts section ■ Configuration section ■ Related Links section	From the Enterprise Summary home page, click the **Targets** menu, then **All Targets**. On the All Targets page, select a target of type **Access Manager – Access Server**. Alternatively, from the Enterprise Summary home page, click the **Targets** menu, then **Middleware**. Click the **Middleware Features** menu, then **Identity and Access**. On the Access Manager – Access Server Home page, these items and all links in these sections are licensed.
Access Manager - Identity Server page: ■ Black Out button ■ Availability link ■ Associated Directory Server Information section ■ Alerts section ■ Host Alerts section ■ Configuration section ■ Related Links section	From the Enterprise Summary home page, click the **Targets** menu, then **All Targets**. On the All Targets page, select a target of type **Access Manager – Identity Server**. The Access Manager – Identity Server Home page appears. Alternatively, from the Enterprise Summary home page, click the **Targets** menu, then **Middleware**. Click the **Middleware Features** menu, then **Identity and Access**. On the Access Manager - Identity Server Home page, these items and all links in these sections are licensed.
Access Manager – Identity Server Performance page	From the Enterprise Summary home page, click the **Targets** menu, then **All Targets**. On the All Targets page, select a target of type **Access Manager – Identity Server**. On the Access Manager - Identity Server Home page, select the **Performance** sub-tab. All features on this page are licensed

Licensed Page/Link	How to Access
Access Manager - Access System page ■ System Charts page ■ System Administration page ■ System Components page ■ System Topology page	From the Enterprise Summary home page, click the **Targets** menu, then **All Targets**. On the All Targets page, select a target of type **Access Manager – Access System**. Alternatively, from the Enterprise Summary home page, click the **Targets** menu, then **Middleware**. Click the **Middleware Features** menu, then **Identity and Access**. On the Access Manager - Access System home page, all features on the page are licensed. From the Access Manager - Access System home page: ■ Select the **Charts** sub-tab. All features on this page are licensed. ■ Select the **Administration** sub-tab. All features on this page are licensed. ■ Select the **Components** sub-tab. All features on this page are licensed. ■ Select the **Topology** sub-tab. All features on this page are licensed.
Access Manager - Identity System ■ System Charts page ■ System Administration page ■ System Components page ■ System Topology page	From the Enterprise Summary home page, click the **Targets** menu, then **All Targets**. On the All Targets page, select a target of type **Access Manager – Identity System**. Alternatively, from the Enterprise Summary home page, click the **Targets** menu, then **Middleware**. Click the **Middleware Features** menu, then **Identity and Access**. On the Access Manager - Identity System home page, all features on the page are licensed. From the Access Manager - Access Identity home page: ■ Select the **Charts** sub-tab. All features on this page are licensed. ■ Select the **Administration** sub-tab. All features on this page are licensed. ■ Select the **Components** sub-tab. All features on this page are licensed. ■ Select the **Topology** sub-tab. All features on this page are licensed.
Identity Federation Server ■ Black Out button ■ Availability link ■ User Data Store section ■ Federation Data Store section ■ Alerts section ■ Host Alerts section ■ Related Links section	From the Enterprise Summary home page, click the **Targets** menu, then **All Targets**. On the All Targets page, select a target of type **Identity Federation Server**. Alternatively, from the Enterprise Summary home page, click the **Targets** menu, then **Middleware**. Click the **Middleware Features** menu, then **Identity and Access**. On the Identity Federation Server Home page, these items and all links in these sections are licensed.

Licensed Page/Link	How to Access
Identity Federation System ■ System Charts page ■ System Administration page ■ System Components page ■ System Topology page	From the Enterprise Summary home page, click the **Targets** menu, then **All Targets**. On the All Targets page, select a target of type **Identity Federation System**. Alternatively, from the Enterprise Summary home page, click the **Targets** menu, then **Middleware**. Click the **Middleware Features** menu, then **Identity and Access**. On the Identity Federation System home page, all features on the page are licensed. From the Identity Federation System home page: ■ Select the **Charts** sub-tab. All features on this page are licensed. ■ Select the **Administration** sub-tab. All features on this page are licensed. ■ Select the **Components** sub-tab. All features on this page are licensed. ■ Select the **Topology** sub-tab. All features on this page are licensed.
Identity Manager Repository ■ Black Out button ■ Availability link ■ Provisioning section ■ Associated Remote Managers section ■ Alerts section ■ Host Alerts section ■ Related Links section	From the Enterprise Summary home page, click the **Targets** menu, then **All Targets**. On the All Targets page, select a target of type **Identity Manager Repository**. Alternatively, from the Enterprise Summary home page, click the **Targets** menu, then **Middleware**. Click the **Middleware Features** menu, then **Identity and Access**. On the Identity Manager Repository home page, these items and all links in these sections are licensed.
Identity Manager Server ■ Black Out button ■ Availability link ■ Alerts section ■ Host Alerts section ■ Related Links section	From the Enterprise Summary home page, click the **Targets** menu, then **All Targets**. On the All Targets page, select a target of type **Identity Manager Server**. Alternatively, from the Enterprise Summary home page, click the **Targets** menu, then **Middleware**. Click the **Middleware Features** menu, then **Identity and Access**. On the Identity Manager Server home page, these items and all links in these sections are licensed.
Identity Manager Server Performance page	From the Enterprise Summary home page, click the **Targets** menu, then **All Targets**. On the All Targets page, select a target of type **Identity Manager Server**. From the Identity Manager Server home page, select the **Performance** sub-tab. All features on this page are licensed.

Licensed Page/Link	How to Access
Identity Manager System ■ System Charts page ■ System Administration page ■ System Components page ■ System Topology page	From the Enterprise Summary home page, click the **Targets** menu, then **All Targets**. On the All Targets page, select a target of type **Identity Manager System**. Alternatively, from the Enterprise Summary home page, click the **Targets** menu, then **Middleware**. Click the **Middleware Features** menu, then **Identity and Access**. On the Identity Manager System home page, all features on the page are licensed. From the Identity Manager System home page: ■ Select the **Charts** sub-tab. All features on this page are licensed. ■ Select the **Administration** sub-tab. All features on this page are licensed. ■ Select the **Components** sub-tab. All features on this page are licensed. ■ Select the **Topology** sub-tab. All features on this page are licensed.
Hosts page with Identity Management Components ■ Home ■ Monitoring ■ Control ■ Job Activity ■ Information Publisher Reports ■ Administration ■ Net Services Administration ■ Log File Alerts ■ Storage Details ■ Remote File Editor ■ Execute Host Command ■ Privilege Delegation Setting ■ Related Targets ■ Configuration ■ Compliance ■ Target Setup ■ Target Information	From the Enterprise Summary page, click the **Targets** menu, then **Middleware**. On the Middleware page, click the **Middleware Features** menu, then **Identity and Access**. All links on this page are licensed.
Hosts ■ Host Performance page ■ Host Administration page ■ Host Targets page	From the Enterprise Summary home page, click the **Targets** menu, then **Hosts**. On the Hosts page: ■ Select the **Performance** sub-tab. All features on this page are licensed. ■ Select the **Administration** sub-tab. All features on this page are licensed. (**Note:** The Administration page is only available for Linux operating systems.) ■ Select the **Targets** sub-tab. All features on this page are licensed.

4.1.4 Management Pack Plus for Identity Management Restricted Use License

Management Pack Plus for Identity Management includes the full capabilities of Enterprise Manager Cloud Control Service Level Management.

See Enterprise Manager Cloud Control Service Level Management in Chapter 7 for more information.

5

Other Infrastructure Management

This chapter describes the licensed features and access points for each of the following categories of other Enterprise Manager infrastructure management:

- Configuration Management Pack for Applications
- Management Pack for Non-Oracle Middleware
- System Monitoring Plug-Ins for Non-Oracle Middleware
- System Monitoring Plug-Ins for Non-Oracle Databases

5.1 Configuration Management Pack for Applications

The Configuration Management Pack for Applications automates the time-consuming and often error-prone process of managing host software and hardware configurations and deployments for Oracle and non-Oracle software, excluding the Oracle Database. This pack provides capabilities such as search and compare across all systems, configuration monitoring, and compliance management, ensuring consistency across deployments.

You can access the Configuration Management Pack for Applications functionality through the following Enterprise Manager Cloud Control licensed links. These components comprise the features provided by the Configuration Management Pack for Applications.

The Configuration Management Pack for Applications includes the following:

- Discovery and Inventory tracking: the ability to discover your assets, and track them.
- Configuration Management: track inventory, configuration drift and detailed configuration search.
- Compliance Management: reporting and management of industry and regulatory compliance standards.

The following sections describe the licensed features and links of this management pack offered by Enterprise Manager:

- Configuration Management Pack for Application Features
- Accessing Configuration Management Pack for Applications Licensed Links
- Configuration Management Pack for Applications Licensed CLI Verbs
- Configuration Management Pack for Applications Licensed Reports
- Configuration Management Pack for Applications Licensed Repository Views

■ Previous Configuration Management Packs

5.1.1 Configuration Management Pack for Application Features

The following features and functions can be use with an existing Configuration Management Pack for Applications License:

Feature	Description
Client System Analyzer	Enable your system administrators to collect and analyze configuration information and data from end-user systems. Using the pre-installed application enables you to collect end-user configuration information without setting up a separate Web server. The Management Agents collect, analyze, and upload the end-user configuration information to the Management Repository.
Compliance	Compliance Frameworks, standards, and extensibility to meet industry and regulatory compliance requirements
Configuration Collection Extensibility	Create custom configuration collections and extend current collections
Configuration Compare	Compare configurations, one-to-one, one-to-many.
Configuration History	Report on configuration or relations changes during a specific time frame.
Configuration Instance Browser	View Configuration Items and associations associated with a target.
Configuration Save	Save configurations for reference, baselines, or Gold Standards.
Configuration Search	Search for Configuration Items on a specific target or across relationships.
Configuration Topology	View topology for a specified target and its dependencies along with other targets that are dependent on it.
File Synchronization	Synchronize configuration file differences during a comparison.
Real-time configuration change detection	Provide real-time configuration change detection and automation of compliance frameworks.
Disaster Recovery via Site Guard	Automate complete site failover of Oracle Fusion Middleware and Oracle Database and extend to include other data center components. **Note:** Available for non-Oracle software only. For Oracle software, usage of Site Guard requires licenses for *either* WebLogic Server Management Pack Enterprise Edition *or* Database Lifecycle Management Pack for Oracle Database.
User Defined Deployment Procedures (UDDP)	Automate custom processes by creating a procedure from scratch by inserting the required phases, steps, and variables.

5.1.1.1 Additional Licensed Features

With the purchase of the Configuration Management Pack for Applications you also are entitled to the features described in the following sections. These features are restricted to the host software and hardware configurations and deployments for Oracle and non-Oracle software, excluding the Oracle Database.

Licensed Feature	Description
Self Update	From the Enterprise Manager home page, click the **Setup** menu, then **Extensibility and Self Update**. The downloading and applying any updates associated with, host, Oracle and non-Oracle software, excluding the Oracle Database, for Configuration and Compliance are licensed as part of the Configuration Management Pack for Applications.

5.1.2 Accessing Configuration Management Pack for Applications Licensed Links

The following licensed pages, links, features and functions of this pack apply to host software, platform, Oracle software, and non-Oracle software excluding the Oracle Database. For management of the Oracle Database or to extend these features and functions to the Oracle Database, you must purchase the Database Lifecycle Management Pack for Oracle Database.

The following are the licensed pages, links, features and functions that can be use with an existing Configuration Management Pack for Applications License:

Licensed Page/Link	How to Access
Client System Analyzer	From the Enterprise Manager home page, click the **Enterprise** menu, then **Configuration**. The Client System Analyzer and Client Configurations items are licensable as part of the WebLogic Server Management Pack Enterprise Edition.
Configuration Search	From the Enterprise Manager home page, click the **Enterprise** menu, then **Configuration and Search**. All features, functions, links, buttons and drill-downs on this page, excluding features and functions that apply to the Oracle Database, are licensed as part of the Configuration Management Pack for Applications.
Configuration Instance Browser	From the Enterprise Manager home page **Targets** link. Select a Target excluding the Oracle Database. From the Target home page, select the drop-down under the **Target Type** and **Configuration**. All features, functions, links, buttons and drill-downs on this page, excluding features and functions that apply to the Oracle Database, are licensed as part of the Configuration Management Pack for Applications.
	If the Target Home Page is accessed directly or by other paths:
	From the Target home page, select the drop-down under the **Target Type** and **Configuration**. All features, functions, links, buttons and drill-downs on this page, excluding features and functions that apply to the Oracle Database, are licensed as part of the Configuration Management Pack for Applications
Configuration History	From the Enterprise Manager home page, click the **Enterprise** menu, then **Configuration and History**. All features, functions, links, buttons and drill-downs on this page, excluding features and functions that apply to the Oracle Database, are licensed as part of the Configuration Management Pack for Applications.

Licensed Page/Link	How to Access
Configuration Compare	From the Enterprise Manager home page, click the **Enterprise** menu, then **Configuration and Compare**. All features, functions, links, buttons and drill-downs on this page, excluding features and functions that apply to the Oracle Database, are licensed as part of the Configuration Management Pack for Applications.
File Synchronization	When viewing comparison results differences as described in the Configuration Compare feature, select the configuration specification in the tree on the left. Select **Enable File Synchronization**. All features, functions, links, buttons, and drill-downs on this page are licensed as part of the Configuration Management Pack for Applications.
Configuration Topology	From the Enterprise Manager home page **Targets** link. Select a Target, excluding the Oracle Database, from the Target home page. Select the drop-down under the **Target Type** and **Configuration**, **Topology**. In the View drop-down, **Used By** is licensed as part of the Configuration Management Pack for Applications.
	From the Enterprise Manager home page **Targets** link. Select a Target, excluding the Oracle Database, from the Target home page. Select the drop-down under the **Target Type** and **Configuration**, **Topology** and **Customization**. All features, functions, links, buttons and drill-downs on this page are licensed as part of the Configuration Management Pack for Applications.
	If the Target Home Page is accessed directly or by other paths:
	■ Select a Target, excluding the Oracle Database, from the Target home page. Select the drop-down under the **Target Type** and **Configuration**, **Topology**. In the View drop-down, **Used By** is licensed as part of the Configuration Management Pack for Applications
	■ From the Target home page, select the drop-down under the **Target Type**, **Configuration**, **Topology**, and **Customization**. All features, functions, links, buttons and drill-downs on this page are licensed as part of the Configuration Management Pack for Applications
Configuration Save	From the Enterprise Manager home page, click the **Enterprise** menu, then **Configuration and Save**. All features, functions, links, buttons and drill-downs on this page, excluding features and functions that apply to the Oracle Database, are licensed as part of the Configuration Management Pack for Applications.
Configuration Collection Extensibility	From the Enterprise Manager home page, click the **Enterprise** menu, **Configuration and Custom**. All features, functions, links, buttons and drill-downs on this page, excluding features and functions that apply to the Oracle Database, are licensed as part of the Configuration Management Pack for Applications.
Compliance	From the Enterprise Manager home page, click the **Enterprise** menu, then **Compliance**. All features, functions, links, buttons and drill-downs on this page, excluding features and functions that apply to the Oracle Database, are licensed as part of the Configuration Management Pack for Applications.

Licensed Page/Link	How to Access
Real-time Configuration Change Detection	From the Enterprise Manager home page, click the **Enterprise** menu, then **Compliance**. All features, functions, links, buttons and drill-downs on this page, excluding features and functions that apply to the Oracle Database, are licensed as part of the Configuration Management Pack for Applications.
User Defined Deployment Procedures (UDDP)	From the Enterprise Manager home page, click the **Enterprise** menu, **Provisioning and Patching**, then **Procedure Library**. On the Provisioning Library page, from the list of actions, the Create New option is licensed as part of the Database Lifecycle Management Pack.

5.1.3 Configuration Management Pack for Applications Licensed CLI Verbs

The following Enterprise Manager Command Line Interface (CLI) verbs are licensed as part of the Configuration Management Pack for Applications:

```
confirm_instance              get_retry_argument
describe_instance             ignore_instance
describe_procedure_input      reschedule_instance
get_executions                resume_instance
get_instance_data             save_procedure
get_instance_status           stop_instance
get_instances                 submit_procedure
get_procedure_types           suspend_instance
get_procedure_xml             update_and_retry_step
get_procedures                update_procedure_input
```

5.1.4 Configuration Management Pack for Applications Licensed Reports

The following reports are part of the Configuration Management Pack for Applications. All reports, excluding reports associated with, or for the Oracle Database, are licensed for Configuration Management Pack for Applications. To access the reports go to the **Enterprise Manager** home page, click the **Reports**, then **Information Publisher Reports** or **BI Publisher Enterprise Reports**.

The following reporting areas, reports and sub-reports under **Information Publisher Reports** are licensed as part of the Configuration Management Pack for Applications:

- **Compliance**
- **Configuration**

The following reporting areas, reports and sub-reports under **BI Publisher Enterprise Reports** are licensed as part of the Configuration Management Pack for Applications:

- **Compliance**
- **Configuration**

5.1.5 Configuration Management Pack for Applications Licensed Repository Views

The following repository views are part of the Configuration Management Pack for Applications:

Configuration Views

MGMT$CCS_DATA	MGMT$CS_FEATURE_USAGE
MGMT$CCS_DATA_SOURCE	MGMT$CS_HA_INFO
MGMT$CCS_DATA_SOURCE_VISIBLE	MGMT$ECM_CURRENT_SNAPSHOTS
MGMT$CCS_DATA_VISIBLE	MGMT$ECM_VISIBLE_SNAPSHOTS
MGMT$CS_ASM_DISKGRP_SETTINGS	MGMT$HW_CPU_DETAILS
MGMT$CS_DB_CONTROL_FILE_COUNT	MGMT$HW_IO_DEVICES
MGMT$CS_DB_INIT_PARAMS	MGMT$HW_NIC_BONDS
MGMT$CS_DB_RBS_IN_SYSTEM	MGMT$J2EE_APPLICATION
MGMT$CS_DB_REC_SEG_SETTINGS	MGMT$J2EEAPP_EJBCOMPONENT
MGMT$CS_DB_REC_TS_SETTINGS	MGMT$J2EEAPP_JRFWS
MGMT$CS_DB_REC_USER_SETTINGS	MGMT$J2EEAPP_JRFWSOPER
MGMT$CS_DB_REDO_LOG_COUNT	MGMT$J2EEAPP_JRFWSPOLICY
MGMT$CS_DB_REDO_LOGS	MGMT$J2EEAPP_JRFWSPORT
MGMT$CS_DB_TABLESPACES	MGMT$J2EEAPP_WEBAPPCOMPONENT
MGMT$CS_DB_TBSP_SEGSPACE_MGMT	MGMT$J2EEAPP_WSCONFIG

Oracle Home Patching Views

MGMT$OH_CLONE_PROPERTIES	MGMT$OH_PATCHED_FILE
MGMT$OH_COMPONENT	MGMT$OH_PATCHSET
MGMT$OH_COMP_DEP_RULE	MGMT$OH_PATCH_FIXED_BUG
MGMT$OH_COMP_INST_TYPE	MGMT$OH_VERSIONED_PATCHV MGMT$CPF_ADVISORY_INFO
MGMT$OH_CRS_NODES	MGMT$CPF_HOMES_INFO
MGMT$OH_DEP_HOMES	MGMT$CPF_PATCH_INFO
MGMT$OH_FILE	MGMT$EM_HOMES_PLATFORM
MGMT$OH_HOME_INFO	MGMT$HOMES_AFFECTED MGMT$PATCH_ADVISORIES
MGMT$OH_INSTALLED_TARGETS	MGMT$APPL_PATCH_AND_PATCHSET
MGMT$OH_INV_SUMMARY	MGMT$APPLIED_PATCHES
MGMT$OH_PATCH	MGMT$APPLIED_PATCHSETS
MGMT$OH_PATCHED_COMPONENT	

Compliance Views

MGMT$COMPLIANCE_STANDARD_RULE	MGMT$CS_DB_REDO_LOGS
MGMT$COMPLIANCE_STANDARD	MGMT$CS_DB_TABLESPACES
MGMT$COMPLIANCE_STANDARD_GROUP	MGMT$CS_DB_TBSP_SEGSPACE_MGMT
MGMT$CS_EVAL_SUMMARY	MGMT$CS_FEATURE_USAGE
MGMT$COMPOSITE_CS_EVAL_SUMMARY	MGMT$CS_HA_INFO
MGMT$CS_ASM_DISKGRP_SETTINGS	MGMT$CS_GROUP_EVAL_SUMMARY
MGMT$CS_DB_CONTROL_FILE_COUNT	MGMT$CS_RULE_EVAL_SUMMARY
MGMT$CS_DB_INIT_PARAMS	MGMT$CS_TARGET_ASSOC
MGMT$CS_DB_RBS_IN_SYSTEM	MGMT$CCC_ALL_OBSERVATIONS
MGMT$CS_DB_REC_SEG_SETTINGS	MGMT$CCC_ALL_OBS_BUNDLES
MGMT$CS_DB_REC_TS_SETTINGS	MGMT$CCC_DIAG_ANALYTICS
MGMT$CS_DB_REC_USER_SETTINGS	MGMT$CCC_DIAG_QUEUEBACKLOG
MGMT$CS_DB_REDO_LOG_COUNT	

Client Configuration Views

MGMT$CSA_COLLECTIONS	MGMT$CSA_HOST_CPUS
MGMT$CSA_FAILED	MGMT$CSA_HOST_IOCARDS
MGMT$CSA_HOST_OS_COMPONENTS	MGMT$CSA_HOST_NICS
MGMT$CSA_HOST_SW	MGMT$CSA_HOST_OS_PROPERTIES
MGMT$CSA_HOST_COOKIES	MGMT$CSA_HOST_OS_FILESYSEMS
MGMT$CSA_HOST_CUSTOM	MGMT$ECM_CONFIG_HISTORY
MGMT$CSA_HOST_RULES	

5.1.6 Previous Configuration Management Packs

If you have an older Configuration Management pack including:

- Configuration Management Pack

- Configuration Management Pack for Oracle Middleware

- Configuration Management Pack for Non-Oracle Systems

You may use all of the features licensed as part of the Configuration Management Pack for Applications only against the previously licensed targets with the exception of the following:

- Application Configuration Console

- Configuration Collection Extensibility

- Creating a custom Comparison Template

- Using a Comparison Template as part of a Configuration Comparison specification

5.2 Management Pack for Non-Oracle Middleware

This pack improves the availability and performance of Java applications with low overhead deployed on Non-Oracle Middleware (such as, IBM WebSphere Application Server, JBoss Application Server, and Apache Tomcat), as well as providing in-depth diagnostics.

The Management Pack for Non-Oracle Middleware includes the following components:

- Enterprise Manager system monitoring functionality for IBM WebSphere Application Servers, JBoss Application Servers, and Apache Tomcat.

- Enterprise Manager monitoring plug-ins for Microsoft Internet Information Services, Microsoft .NET Framework, and Microsoft BizTalk Server.

- Application Dependency and Performance, which can model Java Enterprise Edition applications based on the metadata present and gather metrics on standard Java Enterprise Edition components. The high-level metrics are organized based on their URI mappings, and the lower-level metrics are organized based on their method-level call graph.

- Business Transaction Management features only for non-Oracle platforms which can be proxied through the limited use license of Oracle Service Bus.

- JVM Diagnostics, which is applicable for Application Servers and standalone Java applications running on supported JVMs. This diagnoses the root cause of Java application performance problems in Java applications with very low performance overhead. See the following My Oracle Support site for the latest information about supporting JVMs and platforms:

https://support.oracle.com/CSP/main/article?cmd=show&type=NOT&id=1265738.1&blackframe=1

- Java Mission Control (JMC), which is applicable for Application Servers and standalone Java applications.

- Configuration Management: track inventory, configuration drift and detailed configuration search.

The following sections describe the licensed features and links of this management pack offered by Enterprise Manager:

- Management Pack for Non-Oracle Middleware Features

- Accessing Management Pack for Non-Oracle Middleware Licensed Links

- Oracle Application Dependency and Performance

- Management Pack for Non-Oracle Middleware Restricted Use License

- Licensing for Business Transaction Management

5.2.1 Management Pack for Non-Oracle Middleware Features

The Management Pack for Non-Oracle Middleware includes the following features:

Feature	Description
Application dependency and performance monitoring	Automatically model and discover management applications displaying multiple views of the application, including the topology, function/flow, and architectural views.
Blackouts	Suspend monitoring on targets to support scheduled maintenance periods.
Business transaction monitoring	Discover, record, and correlate transactions as they flow across components that may span multiple JVMs, containers, and platforms.
Configuration Collection Extensibility	Create custom configuration collections and extend current collections
Configuration Compare	Compare configurations, one-to-one, one-to-many.
Configuration History	Report on configuration or relations changes during a specific time frame.
Configuration Instance Browser	View Configuration Items and associations associated with a target.
Configuration Save	Save configurations for reference, baselines, or Gold Standards.
Configuration Search	Search for Configuration Items on a specific target or across relationships.
Configuration Topology	View topology for a specified target and its dependencies along with other targets that are dependent on it.
Management Connectors	Helpdesk (ticketing) connectors open helpdesk tickets for incidents raised in Enterprise Manager. Event connectors share event information with other management systems.
Memory leak detection and analysis	Provide memory leak analysis in production environments.
Metric and Alert/Event History	View metric and alert/event history and its associated details.

Feature	Description
Metric Extensions	Create new metrics to monitor conditions specific to customer environments.
Monitoring Templates and Template Collections	Monitoring Templates encapsulate target monitoring settings and can later be applied against many targets. Template Collections (with administration groups) automate the deployment of management settings on targets as they join the group.
Notifications	Define and use different notification methods including e-mail, running custom OS scripts, PL/SQL procedures and SNMP traps; repeat notifications, use of notification-related actions in incident rule sets, administrator notification schedules.
Performance monitoring	Provide real-time and historical performance monitoring.
Real-time monitoring of JVM	Provide a summary view of resource bottlenecks affecting performance, such as the database, I/O, CPU, and locks.
Trace in-flight transactions	View request performance problems in real time. Analyze time spent in each resource bottleneck (extend to each Java method).
User Defined Deployment Procedures (UDDP)	Automate custom processes by creating a procedure from scratch by inserting the required phases, steps, and variables.

5.2.2 Accessing Management Pack for Non-Oracle Middleware Licensed Links

The following pages are licensed features of the Management Pack for Non-Oracle Middleware:

Licensed Page/Link	How to Access
Page Performance tab	From the Enterprise Summary page, select the **Targets** tab, then the **Web Applications** sub-tab. Click any Web Application Name in the table. On the Web Application page, this tab is licensed.
Page Performance page	From the Enterprise Summary page, click the **Page Performance** property page. All links, buttons, and drill-downs on this page are licensed.
■ Advanced Analysis link ■ Alert History link ■ Blackouts link ■ Metric Baselines link	From the Enterprise Summary page, click the **Page Performance** property page. On the Page Performance page, these links in the Related Links section are licensed.
Oracle JVM Diagnostics pages	All pages in Oracle JVM Diagnostics are licensed. All the links under Oracle JVM Diagnostics in the Oracle Application Diagnostics for Java (AD4J) are licensed.

Licensed Page/Link	How to Access
Availability link	From the Enterprise Summary page, click **Targets**, then **Middleware**. On the Middleware page, click an **IBM WebSphere Application Server** link. On the IBM WebSphere Application Server page, this link in the General section is licensed.
	From the Enterprise Summary page, click **Targets**, then **Middleware**. On the Middleware page, click a **JBoss Application Server** link. On the JBoss Application Server page, this link in the General section is licensed.
	From the Enterprise Summary page, click **Targets**, then **Middleware**. On the Middleware page, click an **Apache Tomcat Application Server** link. On the Apache Tomcat Application Server page, this link in the General section is licensed.
- Alert History link and notifications functionality - All Metrics link - Blackouts link	From the Enterprise Summary page, click **Targets**, then **Middleware**. On the Middleware page, click an **IBM WebSphere Application Server** link. On the IBM WebSphere Application Server page, these links in the Related links section are licensed.
	From the Enterprise Summary page, click **Targets**, then **Middleware**. On the Middleware page, click a **JBoss Application Server** link. On the JBoss Application Server page, these links in the Related links section are licensed.
	From the Enterprise Summary page, click **Targets**, then **Middleware**. On the Middleware page, click an **Apache Tomcat Application Server** link. On the Apache Tomcat Application Server page, these links in the Related links section are licensed.
Performance Links section	From the Enterprise Summary page, click the **Targets**, then **Middleware**. On the Middleware page, click an **IBM WebSphere Application Server** link. On the IBM WebSphere Application Server page, click the Performance tab. On the IBM WebSphere Application Server Performance page, all links in this section are licensed.
	From the Enterprise Summary page, click the **Targets**, then **Middleware**. On the Middleware page, click a **JBoss Application Server** link. On the JBoss Application Server page, click the Performance tab. On the JBoss Application Server Performance page, all links in this section are licensed.
Reports Links section	From the Enterprise Summary page, click the **Targets**, then **Middleware**. On the Middleware page, click an **Apache Tomcat Application Server** link. On the Apache Tomcat Application Server page, click the Reports tab. All links in this section are licensed.
Configuration Collection Extensibility	From the Enterprise Manager home page, click the **Enterprise** menu, **Configuration and Custom**. All features, functions, links, buttons and drill-downs on this page, excluding features and functions that apply to the Oracle Database, are licensed.
Configuration Compare	From the Enterprise Manager home page, click the **Enterprise** menu, then **Configuration and Compare**. All features, functions, links, buttons and drill-downs on this page, excluding features and functions that apply to the Oracle Database, are licensed.

Licensed Page/Link	How to Access
Configuration History	From the Enterprise Manager home page, click the **Enterprise** menu, then **Configuration and History**. All features, functions, links, buttons and drill-downs on this page, excluding features and functions that apply to the Oracle Database, are licensed.
Configuration Instance Browser	From the Enterprise Manager home page **Targets** link. Select a Target excluding the Oracle Database. From the Target home page, select the drop-down under the **Target Type** and **Configuration**. All features, functions, links, buttons and drill-downs on this page, excluding features and functions that apply to the Oracle Database, are licensed.
	If the Target Home Page is accessed directly or by other paths:
	From the Target home page, select the drop-down under the **Target Type** and **Configuration**. All features, functions, links, buttons and drill-downs on this page, excluding features and functions that apply to the Oracle Database, are licensed
Configuration Save	From the Enterprise Manager home page, click the **Enterprise** menu, then **Configuration and Save**. All features, functions, links, buttons and drill-downs on this page, excluding features and functions that apply to the Oracle Database, are licensed.
Configuration Search	From the Enterprise Manager home page, click the **Enterprise** menu, then **Configuration and Search**. All features, functions, links, buttons and drill-downs on this page, excluding features and functions that apply to the Oracle Database, are licensed.
Configuration Topology	From the Enterprise Manager home page **Targets** link. Select a Target, excluding the Oracle Database, from the Target home page. Select the drop-down under the **Target Type** and **Configuration**, **Topology**. In the View drop-down, **Used By** is licensed.
	From the Enterprise Manager home page **Targets** link. Select a Target, excluding the Oracle Database, from the Target home page. Select the drop-down under the **Target Type** and **Configuration**, **Topology** and **Customization**. All features, functions, links, buttons and drill-downs on this page are licensed.
	If the Target Home Page is accessed directly or by other paths:
	■ Select a Target, excluding the Oracle Database, from the Target home page. Select the drop-down under the **Target Type** and **Configuration**, **Topology**. In the View drop-down, **Used By** is licensed.
	■ From the Target home page, select the drop-down under the **Target Type**, **Configuration**, **Topology**, and **Customization**. All features, functions, links, buttons and drill-downs on this page are licensed.

5.2.3 Oracle Application Dependency and Performance

Oracle Application Dependency and Performance models and monitors Java EE and Web Services applications. This is restricted to Java EE and web services within the Management Pack for Non-Oracle Middleware.

The following sections describe the licensed features and links of this part of the management pack offered by Enterprise Manager:

- Oracle Application Dependency and Performance Features
- Accessing Oracle Application Dependency and Performance Licensed Links

5.2.3.1 Oracle Application Dependency and Performance Features

Oracle Application Dependency and Performance within the Management Pack for Non-Oracle Middleware includes the following features:

Feature	Description
Automatic modeling and discovery	Automatically model and discover management applications displaying multiple views of the application, including the topology, function/flow, and architectural views.
Contextual visibility into J2EE and web service metrics	Provide drill-down contextual visibility into Java EE and web service metrics.
Metrics visibility at any layer	Automatically generate customized dashboards and views to view metrics at any layer in the application through graphs and tables.
Transaction tracing	Trace transactions for Java EE metrics both vertically through the application stack as well as horizontally across containers.

5.2.3.2 Accessing Oracle Application Dependency and Performance Licensed Links

> **Note:** Within the Management Pack for Non-Oracle Middleware, Application Dependency and Performance licensing is restricted to Java EE and web service components for IBM WebSphere Application Server (WAS), and does not include BPEL, ESB, AIA, Portal, or Pageflow components, nor cover the Oracle WebLogic or OC4J (iAS) platforms.

From the Application Dependency and Performance user interface default view, the following links and menu items are licensed features of the Management Pack for Non-Oracle Middleware:

Licensed Page/Link	How to Access
- Oracle Enterprise Manager link - Web Services link - Services link - Processes link - Applications link - Resources link - CAMM link	From the upper-left navigation pane, click on the **Monitor** tab. These links, including all of the associated links in the right-hand pane, and any pages, views, or links as well as the items they contain are licensed. All tabbed pane links and data available in the right-hand pane as well as all links available from any of the items in the tool bar or by double-clicking an item in the right-hand pane are licensed.
Custom Views tab link	From the upper-left navigation area, click the **Custom Views** tab link. All navigation tree nodes in the lower-left navigation tree as well as all tabbed pane links and data available in the right pane are licensed.

Licensed Page/Link	How to Access
Dashboard tab link	From the lower-left navigation area, click the **Dashboard** tab link. All navigation tree nodes in the lower-left navigation tree as well as all tabbed pane links and data available in the right pane are licensed.
- Manager -> Status - Manager -> Logout - Queries -> URL Query - Dashboard -> Custom Views - Dashboard -> Set Custom Dashboard - Help -> Help Topics - Help -> Memory Information - Help -> About Oracle Application Dependency and Performance	All drop-down menu items and sub-items, navigation bars, lower information bar (bottom of interface), and time frame modification features at the top of the Application Dependency and Performance user interface are licensed, including the accessible links from these drop-down menus.

5.2.4 Management Pack for Non-Oracle Middleware Restricted Use License

Management Pack for Non-Oracle Middleware includes the full capabilities of Enterprise Manager Cloud Control Service Level Management.

See Enterprise Manager Cloud Control Service Level Management in Chapter 7 for more information.

5.2.5 Licensing for Business Transaction Management

The Management Pack for Non-Oracle Middleware includes Business Transaction Management (BTM) features only for non-Oracle platforms which can be proxied through the limited use license of Oracle Service Bus.

BTM within Management Pack for Non-Oracle Middleware Application Dependency and Performance includes the following features:

Feature	Description
Contextual visibility into Java EE and .NET metrics	Provide drill-down contextual visibility into Java EE and .NET metrics.
Exception management	Provide transaction alerting and searching to locate exceptions and errors in transactions that span multiple application components.
Transaction discovery	Discover, record, and correlate transactions as they flow across components that may span multiple JVMs, containers, and platforms.
Transaction-level agreements	Provide transaction-level objectives (TLOs) that span multiple interacting components.

5.2.5.1 Business Transaction Management Restricted-use Licensing

Oracle includes a restricted-use license of Oracle Service Bus (and its subcomponents) for the express purpose of monitoring endpoints for Enterprise Manager Business Transaction Management, covering creation of Proxy and Business Service in pass-through mode only. Oracle Service Bus may be configured with the Business

Transaction Management observer agent in single instance and an additional instance of Oracle Service Bus may be configured for Proxy failover purposes.

5.3 System Monitoring Plug-Ins for Non-Oracle Middleware

The Enterprise Manager System Monitoring Plug-ins for Non-Oracle Middleware provide performance and availability data collection, real-time and historical monitoring, event management/monitoring, notifications, and reporting for Non-Oracle Middleware.

The following System Monitoring plug-ins for non-Oracle middleware are available:

- Apache HTTP Server
- IBM WebSphere MQ
- Microsoft Active Directory

For details on adding the above mentioned non-Oracle middleware targets to Oracle Enterprise Manager Cloud Control 12*c*, please refer to the following documents:

Non-Oracle Middleware Target	Documentation
Apache HTTP Server	See the "Discovering and Monitoring Apache HTTP Server" chapter in the *Oracle Enterprise Manager Cloud Control Oracle Fusion Middleware Management Guide*: http://docs.oracle.com/cd/E24628_01/install.121/e24215/apache.htm
IBM WebSphere MQ	See the "Discovering and Monitoring IBM WebSphere MQ" chapter in the *Oracle Enterprise Manager Cloud Control Oracle Fusion Middleware Management Guide*: http://docs.oracle.com/cd/E24628_01/install.121/e24215/wmq.htm
Microsoft Active Directory	*Oracle Enterprise Manager System Monitoring Plug-in Installation Guide for Microsoft Active Directory*: http://docs.oracle.com/cd/E24628_01/install.121/e28548/toc.htm

The following sections describe the licensed features and links of system-monitoring plug-ins offered by Enterprise Manager:

- System Monitoring Plug-Ins for Non-Oracle Middleware Features
- Accessing System Monitoring Plug-Ins for Non-Oracle Middleware Licensed Links
- System Monitoring Plug-Ins for Non-Oracle Middleware Licensed CLI Verbs

5.3.1 System Monitoring Plug-Ins for Non-Oracle Middleware Features

The following features are available for Apache HTTP Server management:

- Real-time and historical availability monitoring
- Event management/monitoring
- Event/alert notifications: notification methods, rules and schedules
- Event/alert history/metric history
- Metric extensions

- Blackouts/planned outages

- Monitoring templates

- Availability and event reports

- Repository tables and views that store or expose the above data

- Configuration Management: Configuration Collection Extensibility, Configuration Compare (not including the use of Comparison Templates), Configuration History, Configuration Instance Browser, Configuration Save, and Configuration Search

The following features are available for the IBM WebSphere MQ and Microsoft Active Directory plug-ins:

- Real-time and historical performance monitoring and trending

- Event management/monitoring

- Event/alert notifications: notification methods, rules and schedules

- Event/alert history/metric history

- Metric extensions

- Blackouts/planned outages

- Monitoring templates

- Performance and event reports

- Repository tables and views that store or expose the above data

- Distributed management through groups and systems

- Configuration Extensions to allow for addition of custom configuration files.

To use the features above, you must license the System Monitoring Plug-in for Non-Oracle Middleware.

5.3.2 Accessing System Monitoring Plug-Ins for Non-Oracle Middleware Licensed Links

A list of links and navigation, which are licensed as part of the System Monitoring plug-ins for Non-Oracle Middleware, is provided for the following plug-ins:

- Accessing Apache HTTP Server Licensed Links

- Accessing IBM WebSphere MQ Queue Manager Licensed Links

5.3.2.1 Accessing Apache HTTP Server Licensed Links

The following list of links and navigation to them correspond with managing Apache HTTP Server in Oracle Enterprise Manager Cloud Control 12c and are licensed as part of the System Monitoring Plug-in for Non-Oracle Middleware.

Licensed Page/Link	How to Access
The following pages/links are related to general monitoring features and are accessed from the Enterprise Summary page:	
Home page	From the Targets menu, select **All Targets** and then select **Apache HTTP Server** target type in order to display all Apache HTTP Server targets. Select an Apache HTTP Server target to navigate to its home page. On this page, all links are licensed.

Licensed Page/Link	How to Access
Create Blackout	From the Targets menu, select **All Targets** and then select **Apache HTTP Server** target type in order to display all Apache HTTP Server targets. Select an Apache HTTP Server target to navigate to its home page. On this page, select **Blackout**. All links, menu items, tabs, and sections on this page are licensed.
	From the the **Targets** menu, select **All Targets** and then select **Apache HTTP Server** target type in order to display all Apache HTTP Server targets. Select an Apache HTTP Server target to navigate to its home page. On this page, select the **Target** menu, then **Control**, and finally **Create Blackout**. All links, menu items, tabs, and sections on this page are licensed
End Blackout	From the Targets menu, select **All Targets** and then select Apache HTTP Server target type in order to display all Apache HTTP Server targets. Select an Apache HTTP Server target to navigate to its home page. On this page, select **End Blackout**. All links, menu items, tabs, and sections on this page are licensed.
	From the Targets menu, select **All Targets** and then select **Apache HTTP Server** target type in order to display all Apache HTTP Server targets. Select an Apache HTTP Server target to navigate to its home page. On this page, select the **Target** menu, then **Control**, and finally **End Blackout**. All links, menu items, tabs, and sections on this page are licensed.
All Metrics	From the Targets menu, select **All Targets** and then select **Apache HTTP Server** target type in order to display all Apache HTTP Server targets. Select an Apache HTTP Server target to navigate to its home page. On this page, select the **Target** menu, then **Monitoring**, and finally **All Metrics**. All links, menu items, tabs, and sections on this page are licensed.
Status History	From the Targets menu, select **All Targets** and then select **Apache HTTP Server** target type in order to display all Apache HTTP Server targets. Select an Apache HTTP Server target to navigate to its home page. On this page, select the **Target** menu, then **Monitoring**, and finally **Status History**. All links, menu items, tabs, and sections on this page are licensed.
Alert History	From the Targets menu, select **All Targets** and then select **Apache HTTP Server** target type in order to display all Apache HTTP Server targets. Select an Apache HTTP Server target to navigate to its home page. On this page, select the **Target** menu, then **Monitoring**, and finally **Alert History**. All links, menu items, tabs, and sections on this page are licensed.
Blackouts	From the Targets menu, select **All Targets** and then select **Apache HTTP Server** target type in order to display all Apache HTTP Server targets. Select an Apache HTTP Server target to navigate to its home page. On this page, select the **Target** menu, then **Monitoring**, and finally **Blackouts**. All links, menu items, tabs, and sections on this page are licensed.
The following pages/links are related to configuration management features and are accessed from the Enterprise Summary page:	
Last Collected	From the Targets menu, select **All Targets** and then select **Apache HTTP Server** target type in order to display all Apache HTTP Server targets. Select an Apache HTTP Server target to navigate to its home page. On this page, select the **Target** menu, then **Configuration**, and finally **Last Collected**. All links, menu items, tabs, and sections on this page are licensed.

Licensed Page/Link	How to Access
Compare	From the Targets menu, select **All Targets** and then select **Apache HTTP Server** target type in order to display all Apache HTTP Server targets. Select an Apache HTTP Server target to navigate to its home page. On this page, select the **Target** menu, then **Configuration**, and finally **Compare**. All links, menu items, tabs, and sections on this page are licensed.
Search	From the Targets menu, select **All Targets** and then select **Apache HTTP Server** target type in order to display all Apache HTTP Server targets. Select an Apache HTTP Server target to navigate to its home page. On this page, select the **Target** menu, then **Configuration**, and finally **Search**. All links, menu items, tabs, and sections on this page are licensed.
History	From the Targets menu, select **All Targets** and then select **Apache HTTP Server** target type in order to display all Apache HTTP Server targets. Select an Apache HTTP Server target to navigate to its home page. On this page, select the **Target** menu, then **Configuration**, and finally **History**. All links, menu items, tabs, and sections on this page are licensed.
Save…	From the Targets menu, select **All Targets** and then select **Apache HTTP Server** target type in order to display all Apache HTTP Server targets. Select an Apache HTTP Server target to navigate to its home page. On this page, select the **Target** menu, then **Configuration**, and finally **Save…**. All links, menu items, tabs, and sections on this page are licensed.
Saved	From the Targets menu, select **All Targets** and then select **Apache HTTP Server** target type in order to display all Apache HTTP Server targets. Select an Apache HTTP Server target to navigate to its home page. On this page, select the **Target** menu, then **Configuration**, and finally **Saved**. All links, menu items, tabs, and sections on this page are licensed.
Topology	From the Targets menu, select **All Targets** and then select **Apache HTTP Server** target type in order to display all Apache HTTP Server targets. Select an Apache HTTP Server target to navigate to its home page. On this page, select the **Target** menu, then **Configuration**, and finally **Topology**. All links, menu items, tabs, and sections on this page are licensed.
The following pages/links are related to compliance management features and are accessed from the Enterprise Summary page:	
Results	From the Targets menu, select **All Targets** and then select **Apache HTTP Server** target type in order to display all Apache HTTP Server targets. Select an Apache HTTP Server target to navigate to its home page. On this page, select the **Target** menu, then **Compliance**, and finally **Results**. All links, menu items, tabs, and sections on this page are licensed.
Standard Associations	From the Targets menu, select **All Targets** and then select **Apache HTTP Server** target type in order to display all Apache HTTP Server targets. Select an Apache HTTP Server target to navigate to its home page. On this page, select the **Target** menu, then **Compliance**, and finally **Standard Associations**. All links, menu items, tabs, and sections on this page are licensed.

5.3.2.2 Accessing IBM WebSphere MQ Queue Manager Licensed Links

The following list of links and navigation to them correspond with managing IBM WebSphere MQ Queue Manager in Oracle Enterprise Manager Cloud Control 12c and are licensed as part of the System Monitoring Plug-in for Non-Oracle Middleware.

Licensed Page/Link	How to Access
IBM WebSphere MQ Queue Manager plug-in	From the Enterprise Manager home page, click the **Setup** menu, then **Agents**. All links and subordinate pages of the IBM WebSphere MQ Queue Manager plug-in are licensed.

5.3.3 System Monitoring Plug-Ins for Non-Oracle Middleware Licensed CLI Verbs

The following command line interface (CLI) verb (as it relates to adding non-Oracle middleware) is licensed as part of the System Monitoring Plug-in for Non-Oracle Middleware:

> **Note:** There are no EM CLI verbs associated with Apache HTTP Server that are licensable.

- `add_target`

The internal names to be used with the `add_target` verb are:

- `wmq` (See note below.)
- `active_directory`

> **Note:** For `wmq`, another jar file is needed after executing the `add_target` command. After adding the target, modify the jar path property from the "Monitoring Configuration link" by appending the following path:
>
> `/scratch/mqjars/com.ibm.mq.jar`
>
> Use a colon as a separator between the two jar files if the agent is Linux-based, and a semicolon if the Agent is Windows-based.

5.4 System Monitoring Plug-Ins for Non-Oracle Databases

The following plug-ins for non-Oracle databases are available:

- Oracle System Monitoring Plug-in for Microsoft SQL Server
- Oracle System Monitoring Plug-in for IBM DB2
- Oracle System Monitoring Plug-in for Sybase Adaptive Server Enterprise

The following sections describe the licensed features and links of system-monitoring plug-ins offered by Enterprise Manager:

- System Monitoring Plug-Ins for Non-Oracle Databases Features
- Accessing System Monitoring Plug-Ins for Non-Oracle Databases Licensed Links
- System Monitoring Plug-Ins for Non-Oracle Databases Licensed CLI Verbs

5.4.1 System Monitoring Plug-Ins for Non-Oracle Databases Features

The following features are available for these plug-ins:

- Performance monitoring and trending
- Helpdesk (ticketing) and event connectors

- Metric alert management: metric history and associated drill-downs, alert history and associated drill-downs, event history and associated drill-downs

- Metric extensions

- Event/alert notifications: different notification methods including e-mail, running custom OS scripts, PL/SQL procedures and SNMP traps; repeat notifications, use of notification-related actions in incident rule sets, administrator notification schedules

- Blackouts/planned outages

- Monitoring templates, template collections with administration groups, and metric extensions

- Performance and event reports

- Configuration Management: Configuration Collection Extensibility for licensed target types, Configuration Compare (not including the use of Comparison Templates), Configuration History, Configuration Instance Browser, Configuration Save, and Configuration Search for licensed target types

- Repository tables/views that store/expose the above data

- User Defined Deployment Procedures (UDDP): Automate custom processes by creating a procedure from scratch by inserting the required phases, steps, and variables.

To use these features, you must license the System Monitoring Plug-ins for Non-Oracle Database.

5.4.2 Accessing System Monitoring Plug-Ins for Non-Oracle Databases Licensed Links

The list that follows itemizes the links that require licensing of the plug-ins. You can navigate to these features in several ways. The list that follows assumes that you begin from the main Enterprise Manager Cloud Control home page.

In the upper right corner of the page, click **Setup**, then select **Add Target**, and finally **Add Targets Manually**. On this page, select the **Add Non-Host Targets by Specifying Target Monitoring Properties** option. The following selections from the Target Type drop-down menu are licensed features of the System Monitoring Plug-in for Non-Oracle Databases:

- Microsoft SQL Server

- IBM DB2 Database

- Sybase Adaptive Server Enterprise

5.4.3 System Monitoring Plug-Ins for Non-Oracle Databases Licensed CLI Verbs

The following command line interface (CLI) verb is licensed as part of the System Monitoring Plug-in for Non-Oracle Databases:

- `add_target`

The internal names to be used with the add_target verb are:

- `microsoft_sqlserver_database`

- `ibm_db2_database`

- `sybase_ase`

6

Application Performance and Regression Testing

This chapter describes the products offered by Enterprise Manager in support of application performance and regression testing.

The Oracle Enterprise Manager Application Testing Suite provides automated functional testing, load testing, and test management for Web, SOA-based, and packaged Oracle applications, as well as Oracle databases. The suite consists of the following separately licensed products in the Oracle Application Testing Suite:

- Oracle Test Manager

  This product enables you to document and manage the overall test process, including test planning, test requirements, test cases, and issues tracking. Oracle Test Manager is recommended to use in combination with Oracle Functional Testing/Oracle Functional Testing Suite for Oracle Applications as it allows for test execution scheduling and a combined reporting.

- Oracle Functional Testing

  This product enables you to automate functional and regression testing of Web applications and Web Services. It also allows you to automate testing for Oracle databases.

  > **Note:** This license cannot be used for testing Oracle applications, such as, Oracle EBS, Fusion, Siebel, PeopleSoft, JD Edwards, Hyperion or applications based on Oracle ADF or Oracle Forms, as these applications and technologies require licensing of Oracle Functional Testing Suite for Oracle Applications.

- Oracle Load Testing

  This product enables you to automate load testing of Web applications and Web Services. It also allows you to automate testing for Oracle databases.

  > **Note:** This license cannot be used for testing Oracle applications, such as, Oracle EBS, Fusion, Siebel, Peoplesoft, JD Edwards, Hyperion or applications based on Oracle ADF or Oracle Forms, as these applications and technologies require licensing of Oracle Load Testing Suite for Oracle Applications.

- Oracle Functional Testing Suite for Oracle Applications

This product enables you to automate functional and regression testing of Web applications, Oracle packaged applications like Siebel, Oracle E-Business Suite, Oracle Fusion, JD Edwards, Peoplesoft, and Hyperion applications and Web Services. It also allows you to automate applications based on Application Development Framework (ADF), Oracle forms, and Oracle databases.

- Oracle Load Testing Suite for Oracle Applications

This product enables you to automate load testing of Web applications, Oracle packaged application like Siebel, Oracle E-Business Suite, JD Edwards, Peoplesoft, Hyperion, Oracle Fusion applications and Web Services. It also allows you to automate applications based on Application Development Framework (ADF), Oracle forms, and Oracle databases.

The following sections provide licensing information for each member of the suite.

6.1 Oracle Test Manager

Oracle Test Manager licensing is based on the Oracle Named User Plus (NUP) licensing model. One NUP license seat of Oracle Test Manager is required for each user of the product.

6.2 Oracle Functional Testing

As with Oracle Test Manager, Oracle Functional Testing licensing is also based on the Oracle Named User Plus (NUP) licensing model. One NUP license seat of Oracle Functional Testing is required for each user of the product.

The following sections describe this product offered by Enterprise Manager:

- OpenScript
- Flow Builder
- Oracle Functional Testing Accelerators
- Dependencies with Oracle Load Testing

6.2.1 OpenScript

The OpenScript component of Oracle Functional Testing is the interface where you create and run your test automation scripts, and does not require a separate license. If you are licensed for Oracle Functional Testing, you can automatically access OpenScript and the base testing modules for Web Functional Testing and Web Load Testing script generation. Other application testing modules or accelerators developed for OpenScript may be licensed and priced separately.

6.2.2 Flow Builder

Flow Builder is the keyword-driven testing framework that is a component of Oracle Functional Testing. It provides an alternative way of creating test automation scripts where non-technical users can compose test flows by defining series of user actions that together define an application user flow instead of recording a script which is the traditional approach. These test flows are then transformed into executable test automation scripts at run time. Use of Flow Builder does not require a separate license. If you are licensed for Oracle Functional Testing, then you are entitled to use the Flow Builder keyword-driven testing framework.

> **Note:** If you intend to use any of the pre-built components or flows included in the Oracle Flow Builder framework for testing Oracle E-Business Suite, then you will need to license Oracle Functional Testing Suite for Oracle Applications.

6.2.3 Oracle Functional Testing Accelerators

Oracle Functional Testing Accelerators provide customized functionality to enable faster and easier automated functional testing for specific applications or technologies. These optional Accelerators are available for specific applications, and are handled as add-ons to the base Oracle Functional Testing licenses.

Each Accelerator requires an incremental NUP license added on to the Oracle Functional Testing base license for each user that requires the capabilities of a specific accelerator. You do not need to license the same number of NUP's for Functional Testing Accelerators as you would for Oracle Functional Testing. Oracle Functional Testing is simply a prerequisite for the Functional Testing accelerators, so you must purchase (or own) at least the equivalent number of NUP's of Oracle Functional Testing for Web Application before you can purchase NUP's for the accelerators.

The following Functional Testing Accelerators are currently available:

- **Functional Testing Accelerator for Web Services**

  This Accelerator provides faster automated functional testing of Web Services by providing a custom module for creating Web Services scripts. This includes a Web Services wizard that enables you to create test scripts automatically from your WSDL files.

  > **Note:** The functional testing accelerator, which is used for testing Oracle applications, is now licensed under the Oracle Functional Testing Suite for Oracle Applications or Oracle Load Testing Suite for Oracle Applications and can be found on the applications price lists.

6.2.4 Dependencies with Oracle Load Testing

The Oracle Application Testing Suite utilizes an integrated scripting platform for creating both automated functional testing and load testing scripts. This scripting platform comprises part of the Oracle Functional Testing product.

One license of Oracle Functional Testing is included with the Oracle Load Testing Controller to be used for creating automated test scripts for load testing. If you require additional script recorders for load test scripting or require functional testing capabilities, you must purchase separate additional licenses of Oracle Functional Testing.

6.3 Oracle Load Testing

The following licensed components are required for Oracle Load Testing:

- **Load Testing**

  This component simulates the virtual users that generate a load against the application under test. Licensing for this component is based on the Oracle NUP licensing model. Each emulated human user or non-human operated device is

considered a virtual user and is counted to determine the number of required NUP licenses.

- **Load Testing Controller**

    This component enables you to configure load test scenarios and server monitors, then view results. Licensing for this component is based on the Oracle Processor licensing model.

6.3.1 Oracle Load Testing Accelerators

Oracle Load Testing Accelerators provide customized functionality to enable faster and easier automated load testing for specific applications or technologies. These optional Accelerators are available for specific applications, and are handled as add-ons to the base Oracle Load Testing licenses.

Each Accelerator requires an incremental NUP license added on to the Oracle Load Testing base license for each virtual user that requires the capabilities of a specific accelerator. You do not need to license the same number of NUP's (VU's) for Load Testing Accelerators as you would for Oracle Load Testing. Oracle Load Testing is simply a prerequisite for the Load Testing accelerators, so you must purchase (or own) at least the equivalent number of NUP's (VU's) of Oracle Load Testing for Web Application before you can purchase NUP's (VU's) for the accelerators.

The following Load Testing Accelerators are currently available:

- **Load Testing Accelerator for Web Services**

    This Accelerator provides faster load testing of Web Services by providing a custom module for creating Web Services scripts. You can load test your Web Services by simulating concurrent virtual user clients accessing Web Service interfaces.

- **Load Testing Accelerator for Oracle Database**

    This Accelerator enables you to perform direct load testing of Oracle Database using synthetic test scripts. You can also automatically generate test scripts by importing database transactions from Real Application Testing's Database Replay capture files, or by importing them from other text files containing SQL and PL/SQL statements. You can then run the test scripts across thousands of concurrent virtual users in Oracle Load Testing.

    > **Note:** The load testing accelerator, which is used for testing Oracle applications, is now licensed under the Oracle Functional Testing Suite for Oracle Applications or Oracle Load Testing Suite for Oracle Applications and can be found on the applications price lists.

6.3.2 Dependencies with Oracle Functional Testing

See Dependencies with Oracle Load Testing.

6.3.3 Oracle Load Testing Developer Edition

The Oracle Load Testing Developer Edition is a bundled solution that includes 2 Processor licenses of Oracle Load Testing Controller and 10 NUP (virtual user) licenses of Oracle Load Testing. This solution is intended for running small load tests to enable developers to test application performance during development. You cannot upgrade this edition to a full Oracle Load Testing configuration by adding more virtual users.

6.4 Oracle Functional Testing Suite for Oracle Applications

As with Oracle Functional Testing, Oracle Functional Testing Suite for Oracle Applications licensing is also based on the Oracle Named User Plus (NUP) licensing model. One NUP license seat of Oracle Functional Testing Suite for Oracle Applications is required for each user of the product.

> **Note:**   Oracle Functional Testing Suite for Oracle Applications is licensed from the various Oracle applications price lists.

Oracle Functional Testing Suite for Oracle Applications includes the base product Oracle Functional Testing and adds capabilities for testing Oracle applications. The following products are included in this suite:

- **Oracle Functional Testing**

    This product enables you to automate functional and regression testing of Web applications and Web Services. It also allows you to automate testing for Oracle Databases.

- **Functional Testing Accelerator for Siebel**

    This Accelerator provides faster automated functional testing of Siebel CRM applications by providing specialized capabilities for creating Siebel functional test scripts. This is integrated with Siebel Test Automation's Component Automation Services (CAS) library to enable out-of-box testing of Siebel applications, including support for testing High Interactivity components. This Accelerator supports Siebel CRM version 7.7 and higher.

    The Siebel testing accelerator also provides integration to Siebel Test Automation for OpenUI (STAO) and supports test automation of Siebel's new OpenUI interface.

    Functional Testing Accelerator for Siebel includes a restricted-use license for Siebel Test Automation Interfaces for use with Functional Testing Accelerator for Siebel only.

- **Functional Testing Accelerator for Oracle E-Business Suite**

    This Accelerator provides automated functional and regression testing of Oracle E-Business Suite (EBS) applications and custom Oracle Forms applications. The accelerator provides support for both Web and Oracle Forms application interfaces to ensure application quality.

- **Functional Testing Accelerator for Oracle Application Development Framework**

    This Accelerator provides automated functional and regression testing of applications created with the Oracle Application Development Framework (ADF). The accelerator provides support for both Web and ADF application interfaces to ensure the quality of your ADF-based custom applications and Oracle Fusion Applications.

- **Functional Testing Accelerator for JD Edwards EnterpriseOne**

    This Accelerator provides automated functional and regression testing of JD Edwards EnterpriseOne applications and have specific support for the DataGrid components to ensure application quality.

Additional accelerators for Web Services or Oracle Database testing can be licensed from the technology price list in the same way as for Oracle Functional Testing.

6.5 Oracle Load Testing Suite for Oracle Applications

Oracle Load Testing Suite for Oracle Applications includes the base product Oracle Load Testing and Oracle Load Testing Controller. Oracle Load Testing Suite for Oracle Applications is licensed based on the work number of virtual user that generates a load against the application under test. Licensing for this component is based on the Oracle NUP licensing model. Each emulated human user or non-human operated device is considered a virtual user and is counted to determine the number of required NUP licenses.

> **Note:**   Oracle Load Testing Suite for Oracle Applications is licensed from the various Oracle applications price lists.

It adds capabilities for testing Oracle applications and technologies through special accelerators. The following products are included in this suite:

- **Oracle Load Testing**

  This component simulates the virtual users that generate a load against the application under test. Licensing for this component is based on the Oracle NUP licensing model. Each emulated human user or non-human operated device is considered a virtual user and is counted to determine the number of required NUP licenses.

- **Oracle Load Testing Controller**

  This component enables you to configure load test scenarios and server monitors, then view results. Licensing for this component is based on the Oracle Processor licensing model.

- **Load Testing Accelerator for Siebel**

  This Accelerator provides faster load testing of Siebel CRM applications by providing specialized capabilities for creating Siebel load test scripts. You can load test your Siebel applications by simulating thousands of concurrent users running Siebel Web transactions.

  This Accelerator is integrated with Siebel Test Automation's load test correlation library, and supports Siebel CRM version 7.7 and higher (including 8.x versions).

  Load Testing Accelerator for Siebel includes a restricted-use license for Siebel Test Automation Interfaces for use with Load Testing Accelerator for Siebel only.

- **Load Testing Accelerator for Oracle E-Business Suite**

  This Accelerator enables you to simulate thousands of virtual users accessing your Oracle E-Business Suite applications or custom Oracle Forms applications simultaneously to measure the effect of the load on application performance. The Accelerator provides support for both Web and Oracle Forms application interfaces and protocols.

- **Load Testing Accelerator for Oracle Application Development Framework**

  This Accelerator enables you to test the performance of your Oracle Fusion Applications or applications using Oracle Application Development Framework (ADF). The accelerator provides support for both Web and ADF application interfaces to ensure the performance and scalability of your ADF-based custom applications and Oracle Fusion Applications.

- **Load Testing Accelerator for Oracle JD Edwards EnterpriseOne**

This Accelerator enables you to test the performance of your Oracle JD Edwards Enterprise One applications. This accelerator provides automatic correlation rules for testing JD Edwards Enterprise One applications.

- **Load Testing Accelerator for Oracle Peoplesoft**

    This Accelerator enables you to test the performance of your Oracle Peoplesoft applications. This accelerator provides automatic correlation rules for testing Peoplesoft applications.

- **Load Testing Accelerator for Oracle Hyperion**

    This Accelerator enables you to test the performance of your Oracle Hyperion applications. This accelerator provides automatic correlation rules for testing Hyperion applications.

6.6 Restricted Use Licenses Provided with Application Testing Suite

A restricted use license of **BI Publisher** is included for users to run reports provided with Oracle Load Testing and Oracle Test Manager and modify provided layouts. A full-use license of BI Publisher is required for creating new reports.

A restricted use license of **Oracle WebLogic Server** is provided with Oracle Load Testing and Oracle Test Manager for use as the back-end application server for these products.

A restricted use license of **Oracle Database Enterprise Edition** is provided with Oracle Load Testing and Oracle Test Manager for use as the back-end database server for these products.

7

End User Monitoring

This chapter describes the management packs offered by Enterprise Manager in support of end-user monitoring. The following management packs are included:

- Oracle Real User Experience Insight
- Enterprise Manager Cloud Control Service Level Management

7.1 Oracle Real User Experience Insight

Oracle Real User Experience Insight (RUEI) enables enterprises to maximize the value of their business-critical applications by delivering insight into real end-user experiences. It can help identify lost revenue from frustrated users, reduce support costs by lowering call center volumes, accelerate problem resolution of poorly performing applications, and help businesses adapt to changing needs by providing insight into business trends and user preferences. It integrates performance analysis and usage analysis into a single offering, enabling business and IT stakeholders to develop a shared understanding of their application users' insight experience.

Capabilities

Oracle Real User Experience uniquely captures a complete picture of the end-user experience and behavior, including:

- Actual user-experience response time for key system transactions
- Synthetic transaction-based monitoring
- Complete quality of experience, including system and application errors and user-created errors
- Comprehensive perspective of application utilization — which transactions are used by which end-users, which are the most problematic and why, and so forth

RUEI's passive monitoring capability is built using state-of-the-art Network Protocol Analysis technology, which does not require any modification, changes, or instrumentation of the application. Its passive monitoring approach allows enterprises to deploy in production, without requiring costly test/QA environment validations.

The following sections describe this management pack offered by Enterprise Manager:

- Oracle Real User Experience Insight Features
- Accessing Oracle Real User Experience Insight Licensed Links
- Restricted Use Licenses Provided with Oracle Real User Experience Insight

7.1.1 Oracle Real User Experience Insight Features

Oracle Real User Experience Insight includes the following features:

Feature	Description
Application/Suite/Service modeling	Model critical application environment by domain, URL and argument filtering based on a wide range of supported protocols.
Complete user experience monitoring	Monitor all request and responses between a defined application environment and an end-user, determine usage, performance, and service level compliance.
Customized Reports and Dashboard	Dynamically group and filter data sets, apply filters and combine data points to generate graphs and tables that can be stored, printed, e-mailed, published in dashboards and share reports and data as exports in various formats.
Enriched Data Exchange	Store all monitored data in structured Db tables to allow for external data integration and or exposure to custom reporting tools.
Key Performance Indicators (KPI) tracking and reporting	Set thresholds to metrics, add conditions and filters to identify anomalies and establish trendline data.
User flow modeling	Model critical business functions that end users have to go through as a predefined 'click-path'.
User Session Diagnostics and Session Replay	Report, review and replay entire user sessions from a clickstream perspective, store and share related raw and structured data.

7.1.2 Accessing Oracle Real User Experience Insight Licensed Links

If this applies, the Suite Type E-Business Suite may be considered part of Oracle Real User Experience Insight and does not require a license for Oracle Enterprise Manager Application Management Suite for Oracle E-Business Suite.

The following information describes the links in RUEI that have been included as part of the license of one of Oracle Enterprise Management Application Management Suites:

- From main console of Real User Experience Insight, go to main (tabbed) navigation pane on top, choose **Configuration**. Then from main navigation panel on the left, go to Applications and select **Suites**.

- On the Suites Configuration page, a wizard can be accessed through the link **New Suite**. On the second page of the wizard, a Suite Type has to be selected.

- The following Suite Types are part of the license of the mentioned Oracle Enterprise Management Application Management Suites:

Suite Type	Required license Pack
Siebel	Oracle Enterprise Manager Application Management Suite for Siebel
E-Business Suite	Oracle Enterprise Manager Application Management Suite for Oracle E-Business Suite
JD Edwards	Oracle Enterprise Manager Application Management Suite for JD Edwards EnterpriseOne
Fusion framework	Oracle Enterprise Manager Application Management Suite for Oracle Fusion Applications

Suite Type	Required license Pack
PeopleSoft	Oracle Enterprise Manager Application Management Suite for PeopleSoft

The mentioned links can only be used when the mentioned Oracle Enterprise Management Application Management Suite pack has been licensed.

> **Note:** Suite Type E-Business Suite can be used for monitoring standalone Oracle Forms applications that are not considered part of Oracle E-Business Suite. All of the pages in Oracle Real User Experience Insight (RUEI) are licensed features of RUEI and require the pack license.

> **Note:** This information includes all feature links that may contain information derived from the creation of a Suite in RUEI, that is considered part of Oracle Enterprise Manager Application Management Suites.
>
> Customers who previously licensed the standalone accelerators for RUEI can continue to use RUEI under their previously licensed terms. However, they are not entitled to use the capabilities contained in any of the mentioned Oracle Enterprise Management Application Management Suites.

Any and all methods of accessing pack functionality — whether through Oracle Enterprise Manager Cloud Control 12*c*, Desktop Widgets, command-line APIs, or direct access to the underlying data — require the Pack license.

Additionally, RUEI includes the full capabilities of Enterprise Manager Cloud Control Service Level Management.

7.1.2.1 Licensed Links Applicable to Business Application

The following links are licensable for Business Application targets:

Licensed Page/Link	How to Access
Real User Experience (RUEI) Data	From the Enterprise Manager home page, click the **Targets** menu, then select **Business Application**. Select a Business Application target from the list. On the Business Application home page, select the **Business Application** target menu, then select **Real User Experience (RUEI)**, and finally **RUEI** data. All links in the page are licensed by the Real User Experience Insight pack.
RUEI Session Diagnostics	From the Enterprise Manager home page, click the **Targets** menu, then select **Business Application**. Select a Business Application target from the list. On the Business Application home page, select the **Business Application** target menu, the select **Real User Experience (RUEI)**, and finally **RUEI Session Diagnostics**. All links in the page are licensed by the Real User Experience Insight pack.

Licensed Page/Link	How to Access
RUEI Metrics	From the Enterprise Manager home page, click the **Targets** menu, then select **Business Application**. Select a Business Application target from the list. On the Business Application home page, select the **Business Application** target menu, then **select Real User Experience (RUEI)**, and finally **RUEI Session Diagnostics**. All links in the page are licensed by the Real User Experience Insight pack.
Business Transaction Drill-Down Page	From the Enterprise Manager home page, click the **Targets** menu, then select **Business Application**. Select a Business Application target from the list. On the Business Application home page, select any link within the Business Transaction Region.

From the Business Application menu, access is available to the home page. There are licensable links on regions that could be part of the home page under Real User Experience Insight. These licensable links could include the following regions:

Business Application home page	All functions of the mentioned regions are licensed by the Real User Experience Insight Pack.
- RUEI - Key Performance Indicators (KPI) - RUEI - Top Executed User Requests - RUEI - Top user and application Violations - RUEI - Top Users - RUEI - User Flows - Service Test Status - SLA Dashboard - SLA Summary Region	

7.1.3 Restricted Use Licenses Provided with Oracle Real User Experience Insight

A restricted use license of Business Intelligence Publisher is included for users to run reports on the Real User Experience Insight (RUEI) repository and to modify provided layouts.

Additional database options or additional servers for disaster recovery require separate licensing. Customers receive one single-instance database with the RUEI repository. In a scaled deployment of Oracle Real User Experience Insight, where multiple RUEI processing engines are deployed, customers receive a single-instance database per engine. To protect the repository with Data Guard, customers need to purchase a license for the standby site. To protect the repository with Oracle Real Application Clusters, customers must license the second node for the database, and both nodes require an Oracle Real Application Clusters license.

The use of the RUEI repository for the Enriched Data Export Facility feature is included in the license. If the Enriched Data Exchange feature is configured to store data to separate database instance, not part of the RUEI repository, these nodes require an Oracle Database license.

7.2 Enterprise Manager Cloud Control Service Level Management

Enterprise Manager Cloud Control Service Level Management (SLM) offers a rich monitoring solution that helps IT organizations achieve high availability and performance, and optimized service levels for their business services. SLM actively

monitors and reports on the availability and performance of services, including end-user business functions, Web applications, and infrastructure components. Using service tests or synthetic transactions executed from remote user locations (beacons), businesses can monitor services from the end-users' perspectives and the services' correlation to the underlying IT infrastructure. In addition, SLM assesses the business impact of any service problem or failure, and indicates whether service level goals have been met.

Enterprise Manager Cloud Control Service Level Management was introduced as a standalone Service Level Management Pack with Enterprise Manager version 10g release 2. Since Enterprise Manager 11g, Service Level Management is licensed as part of either:

- Oracle Real User Experience Insight
- WebLogic Server Management pack Enterprise Edition
- SOA Management Pack Enterprise Edition
- Management Pack for WebCenter
- Management Pack for Non-Oracle Middleware
- Business Intelligence Management Pack
- Management Pack Plus for Identity Management

A subset of functionality in the Service Level Management Pack was previously included as part of the Diagnostics Pack for Application Server license. Customers who had licensed the Diagnostics Pack for Application Server 10g Release 1 are entitled to continue to use the following specific functionality without licensing any of the packs above:

- Web Application service test monitoring with HTTP and HTTPS protocols (test type itself has been deprecated, existing tests will continue to work)
- Host monitoring with `ping` protocol

The following sections describe this management pack offered by Enterprise Manager:

- Enterprise Manager Cloud Control SLM Features
- Accessing Enterprise Manager Cloud Control SLM Licensed Links
- Enterprise Manager Cloud Control SLM Licensed CLI Verbs
- Restricted Use Licenses Provided with Oracle Enterprise Manager Cloud Control Service Level Management

7.2.1 Enterprise Manager Cloud Control SLM Features

Enterprise Manager Cloud Control Service Level Management (SLM) includes the following features:

Feature	Description
Beacons	Measure availability and performance from representative key user locations.
Complete service monitoring	Monitor service availability, performance, usage, and service level compliance.

Feature	Description
Service Dashboards	Provide the ability to set up and store selections of Services and report them via the Service Dashboard page and detail page, allowing for direct review or mailing of the dashboard.
Service modeling	Model critical business functions based on a wide range of supported protocols.

7.2.2 Accessing Enterprise Manager Cloud Control SLM Licensed Links

The following information describes the Enterprise Manager links that require licensing of SLM. This information does not include feature links that may contain information derived from the creation of tests and beacons, but are considered part of SLM. The list that follows assumes that you begin from the main Cloud Control home page:

- Accessing Services Links

- Accessing Forms Application Links

7.2.2.1 Accessing Services Links

Licensed services links consist of configuration pages and monitoring pages.

- For configuration pages, from the Enterprise Manager home page, select the **Targets** menu, then **Services**:

  - On the Services page, as part of the Generic Service creation **Service Test** step, defining a service's availability based on the execution of a service test is a licensed feature of Oracle Real User Experience Insight (RUEI).

  - On the Services page, as part of the Generic Service creation, the **Beacons page** is a licensed feature of RUEI.

  - On the Services page, click any **Name** link (except for Aggregate Service) in the table. On the Service page that appears, select the **Monitoring Configuration** sub-tab. The **Service Tests and Beacons** link on the Monitoring Configuration page is a licensed feature of RUEI.

  - On the Services page, click either the **Name** link of a Generic Service or Forms Application in the table. On the Service page that appears, select the **Monitoring Configuration** sub-tab. On the Monitoring Configuration page, the **Enable Forms Transaction Monitoring** link is a licensed feature of RUEI.

  - On the Monitoring Configuration page, select **Availability Definition**. Select **Service Test** from the drop-down list on the **Availability Definition** page. Defining a service's availability based on the execution of a service test is a licensed feature of RUEI.

- For monitoring pages, from the Enterprise Manager home page, select the **Targets** menu, then **Services**:

  - On the Services page, select a service **Name** link in the table. On the Service page that appears, the **Test Performance** sub-tab and **Black Out** button are licensed features of RUEI.

  - On the Services page, select a service **Name** link in the table. On the Service page that appears, select the **Test Performance** sub-tab. All links and controls on this page are licensed as part of RUEI.

- The following **Related Links** are also part of RUEI:

- Alert History

- Blackouts

- Metric Baselines

- Past Changes

- Pending Changes (where applicable)

7.2.2.2 Accessing Forms Application Links

Licensed services links consist of configuration pages and monitoring pages.

- For configuration pages, from the Enterprise Manager home page, select the **Targets** menu, then **Services**:

  - On the Services page, select **Forms Application** from the drop-down list and click **Go**. Select **Service Test** from the drop down-menu on the **Availability** page of the Create Forms Application wizard. Defining a form application's availability based on the execution of a service test is a licensed feature of Oracle Real User Experience Insight (RUEI).

  - On the Services page, select **Forms Application** from the drop-down list and click **Go**. The **Beacons page** of the Create Web Application wizard is a licensed feature of RUEI.

  - On the Services page, click any **Forms Application Name** link, then select the **Monitoring Configuration** sub-tab. The **Service Tests and Beacons** link in the **Generic Tasks** section of the Monitoring Configuration page is a licensed feature of RUEI.

  - On the Monitoring Configuration page, select **Availability Definition** from the **Generic Tasks** section. The **Service Test** choice from the drop-down list on the **Availability Definition** page is a licensed feature of RUEI.

- For monitoring pages, from the Enterprise Manager home page, select the **Targets** menu, then **Services**:

  - On the Services page, click a Forms Application **Name** link in the table to go to the Forms Application Home page. The **Test Performance** link and **Black Out** button are licensed features of RUEI.

- The following Related Links are also part of RUEI:

  - Alert History

  - Blackouts

  - Metric Baselines

  - Past Changes

  - Pending Changes (where applicable)

7.2.3 Enterprise Manager Cloud Control SLM Licensed CLI Verbs

The following Enterprise Manager command line interface (CLI) verbs are licensed as part of Enterprise Manager Cloud Control Service Level Management:

add_beacon	extract_template
apply_template_tests	remove_beacon
assign_test_to_target	set_availability
delete_test	set_key_beacons_and_tests
disable_test	sync_beacon
enable_test	

7.2.4 Restricted Use Licenses Provided with Oracle Enterprise Manager Cloud Control Service Level Management

A restricted use license of Oracle Functional Testing (OFT) is included for the purpose of recording test scripts only.

8

Packaged Application Management

This chapter describes the licensed features and access points of the Application products available for Oracle Enterprise Manager. The following management packs are included:

- Application Management Suite for Siebel
- Application Management Pack for Fusion Applications
- Application Management Suite for Fusion Applications
- Application Management Suite for Oracle E-Business Suite
- Application Management Suite for JD Edwards EnterpriseOne
- Application Management Suite for PeopleSoft Enterprise

8.1 Application Management Suite for Siebel

This product offers comprehensive application management capabilities that help IT organizations simplify the administration and monitoring of their Siebel Enterprise environments. The Application Management Suite for Siebel is composed of the following physical components:

- Siebel Plug-in (built into Enterprise Manager Cloud Control 12*c*)
- Oracle Real User Experience Insight (RUEI)

The management suite contains a restricted use license of RUEI for use against the core Siebel application. The management suite also includes a restricted use license of Siebel Test Automation (STA) for running synthetic transaction monitoring scripts. The STA license does not cover the use of test automation tools to carry out functional nor load tests against the Siebel application.

Siebel Diagnostic Tool, a standalone utility released with the Siebel Media Pack since Siebel 8.0, is licensed as part of Oracle Application Management Suite for Siebel. All features and capabilities of this tool require the Oracle Application Management Suite for Siebel license.

The following sections discuss the licensed features and links for the Application Management Suite for Siebel as well as the Service Level Management and Configuration Management licensed features and links within this product:

- Application Management Suite for Siebel Features
- Application Management Suite for Siebel Support for Real User Monitoring
- Accessing Application Management Suite for Siebel Licensed Links
- Application Management Suite for Siebel Support for Service Level Management

- [Application Management Suite for Siebel Support for Configuration Management](#)
- [Application Management Suite for Siebel Support for Oracle HTTP Server](#)

8.1.1 Application Management Suite for Siebel Features

The Application Management Suite for Siebel includes the following features:

Feature	Description
Automatic discovery	Discover Siebel components. Create system and services targets with all of the associated infrastructure components
Blackouts	Suspend monitoring on targets to support scheduled maintenance periods.
Configuration management	Track configuration parameters, take configuration snapshots, and compare configurations
Event log analysis	Find relevant log files to troubleshoot problems faster.
Management Connectors	Helpdesk (ticketing) connectors open helpdesk tickets for incidents raised in Enterprise Manager. Event connectors share event information with other management systems.
Metric and Alert/Event History	View metric and alert/event history and its associated details.
Metric Extensions	Create new metrics to monitor conditions specific to customer environments.
Monitoring and diagnostics	Receive real-time metrics, historical data, and alerts. Examine log files and analyze SARM data.
Monitoring Templates and Template Collections	Monitoring Templates encapsulate target monitoring settings and can later be applied against many targets. Template Collections (with administration groups) automate the deployment of management settings on targets as they join the group.
Notifications	Define and use different notification methods including e-mail, running custom OS scripts, PL/SQL procedures and SNMP traps; repeat notifications, use of notification-related actions in incident rule sets, administrator notification schedules.
Oracle HTTP Server	Monitoring the health of the Oracle HTTP Server
Real user monitoring	Obtain comprehensive insights on how end-users use the application and the experience that is delivered.
Service level management	Monitor Siebel applications using beacon transactions and service dashboards.
Workflow process and policy monitoring	Identify the first indication of problems before they cause major disruptions to business processing

8.1.2 Application Management Suite for Siebel Support for Real User Monitoring

Application Management Suite for Siebel's Real User Monitoring provides an out-of-the-box real-user monitoring solution for Siebel applications that automatically discovers Siebel applications and translates network objects to business functions, thereby allowing measurement and monitoring of real-user transactions — from clicks to views into business transactions.

Each individual user action is automatically matched to the correct screen, applet, or view to provide contextual analyses. This state-of-the-art monitoring solution captures and reports all functional errors, discovers end-user performance issues, and discovers

Siebel application issues. Application managers can set up Key Performance Indicators (KPIs) and report views of interest of their critical packaged applications.

All the capabilities for Oracle Real User Experience Insight as documented in Chapter 7, "End User Monitoring" are available as part of the Application Management Suite for Siebel license. However, the restricted license for Real User Experience Insight only allows RUEI to be used for monitoring Siebel applications developed using the Siebel Smart Client (HI - High Interactivity), Standard Interactivity (SI), or ADF framework for Siebel self-service applications. Customers who want to use Real User Experience Insight to monitor other applications need to obtain a full use license of the product.

Features

■ Provides an out-of-the-box real-user monitoring solution for Siebel applications.

■ Provides out-of-box translation and reporting of error messages in the user's window.

■ Enables application managers to set up KPIs for critical packaged applications.

■ Enables specification and monitoring of real-user business transactions.

8.1.3 Accessing Application Management Suite for Siebel Licensed Links

The following information describes the Enterprise Manager links that require licensing of the Application Management Suite for Siebel.

Licensed Page/Link	How to Access
Siebel System Targets page	From the Enterprise Summary home page, click the **Targets** menu, then **Siebel**. Select **Enterprise** from the View drop-down list. This page is a licensed feature of the Application Management Suite for Siebel.
Add Siebel Enterprise page	From the Enterprise Summary home page, click the **Targets** menu, then **Siebel**. Select **Enterprise** from the View drop-down list. From the Siebel System Targets page, click **Add Siebel Enterprise**. This page and all subsequent pages within the process are licensed features.
Siebel Enterprise Home	From the Enterprise Summary home page, click the **Targets** menu, then **Siebel**. Select **Enterprise** from the View drop-down list. From the Siebel System Targets page, select a link for a **Siebel Enterprise**. This page and all subsequent pages accessed through the Home Page are licensed features.
Siebel Server Home	From the Enterprise Summary home page, click the **Targets** menu, then **Siebel**. Select **Enterprise** from the View drop-down list. From the Siebel System Targets page, select a link for a **Siebel Server**. This page and all subsequent pages accessed through the Home Page are licensed features.
Siebel Enterprise resultant page	From the Enterprise Summary home page, click the **Targets** menu, then **Systems**. On the Systems page, click the link in the **Name** column for a system with **Type of Siebel Enterprise**. The resultant page contents are licensed features.
Siebel Gateway Server Home Page	From the Enterprise Summary home page, click the **Targets** menu, then **All Targets**. On the All Targets page, click on **Siebel Gateway Server** under Applications. The resultant page contents are licensed features.

Licensed Page/Link	How to Access
Siebel Component Page	From the Enterprise Summary home page, click the **Targets** menu, then **All Targets**. On the All Targets page, click on **Siebel Component** under Applications. The resultant page contents are licensed features.
Siebel Database Repository Page	From the Enterprise Summary home page, click the **Targets** menu, then **All Targets**. On the All Targets page, click on **Siebel Database Repository** under Applications. The resultant page contents are licensed features.

8.1.4 Application Management Suite for Siebel Support for Service Level Management

Features associated with Enterprise Manager Cloud Control Service Level Management (SLM) are also licensed as part of the Oracle Application Management Suite for Siebel. These SLM features are restricted for use with Siebel applications and only for the CPUs licensed. They cannot be used for extensions to Siebel. Extensions include but are not limited to custom forms, JSPs, Java/J2EE code, and integrations using BPEL.

SLM actively monitors and reports on the availability and performance of services, including end-user business functions, applications, and infrastructure components. In addition, SLM assesses the business impact of any service problem or failure and indicates whether service-level goals have been met.

See Enterprise Manager Cloud Control Service Level Management in Chapter 7 for more information.

8.1.4.1 Licensed Command Line Interface (CLI) Verbs

The following Enterprise Manager CLI verbs are licensed as part of Service Level Management within the Application Management Suite for Siebel:

- `emcli apply_template_tests`
- `emcli create_service`
- `emcli add_target`

8.1.5 Application Management Suite for Siebel Support for Configuration Management

Configuration management automates the process of managing host software and hardware configurations and deployments. The configuration management features that are licensed as part of the Oracle Application Management Suite for Siebel provides capabilities such as search and compare across all systems, configuration monitoring, policy management and compliance support, security configuration scoring and dashboards, and comprehensive reporting for Siebel-specific software components, which include:

■ Siebel Enterprise	■ Siebel Functional Component Group
■ Siebel Server	■ Siebel Database Repository
■ Siebel Component Group	■ Siebel Gateway Server
■ Siebel Component	■ Siebel Application Service (HI)
■ Siebel Required Component Group	■ Siebel Application Service (SI)

Configuration Management features of the Application Management Suite for Siebel enable users to:

- View and analyze configuration

- View and analyze deployments/installations

- Search configuration

- Compare configuration

- Manage policies, including policy notifications

- Provide configuration reports

- Provide repository tables/views that store/expose configuration data

The following sections describe the support for configuration management offered through the Application Management Suite for Siebel:

- Additional Licensed Configuration Management Capabilities

- Accessing Siebel-Specific Licensed Links

- Application Management Suite for Siebel Configuration Management Licensed Reports

- Application Management Suite for Siebel Configuration Management Licensed Repository Views

8.1.5.1 Additional Licensed Configuration Management Capabilities

Application Management Suite for Siebel provides comprehensive configuration management capabilities for operating system targets and Siebel application targets as specified above.

8.1.5.2 Accessing Siebel-Specific Licensed Links

The following licensed pages and links of this product apply to Siebel-specific targets within Enterprise Manager. These targets include Siebel Enterprise, Siebel Server, Siebel Component Group, Siebel Component, Siebel Required Component Group, Siebel Functional Component Group, Siebel Database Repository, Siebel Gateway Server, Siebel Application Service (HI), and Siebel Application Service (SI).

Licensed Page/Link	How to Access
All Targets Policy Violations links	From the Enterprise Summary page, all links in the All Targets Policy Violations section are licensed.
Hardware and Operating System related information	From the Enterprise Summary page, all Hardware and Operating System related information in the Deployment Summary section are licensed.
	From the Enterprise Summary home page, click the **Deployments** menu. On the Deployments page, all Hardware and Operating System related information in the Deployment Summary section are licensed.
	From the Groups home page, click the **Administration** tab. All Hardware and Operating System related information in the Deployment Summary section are licensed.
Security Policy Violations links	From the Enterprise Summary page, all links in the Security Policy Violations section are licensed.
Configuration section links	From the Enterprise Summary home page, click the **Deployments** menu. On the Deployments page, all links in the Configuration section are licensed.

Licensed Page/Link	How to Access
Client Configuration section links	From the Enterprise Summary home page, click the **Deployments** menu. On the Deployments page, all links in the Client Configuration section are licensed
Policy Violation page links	From the Enterprise Summary home page, click the **Compliance** menu, then **Policies**. On the Policy Violations page, all links, sub-navigation tabs, and features available on or linked to from the Cloud Control Policies Violations page for information related to hosts are licensed.
Security at a Glance host links	From the Enterprise Summary home page, click the **Compliance** menu, then **Security at a Glance**. On the Security at a Glance page, all links related to information on the host are licensed.
Policy Violations link and Compliance Score (%)	From the Enterprise Summary home page, click the **Targets** menu, then **Hosts**. On the Hosts page, these links are licensed.
Configuration section links, Policy Violations section links, Security section links, Deployments link, and Metric and Policy Settings link (Related Links)	From the Hosts page, click a specific host to display the **Host Home** page. These links are licensed.
Configuration page	From the Host page, click the **Configuration** tab. All features, links, and information on the page are licensed.
Policy Violations link	From the Enterprise Summary home page, click the **Targets** menu, then **Systems**. On the Systems page, this link is licensed.

From the Enterprise Summary home page, click the **Targets** menu, then **Groups**. On the Groups page, this link is licensed. |
Configuration Changes, Policy Violations, Security Policy Violations sections	From the Enterprise Summary home page, click the **Targets** menu, then **Groups**. Select a group. On the Group Home page, all links in these sections are licensed.
Configuration Searches for host and operating system	From the Groups home page, click the **Administration** tab. This feature is licensed.
Policy Violations column	From the Groups home page, click the **Members** tab. All links and information in this column is licensed

8.1.5.3 Application Management Suite for Siebel Configuration Management Licensed Reports

The following reports are part of the licensed features of Configuration Management within the Application Management Suite for Siebel. All reports in each of these sections are features of Configuration Management within the Application Management Suite for Siebel. To display the Report Definitions page, click the **Reports** menu on the Enterprise Summary home page.

- All reports under **Deployment and Configuration**
- Monitoring reports
  - **Alerts and Policy Violations**
  - **Disabled Policies**
- Security reports
  - **Security Policy Overview**

8.1.5.4 Application Management Suite for Siebel Configuration Management Licensed Repository Views

The following repository views are licensed features of Configuration Management within the Application Management Suite for Siebel:

Policy Definition Views	Policy Association Views
mgmt$policies	mgmt$target_policies
mgmt$policy_parameters	mgmt$target_policy_settings
mgmt$policy_violation_ctxt	mgmt$target_policy_eval_sum
mgmt$policy_viol_annotations	mgmt$target_compliance_score
mgmt$policy_viol_notif_log	

Policy Violation Views	Configuration Views
mgmt$policy_violation_current	mgmt$db_tablespaces
mgmt$policy_violation_history	mgmt$db_datafiles
mgmt$policy_violation_context	mgmt$db_controlfiles

Oracle Home Patching	
MGMT$CPF_ADVISORY_INFO	MGMT$PATCH_ADVISORIES
MGMT$CPF_HOMES_INFO	MGMT$APPL_PATCH_AND_PATCHSET
MGMT$CPF_PATCH_INFO	MGMT$APPLIED_PATCHES
MGMT$EM_HOMES_PLATFORM	MGMT$APPLIED_PATCHSETS
MGMT$HOMES_AFFECTED	

Linux Patching
MGMT$HOSTPATCH_HOSTS
MGMT$HOSTPATCH_GROUPS
MGMT$HOSTPATCH_GRP_COMPL_HIST
MGMT$HOSTPATCH_HOST_COMPL

Security Views	
MGMT$ESA_ALL_PRIVS_REPORT	MGMT$ESA_EXMPT_ACCESS_REPORT
MGMT$ESA_ANY_DICT_REPORT	MGMT$ESA_KEY_OBJECTS_REPORT
MGMT$ESA_ANY_PRIV_REPORT	MGMT$ESA_OH_OWNERSHIP_REPORT
MGMT$ESA_AUDIT_SYSTEM_REPORT	MGMT$ESA_OH_PERMISSION_REPORT
MGMT$ESA_BECOME_USER_REPORT	MGMT$ESA_POWER_PRIV_REPORT
MGMT$ESA_CATALOG_REPORT	MGMT$ESA_PUB_PRIV_REPORT
MGMT$ESA_CONN_PRIV_REPORT	MGMT$ESA_SYS_PUB_PKG_REPORT
MGMT$ESA_CREATE_PRIV_REPORT	MGMT$ESA_TABSP_OWNERS_REPORT
MGMT$ESA_DBA_GROUP_REPORT	MGMT$ESA_TRC_AUD_PERM_REPORT
MGMT$ESA_DBA_ROLE_REPORT	MGMT$ESA_WITH_ADMIN_REPORT
MGMT$ESA_DIRECT_PRIV_REPORT	MGMT$ESA_WITH_GRANT_REPORT

Client Configuration Views

MGMT$CSA_COLLECTIONS	MGMT$ECM_CONFIG_HISTORY_KEY5
MGMT$CSA_FAILED	MGMT$ECM_CONFIG_HISTORY_KEY6
MGMT$CSA_HOST_OS_COMPONENTS	MGMT$HW_NIC
MGMT$CSA_HOST_SW	MGMT$OS_COMPONENTS
MGMT$CSA_HOST_COOKIES	MGMT$OS_FS_MOUNT
MGMT$CSA_HOST_CUSTOM	MGMT$OS_HW_SUMMARY
MGMT$CSA_HOST_RULES	MGMT$OS_PATCHES
MGMT$CSA_HOST_CPUS	MGMT$OS_SUMMARY
MGMT$CSA_HOST_IOCARDS	MGMT$SOFTWARE_COMP_PATCHSET
MGMT$CSA_HOST_NICS	MGMT$SOFTWARE_COMPONENT_ONEOFF
MGMT$CSA_HOST_OS_PROPERTIES	MGMT$SOFTWARE_COMPONENTS
MGMT$CSA_HOST_OS_FILESYSEMS	MGMT$SOFTWARE_DEPENDENCIES
MGMT$ECM_CONFIG_HISTORY	MGMT$SOFTWARE_HOMES
MGMT$ECM_CONFIG_HISTORY_KEY1	MGMT$SOFTWARE_ONEOFF_PATCHES
MGMT$ECM_CONFIG_HISTORY_KEY2	MGMT$SOFTWARE_OTHERS
MGMT$ECM_CONFIG_HISTORY_KEY3	MGMT$SOFTWARE_PATCHES_IN_HOMES
MGMT$ECM_CONFIG_HISTORY_KEY4	MGMT$SOFTWARE_PATCHSETS

8.1.6 Application Management Suite for Siebel Support for Oracle HTTP Server

You can only use the following pages against Oracle HTTP Servers, which are front ending Siebel applications. You must obtain a full use license of the Oracle Middleware Management Pack to manage Oracle HTTP Servers, which are used for other purposes.

■ All pages in Oracle HTTP Server home page and subsequent pages within the process are licensed features of Application Management Suite for Siebel.

8.2 Application Management Pack for Fusion Applications

This product offers comprehensive application management capabilities that help IT organizations simplify the administration and monitoring of their Fusion Application environments. The Application Management Pack for Fusion Applications provides features under four different categories:

■ Discovery and Monitoring

■ Applications Performance Management

■ Middleware Management

■ Technical Configuration Management

■ Life Cycle Automation

Fusion Applications Control, a standalone utility released with the Fusion Applications, is licensed as part of Oracle Application Management Pack for Fusion Applications. All features and capabilities of this tool require the Oracle Application Management Pack for Fusion Applications.

The following sections discuss the licensed features and links for the Application Management Pack for Fusion Applications as well as the Service Level Management licensed features and links within this product:

■ Application Management Pack for Fusion Applications Features

■ Accessing Applications Management Pack for Oracle Fusion Applications Licensed Links

- Application Management Pack for Fusion Applications Support for Service Level Management
- Application Management Pack for Fusion Applications Support for Middleware Management
- Application Management Pack for Fusion Applications Support for Configuration Management

8.2.1 Application Management Pack for Fusion Applications Features

The Application Management Pack for Fusion Applications includes the following features:

Feature	Description
Automatic discovery	Discover Fusion applications and underlying Fusion Middleware topology. Create system and services targets with all of the associated infrastructure components.
Backup and recovery	Make backups of Fusion Applications and related Database configurations. Restore configurations from the backup.
Blackouts	Suspend monitoring on targets to support scheduled maintenance periods.
Change Activity Plans	Provide the ability to plan, track in real time, and execute data-centerwide change activities. Activities include: PSU patch rollouts, database consolidation to Exadata, etc.
Configuration management	Track configuration parameters, take configuration snapshots, and compare configurations.
Java Diagnostics	Comprehensive diagnostics of the Java problem at the JVM level.
Log analysis	Find relevant log files to troubleshoot problems faster.
Management Connectors	Helpdesk (ticketing) connectors open helpdesk tickets for incidents raised in Enterprise Manager. Event connectors share event information with other management systems.
Metric and Alert/Event History	View metric and alert/event history and its associated details.
Metric Extensions	Create new metrics to monitor conditions specific to customer environments.
Monitoring	Receive real-time metrics, historical data, and alerts for Fusion applications and Fusion Middleware targets.
Monitoring Templates and Template Collections	Monitoring Templates encapsulate target monitoring settings and can later be applied against many targets. Template Collections (with administration groups) automate the deployment of management settings on targets as they join the group.
Notifications	Define and use different notification methods including e-mail, running custom OS scripts, PL/SQL procedures and SNMP traps; repeat notifications, use of notification-related actions in incident rule sets, administrator notification schedules.
Problem Flow Analysis	Diagnose and identify the root cause of the Fusion Applications incidents.
Scale Out	Create Fusion Applications Instance from an existing Instance or add more WebLogic servers to existing WebLogic clusters.

Feature	Description
Service level management	Monitor Fusion applications using beacon transactions and service dashboards.
Support Workbench	Monitor and analyze the Fusion Applications specific diagnostic incidents and send the diagnostic information to Oracle Support through My Oracle Support (MOS) integration.
Topology Viewer	Graphically view the Fusion Applications deployment from Configuration and Runtime routing perspective. This also provides high level information about health of various Fusion Application targets.

8.2.2 Accessing Applications Management Pack for Oracle Fusion Applications Licensed Links

The following information describes the Enterprise Manager links that require licensing of the Application Management Pack for Oracle Fusion Applications:

Licensed Page/Link	How to Access
Fusion Instance page	From the Enterprise Summary home page, click the **Targets** menu, then **Fusion Applications**. This page and all related links in this page are licensed.
Add Fusion Instance page	From the Enterprise Summary home page, click the **Targets** menu, then **Fusion Applications**. From the Fusion Instance page, click **Add Fusion Instance**. This page and all subsequent pages within the process are licensed features.
Fusion Instance Home	From the Enterprise Summary home page, click the **Targets** menu, then **Fusion Applications**. From the Fusion Instance page, select a link for a **Fusion Instance**. This page and all subsequent pages accessed through the Home Page are licensed features.
Fusion Product Family Home	From the Enterprise Summary home page, click the **Targets** menu, then **Fusion Applications**. From the Fusion Instance page, expand any Fusion Instance and click on any **Fusion Product Family** link. This page and all subsequent pages accessed through the Home Page are licensed features.
Fusion Product Home	From the Enterprise Summary home page, click the **Targets** menu, then **Fusion Applications**. From the Fusion Instance page, expand any Fusion Instance and click on any **Fusion Product link**. This page and all subsequent pages accessed through the Home Page are licensed features.
Change Activity Plans	From the Enterprise Manager home page, click the **Enterprise** menu, then **Configuration**. The **Change Activity Plans** and **My Tasks** items are licensable as part of the Application Management Pack for Fusion Applications.
Middleware	From the Enterprise Summary home page, click the **Targets** menu, then **Middleware**. Any Oracle Fusion Middleware links related to Fusion Applications deployment are licensed feature of the Application Management Pack for Fusion Applications.

8.2.3 Application Management Pack for Fusion Applications Support for Service Level Management

Features associated with Enterprise Manager Cloud Control Service Level Management (SLM) are also licensed as part of the Oracle Application Management

Pack for Fusion Applications. These SLM features are restricted for use with Fusion applications and only for the CPUs licensed.

SLM actively monitors and reports on the availability and performance of services, including end-user business functions, applications, and infrastructure components. In addition, SLM assesses the business impact of any service problem or failure and indicates whether service-level goals have been met.

See Enterprise Manager Cloud Control Service Level Management in Chapter 7 for more information.

8.2.3.1 Licensed Command Line Interface (CLI) Verbs

The following Enterprise Manager CLI verbs are licensed as part of Service Level Management within the Application Management Pack for Fusion Applications:

```
emcli apply_template_tests
emcli create_service
emcli add_target
```

8.2.4 Application Management Pack for Fusion Applications Support for Middleware Management

The Application Management Pack for Fusion Applications includes many of the capabilities included in WebLogic Server Management Pack Enterprise Edition and SOA Management Pack Enterprise Edition, as described in Chapter 3, "Oracle Middleware Enterprise Management".

Note that the licensing for "Business Transaction Monitoring (BTM)" functionality, a component of WebLogic Management Pack Enterprise Edition and SOA Management Pack Enterprise Edition, is excluded from this license. Customers who wish to use BTM for the management of Fusion Applications should refer to Application Management Suite for Fusion Applications.

The use of WebLogic Management Pack Enterprise Edition and SOA Management Pack Enterprise Edition is limited to the management and monitoring of Fusion Applications, and any targets that host or execute Fusion Application components. Customers who want to use either pack to monitor other applications need to obtain a full-use license of the product(s).

Please refer to Chapter 3, "Oracle Middleware Enterprise Management" for a detailed explanation of features, capabilities, and licensed links.

8.2.5 Application Management Pack for Fusion Applications Support for Configuration Management

Configuration management automates the process of managing host software and hardware configurations and deployments. Application Management Pack for Fusion Applications provides only technology related configuration management support. The configuration management features that are licensed as part of this license provides capabilities such as search and compare across all systems, configuration monitoring, policy management and compliance support, security configuration scoring and dashboards, and comprehensive reporting for Fusion-specific software components, which include:

■ Oracle Fusion Instance	■ Oracle WebLogic Server
■ Oracle Fusion Product Family	■ Oracle HTTP Server
■ Oracle Fusion Product	■ Cluster J2EE Application
■ Oracle Fusion Cluster J2EE Application	■ J2EE Application
■ Oracle Fusion J2EE Application	■ Fusion Database Repository
■ Oracle WebLogic Cluster	■ Java Virtual Machine

Configuration Management features of the Application Management Pack for Fusion Application enable users to:

- View and analyze configuration

- View and analyze deployments/installations

- Search configuration

- Compare configuration

- Manage policies, including policy notifications

- Provide configuration reports

- Provide repository tables/views that store/expose configuration data

The following sections describe the support for configuration management offered through the Application Management Pack for Fusion Applications:

- Additional Licensed Configuration Management Capabilities

- Accessing Fusion-Specific Licensed Links

- Application Management Pack for Fusion Application Configuratin Management Licensed Reports

- Application Management Pack for Fusion Application Configuration Management Licensed Repository Views

8.2.5.1 Additional Licensed Configuration Management Capabilities

Application Management Pack for Fusion Applications provides comprehensive configuration management capabilities for operating system targets and Fusion application targets as specified above.

8.2.5.2 Accessing Fusion-Specific Licensed Links

The following licensed pages and links of this product apply to Fusion-specific targets within Enterprise Manager. These targets include Fusion Instance, Fusion Product Family, Fusion Product, Fusion Cluster J2EE Application, Fusion J2EE Application, Fusion Database Repository, WebLogic Cluster, WebLogic Server, Java Virtual Machine, Cluster J2EE Application and J2EE Application.

Licensed Page/Link	How to Access
All Targets Policy Violations links	From the Enterprise Summary page, all links in the All Targets Policy Violations section are licensed.

Licensed Page/Link	How to Access
Hardware and Operating System related information	From the Enterprise Summary page, all Hardware and Operating System related information in the Deployment Summary section are licensed.
	From the Enterprise Summary home page, click the **Deployments** menu. On the Deployments page, all Hardware and Operating System related information in the Deployment Summary section are licensed.
	From the Groups home page, click the **Administration** tab. All Hardware and Operating System related information in the Deployment Summary section are licensed.
Security Policy Violations links	From the Enterprise Summary page, all links in the Security Policy Violations section are licensed.
Configuration section links	From the Enterprise Summary home page, click the **Deployments** menu. On the Deployments page, all links in the Configuration section are licensed.
Client Configuration section links	From the Enterprise Summary home page, click the **Deployments** menu. On the Deployments page, all links in the Client Configuration section are licensed.
Configuration section links, Policy Violations section links, Security section links, Deployments link, and Metric and Policy Settings link (Related Links)	From the Hosts page, click a **specific host** to display the Host Home page. These links are licensed.
Policy Violations link	From the Enterprise Summary home page, click the **Targets** menu, then **Systems**. On the Systems page, this link is licensed.
	From the Enterprise Summary home page, click the **Targets** menu, then **Groups**. On the Groups page, this link is licensed.
Security at a Glance host links	From the Enterprise Summary home page, click the **Compliance** menu, then **Security at a Glance**. On the Security at a Glance page, all links related to information on the host are licensed.
Policy Violations link and Compliance Score (%)	From the Enterprise Summary home page, click the **Targets** menu, then **Hosts**. On the Hosts page, these links are licensed.
Configuration page	From the Host page, click the **Configuration** tab. All features, links, and information on the page are licensed.
Policy Violation page link	From the Enterprise Summary home page, click the **Compliance** menu, then **Policies**. On the Policy Violations page, all links, sub-navigation tabs, and features available on or linked to from the Cloud Control Policies Violations page for information related to hosts are licensed.
Configuration Changes, Policy Violations, Security Policy Violations sections	From the Enterprise Summary home page, click the **Targets** menu, then **Groups**. Select a group. On the Group Home page, all links in these sections are licensed.
Configuration Searches for host and operating system	From the Groups home page, click the **Administration** tab. This feature is licensed.
Policy Violations column	From the Groups home page, click the **Members** tab. All links and information in this column is licensed.

8.2.5.3 Application Management Pack for Fusion Application Configuratin Management Licensed Reports

The following reports are part of the licensed features of Configuration Management within the Application Management Pack for Fusion Applications. All reports in each of these sections are features of Configuration Management within the Application Management Suite for Fusion Applications. To display the Report Definitions page, click the **Reports** menu on the Enterprise Summary home page.

- All reports under **Deployment and Configuration**
- Monitoring reports
    - **Alerts and Policy Violations**
    - **Disabled Policies**
- Security reports
    - **Security Policy Overview**

8.2.5.4 Application Management Pack for Fusion Application Configuration Management Licensed Repository Views

The following repository views are licensed features of Configuration Management within the Application Management Pack for Fusion Applications:

Policy Definition Views	Policy Association Views
mgmt$policies	mgmt$target_policies
mgmt$policy_parameters	mgmt$target_policy_settings
mgmt$policy_violation_ctxt	mgmt$target_policy_eval_sum
mgmt$policy_viol_annotations	mgmt$target_compliance_score
mgmt$policy_viol_notif_log	

Policy Violation Views	Configuration Views
mgmt$policy_violation_current	mgmt$db_tablespaces
mgmt$policy_violation_history	mgmt$db_datafiles
mgmt$policy_violation_context	mgmt$db_controlfiles

Oracle Home Patching	
MGMT$CPF_ADVISORY_INFO	MGMT$PATCH_ADVISORIES
MGMT$CPF_HOMES_INFO	MGMT$APPL_PATCH_AND_PATCHSET
MGMT$CPF_PATCH_INFO	MGMT$APPLIED_PATCHES
MGMT$EM_HOMES_PLATFORM	MGMT$APPLIED_PATCHSETS
MGMT$HOMES_AFFECTED	

Linux Patching
MGMT$HOSTPATCH_HOSTS
MGMT$HOSTPATCH_GROUPS
MGMT$HOSTPATCH_GRP_COMPL_HIST
MGMT$HOSTPATCH_HOST_COMPL

Security Views

MGMT$ESA_ALL_PRIVS_REPORT	MGMT$ESA_EXMPT_ACCESS_REPORT
MGMT$ESA_ANY_DICT_REPORT	MGMT$ESA_KEY_OBJECTS_REPORT
MGMT$ESA_ANY_PRIV_REPORT	MGMT$ESA_OH_OWNERSHIP_REPORT
MGMT$ESA_AUDIT_SYSTEM_REPORT	MGMT$ESA_OH_PERMISSION_REPORT
MGMT$ESA_BECOME_USER_REPORT	MGMT$ESA_POWER_PRIV_REPORT
MGMT$ESA_CATALOG_REPORT	MGMT$ESA_PUB_PRIV_REPORT
MGMT$ESA_CONN_PRIV_REPORT	MGMT$ESA_SYS_PUB_PKG_REPORT
MGMT$ESA_CREATE_PRIV_REPORT	MGMT$ESA_TABSP_OWNERS_REPORT
MGMT$ESA_DBA_GROUP_REPORT	MGMT$ESA_TRC_AUD_PERM_REPORT
MGMT$ESA_DBA_ROLE_REPORT	MGMT$ESA_WITH_ADMIN_REPORT
MGMT$ESA_DIRECT_PRIV_REPORT	MGMT$ESA_WITH_GRANT_REPORT

Client Configuration Views

MGMT$CSA_COLLECTIONS	MGMT$ECM_CONFIG_HISTORY_KEY5
MGMT$CSA_FAILED	MGMT$ECM_CONFIG_HISTORY_KEY6
MGMT$CSA_HOST_OS_COMPONENTS	MGMT$HW_NIC
MGMT$CSA_HOST_SW	MGMT$OS_COMPONENTS
MGMT$CSA_HOST_COOKIES	MGMT$OS_FS_MOUNT
MGMT$CSA_HOST_CUSTOM	MGMT$OS_HW_SUMMARY
MGMT$CSA_HOST_RULES	MGMT$OS_PATCHES
MGMT$CSA_HOST_CPUS	MGMT$OS_SUMMARY
MGMT$CSA_HOST_IOCARDS	MGMT$SOFTWARE_COMP_PATCHSET
MGMT$CSA_HOST_NICS	MGMT$SOFTWARE_COMPONENT_ONEOFF
MGMT$CSA_HOST_OS_PROPERTIES	MGMT$SOFTWARE_COMPONENTS
MGMT$CSA_HOST_OS_FILESYSEMS	MGMT$SOFTWARE_DEPENDENCIES
MGMT$ECM_CONFIG_HISTORY	MGMT$SOFTWARE_HOMES
MGMT$ECM_CONFIG_HISTORY_KEY1	MGMT$SOFTWARE_ONEOFF_PATCHES
MGMT$ECM_CONFIG_HISTORY_KEY2	MGMT$SOFTWARE_OTHERS
MGMT$ECM_CONFIG_HISTORY_KEY3	MGMT$SOFTWARE_PATCHES_IN_HOMES
MGMT$ECM_CONFIG_HISTORY_KEY4	MGMT$SOFTWARE_PATCHSETS

8.3 Application Management Suite for Fusion Applications

The Application Management Suite for Fusion Applications (the "Suite") offers advanced application management capabilities that help IT organizations simplify the administration and monitoring of their Fusion Application environments. The Application Management Suite for Fusion Applications provides below features, limited to Oracle Fusion Applications environments:

- Real User Experience Insight (RUEI), with Oracle Fusion Apps accelerator.

- Business Transaction Management.

- Functional Configuration Management.

8.3.1 Application Management Suite for Fusion Applications Support for Real User Experience Insight

Application Management Suite for Fusion Application Real User Monitoring provides an out-of-the-box real-user monitoring solution for Fusion applications that automatically discovers Fusion applications and translates network objects to business functions, thereby allowing measurement and monitoring of real-user transactions — from clicks to views into business transactions.

Each individual user action is automatically matched to the correct screen, applet, or view to provide contextual analyses. This state-of-the-art monitoring solution captures and reports all functional errors, discovers end-user performance issues, and discovers Fusion Application issues. Application managers can set up Key Performance Indicators (KPIs) and report views of interest of their critical packaged applications.

All the capabilities for Oracle Real User Experience Insight as documented in Chapter 7, "End User Monitoring" are available as part of the Application Management Suite for Fusion Applications license. However, the restricted license for Real User Experience Insight only allows RUEI to be used for monitoring Fusion Applications. Customers who want to use Real User Experience Insight to monitor other applications need to obtain a full use license of the product.

8.3.1.1 Features

■ Provides an out-of-the-box, real-user monitoring solution for Fusion Applications.

■ Provides out-of-box translation and reporting of error messages in the user's window.

■ Enables application managers to set up KPIs for critical packaged applications.

■ Enables specification and monitoring of real-user business transactions.

8.3.2 Application Management Suite for Fusion Applications Support for Business Transaction Monitoring

Business Transaction Monitoring (BTM) allows customers to monitor, troubleshoot, report, and manage mission critical transaction flows for their organization.

Business application owners and operational staff can automatically discover and correlate your SOA composites, components, services, and back-end Java EE implementations through detailed modeling and drill-down directly into the performance metrics at the component level. Business transactions and service dependencies can be automatically discovered and the message flows mapped. Details about individual and aggregate transaction execution can be searched for and displayed.

By providing and maintaining the business context while traversing your organization's application infrastructure, your developers and operational staff can leverage Oracle Enterprise Manager to meet the high availability and top performance criteria necessary to maximize business results.

Oracle Enterprise Manager enables your application development and support teams to:

■ Continuously discover components, transaction flow, service dependencies and relationships.

■ Monitor business transactions as they flow across tiers.

■ Manage Oracle SOA Suite applications with minimal manual effort, regardless of application-specific knowledge or programming expertise.

■ View aggregated dependences or drill-down to method-level interactions.

■ Monitor endpoint performance with booth synthetic service tests and deep component implementation visibility.

■ Search and analyze single instance transaction performance, with built-in report generation for slowest running or faulted instances.

- Link to related diagnostic and database metrics, taking advantage of SOA Suite specific knowledge.

- Quickly isolate and diagnose the root cause of SOA application performance problems in QA, staging, and production environments.

> **Note:** This licensing agreement is a restricted-use license for Business Transaction Monitoring, and only allows BTM to be used for monitoring Fusion Applications. Customers who want to use BTM to monitor other applications need to obtain a full-use license of the product.

8.3.2.1 Licensing for Business Transaction Management

The SOA Management Pack Enterprise Edition includes the following Business Transaction Management features only for Oracle Service Bus and Oracle SOA Suite:

Feature	Description
Contextual visibility	Provide drill-down contextual visibility into SOA and OSB metrics.
Exception management	Provide transaction alerting and searching to locate exceptions and errors in transactions that span multiple application components.
Transaction discovery	Discover, record, and correlate transactions as they flow across components that span multiple JVMs, containers, and platforms.
Transaction-level agreements	Provide transaction-level objectives (TLOs) that span multiple interacting components.

8.3.2.2 Business Transaction Management Restricted-Use Licensing

Oracle includes a restricted-use license of Oracle Service Bus (and its subcomponents) for the express purpose of monitoring endpoints for Oracle Enterprise Manager Business Transaction Management, covering creation of Proxy and Business Service in pass-through mode only. Oracle Service Bus may be configured with the Business Transaction Management observer agent in single instance and an additional instance of Oracle Service Bus may be configured for Proxy failover purposes.

8.3.3 Application Management Suite for Fusion Applications Support for Functional Configuration Management

Functional configuration management automates the process of capturing and reporting on Fusion Applications functional configuration/setup data.

Functional configuration management features of the Application Management Suite for Fusion Application enable users to:

- View and analyze configuration.

- View and analyze deployments/installations.

- Search configuration.

- Capture/snapshot functional configuration data, on an ad-hoc and recurring basis.

- Perform complex comparison operations, either between instances or over time.

- Versioning of configuration settings.

- Compliance and Health Check capabilities for supportability and auditing purpose.

- Manage policies, including policy notifications.

- Provide configuration reports.

- Provide repository tables/views that store/expose configuration data.

The configuration management features that are licensed as part of this license provides capabilities such as search and compare across all systems, configuration monitoring, policy management and compliance support, security configuration scoring and dashboards, and comprehensive reporting for Fusion-specific software components, which include:

- Oracle Fusion Instance.

- Oracle Fusion Product Family.

- Oracle Fusion Product.

- Oracle Fusion Cluster J2EE Application.

- Oracle Fusion J2EE Application.

8.3.3.1 Additional Licensed Configuration Management Capabilities

Application Management Suite for Fusion Applications provides comprehensive configuration management capabilities for operating system targets and Fusion application targets as specified above.

8.3.4 Application Management Suite for Fusion Applications Licensed Reports

The following reports are part of the licensed features of Configuration Management within the Application Management Suite for Fusion Applications. All reports in each of these sections are features of Configuration Management within the Application Management Suite for Fusion Applications. To display the Report Definitions page, click the **Reports** menu on the Enterprise Summary home page.

- All reports under **Deployment and Configuration**

- Monitoring reports

  - **Alerts and Policy Violations**

  - **Disabled Policies**

- Security reports

- **Security Policy Overview**

8.4 Application Management Suite for Oracle E-Business Suite

This product offers comprehensive applications management capabilities that help IT organizations simplify the administration and monitoring of their Oracle E-Business Suite environments.

In addition, the Change Management capabilities provided a centralized view to monitor and orchestrate changes across multiple Oracle E-Business Suite systems. The Application Management Suite for Oracle E-Business Suite offers the capabilities to manage changes introduced by customizations and patches during implementation or maintenance activities.

The following sections discuss the licensed features and links for the Application Management Suite for Oracle E-Business Suite as well as the Service Level Management and Configuration Management licensed features and links within this product. The information describes the Enterprise Manager links that require licensing of the Application Management Suite for Oracle E-Business Suite:

- Application Management Suite for Oracle E-Business Suite Features
- Application Management Suite for Oracle E-Business Suite Support for Real User Monitoring
- Accessing Application Management Suite for Oracle E-Business Suite Licensed Links
- Application Management Suite for Oracle E-Business Suite Support for Service Level Management
- Application Management Suite for Oracle E-Business Suite Support for Configuration Management

8.4.1 Application Management Suite for Oracle E-Business Suite Features

The Application Management Suite for Oracle E-Business Suite includes the following features:

Feature	Description
Automatic discovery	Discover Oracle E-Business Suite components. Create a system with all of the associated infrastructure components.
Blackouts	Suspend monitoring on targets to support scheduled maintenance periods.
Change Approval Framework	Provides tracking and auditing with respect to change control requests and historical data. The change control mechanism entails one level of approval for any change that results in a configuration or code change of an Oracle E-Business Suite instance.
Change Management Dashboard	Provides quick access to the Change Management most commonly-used functions, as well as summaries of recent activity.
Cloning	Automate cloning, create and manage cloned images.
Concurrent Processing Dashboard	Provides a complete picture of concurrent processing on your system, both current activities as well as usage statistics. Monitor related activities for concurrent managers and concurrent programs.
Configuration management	Track configuration parameters, take configuration snapshots, and compare configurations.
Customization Manager	Automates the process of packaging, releasing, deploying, and migrating customizations for a single Oracle E-Business Suite instance or multiple Oracle E-Business Suite instances.
Monitoring and diagnostics	Receive real-time metrics and historical data as well as alert notifications. Access JVM statistics. Run E-Business Suite diagnostic tests through Oracle Applications Manager integration.
Metric and Alert/Event History	View metric and alert/event history and its associated details.
Metric Extensions	Create new metrics to monitor conditions specific to customer environments.

Feature	Description
Monitoring	Receive real-time metrics, historical data, and alerts for Fusion applications and Fusion Middleware targets.
Monitoring Templates and Template Collections	Monitoring Templates encapsulate target monitoring settings and can later be applied against many targets. Template Collections (with administration groups) automate the deployment of management settings on targets as they join the group.
Notifications	Define and use different notification methods including e-mail, running custom OS scripts, PL/SQL procedures and SNMP traps; repeat notifications, use of notification-related actions in incident rule sets, administrator notification schedules.
Patch Manager	Manually or automatically download and deploy patches across single or multiple Oracle E-Business Suite instances from a single console.
Real user monitoring	Obtain comprehensive insights on how end users use the application and the experience that is delivered.
Service level management	Monitor Oracle E-Business Suite applications using beacon transactions and service dashboards.
User Monitoring	Monitor database session performance issues for Concurrent Programs requests, Forms sessions, and Oracle Application Framework.

8.4.2 Application Management Suite for Oracle E-Business Suite Support for Real User Monitoring

The Application Management Suite for Oracle E-Business Suite's Real User Monitoring offers optional packages for each supported Oracle architecture. Upon installation, these enable Oracle Real User Experience Insight to automatically "see" every E-Business Suite page. Oracle Real User Experience Insight's self-discovery capabilities can monitor applications regardless of the customization level, installed components, or size. Additionally, because Oracle Real User Experience Insight uses E-Business Suite-specific templates to selectively record the significant user events that will produce actionable insight, the reported monitoring quality is maximized.

All of the capabilities for Oracle Real User Experience Insight as documented in Chapter 7, "End User Monitoring" are available as part of the Application Management Suite for Oracle E-Business Suite license. However, the restricted license for Real User Experience Insight only allows RUEI to be used for monitoring Oracle E-Business Suite applications developed using Oracle Forms or the OA Framework. Customers who want to use Real User Experience Insight to monitor other applications need to obtain a full use license of the product.

Features

- Automatically discovers Oracle E-Business Suite modules running both an OA and JTT framework, as well as Oracle Forms applications.

- Provides out-of-box translation and reporting of error messages in the user's window.

- Enables application manager to set up Key Performance Indicators (KPIs) to critical packaged applications.

- Enables specification and monitoring of real-user business transactions.

8.4.3 Accessing Application Management Suite for Oracle E-Business Suite Licensed Links

The following information describes the Enterprise Manager links that require licensing of the Application Management Suite for Oracle E-Business Suite:

Licensed Page/Link	How to Access
All Oracle E-Business Suite Systems page	From the Enterprise Summary home page, click the **Targets** menu, then **Oracle E-Business Suite**. This page is licensed.
Add All Oracle E-Business Suite Targets page	From the Enterprise Summary home page, click the **Targets** menu, then **Oracle E-Business Suite**. From the all Oracle E-Business Suite Systems page, click **Add**. This page and all subsequent pages within the process are licensed.
Oracle E-Business Suite Home Page, Monitoring, Topology pages, Oracle Application Manager, User Monitoring, Start and Stop Services, Service Level Reports, E-Business Suite Dashboard, Configuration, and Compliance	From the Enterprise Summary home page, click the **Targets** menu, then **Oracle E-Business Suite**. From the All Oracle E-Business Suite Systems page, select a link for an Oracle E-Business Suite system to drill down to the home page of an Oracle E-Business Suite System. These pages, and subsequent pages associated with drilling down the targets that comprise an E-Business Suite system are licensed. From the Enterprise Summary home page, click the **Targets** menu, then **Systems**. On the Systems page, click the link in the Name column for a system with an Oracle E-Business Suite System type. These pages and subsequent pages associated with drilling down the targets that comprise an E-Business Suite system are licensed.
Change Approval Request, Patch Manager, and Customization Manager	From the Oracle E-Business System page, click a link for **Change Management**. On the Change Management page, the summary and links to these items are licensed.
Oracle E-Business Suite Nodes System Home, Charts, Administration, Components and Topology pages	From the Enterprise Summary home page, click the **Targets** menu, then **Systems**. On the Systems page, click the **Name** column for a system with an Oracle E-Business Suite Nodes System type. These pages are licensed.
Oracle E-Business Suite System Home, Charts, Administration, Components and Topology pages	From the Enterprise Summary home page, click the **Targets** menu, then **Systems**. On the Systems page, click the **Name** column for a system with an Oracle E-Business Suite System type. These pages are licensed.

8.4.4 Application Management Suite for Oracle E-Business Suite Support for Service Level Management

Features associated with Enterprise Manager Cloud Control Service Level Management (SLM) are also licensed as part of the Oracle Application Management Suite for Oracle E-Business Suite. These SLM features are restricted for use with Oracle E-Business Suite applications and only for the CPUs licensed. They cannot be used for extensions to Oracle E-Business Suite. Extensions include but are not limited to custom forms, JSPs, Java/J2EE code, and integrations using BPEL.

SLM actively monitors and reports on the availability and performance of services, including end-user business functions, applications, and infrastructure components. Using service tests or synthetic transactions executed from remote user locations (beacons), businesses can monitor services from the end user's perspective and its correlation to the underlying IT infrastructure. In addition, SLM assesses the business impact of any service problem or failure and indicates whether service-level goals have been met.

See Enterprise Manager Cloud Control Service Level Management in Chapter 7 for more information.

8.4.4.1 Command Line Interface (CLI) Verbs

The following Enterprise Manager CLI verbs are licensed as part of Service Level Management within the Application Management Suite for Oracle E-Business Suite:

- `emcli apply_template_tests`

- `emcli create_service`

- `emcli add_target`

8.4.5 Application Management Suite for Oracle E-Business Suite Support for Configuration Management

Configuration Management automates the time-consuming and often error-prone process of managing software configurations and deployments. The Configuration Management features that are licensed as part of the Application Management Suite for Oracle E-Business Suite provide capabilities such as search and compare across all systems, configuration monitoring, policy management and compliance support, security configuration scoring and dashboards, and comprehensive reporting for E-Business Suite-specific software components, which include:

■ Oracle Concurrent Manager	■ Oracle E-Business Suite System
■ Oracle E-Business Suite	■ Oracle E-Business Suite Patch Information Configuration
■ Oracle E-Business Suite Custom Objects Definition	
	■ Oracle E-Business Suite Workflow

The Configuration Management features of the Application Management Suite for E-Business Suite enable users to:

- View and analyze configurations

- View and analyze deployments and installations

- Search configurations

- Compare configurations

- Provide configuration reports

- Provide repository tables and views that store and expose configuration data

- History to view a list of configuration changes made to the target

- Refresh option to manually refresh the configuration data

8.4.5.1 Additional Licensed Configuration Management Capabilities

Application Management Suite for Oracle E-Business Suite includes a limited use license of Application Configuration Console (ACC) and Configuration Change Console (CCC). These two tools can be used against Oracle E-Business Suite application targets as specified above, and operating system targets. Licensing information for ACC and CCC is available in Chapter 5, "Other Infrastructure Management" under the Additional Licensed Features section of Configuration Management Pack for Applications.

8.4.5.2 Accessing E-Business Suite-Specific Licensed Links

The following licensed pages and links of this pack apply to Oracle E-Business Suite-specific software components within Enterprise Manager. These components include those listed above.

Licensed Page/Link	How to Access
All Targets Policy Violations section	On the Enterprise Summary home page, all links in this section are licensed.
Add All Oracle E-Business Suite Targets page	From the Enterprise Summary home page, click the **Targets** menu, then **Oracle Applications**. From the all Oracle E-Business Suite Systems page, click **Add**. This page and all subsequent pages within the process are licensed.
Deployment Summary section	From the Enterprise Summary home page, click the **Deployments** menu. On the Deployments page, all Hardware and Operating System related information in this section are licensed.
	From the Enterprise Summary home page, click the **Targets** menu, then **Groups**. On the Groups page, click the **Administration** tab. All Hardware and Operating System related information in this section are licensed.
	On the Enterprise Summary home page, all Hardware and Operating System related information in this section are licensed.
Security Policy Violations section	On the Enterprise Summary home page, all links in this section are licensed.
Configuration section	From the Enterprise Summary home page, click the **Deployments** menu. On the Deployments page, all links in this section are licensed.
	From the Enterprise Summary home page, click the **Targets** menu, then **Hosts**. On the Hosts page, all links in this section are licensed.
Client Configuration section	From the Enterprise Summary home page, click the **Deployments** menu. On the Deployments page, all links in this section are licensed.
Policy Violations page	From the Enterprise Summary home page, click the **Compliance** menu, then **Policies**. The links associated with this page are grouped in the Violations sub-tab. All links, sub-navigation tabs, and features available on or linked to from the Cloud Control Policies Violations page for information related to hosts are licensed.
	From the Enterprise Summary home page, click the **Targets** menu, then **Hosts**. On the Hosts page, all links in this section are licensed.
Security at a Glance	From the Enterprise Summary home page, click the **Compliance** menu, then **Security at a Glance**. All links related to information on the host are licensed.
Policy Violations link and Compliance Score (%)	From the Enterprise Summary home page, click the **Targets** menu, then **Hosts**. On the Hosts page, these links are licensed.
Security section	From the Enterprise Summary home page, click the **Targets** menu, then **Hosts**. On the Hosts page, all links in this section are licensed.
Deployments link, Metric and Policy Settings link	From the Enterprise Summary home page, click the **Targets** menu, then **Hosts**. On the Hosts page, these links under Related Links are licensed.

Licensed Page/Link	How to Access
Configuration page	From the Enterprise Summary home page, click the **Configurations** menu. All features, links, and information on this page are licensed.
Policy Violations link	From the Enterprise Summary home page, click the **Targets** menu, then **Systems**. On the Systems page, this link is licensed.
	From the Enterprise Summary home page, click the **Targets** menu, then **Groups**. On the Groups page, this link is licensed.
Configuration Changes, Policy Violations, Security Policy Violations sections	From the Enterprise Summary home page, click the **Targets** menu, then **Groups**. On the Groups page, these sections are licensed.
Configuration Searches	From the Enterprise Summary home page, click the **Targets** menu, then **Groups**. On the Groups page, click the **Administration** tab. This feature is licensed.
Policy Violations column	From the Enterprise Summary home page, click the **Targets** menu, then **Groups**. On the Groups page, click the **Members** tab. All links and information this column are licensed.

> **Note:** The features in the Patching and Cloning sections are licensed under the Provisioning and Patch Automation Pack. The Agent Installation features do not require licensing. The security links are shared by the Provisioning and Patch Automation Pack, Database Configuration Pack, Configuration Management Pack for Non-Oracle Systems, Applications Management Pack for Siebel, Application Management Suite for Oracle E-Business Suite, and Configuration Pack for Oracle Middleware.

8.4.5.3 Licensed Reports

The following reports are part of the licensed features of Configuration Management within the Application Management Suite for Oracle E-Business Suite. All reports in each of these sections are features of Configuration Management within the Application Management Suite for Oracle E-Business Suite. To display the Report Definitions page, click the Reports tab on the Enterprise Summary home page.

- All reports under **Deployment and Configuration**
- Monitoring reports
  - **Alerts and Policy Violations**
  - **Disabled Policies**
- Security reports
  - **Security Policy Overview**

8.4.5.4 Licensed Repository Views

The following repository views are licensed features of Configuration Management within the Application Management Suite for Oracle E-Business Suite:

Policy Definition Views	Policy Association Views
mgmt$policies	mgmt$target_policies
mgmt$policy_parameters	mgmt$target_policy_settings
mgmt$policy_violation_ctxt	mgmt$target_policy_eval_sum
mgmt$policy_viol_annotations	mgmt$target_compliance_score
mgmt$policy_viol_notif_log	

Policy Violation Views	Configuration Views
mgmt$policy_violation_current	mgmt$db_tablespaces
mgmt$policy_violation_history	mgmt$db_datafiles
mgmt$policy_violation_context	mgmt$db_controlfiles

Oracle Home Patching	
MGMT$CPF_ADVISORY_INFO	MGMT$PATCH_ADVISORIES
MGMT$CPF_HOMES_INFO	MGMT$APPL_PATCH_AND_PATCHSET
MGMT$CPF_PATCH_INFO	MGMT$APPLIED_PATCHES
MGMT$EM_HOMES_PLATFORM	MGMT$APPLIED_PATCHSETS
MGMT$HOMES_AFFECTED	

Linux Patching
MGMT$HOSTPATCH_HOSTS
MGMT$HOSTPATCH_GROUPS
MGMT$HOSTPATCH_GRP_COMPL_HIST
MGMT$HOSTPATCH_HOST_COMPL

Security Views	
MGMT$ESA_ALL_PRIVS_REPORT	MGMT$ESA_EXMPT_ACCESS_REPORT
MGMT$ESA_ANY_DICT_REPORT	MGMT$ESA_KEY_OBJECTS_REPORT
MGMT$ESA_ANY_PRIV_REPORT	MGMT$ESA_OH_OWNERSHIP_REPORT
MGMT$ESA_AUDIT_SYSTEM_REPORT	MGMT$ESA_OH_PERMISSION_REPORT
MGMT$ESA_BECOME_USER_REPORT	MGMT$ESA_POWER_PRIV_REPORT
MGMT$ESA_CATALOG_REPORT	MGMT$ESA_PUB_PRIV_REPORT
MGMT$ESA_CONN_PRIV_REPORT	MGMT$ESA_SYS_PUB_PKG_REPORT
MGMT$ESA_CREATE_PRIV_REPORT	MGMT$ESA_TABSP_OWNERS_REPORT
MGMT$ESA_DBA_GROUP_REPORT	MGMT$ESA_TRC_AUD_PERM_REPORT
MGMT$ESA_DBA_ROLE_REPORT	MGMT$ESA_WITH_ADMIN_REPORT
MGMT$ESA_DIRECT_PRIV_REPORT	MGMT$ESA_WITH_GRANT_REPORT

Client Configuration Views

MGMT$CSA_COLLECTIONS	MGMT$ECM_CONFIG_HISTORY_KEY5
MGMT$CSA_FAILED	MGMT$ECM_CONFIG_HISTORY_KEY6
MGMT$CSA_HOST_OS_COMPONENTS	MGMT$HW_NIC
MGMT$CSA_HOST_SW	MGMT$OS_COMPONENTS
MGMT$CSA_HOST_COOKIES	MGMT$OS_FS_MOUNT
MGMT$CSA_HOST_CUSTOM	MGMT$OS_HW_SUMMARY
MGMT$CSA_HOST_RULES	MGMT$OS_PATCHES
MGMT$CSA_HOST_CPUS	MGMT$OS_SUMMARY
MGMT$CSA_HOST_IOCARDS	MGMT$SOFTWARE_COMP_PATCHSET
MGMT$CSA_HOST_NICS	MGMT$SOFTWARE_COMPONENT_ONEOFF
MGMT$CSA_HOST_OS_PROPERTIES	MGMT$SOFTWARE_COMPONENTS
MGMT$CSA_HOST_OS_FILESYSEMS	MGMT$SOFTWARE_DEPENDENCIES
MGMT$ECM_CONFIG_HISTORY	MGMT$SOFTWARE_HOMES
MGMT$ECM_CONFIG_HISTORY_KEY1	MGMT$SOFTWARE_ONEOFF_PATCHES
MGMT$ECM_CONFIG_HISTORY_KEY2	MGMT$SOFTWARE_OTHERS
MGMT$ECM_CONFIG_HISTORY_KEY3	MGMT$SOFTWARE_PATCHES_IN_HOMES
MGMT$ECM_CONFIG_HISTORY_KEY4	MGMT$SOFTWARE_PATCHSETS

8.5 Application Management Suite for JD Edwards EnterpriseOne

This product offers comprehensive application management capabilities that help IT organizations simplify the administration and monitoring of their JD Edwards EnterpriseOne environments. The Application Management Suite for JD Edwards EnterpriseOne is composed of the following physical components:

- JD Edwards EnterpriseOne Plug-in (built into Enterprise Manager Cloud Control 12*c*).

- Real User Experience Insight (RUEI).

The management suite contains a restricted use license of RUEI for use against the core JD Edwards EnterpriseOne application.

The following sections discuss the licensed features and links for the Application Management Suite for JD Edwards EnterpriseOne as well as the Service Level Management licensed features and links within this product:

- Application Management Suite for JD Edwards EnterpriseOne Features

- Application Management Suite for JD Edwards EnterpriseOne Support for Real User Monitoring

- Application Management Suite for JD Edwards EnterpriseOne Support for Service Level Management

- Application Management Suite for JD Edwards EnterpriseOne Support for Configuration Management

8.5.1 Application Management Suite for JD Edwards EnterpriseOne Features

The Application Management Suite for JD Edwards EnterpriseOne includes the following features:

Feature	Description
Automatic discovery	Discover JD Edwards EnterpriseOne components. Create system and services targets with all of the associated infrastructure components

Feature	Description
Blackouts	Suspend monitoring on targets to support scheduled maintenance periods.
Configuration management	Track configuration parameters, take configuration snapshots, and compare configurations
Management Connectors	Helpdesk (ticketing) connectors open helpdesk tickets for incidents raised in Enterprise Manager. Event connectors share event information with other management systems.
Metric and Alert/Event History	View metric and alert/event history and its associated details.
Metric Extensions	Create new metrics to monitor conditions specific to customer environments.
Monitoring and diagnostics	Receive real-time metrics, historical data, and alert notifications. Examine log files for information pertinent to identifying problem root causes.
Monitoring Templates and Template Collections	Monitoring Templates encapsulate target monitoring settings and can later be applied against many targets. Template Collections (with administration groups) automate the deployment of management settings on targets as they join the group.
Notifications	Define and use different notification methods including e-mail, running custom OS scripts, PL/SQL procedures and SNMP traps; repeat notifications, use of notification-related actions in incident rule sets, administrator notification schedules.
Real user monitoring	Obtain comprehensive insights on how end-users use the application and the experience that is delivered.
Service level management	Monitor JD Edwards EnterpriseOne applications using beacon transactions and service dashboards.

8.5.2 Application Management Suite for JD Edwards EnterpriseOne Support for Real User Monitoring

The Application Management Suite for JD Edwards EnterpriseOne's Real User Monitoring provides an out-of-the-box real-user monitoring solution for JD Edwards EnterpriseOne. It automatically discovers JD Edwards EnterpriseOne applications and translates network objects into manageable business services and functions.

This accelerator supports real-user monitoring of JD Edwards EnterpriseOne application components. Each individual user action is automatically matched to the correlating JD Edwards EnterpriseOne node, site, or view to provide detailed and rich contextual analyses. This monitoring solution captures and reports all functional errors, discovers end-user performance issues, and identifies application issues specific to JD Edwards EnterpriseOne applications. Application managers can set up Key Performance Indicators (KPIs) and report views of interest to their critical packaged applications to gain a complete understanding of their usage, and automatically be alerted in case of KPI events.

All of the capabilities for Oracle Real User Experience Insight as documented in Chapter 7, "End User Monitoring" are available as part of the Application Management Suite for JD Edwards EnterpriseOne license. However, the restricted license for Real User Experience Insight only allows RUEI to be used for monitoring JD Edwards EnterpriseOne applications developed using JD Edwards EnterpriseOne Tool Set. Customers who want to use Real User Experience Insight to monitor other applications need to obtain a full use license of the product.

8.5.2.1 Features

- Provides an out-of-the-box real-user monitoring solution for JD Edwards EnterpriseOne applications.

- Provides out-of-box translation and reporting of error messages in the user's window.

- Enables application managers to set up KPIs for critical packaged applications.

- Enables specification and monitoring of real-user business transactions.

8.5.2.2 Accessing Licensed Links for JD Edwards EnterpriseOne

The following information describes the Enterprise Manager links that require licensing of the Application Management Suite for JD Edwards EnterpriseOne:

Licensed Page/Link	How to Access
All JD Edwards EnterpriseOne Systems page	From the Enterprise Summary home page, click the **Targets** menu, then **JD Edwards EnterpriseOne**. This page is licensed.
Add All JD Edwards EnterpriseOne Targets page	From the Enterprise Summary home page, click the **Targets** menu, then **JD Edwards EnterpriseOne**. From the All JD Edwards EnterpriseOne page, click **Add**. This page and all subsequent pages within the process are licensed.
JD Edwards EnterpriseOne System Home, Performance, Administration, Maintenance, Diagnostic, User Monitoring, and Topology pages	From the Enterprise Summary home page, click the **Targets** menu, then **JD Edwards EnterpriseOne**. From the All JD Edwards EnterpriseOne Systems page, select a link for a **JD Edwards EnterpriseOne system** to drill down to the home page of a JD Edwards EnterpriseOne System. These pages and subsequent pages associated with drilling down the targets that comprise a JD Edwards EnterpriseOne system are licensed.
	From the Enterprise Summary home page, click the **Targets** menu, then **Systems**. On the Systems page, click the link in the **Name** column for a system with an Oracle E-Business Suite System type. These pages and subsequent pages associated with drilling down the targets that comprise an JD Edwards EnterpriseOne system are licensed
JD Edwards EnterpriseOne Nodes System Home, Charts, Administration, Components and Topology pages	From the Enterprise Summary home page, click the **Targets** menu, then **Systems**. On the Systems page, click the **Name** column for a system with a JD Edwards EnterpriseOne Nodes System type. These pages are licensed.
JD Edwards EnterpriseOne System Home, Charts, Administration, Components, Topology and Report pages	From the Enterprise Summary home page, click the **Targets** menu, then **Systems**. On the Systems page, click the **Name** column for a system with a JD Edwards EnterpriseOne System type. These pages are licensed.

8.5.3 Application Management Suite for JD Edwards EnterpriseOne Support for Service Level Management

Features associated with Service Level Management (SLM) for JD Edwards EnterpriseOne are also licensed as part of the Application Management Suite for JD Edwards EnterpriseOne. These SLM features are restricted for use with JD Edwards EnterpriseOne applications and only for the CPUs licensed. They cannot be used for extensions to JD Edwards EnterpriseOne. Extensions include but are not limited to custom forms, JSPs, Java/J2EE code, and integrations using BPEL.

SLM offers a comprehensive monitoring solution that helps IT organizations achieve high availability and performance, and optimized service levels for their business services. SLM actively monitors and reports on the availability and performance of services, including end-user business functions, applications, and infrastructure components. Using service tests or synthetic transactions executed from remote user locations (beacons), businesses can monitor services from the end user's perspective and its correlation to the underlying IT infrastructure. In addition, SLM assesses the business impact of any service problem or failure and indicates whether service-level goals have been met.

See Enterprise Manager Cloud Control Service Level Management in Chapter 7 for more information.

8.5.3.1 Licensed Command Line Interface (CLI) Verbs

The following Enterprise Manager CLI verbs are licensed as part of Service Level Management within the Application Management Suite for JD Edwards EnterpriseOne:

```
emcli apply_template_tests
emcli create_service
emcli add_target
```

8.5.4 Application Management Suite for JD Edwards EnterpriseOne Support for Configuration Management

Configuration management automates the time-consuming and often error-prone process of managing host software and hardware configurations and deployments. The configuration management features that are licensed as part of the Application Management Suite for JD Edwards EnterpriseOne provides capabilities such as search and compare across all systems, configuration monitoring, policy management and compliance support, security configuration scoring and dashboards, and comprehensive reporting for JD Edwards EnterpriseOne-specific software components, which include:

- JD Edwards EnterpriseOne HTML Server

- JD Edwards EnterpriseOne Enterprise Server

- JD Edwards EnterpriseOne Business Services Server

- JD Edwards EnterpriseOne Server Manager

Configuration Management features of the Application Management Suite for JD Edwards EnterpriseOne enable users to:

- View and analyze configuration

- View and analyze deployments/installations

- Search configuration

- Compare configuration

- Manage policies, including policy notifications

- Provide configuration reports

- Provide repository tables/views that store/expose configuration data

8.5.4.1 Accessing JD Edwards EnterpriseOne-Specific Licensed Links

The following licensed pages and links of this pack apply to for JD Edwards EnterpriseOne-specific targets within Enterprise Manager. These targets include JD Edwards EnterpriseOne HTML Server, JD Edwards EnterpriseOne Enterprise Server, JD Edwards EnterpriseOne Business Services Server, and JD Edwards EnterpriseOne Server Manager.

Licensed Page/Link	How to Access
All Targets Policy Violations section	On the Enterprise Summary page, all links in this section are licensed.
Deployment Summary section	On the Enterprise Summary page, all Hardware and Operating System related information in this section are licensed.
	From the Enterprise Summary page, click the **Deployments** menu. On the Deployments page, all Hardware and Operating System related information in this section are licensed.
	From the Enterprise Summary page, click the **Targets** menu, then **Groups**. On the Groups home page, click the **Administration** tab. All Hardware and Operating System related information in this section are licensed.
Security Policy Violations section	On the Enterprise Summary page, all links in this section are licensed.
Configuration section	From the Enterprise Summary page, click the **Deployments** menu. On the Deployments page, all links in this section are licensed.
Client Configuration section	From the Enterprise Summary page, click the **Deployments** menu. On the Deployments page, all links in this section are licensed.
Violations sub-tab page	From the Enterprise Summary page, click the **Compliance** menu, then **Policies**. On the Policy Violations page, all links, sub-navigation tabs, and features available on or linked to from the Cloud Control Policies Violations page for information related to hosts are licensed.
Security at a Glance page	From the Enterprise Summary page, click the **Compliance** menu, then **Security at a Glance**. All links related to information on the host are licensed.
Policy Violations link and Compliance Score (%)	From the Enterprise Summary page, click the **Targets** menu, then **Hosts**. On the Hosts page, these items are licensed.
Configuration, Policy Violations, Security sections	From the Enterprise Summary page, click the **Targets** menu, then **Hosts**. On the Hosts page, the links in these sections are licensed.
Deployments link, Metric and Policy Settings link	From the Enterprise Summary page, click the **Targets** menu, then **Hosts**. On the Hosts page under Related Links, these links are licensed.
Configuration page	From the Enterprise Summary page, click the **Targets** menu, then **Hosts**. On the Hosts page, click **Configuration**. All features, links, and information on this page are licensed.
Policy Violation link	From the Enterprise Summary page, click the **Targets** menu, then **Systems**. On the Systems page, this link is licensed.
	From the Enterprise Summary page, click the **Targets** menu, then **Groups**. On the Groups page, this link is licensed.
Configuration Changes, Policy Violations, Security Policy Violations sections	From the Enterprise Summary page, click the **Targets** menu, then **Groups**. On the Groups home page, all links in these sections are licensed.

Licensed Page/Link	How to Access
Configuration Searches	From the Enterprise Summary page, click the **Targets** menu, then **Groups**. On the Groups home page, click the **Administration** tab. For host and operating systems, this feature is licensed.
Policy Violations column	From the Enterprise Summary page, click the **Targets** menu, then **Groups**. On the Groups home page, click the **Members** tab. All links and information in this column are licensed.

8.5.4.2 Licensed Reports

The following reports are part of the licensed features of Configuration Management within the Application Management Suite for JD Edwards EnterpriseOne. All reports in each of these sections are features of Configuration Management within the Application Management Suite for JD Edwards EnterpriseOne. To display the Report Definitions page, click the **Reports** tab on the Cloud Control Home page.

- All reports under **Deployment and Configuration**

- Monitoring reports

    - **Alerts and Policy Violations**

    - **Disabled Policies**

- Security reports

    - **Security Policy Overview**

8.5.4.3 Licensed Repository Views

The following repository views are licensed features of Configuration Management within the Application Management Suite for JD Edwards EnterpriseOne:

Policy Definition Views	Policy Association Views
mgmt$policies	mgmt$target_policies
mgmt$policy_parameters	mgmt$target_policy_settings
mgmt$policy_violation_ctxt	mgmt$target_policy_eval_sum
mgmt$policy_viol_annotations	mgmt$target_compliance_score
mgmt$policy_viol_notif_log	

Policy Violation Views	Configuration Views
mgmt$policy_violation_current	mgmt$db_tablespaces
mgmt$policy_violation_history	mgmt$db_datafiles
mgmt$policy_violation_context	mgmt$db_controlfiles

Oracle Home Patching	
MGMT$CPF_ADVISORY_INFO	MGMT$PATCH_ADVISORIES
MGMT$CPF_HOMES_INFO	MGMT$APPL_PATCH_AND_PATCHSET
MGMT$CPF_PATCH_INFO	MGMT$APPLIED_PATCHES
MGMT$EM_HOMES_PLATFORM	MGMT$APPLIED_PATCHSETS
MGMT$HOMES_AFFECTED	

Linux Patching

```
MGMT$HOSTPATCH_HOSTS
MGMT$HOSTPATCH_GROUPS
MGMT$HOSTPATCH_GRP_COMPL_HIST
MGMT$HOSTPATCH_HOST_COMPL
```

Security Views

```
MGMT$ESA_ALL_PRIVS_REPORT          MGMT$ESA_EXMPT_ACCESS_REPORT
MGMT$ESA_ANY_DICT_REPORT           MGMT$ESA_KEY_OBJECTS_REPORT
MGMT$ESA_ANY_PRIV_REPORT           MGMT$ESA_OH_OWNERSHIP_REPORT
MGMT$ESA_AUDIT_SYSTEM_REPORT       MGMT$ESA_OH_PERMISSION_REPORT
MGMT$ESA_BECOME_USER_REPORT        MGMT$ESA_POWER_PRIV_REPORT
MGMT$ESA_CATALOG_REPORT            MGMT$ESA_PUB_PRIV_REPORT
MGMT$ESA_CONN_PRIV_REPORT          MGMT$ESA_SYS_PUB_PKG_REPORT
MGMT$ESA_CREATE_PRIV_REPORT        MGMT$ESA_TABSP_OWNERS_REPORT
MGMT$ESA_DBA_GROUP_REPORT          MGMT$ESA_TRC_AUD_PERM_REPORT
MGMT$ESA_DBA_ROLE_REPORT           MGMT$ESA_WITH_ADMIN_REPORT
MGMT$ESA_DIRECT_PRIV_REPORT        MGMT$ESA_WITH_GRANT_REPORT
```

Client Configuration Views

```
MGMT$CSA_COLLECTIONS               MGMT$ECM_CONFIG_HISTORY_KEY5
MGMT$CSA_FAILED                    MGMT$ECM_CONFIG_HISTORY_KEY6
MGMT$CSA_HOST_OS_COMPONENTS        MGMT$HW_NIC
MGMT$CSA_HOST_SW                   MGMT$OS_COMPONENTS
MGMT$CSA_HOST_COOKIES              MGMT$OS_FS_MOUNT
MGMT$CSA_HOST_CUSTOM               MGMT$OS_HW_SUMMARY
MGMT$CSA_HOST_RULES                MGMT$OS_PATCHES
MGMT$CSA_HOST_CPUS                 MGMT$OS_SUMMARY
MGMT$CSA_HOST_IOCARDS              MGMT$SOFTWARE_COMP_PATCHSET
MGMT$CSA_HOST_NICS                 MGMT$SOFTWARE_COMPONENT_ONEOFF
MGMT$CSA_HOST_OS_PROPERTIES        MGMT$SOFTWARE_COMPONENTS
MGMT$CSA_HOST_OS_FILESYSEMS        MGMT$SOFTWARE_DEPENDENCIES
MGMT$ECM_CONFIG_HISTORY            MGMT$SOFTWARE_HOMES
MGMT$ECM_CONFIG_HISTORY_KEY1       MGMT$SOFTWARE_ONEOFF_PATCHES
MGMT$ECM_CONFIG_HISTORY_KEY2       MGMT$SOFTWARE_OTHERS
MGMT$ECM_CONFIG_HISTORY_KEY3       MGMT$SOFTWARE_PATCHES_IN_HOMES
MGMT$ECM_CONFIG_HISTORY_KEY4       MGMT$SOFTWARE_PATCHSETS
```

8.6 Application Management Suite for PeopleSoft Enterprise

This product offers comprehensive applications management capabilities that help IT organizations simplify the administration and monitoring of their PeopleSoft Enterprise environments. By building PeopleSoft management and monitoring on top of Oracle's rich and comprehensive management solution, the Application Management Suite for PeopleSoft Enterprise significantly reduces the cost and complexity of managing PeopleSoft Enterprise environments.

The Application Management Suite for PeopleSoft Enterprise is comprised of four physical components:

- PeopleSoft plug-in (built into Enterprise Manager 12*c* Cloud Control)
- Real User Experience Insight (RUEI)

The management suite contains a restricted use license of RUEI for use against the core PeopleSoft application.

The following sections discuss the licensed features and links for the Application Management Suite for PeopleSoft Enterprise as well as the Service Level Management and Configuration Management licensed features and links within this pack:

- Application Management Suite for PeopleSoft Enterprise Features
- Application Management Suite for PeopleSoft Enterprise Support for Real User Monitoring
- Accessing Application Management Suite for PeopleSoft Enterprise Licensed Links
- Application Management Suite for PeopleSoft Enterprise Support for Service Level Management
- Application Management Suite for PeopleSoft Enterprise Support for Configuration Management
- Java-based PeopleSoft Licensed Components

8.6.1 Application Management Suite for PeopleSoft Enterprise Features

The Application Management Suite for PeopleSoft Enterprise includes the following features:

Feature	Description
Automatic discovery	- Discover PeopleSoft Enterprise components. - Create a system with all of the associated infrastructure components.
Monitoring and diagnostics	- Receive real-time metrics, Tuxedo queues, and historical data as well as alert notifications. - Examine log files for information pertinent to identifying problem root causes.
Configuration management	Ability to: - Track configuration parameters. - Take configuration snapshots. - Compare configurations.
Service level management	Monitor PeopleSoft Enterprise applications using beacon transactions and service dashboards.
Administration	- Start and stop PeopleSoft components. - Define PeopleSoft domains. - Clear cache.
Real user monitoring	Obtain comprehensive insights on how end users use the application and the experience that is delivered.

8.6.2 Application Management Suite for PeopleSoft Enterprise Support for Real User Monitoring

The Application Management Suite for PeopleSoft Enterprise's Real User Monitoring provides an out-of-the-box real-user monitoring solution for PeopleSoft. It automatically discovers PeopleSoft applications and translates network objects into manageable business services and functions. It provides a method for IT operators and

managers at all business levels to easily measure and monitor real-user transactions — literally from clicks to views and business transactions.

This accelerator supports real-user monitoring of PeopleSoft application components. Each individual user action is automatically matched to the correlating PeopleSoft node, site, or view to provide detailed and rich contextual analyses. This state-of-the-art monitoring solution captures and reports all functional errors, discovers end-user performance issues, and identifies application issues specific to PeopleSoft applications. Application managers can set up Key Performance Indicators (KPIs) and report views of interest to their critical packaged applications to gain a complete understanding of their usage, and automatically be alerted in case of KPI events.

All of the capabilities for Oracle Real User Experience Insight as documented in Chapter 7, "End User Monitoring" are available as part of the Application Management Suite for PeopleSoft license. However, the restricted license for Real User Experience Insight only allows RUEI to be used for monitoring PeopleSoft applications developed using PeopleSoft Internet Architecture. Customers who want to use Real User Experience Insight to monitor other applications need to obtain a full use license of the product.

Features

- Provides an out-of-the-box real-user monitoring solution for PeopleSoft applications.

- Provides out-of-box translation and reporting of error messages in the user's window.

- Enables application managers to set up KPIs for critical packaged applications.

- Enables specification and monitoring of real-user business transactions.

8.6.3 Accessing Application Management Suite for PeopleSoft Enterprise Licensed Links

The following information describes the Enterprise Manager links that require licensing of the Application Management Suite for PeopleSoft Enterprise:

Licensed Page/Link	How to Access
All PeopleSoft Targets page	From the Enterprise Summary home page, click the **Targets** menu, then **PeopleSoft**. The All PeopleSoft Targets page is a licensed feature of the Application Management Suite for PeopleSoft.
PeopleSoft target home page	From the Enterprise Summary home page, click the **Targets** menu, then **PeopleSoft**. On the All PeopleSoft Targets page, select a PeopleSoft target from the from the Name column.
	On the PeopleSoft target home page, all links, reports, and features available on or linked to from this page are licensed as part of the Application Management Suite for PeopleSoft

Licensed Page/Link	How to Access
Monitoring ■ Charts ■ All Metrics ■ Metric and Collection Settings ■ Metric Collection Errors ■ Status History ■ Incident Manager ■ Alert History ■ Blackouts	From the Enterprise Summary home page, click the **Targets** menu, then **PeopleSoft**. From the PeopleSoft target menu, select **Monitoring**. All sub-menu items listed here are licensed as part of the Application Management Suite for PeopleSoft.
Create/End Blackout	From the Enterprise Summary home page, click the **Targets** menu, then **PeopleSoft**. From the PeopleSoft target menu, select **Control**, then: ■ **Create Blackout**. The Create Blackout wizard is licensed as part of the Application Management Suite for PeopleSoft. ■ **End Blackout**. The End Blackout functionality is licensed as part of the Application Management Suite for PeopleSoft
Job Activity	From the Enterprise Summary home page, click the **Targets** menu, then **PeopleSoft**. From the PeopleSoft target menu, select **Job Activity**. All functionality, links, and reports included on the Job Activity page are licensed as part of the Application Management Suite for PeopleSoft.
Members ■ Show All ■ Topology ■ Dashboard ■ Operations ■ History	From the Enterprise Summary home page, click the **Targets** menu, then **PeopleSoft**. From the PeopleSoft target menu, select **Members**. All sub-menu items listed here are licensed as part of the Application Management Suite for PeopleSoft.
Configuration ■ Last Collected ■ Topology ■ Search ■ Compare ■ Comparison Job Activity ■ History ■ Save ■ Saved	From the Enterprise Summary home page, click the **Targets** menu, then **PeopleSoft**. From the PeopleSoft target menu, select **Configuration**. All sub-menu items listed here are licensed as part of the Application Management Suite for PeopleSoft.
Compliance ■ Results ■ Standard Associations ■ Real-time Observations	From the Enterprise Summary home page, click the **Targets** menu, then **PeopleSoft**. From the PeopleSoft target menu, select **Compliance**. All sub-menu items listed here are licensed as part of the Application Management Suite for PeopleSoft.

Licensed Page/Link	How to Access
Target Setup ■ Monitoring Configuration ■ Administrator Access ■ Remove Target ■ Add to Group ■ Properties	From the Enterprise Summary home page, click the **Targets** menu, then **PeopleSoft**. From the PeopleSoft target menu, select **Target Setup**. All sub-menu items listed here are licensed as part of the Application Management Suite for PeopleSoft.
Target Information	From the Enterprise Summary home page, click the **Targets** menu, then **PeopleSoft**. From the PeopleSoft target menu, select **Target Information**. The Target Information pop-up is licensed as part of the Application Management Suite for PeopleSoft.

8.6.4 Application Management Suite for PeopleSoft Enterprise Support for Service Level Management

Features associated with Service Level Management for PeopleSoft are also licensed as part of the Application Management Suite for PeopleSoft Enterprise. These SLM features are restricted for use with PeopleSoft Enterprise applications and only for the CPUs licensed. They cannot be used for extensions to the PeopleSoft Enterprise. Extensions include but are not limited to custom forms, JSPs, Java/J2EE code, and integrations using BPEL.

SLM offers a comprehensive monitoring solution that helps IT organizations achieve high availability and performance, and optimized service levels for their business services. SLM actively monitors and reports on the availability and performance of services, including end-user business functions, applications, and infrastructure components. Using service tests or synthetic transactions executed from remote user locations (beacons), businesses can monitor services from the end user's perspective and its correlation to the underlying IT infrastructure. In addition, SLM assesses the business impact of any service problem or failure and indicates whether service-level goals have been met.

See Enterprise Manager Cloud Control Service Level Management in Chapter 7 for more information.

8.6.4.1 Licensed Command Line Interface (CLI) Verbs

The following Enterprise Manager CLI verbs are licensed as part of Service Level Management within the Application Management Suite for PeopleSoft:

- `emcli apply_template_tests`
- `emcli create_service`
- `emcli add_target`

8.6.5 Application Management Suite for PeopleSoft Enterprise Support for Configuration Management

Configuration management automates the time-consuming and often error-prone process of managing host software and hardware configurations and deployments. The configuration management features that are licensed as part of the Application Management Suite for PeopleSoft Enterprise provides capabilities such as search and compare across all systems, configuration monitoring, policy management and

compliance support, security configuration scoring and dashboards, and comprehensive reporting for PeopleSoft-specific software components, which include:

- PeopleSoft System

- PS Application Server Database

- PS Application Server Domain

- PS Process Monitor

- PS Process Scheduler Domain

- PS Search Server Domain

- PS Web Site

- PS PIA

Configuration Management features of the Application Management Suite for PeopleSoft enable users to:

- View and analyze configuration

- View and analyze deployments/installations

- Search configuration

- Compare configuration

- Manage policies, including policy notifications

- Provide configuration reports

- Provide repository tables/views that store/expose configuration data

8.6.5.1 Licensed Reports

The following reports are part of the licensed features the Application Management Suite for PeopleSoft. To display the Report page, from the Enterprise Summary home page, click the **Targets** menu, then **PeopleSoft**. On the All PeopleSoft Targets page, select a PeopleSoft target from the from the Name column. From the PeopleSoft target menu, select **Information Publisher Reports**.

- **License Pack Usage** under **Feature and License Pack Usage**

- Monitoring reports

    - **Aggregate Targets**

    - **Alerts**

    - **Availability History**

    - **Availability Metrics Report**

8.6.5.2 Licensed Repository Views

The following repository views are licensed features of Configuration Management within the Application Management Suite for PeopleSoft:

Policy Definition Views	Policy Association Views
mgmt$policies	mgmt$target_policies
mgmt$policy_parameters	mgmt$target_policy_settings
mgmt$policy_violation_ctxt	mgmt$target_policy_eval_sum
mgmt$policy_viol_annotations	mgmt$target_compliance_score
mgmt$policy_viol_notif_log	

Policy Violation Views	Configuration Views
mgmt$policy_violation_current	mgmt$db_tablespaces
mgmt$policy_violation_history	mgmt$db_datafiles
mgmt$policy_violation_context	mgmt$db_controlfiles

Oracle Home Patching	
MGMT$CPF_ADVISORY_INFO	MGMT$PATCH_ADVISORIES
MGMT$CPF_HOMES_INFO	MGMT$APPL_PATCH_AND_PATCHSET
MGMT$CPF_PATCH_INFO	MGMT$APPLIED_PATCHES
MGMT$EM_HOMES_PLATFORM	MGMT$APPLIED_PATCHSETS
MGMT$HOMES_AFFECTED	

Linux Patching
MGMT$HOSTPATCH_HOSTS
MGMT$HOSTPATCH_GROUPS
MGMT$HOSTPATCH_GRP_COMPL_HIST
MGMT$HOSTPATCH_HOST_COMPL

Security Views	
MGMT$ESA_ALL_PRIVS_REPORT	MGMT$ESA_EXMPT_ACCESS_REPORT
MGMT$ESA_ANY_DICT_REPORT	MGMT$ESA_KEY_OBJECTS_REPORT
MGMT$ESA_ANY_PRIV_REPORT	MGMT$ESA_OH_OWNERSHIP_REPORT
MGMT$ESA_AUDIT_SYSTEM_REPORT	MGMT$ESA_OH_PERMISSION_REPORT
MGMT$ESA_BECOME_USER_REPORT	MGMT$ESA_POWER_PRIV_REPORT
MGMT$ESA_CATALOG_REPORT	MGMT$ESA_PUB_PRIV_REPORT
MGMT$ESA_CONN_PRIV_REPORT	MGMT$ESA_SYS_PUB_PKG_REPORT
MGMT$ESA_CREATE_PRIV_REPORT	MGMT$ESA_TABSP_OWNERS_REPORT
MGMT$ESA_DBA_GROUP_REPORT	MGMT$ESA_TRC_AUD_PERM_REPORT
MGMT$ESA_DBA_ROLE_REPORT	MGMT$ESA_WITH_ADMIN_REPORT
MGMT$ESA_DIRECT_PRIV_REPORT	MGMT$ESA_WITH_GRANT_REPORT

Client Configuration Views

MGMT$CSA_COLLECTIONS	MGMT$ECM_CONFIG_HISTORY_KEY5
MGMT$CSA_FAILED	MGMT$ECM_CONFIG_HISTORY_KEY6
MGMT$CSA_HOST_OS_COMPONENTS	MGMT$HW_NIC
MGMT$CSA_HOST_SW	MGMT$OS_COMPONENTS
MGMT$CSA_HOST_COOKIES	MGMT$OS_FS_MOUNT
MGMT$CSA_HOST_CUSTOM	MGMT$OS_HW_SUMMARY
MGMT$CSA_HOST_RULES	MGMT$OS_PATCHES
MGMT$CSA_HOST_CPUS	MGMT$OS_SUMMARY
MGMT$CSA_HOST_IOCARDS	MGMT$SOFTWARE_COMP_PATCHSET
MGMT$CSA_HOST_NICS	MGMT$SOFTWARE_COMPONENT_ONEOFF
MGMT$CSA_HOST_OS_PROPERTIES	MGMT$SOFTWARE_COMPONENTS
MGMT$CSA_HOST_OS_FILESYSEMS	MGMT$SOFTWARE_DEPENDENCIES
MGMT$ECM_CONFIG_HISTORY	MGMT$SOFTWARE_HOMES
MGMT$ECM_CONFIG_HISTORY_KEY1	MGMT$SOFTWARE_ONEOFF_PATCHES
MGMT$ECM_CONFIG_HISTORY_KEY2	MGMT$SOFTWARE_OTHERS
MGMT$ECM_CONFIG_HISTORY_KEY3	MGMT$SOFTWARE_PATCHES_IN_HOMES
MGMT$ECM_CONFIG_HISTORY_KEY4	MGMT$SOFTWARE_PATCHSETS

8.6.6 Java-based PeopleSoft Licensed Components

You can only use the following pages against Java-based PeopleSoft Servers running PeopleSoft PIA-based applications. Customers must obtain a full-use license of the Oracle Middleware Management Pack to manage custom applications running on Java EE containers.

- All of the pages in Oracle JVM Diagnostics are licensed features of the Application Management Suite for PeopleSoft.

- All of the pages in the WebLogic Server are licensed features of the Application Management Suite for PeopleSoft.

9

Cloud Management

This chapter describes the Cloud Management packs offered by Enterprise Manager. The following packs are included:

- Oracle Cloud Management Pack for Oracle Database
- Oracle Cloud Management Pack for Oracle Middleware
- Oracle Cloud Management Pack for Testing

Out-of-the-box cloud licenses are granted to already existing targets on which licenses are defined and whenever new targets are discovered the packs are granted automatically. License access information can be verified by clicking **Setup**, **Management Packs**, then **Management Pack Access**.

9.1 Oracle Cloud Management Pack for Oracle Database

Oracle Cloud Management Pack for Oracle Database helps to set up a Database Cloud and operate the Database as a Service model. The following sections describe this management pack offered by Enterprise Manager:

- Oracle Cloud Management Pack for Oracle Database Features
- Oracle Cloud Management Pack for Oracle Database Prerequisites
- Accessing Oracle Cloud Management Pack for Oracle Database Licensed Links
- Oracle Cloud Management Pack for Oracle Database Licensed RESTful APIs
- Oracle Cloud Management Pack for Oracle Database Licensed EMCLI Verbs
- Oracle Cloud Management Pack for Oracle Database Licensed Views and Tables
- Oracle Cloud Management Pack for Oracle Database Licensed Chargeback Reports

9.1.1 Oracle Cloud Management Pack for Oracle Database Features

Some of the features provided by this pack are:

Feature	Definition
Out-of-box self-service portal and database technical service catalog	Provides a set of pre-approved templates based on the role of the consumer.
Self-service database provisioning	Provides support on physical, virtual and Engineered Systems infrastructure.

Feature	Definition
Comprehensive deployment models	Supports shared server (VM based), shared cluster, shared database (Schema-as-a-Service), and Pluggable Database-as-a-Service (PDBaaS) deployment models.
Virtual assembly provisioning	Provisioning of Database VM assemblies (any file in OVA format is considered assemblies). For example, if there is an assembly topology of three virtual machines (VMs) (two WebLogic Server-managed servers and one database), you will need both packs to cover the respective tiers. Schedule- and performance-based resource management policies.
Snap Clone	Provides a fast, storage-agnostic, space-efficient approach to cloning Oracle Databases. This feature supports Oracle Database versions 10*g* to 12*c*, including Pluggable databases.
Data Refresh for Full Clones	Provides the ability to refresh the data contained in full clones with the latest from production using newer RMAN backups or using RMAN duplicate. This feature significantly reduces the DBA time and effort. **Note:** The ability to create 'new' full clones is licensed under Database Lifecycle Management Pack for Oracle Database, but the additional 'refresh' function requires licensing the Cloud Management Pack for Oracle Database.
Administrative flows (non-self service)	Creates full clones and snap clones of source databases, including the ability to refresh the database while maintaining its name and configuration parameters.
Fleet maintenance	Provides minimum-downtime patching and upgrades to the database service instances in a cloud pool. This feature helps reduce the software pollution across the database estate.
Governance	Role-based access and resource control through quotas and retirement policies.
Metering and chargeback	Provides support based on fixed cost, utilization metrics and configuration parameters of the database.
Programmatic access	Provides access to the Self-Service Portal via REST APIs and EMCLIs.
Database-as-a-Service (DBaaS) Rapid Start Kit	Allows users to set up and configure Enterprise Manager Cloud Control 12*c* in under a minute.
Blueprints	Blueprint-driven orchestration of cloud operations using the cloud REST API.

9.1.2 Oracle Cloud Management Pack for Oracle Database Prerequisites

The Oracle Cloud Management Pack for Oracle Database requires the Database Lifecycle Management Pack for Oracle Database.

9.1.3 Accessing Oracle Cloud Management Pack for Oracle Database Licensed Links

From the Database home page, click the **Database** target menu, select **Provisioning**, and then **Clone and Refresh**. On this page, the following actions are included:

- Create CloneDB Databases

- Create Snap Clone Databases

- Promote as Test Master

- Remove from Test Masters

- Refresh

Starting on the Enterprise Summary home page, the following licensed pages and links of this pack apply:

- Click the **Enterprise** menu. Select **Cloud**, then **Oracle VM Infrastructure Home**.

- Click the **Enterprise** menu. Select **Cloud**, then **Oracle VM Infrastructure Request Dashboard**.

- Click the **Enterprise** menu. Select **Cloud**, then **Policies**.

- Click the **Enterprise** menu. Select **Cloud**, then **Cloud Home**.

- Click the **Enterprise** menu. Select **Cloud**, then **Self Service Portal**.

- Click the **Enterprise** menu. Select **Chargeback**.

- Click the **Enterprise** menu. Select **Provisioning and Patching**, then **Database Provisioning**. In the Database Provisioning page, in the Related Links section of the left menu pane, click **Provision Pluggable Databases**. Next, from the PDB Operations section, select **Create New Pluggable Databases**. Click **Launch**, and from Pluggable Database Creation Options, select **Clone an Existing PDB->Snap Clone**.

- On the Multitenant container database's home page, from the Oracle Database menu, select **Provisioning**, then **Provision Pluggable Database**. Next, from the PDB Operations section, select **Create New Pluggable Databases**. Click **Launch**, and from Pluggable Database Creation Options, select **Clone an Existing PDB->Snap Clone**.

- Click the **Setup** menu. Select **Cloud**, then **Infrastructure**.

- Click the **Setup** menu. Select **Cloud**, then **Database**.

- Click the **Setup** menu. Select **Provisioning and Patching**, then **Storage Registration**.

9.1.4 Oracle Cloud Management Pack for Oracle Database Licensed RESTful APIs

The following RESTful APIs are licensed:

API	Description
Assembly Operations	Any `POST/GET/PUT/DELETE` on `/em/cloud/iaas` URI space for Resources Assembly Template and Assembly Instance.
Database and Schema Operations	Any `POST/GET/PUT/DELETE` on `/em/cloud/dbaas/` URI space.
DBaaS Setup Operations	Any `POST/GET/PUT/DELETE` on `/em/websvcs/restful/extws/cloudservices/admin/cfw/v1` URI space.

9.1.5 Oracle Cloud Management Pack for Oracle Database Licensed EMCLI Verbs

The following EMCLI verbs are licensed under the Oracle Cloud Management Pack for Oracle Database.

add_pool_members	get_dbaas_request_settings
cancel_cloud_service_requests	get_metering_data
create_charge_item	get_pool_capacity_data
create_dbaas_quota	get_pool_capacity_summary_data
create_pool	get_pool_detail
create_service_template	get_service_template
delete_charge_item	get_pool_constraints
delete_cloud_service_instances	get_pool_criteria
delete_cloud_user_objects	get_pool_instance_data
delete_dbaas_quota	get_pool_target_type
delete_pool	get_pools
delete_service_template	list_charge_item_candidates
get_cloud_service_requests	remove_pool_members
get_cloud_user_objects	update_dbaas_request_settings
get_cloud_service_instances	update_dbaas_quota
get_dbaas_quota	update_pool

9.1.6 Oracle Cloud Management Pack for Oracle Database Licensed Views and Tables

The following objects within the repository schema are licensed under the Oracle Cloud Management Pack for Oracle Database:

- Tables starting with EMCT_CBA.

- Views starting with EMCT$CBA.

- The views:

  ```
  GP_EMCT_CBA_TARGET_CHARGE
  MGMT$EMCT_CBA_CHARGE_HOURLY
  MGMT$EMCT_CBA_CHARGE_DAILY
  ```

9.1.7 Oracle Cloud Management Pack for Oracle Database Licensed Chargeback Reports

The following BI Publisher reports are licensed under the Oracle Cloud Management Pack for Oracle Database. Also, any report created using "create-like" feature of BI publisher referring the following reports, fall under this license.

- Charge Trend Report

- Charge Summary Report

- Usage Trend Report

- Usage Summary Report

9.2 Oracle Cloud Management Pack for Oracle Middleware

Cloud Management Pack for Oracle Fusion Middleware helps to set up a Middleware Cloud and operate the Middleware (or Platform) as a Service model. The following sections describe this management pack offered by Enterprise Manager:

- Oracle Cloud Management Pack for Oracle Middleware Features

- Oracle Cloud Management Pack for Oracle Fusion Middleware Prerequisites

- Accessing Oracle Cloud Management Pack for Oracle Fusion Middleware Licensed Links

- Oracle Cloud Management Pack for Oracle Fusion Middleware Licensed APIs

- Oracle Cloud Management Pack for Oracle Fusion Middleware Licensed Views and Tables

- Oracle Cloud Management Pack for Oracle Fusion Middleware Licensed EMCLI Verbs

- Oracle Cloud Management Pack for Oracle Fusion Middleware Licensed Chargeback Reports

9.2.1 Oracle Cloud Management Pack for Oracle Middleware Features

Some of the features provided by this pack are:

Feature	Definition
Self-service provisioning	Provides self-service provisioning support for WebLogic-based Java services on both physical and virtual infrastructure.
Service creation and service deletion.	Provides pre- and post-script support.
SOA as a Service	Provides support for SOA-based services on both physical and virtual infrastructure.
SOA Cloning with artifacts	Provides support for cloning of SOA environments with artifacts.
WebCenter Cloning with artifacts	Provides support for cloning of WebCenter environments with artifacts.
Optional load balancer	Provides support for Oracle Traffic Director, Oracle HTTP Server, and third-party load balancer.
Elasticity	Provides automatic resource management based on schedule- and performance-based resource management policies.
Metering and chargeback	Provides support based on fixed cost, utilization metrics, and configuration parameters of the WebLogic Server.
Virtual assembly provisioning	Provisioning of WebLogic VM assemblies (any file in OVA format is considered assemblies). For example, if there is an assembly topology of three VMs (two WebLogic Server-managed servers and one database), you will need both cloud management packs to cover the respective tiers.
Governance	Role-based access and resource control through quotas and retirement policies.
Programmatic access	Provides access to the Self-Service Portal via REST APIs and EMCLIs
Blueprints	Blueprint-driven orchestration of cloud operations using the cloud REST API.

9.2.2 Oracle Cloud Management Pack for Oracle Fusion Middleware Prerequisites

The Oracle Cloud Management Pack for Oracle Fusion Middleware requires either:

- The WebLogic Server Management Pack Enterprise Edition for deploying WebLogic-based applications.

- The SOA Management Pack Enterprise Edition for deploying SOA.

9.2.3 Accessing Oracle Cloud Management Pack for Oracle Fusion Middleware Licensed Links

Starting on the Enterprise Summary home page, the following licensed pages and links of this pack apply:

- Click the **Enterprise** menu. Select **Cloud**, then **Infrastructure Home**.

- Click the **Enterprise** menu. Select **Cloud**, then **Infrastructure Request Dashboard**.

- Click the **Enterprise** menu. Select **Cloud**, then **Infrastructure Policies**.

- Click the **Enterprise** menu. Select **Cloud**, then **Middleware and Database Home**.

- Click the **Enterprise** menu. Select **Cloud**, then **Middleware and Database Request Dashboard**.

- Click the **Enterprise** menu. Select **Cloud**, then **Self Service Portal**.

- Click the **Enterprise** menu. Select **Cloud**, then **Service Instances**.

- Click the **Enterprise** menu. Select **Chargeback**.

- Click the **Setup** menu. Select **Cloud**, then **Infrastructure**.

- Click the **Setup** menu. Select **Cloud**, then **Middleware**.

9.2.4 Oracle Cloud Management Pack for Oracle Fusion Middleware Licensed APIs

The following APIs are licensed:

API	Description
Assembly operations	Any POST/GET/PUT/DELETE on `/em/cloud/iaas/` URI space for Resources Assembly Template and Assembly Instance.
Java PaaS operations	Any POST/GET/PUT/DELETE on `/em/cloud/jaas/` URI space.
MWaaS setup operations	Any POST/GET/PUT/DELETE on: - `/em/websvcs/restful/extws/cloudservices/admin/cfw/v1` URI space. - `/em/websvcs/restful/extws/cloudservices/admin/mwaas/v1` URI space. - `/em/websvcs/restful/extws/cloudservices/ssa/mwaas/v1` URI space.
MWaaS user operations	Any POST/GET/PUT/DELETE on `/em/websvcs/restful/extws/cloudservices/ssa/mwaas/v1` URI space.

9.2.5 Oracle Cloud Management Pack for Oracle Fusion Middleware Licensed Views and Tables

The following objects within the repository schema are licensed under the Oracle Cloud Management Pack for Oracle Middleware:

- Tables starting with `EMCT_CBA`.

- Views starting with `EMCT$CBA`.

- The views:

```
GP_EMCT_CBA_TARGET_CHARGE
MGMT$EMCT_CBA_CHARGE_HOURLY
MGMT$EMCT_CBA_CHARGE_DAILY
```

9.2.6 Oracle Cloud Management Pack for Oracle Fusion Middleware Licensed EMCLI Verbs

The following EMCLI verbs are licensed under the Oracle Cloud Management Pack for Oracle Middleware. These verbs operate on a middleware `pool.get_pool_target_type`.

add_pool_members	get_pool_capacity_summary_data
create_charge_item	get_pool_constraints
create_pool	get_pool_criteria
create_service_template	get_pool_detail
delete_charge_item	get_pools
delete_pool	get_service_template
delete_service_template	list_charge_item_candidates
get_metering_data	remove_pool_members
get_pool_instance_data	update_pool
get_pool_capacity_data	

9.2.7 Oracle Cloud Management Pack for Oracle Fusion Middleware Licensed Chargeback Reports

The following BI Publisher reports are licensed under the Oracle Cloud Management Pack for Oracle Middleware. Also, any report created using "create-like" feature of BI publisher referring the following reports, fall under this license.

- Charge Trend Report

- Charge Summary Report

- Usage Trend Report

- Usage Summary Report

9.3 Oracle Cloud Management Pack for Testing

Oracle Cloud Management Pack for Testing enables businesses to set up their own testing cloud for delivering software testing services. The following sections describe this management pack offered by Enterprise Manager:

- Oracle Cloud Management Pack for Testing Features

- Accessing Oracle Cloud Management Pack for Testing Licensed Links

9.3.1 Oracle Cloud Management Pack for Testing Features

Features provided by Oracle Cloud Management Pack for Testing include:

- Setup for providing cloud infrastructure (virtual and physical).

- Self-service Assembly provisioning on Oracle VM infrastructure.

- Self-service test environment and test driver provisioning.

- Test script execution.

- Resource control through quotas and retirement policies.

- Flexible resource metering and chargeback for compute resources consumed.

> **Note:** You can define your own testing tools to use with the Oracle Cloud Management Pack for Testing. If you choose Oracle Load Testing, Oracle Functional Testing, Oracle Functional Testing Suite for Oracle Applications, as well as Oracle Load Testing Suite for Oracle Applications, it must be licensed separately.

9.3.2 Accessing Oracle Cloud Management Pack for Testing Licensed Links

Starting on the Enterprise Summary home page, the following licensed pages and links of this pack apply:

- Click the **Enterprise** menu. Select **Cloud**, then **Testing Home**.

- Click the **Enterprise** menu. Select **Cloud**, then **Self Service Portal**. Select the **My Tests** option, then the **My Tests** tab.

- Click the **Setup** menu. Select **Cloud**, then **Testing**.

10

Base Enterprise Manager Functionality

This chapter outlines the list of features that are included with the base functionality of Oracle Enterprise Manager:

- Base Framework Features
- Base Database Management Features
- Base Middleware Management Features
- Base Engineered Systems Management Features
- Server, Storage, and Virtualization Management Features

The base installation of Enterprise Manager Cloud Control 12*c* includes several features free of charge with the purchase of any Oracle software license or Support contract.

The release of Oracle Enterprise Manager Cloud Control 12*c* makes several licensing changes. Some features that were part of licensed packs are now included in the base functionality.

10.1 Base Framework Features

The following items are included as part of framework features of Oracle Enterprise Manager Cloud Control 12*c*:

Feature	Description
Agent Management	Start, stop, restart, and modify agent configuration from Oracle Enterprise Manager Cloud Control 12*c*. View agent health from agent home page.
Agent Provisioning and Patching	Automate deployment of agent software and patches to the target servers.
Agent-based Target Discovery	Discover targets running on a host automatically by deploying the agent.
Alerts and Metric Threshold Management *(excludes notifications)*	Configure thresholds for metrics and view alerts (server generated or generated based on threshold violation). This excludes notifications which requires one or more licensed Packs.
Auto Discovery	Discover host on a network and promote to being managed by Enterprise Manager.
Enterprise Manager Self Management and Monitoring	View Management Services and Repository and Management Service target pages and reports. View Enterprise Manager topology.

Feature	Description
Enterprise Manager Support Workbench	Access Checker Central diagnostics checks. Run EMDiag Kit. Package and send Problem information to Oracle Support.
Groups and Systems Management	Enable administrators to manage multiple targets as one.
Information Publisher and Reporting	Create and manage reports in Enterprise Manager's embedded reporting solution or in BI Publisher. Specific reports in Enterprise Manager may be licensed under Packs.
Job System and Corrective Actions	Automate routine (often repetitive) tasks. Enables automated response to metric alerts.
Monitoring and Incident Management	Provide administrators with ability to monitor targets individually or in groups or systems. View and manage incidents generate from events associated with targets.
My Oracle Support integration	Provide seamless access to My Oracle Support within the Enterprise Manager user interface. Manage Service Requests and review Knowledge Base articles, all without leaving the Enterprise Manager user interface.
Self-update *(functionality in plug-ins may be licensed under Packs)*	Update Enterprise Manager with new features or fixes based on new versions of software available on Oracle Technology Network (OTN) or My Oracle Support (MOS).
Extensibility Development Kit (EDK)	Collection of tools, utilities, sample code, and documentation that enables creation of new plug-ins to extend Enterprise Manager's ability to monitor and manage new types of targets.
Software Library (excludes licensed software)	Manage software entities such as software patches, virtual appliance images, reference gold images, application software, and their associated directive scripts. This excludes any software entities that are a part of a licensed Pack.
User, Role and Credentials Management	Manage Enterprise Manager user access, the roles associated with users, and the credentials used by users to access targets.
vCPU Utilization Tracking	Track and report on Oracle product vCPU consumption on supported Oracle Engineered Systems.

10.2 Base Database Management Features

Users of Standard Edition and Enterprise Edition databases can use the Base Framework features and the Base Database Management Features. The following items are included as part of base database management features of Enterprise Manager Cloud Control 12*c*:

Feature	Description
Advisor Central	Initiate an Advisor operation for various database management tasks, such as Segment Advisor, Memory Advisor. Some Advisors may be licensed under Packs.
Data movement	Configure and manage movement of data between databases using features such streams, replication, data pump.
Error management	View error history reported in the database alert log. Manage and diagnose critical errors reported using Support Workbench. Package errors and associated trace files into incidents for reporting on My Oracle Support.
Grid Infrastructure management	Manage all components of Oracle Grid Infrastructure including Automatic Storage Management (ASM) and Clusterware (including Cluster Ready Services (CRS).

Feature	Description
High availability	Configure and manage database backups, initiate recovery actions, configure flashback. View and configure standby databases. Analyze high availability configuration against Maximum Availability Architecture.
Non-structured data management	Manage multi-dimensional data such as OLAP, semi-structured data such as XML, and unstructured data such as text.
Object, program and initialization parameters management	Manage database objects such as tables, indexes, views, materialized views. Manage PL/SQL and Java-based database programs such as triggers, procedures, functions. View and manage database initialization parameters.
Optimizer Management	Manage optimizer statistics and SQL plans. Some capabilities under SQL Plan Control may be licensed under Packs.
Patch Recommendations	My Oracle Support Critical Patch Recommendations.
Pluggable Database (PDB) Create/Plug/Unplug	Create PDB from seed, plug PDB from unplugged PDB and unplug PDB (single target operations only using non-customized deployment procedure).
Resource Management	Manage the distribution of operating system resources by defining and assigning resource plans to consumer groups within the database.
Scheduler Central	Manage automated jobs maintained by Oracle Database and Oracle Enterprise Manager including Automatic Maintenance Tasks.
Security	Manage database users, roles, profiles, configure Virtual Private Database (VPN) policies. Certain database security pages are licensed under the corresponding database security option, for example, Database Vault, Audit Vault.
SQL Execution	View SQL execution history, execute ad hoc SQL using Run SQL or SQL Worksheet.
Space and Undo Management	Manage control files, tablespaces, datafiles, log files, automatic undo management.
Support Workbench	View critical errors captured in the Automatic Diagnostic Repository, create incidents from errors to report to My Oracle Support.
Upgrade Planner	My Oracle Support Upgrade Planner.
Workspace management	Define and configure workspaces to maintain different versions of table row values in different workspaces.

10.3 Base Middleware Management Features

The following items are included as part of Enterprise Manager Cloud Control 12*c* Middleware management:

> **Note:** Only the target home page itself is unlicensed. All links including metric links to look at historical metrics are part of the appropriate middleware management pack and require a license.

Feature	Description
Discovery of Oracle Fusion Middleware Farm/WebLogic Domain	Allow for discovery of Oracle WebLogic Domains and Oracle Fusion Middleware Farms (includes discovery of Fusion Middleware components deployed to the domains as well).
Drilldowns to Administration Consoles	Provide links for launching and accessing administration consoles such as the Oracle Enterprise Manager Fusion Middleware Control console, Oracle GlassFish Server Administration Console, and Oracle WebLogic Server Administration Console.
Fusion Middleware targets home pages *(Exception is JVM and JVM Pool target home pages; these two home pages are part of a management pack and require a license.)*	View target home pages including, but not limited to the following target types: ■ WebLogic Domain ■ Fusion Middleware Farm ■ WebLogic Cluster and WebLogic Server ■ Application Deployment and Clustered Application Deployment ■ WebCenter ■ Oracle Service Bus target ■ SOA Infrastructure and Composite target
Process Control	Ability to start, stop, restart Oracle Fusion Middleware related components.
Refresh or Rediscovery of Oracle Fusion Middleware Farm/WebLogic Domain	Refresh or rediscover Oracle Fusion Middleware Farm/WebLogic Domain and its members - either manually or automatically with a predefined job.
Support Workbench	Automatic collection of diagnostic data when critical errors occur in WebLogic Server and SOA Infrastructure components. Data can then be quickly and easily packaged and sent to Oracle Support to reduce problem resolution time.
WLST Script job	Schedule and track the execution of WLST commands from the Cloud Control console.

10.4 Base Engineered Systems Management Features

Engineered Systems includes Exadata and Exalogic systems:

■ Exadata Management Features

■ Exalogic Management Features

10.4.1 Exadata Management Features

The following pages are included as part of Enterprise Manager Cloud Control 12*c* Exadata management:

Page	Page Features
Schematic	■ Database Machine Schematic ■ Physical components ■ Physical placement ■ <mark>Temperature of cells</mark> ■ Alter physical placement of each component via Edit ■ Status summary of each component ■ List of alerts
Topology Viewer	■ DB Machine Software Topology ■ System Members ■ InfiniBand Switch
Exadata Grid	■ Overview – Target status, Cell health, release version and IORM status ■ Capacity – Disk capacity allocated to ASM, ASM Diskgroup summary and cell incidents **Note:** these regions are licensed by the Oracle Diagnostics Pack: ■ Workload Distribution by Databases ■ Cell level Performance charts – I/O, CPU, Network and Response Time
IB Network page	Overview – status, switches, firmware version, Schematic explaining the port status, Node status, List of alerts, incidents. **Note:** these regions are licensed by the Oracle Diagnostics Pack: ■ Throughput details
ILOM, KVM, Cisco Switch, PDU	Summary, Job Activity, list of alerts

10.4.2 Exalogic Management Features

The following items are included as part of Enterprise Manager Cloud Control 12*c* Exalogic management:

Feature	Description
Basic monitoring	■ Component placement – schematic view, temperature, hardware up and down status ■ Software dashboard page ■ Virtualization pages within the Exalogic Navigation tree ■ Storage pages ■ Topology view of the system and components ■ Exalogic InfiniBand (IB) Fabric Page

10.5 Server, Storage, and Virtualization Management Features

The following items are included as part of Enterprise Manager Cloud Control 12*c* server and virtualization management:

Feature	Description
Administration	Provide remote administration capabilities for hosts.

Feature	Description
Chargeback	Metering and Chargeback for guest virtual machines (VMs) and hosts. **Note:** If you have not purchased a license for Oracle Cloud Management Pack for Oracle Database or Oracle Cloud Management Pack for Oracle Middleware, you should grant access to the Oracle Cloud Management Pack for Oracle Database to the Enterprise Manager Repository database to obtain access to *Chargeback for VM Guest and Host* targets.
Configuration management	Provide hardware and software configuration data collection.
Consolidation Planner	Determine optimal server consolidation scenarios by leveraging data collected by Cloud Control against business and technical constraints.
Controlling/Service Domain	Configure Oracle VM Server for SPARC controlling or service domain attributes and monitor resource consumption. Manipulate vdisk allocation to VMs post-creation.
Dynamic Resource Allocation	Provide for real-time changing of allocated resources using Oracle Solaris Container and Oracle VM Server for SPARC technology.
Dynamic Topology	Maintain the child-to-parent relationship between the service processor, hypervisor, global zone, control domain, and virtual machine.
Guest VM/Linux OS Patching	Provide automated host patching and integration with an Unbreakable Linux network (ULN).
Historical Trending	View historical workload trends for Oracle Solaris Zones against one another on a central graph.
Host monitoring and management	Monitor of Cloud Control component services, such as jobs and notifications.
Hypervisor/OS Provisioning	Provide default templates for the creation of Oracle VM Server for SPARC controlling domain configuration. Ensure compatibility between embedded hypervisor components in the firmware and the bare metal OS layers above.
Image Library Management	Maintain ISO and Oracle Solaris Flash Archive (FLAR) images for both physical and virtual provisioning.
Infrastructure Management	Provide ready access to Home, Self-Service, Request Dashboard pages via the Infrastructure Cloud menu.
Metric Extensions	Create new metrics to monitor conditions specific to customer environments. **Note:** Metric Extensions are available free of charge only for the host target and not for other targets.
Monitoring Profiles for V12N	Provide monitoring attributes for issues associated with Oracle VM Server for SPARC and Oracle Solaris Container environments.
Network Configuration	Provide network topology in VM creation wizards that result in more redundant configurations based on IP multi-pathing and VLAN tagging.
Notifications	Notification on events and incidents for infrastructure targets (hosts, storage, VMs).
Oracle Solaris Container Management	Provide full life-cycle management, including discovery, create, delete, configure, boot, shutdown, and monitor.
Oracle Solaris Global Zone	Configure global zone resource allocation and monitor resource consumption.

Feature	Description
Oracle Solaris Zones and Patch Management	Facilitate "update on attach" actions as zones are migrated around to different global zones.
Oracle VM and Guest VM provisioning	Deploy Oracle VM server software to bare-metal servers and create Guest VMs using operating system ISOs or using the PXE mode.
Oracle VM management including Oracle VM manager and self-service console (IaaS manager)	Manage environment requests to allow for more storage.
Oracle VM Server for SPARC	Provide full life-cycle management, including discovery, create, delete, configure, boot, shutdown, and monitor.
Performance monitoring	Provide real-time and historical performance monitoring.
Provisioning of Oracle VM templates	Provisioning of Oracle VM templates.
Resource Virtual Pools	Construct T-series server group and manage the network configuration and shared storage, auto-balance the workload, and view historical aggregations of performance metrics.
Storage Orchestration	Automatically facilitate the use of Oracle Sun ZFS Storage Appliances in the Oracle Solaris Container and Oracle VM Server for SPARC environments.
Storage Plug-in	Manage storage assets more effectively.
Technology Abstraction Layer	Use M-series dynamic hardware domains, T-series Oracle VM Server for SPARC, and Oracle Solaris Zones, and create complex operational plans.

10.5.1 Ops Center Features

Oracle Enterprise Manager Ops Center provides the most comprehensive management across Oracle servers, storage, network devices, operating systems, and Oracle Solaris virtualization technologies while dramatically improving the efficiency of IT operations with its integrated life-cycle management and built-in automation. Ops Center is the best solution on the market today for Oracle infrastructure management.

Ops Center provides full life-cycle management of virtual guests, including resource management and mobility orchestration. It helps customers streamline operations and reduce downtime. Ops Center provides an end-to-end management solution for both physical and virtual systems. From Oracle Solaris Zones to Oracle VM Server for SPARC, Ops Center offers the right combination of granular control and workload abstraction for a complete hardware and software solution.

Ops Center includes the following features:

Feature	Description
Alarm Management	Provide alert correlation and aggregation. Open a Service Request with My Oracle Support.
Asset Management	Manage distributed assets from the same console. Provide new hardware asset reporting down to the field replaceable unit (FRU) part number.
Audit Reporting	Track software and configuration changes made with Ops Center through easily read reports.

Feature	Description
Bare Metal OS Provisioning	Automate Kickstart, Jumpstart, YAST, and DHCP configuration for the remote light-out provisioning of servers. Create profiles to capture finish scripts and customization.
Cloud Control Integration	Provide integration between Enterprise Manager Cloud Control and Ops Center. Discover targets and view alarm information. View hardware, OS, and virtualization information.
Complex Plan Management	Create in-depth workflow plans by nesting server provisioning tasks into a comprehensive string of events.
Compliance Automation	Provide reporting capabilities to schedule tests against target nodes, point-in-time comparisons, operational policies, or self-made software profiles.
Disconnected Mode	Provide choice to remain connected to Oracle to receive knowledge transfer automation and protection, or to run in disconnected mode from Oracle.
Energy Awareness	View historical and real-time energy consumption of individual servers or groups of servers in both Watt (W) and KwH in terms of cost. View CPU utilization, temperature, and fan RPM trending.
Enhanced OS Patching	Minimize downtime originating from software life cycles activities.
Firmware Provisioning	Automatically download firmware for servers and storage appliances, including Service Processor, RAID HBA cards, and drive firmware.
Hardware Management	Provide hardware monitoring across the Oracle T-series, M-series, X-series, Network Appliances, and Storage Appliances. Provide integration with Oracle Solaris FMA.
Historical Monitoring	Provide a view of past trends in monitored performance attributes.
M-series Dynamic Domains	Create provisioning plans that control the configuration of dynamic hardware domains.
My Oracle Support Integration	Provide integration to My Oracle Support. Automatically open service requests and validate assets. View service request status updates.
Network Fabric Monitoring	Discover, map, and view Oracle 10GBe and Infiniband Switches, NEMs, and HBA devices from the server point of view.
Operational Plans	Set alarm thresholds on any attribute in the product and house them in a monitoring profile that can be provisioned across multiple boxes. Allow for ad-hoc actions and scripts to be run and their output captured.
Oracle Solaris Cluster Support	Discover an Oracle Solaris Cluster environment provide full coverage of Oracle Solaris Cluster software in the Ops Center knowledge repository.
Oracle Sun ZFS Storage Appliances	Discover Oracle Sun ZFS Storage Appliances properly in the topology and provide a view of configuration and service information of the device.
OS Performance Monitoring	Provide Oracle Solaris and Linux OS performance monitoring, both real-time status of attributes and historical charting.
RAID Device Configuration	Provide pre-OS installation and RAID device configuration.

Feature	Description
Role Based Access Control	Provide roles that control a user's access, which can be granted universally or for specific groups of assets.
Windows Support	Provide comprehensive Windows patching integration with Microsoft System Center Configuration Manager.

A

Third-Party Licenses

This appendix contains licensing information about certain third-party products included with Enterprise Manager version 12*c*. Unless otherwise specifically noted, all licenses herein are provided for notice purposes only.

The following sections in this appendix describe the third-party licenses:

- Apache Software Foundation Licenses
    - Apache Software License, Version 1.1
        * Hessian Binary Web Service Protocol 3.2.1
    - Apache Software License, Version 2.0
        * Axis - Java, 1.2.1, 2.1.1, 1.4, 1.4.2
        * Apache Jakarta Commons HttpClient 3.1
        * Closure 0.1.3
        * Commons BeanUtils 1.6, 1.7, 1.8
        * Commons Byte Code Engineering Library (BCEL) 5.2
        * Commons Codec 1.2, 1.3
        * Commons Collections 3.1
        * Commons Compress 1.1
        * Commons Digester 1.5, 1.7
        * Commons JXPath 1.2
        * JavaServer Pages (JSP) Expression Language (EL) Parser 2.0
        * Jettison 1.0
        * Jetty 7.0.1
        * Jackson JSON Processor 1.9.4
        * JSON PATH 0.9, 1.0
        * JSON Smart 1.0, 1.2
        * Log4J 1.2.8, 1.2.13, 1.2.15, 1.3
        * Maven 3.0.4
        * Trinidad
        * Wiseman 1.0
        * Xerces 2.8.1, 2.0.1

- * XMLBeans Developer Kit (xbean.jar) 2.3.0, 2.2.0, and 2.1.0
- Flash 10
- JDepend 2.9
- Perl Artistic License
  - Net-DNS 0.48
  - Net-IMAP-Simple (IMAP Perl Module) 0.93
  - Perl Interpreter 5.8.8, 5.10.0
  - CPAN Modules
    - * perl module: IO-tty 1.10, 1.11
    - * perl module: XML::Simple 2.20
- DBD Perl 1.15
- Flex SDK 3.3, 3.5
- Flex Flowbox Container
- jQuery 1.3.2
- Rating Component
- Sudo 1.6.7p5
- Info-ZIP Licenses
  - Info-ZIP Licenses
  - unzip 6.0
  - zip 3.0
- Microsoft JDBC Drivers SQL Server 2005 JDBC
- Microsoft mfc71.dll, msvcr71.dll 7.10 (v7.1)
- Cairngorm (v2.2)
- Java Secure Channel (JSCH) for SSH2 0.1.44, 1.20, 1.33, 1.37, 1.39
- Streaming API for XML (StAX) (StAX utils 20070216)
- Graph Range Selection
- Windows Event Handling
- flexlib 2.5
- Flexlib - Docking Toolbar
- Flexlib - Highlighter
- Flexlib - ScrollableMenu
- Flexlib - treegrid 2.1
- HP J2SE(TM) Development Kit (JDK) 1.5, 5.0
- Jython 2.1, 2.2, 2.2.1. 2.5.1, 2.5.3
- Standard Performance Evaluation Corporation (SPEC) Benchmark Suites (1.1)
- flextreemap (2.2.0)
- pngcrush, optimizer tool for PNG files 1.7.13

- PowerBroker 4.0.5
- httplib2 Version 0.7.4
- pyyaml 3.10
- Lua (liblua) 5.1.3, 5.2.3
- OpenSSL 1.0.1e, 1.0.1g, 1.0.1h
  - Net::SSLeay - Perl Extension for using OPPenSSL 1.5.2, 1.63
- libdnet 1.12 ipv6
- libpcap 1.2.1
- libpcre 7.6
- Sblim CIM Client 2.2.3
- winpcap 4.1.2
- Additional Licensing Information

A.1 Apache Software Foundation Licenses

The following sections provide licensing information for the following versions of Apache software licenses:

- Apache Software License, Version 1.1
- Apache Software License, Version 2.0

A.1.1 Apache Software License, Version 1.1

Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.

Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.

The end-user documentation included with the redistribution, if any, must include the following acknowledgment:

"This product includes software developed by the Apache Software Foundation (http://www.apache.org/)."

Alternately, this acknowledgment may appear in the software itself, if and wherever such third-party acknowledgments normally appear.

The names "Apache" and "Apache Software Foundation" must not be used to endorse or promote products derived from this software without prior written permission. For written permission, please contact apache@apache.org.

Products derived from this software may not be called "Apache", nor may "Apache" appear in their name, without prior written permission of the Apache Software Foundation.

THIS SOFTWARE IS PROVIDED "AS IS" AND ANY EXPRESSED OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE

DISCLAIMED. IN NO EVENT SHALL THE APACHE SOFTWARE FOUNDATION OR ITS CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

This software consists of voluntary contributions made by many individuals on behalf of the Apache Software Foundation. For more information on the Apache Software Foundation, please see http://www.apache.org.

Portions of this software are based upon public domain software originally written at the National Center for Supercomputing Applications, University of Illinois, Urbana-Champaign.

This product includes the following software from the Apache Software Foundation (http://www.apache.org) licensed to Oracle under Apache License 1.1 and that include the following copyright notices:

A.1.1.1 Hessian Binary Web Service Protocol 3.2.1

Copyright (c) 2001-2004 Caucho Technology, Inc. All rights reserved.

This product includes software developed by Caucho Technology (http://www.caucho.com/).

A.1.2 Apache Software License, Version 2.0

Apache License

Version 2.0, January 2004

http://www.apache.org/licenses/

TERMS AND CONDITIONS FOR USE, REPRODUCTION, AND DISTRIBUTION

1. Definitions.

    "License" shall mean the terms and conditions for use, reproduction, and distribution as defined by Sections 1 through 9 of this document.

    "Licensor" shall mean the copyright owner or entity authorized by the copyright owner that is granting the License.

    "Legal Entity" shall mean the union of the acting entity and all other entities that control, are controlled by, or are under common control with that entity. For the purposes of this definition, "control" means (i) the power, direct or indirect, to cause the direction or management of such entity, whether by contract or otherwise, or (ii) ownership of fifty percent (50%) or more of the outstanding shares, or (iii) beneficial ownership of such entity.

    "You" (or "Your") shall mean an individual or Legal Entity exercising permissions granted by this License.

    "Source" form shall mean the preferred form for making modifications, including but not limited to software source code, documentation source, and configuration files.

"Object" form shall mean any form resulting from mechanical transformation or translation of a Source form, including but not limited to compiled object code, generated documentation, and conversions to other media types.

"Work" shall mean the work of authorship, whether in Source or Object form, made available under the License, as indicated by a copyright notice that is included in or attached to the work (an example is provided in the Appendix below).

"Derivative Works" shall mean any work, whether in Source or Object form, that is based on (or derived from) the Work and for which the editorial revisions, annotations, elaborations, or other modifications represent, as a whole, an original work of authorship. For the purposes of this License, Derivative Works shall not include works that remain separable from, or merely link (or bind by name) to the interfaces of, the Work and Derivative Works thereof.

"Contribution" shall mean any work of authorship, including the original version of the Work and any modifications or additions to that Work or Derivative Works thereof, that is intentionally submitted to Licensor for inclusion in the Work by the copyright owner or by an individual or Legal Entity authorized to submit on behalf of the copyright owner. For the purposes of this definition, "submitted" means any form of electronic, verbal, or written communication sent to the Licensor or its representatives, including but not limited to communication on electronic mailing lists, source code control systems, and issue tracking systems that are managed by, or on behalf of, the Licensor for the purpose of discussing and improving the Work, but excluding communication that is conspicuously marked or otherwise designated in writing by the copyright owner as "Not a Contribution."

"Contributor" shall mean Licensor and any individual or Legal Entity on behalf of whom a Contribution has been received by Licensor and subsequently incorporated within the Work.

2. Grant of Copyright License.

   Subject to the terms and conditions of this License, each Contributor hereby grants to You a perpetual, worldwide, non-exclusive, no-charge, royalty-free, irrevocable copyright license to reproduce, prepare Derivative Works of, publicly display, publicly perform, sublicense, and distribute the Work and such Derivative Works in Source or Object form.

3. Grant of Patent License.

   Subject to the terms and conditions of this License, each Contributor hereby grants to You a perpetual, worldwide, non-exclusive, no-charge, royalty-free, irrevocable (except as stated in this section) patent license to make, have made, use, offer to sell, sell, import, and otherwise transfer the Work, where such license applies only to those patent claims licensable by such Contributor that are necessarily infringed by their Contribution(s) alone or by combination of their Contribution(s) with the Work to which such Contribution(s) was submitted. If You institute patent litigation against any entity (including a cross-claim or counterclaim in a lawsuit) alleging that the Work or a Contribution incorporated within the Work constitutes direct or contributory patent infringement, then any patent licenses granted to You under this License for that Work shall terminate as of the date such litigation is filed.

4. Redistribution.

You may reproduce and distribute copies of the Work or Derivative Works thereof in any medium, with or without modifications, and in Source or Object form, provided that You meet the following conditions:

1. You must give any other recipients of the Work or Derivative Works a copy of this License; and

2. You must cause any modified files to carry prominent notices stating that You changed the files; and

3. You must retain, in the Source form of any Derivative Works that You distribute, all copyright, patent, trademark, and attribution notices from the Source form of the Work, excluding those notices that do not pertain to any part of the Derivative Works; and

4. If the Work includes a "NOTICE" text file as part of its distribution, then any Derivative Works that You distribute must include a readable copy of the attribution notices contained within such NOTICE file, excluding those notices that do not pertain to any part of the Derivative Works, in at least one of the following places: within a NOTICE text file distributed as part of the Derivative Works; within the Source form or documentation, if provided along with the Derivative Works; or, within a display generated by the Derivative Works, if and wherever such third-party notices normally appear. The contents of the NOTICE file are for informational purposes only and do not modify the License. You may add Your own attribution notices within Derivative Works that You distribute, alongside or as an addendum to the NOTICE text from the Work, provided that such additional attribution notices cannot be construed as modifying the License. You may add Your own copyright statement to Your modifications and may provide additional or different license terms and conditions for use, reproduction, or distribution of Your modifications, or for any such Derivative Works as a whole, provided Your use, reproduction, and distribution of the Work otherwise complies with the conditions stated in this License.

5. Submission of Contributions.

   Unless You explicitly state otherwise, any Contribution intentionally submitted for inclusion in the Work by You to the Licensor shall be under the terms and conditions of this License, without any additional terms or conditions. Notwithstanding the above, nothing herein shall supersede or modify the terms of any separate license agreement you may have executed with Licensor regarding such Contributions.

6. Trademarks.

   This License does not grant permission to use the trade names, trademarks, service marks, or product names of the Licensor, except as required for reasonable and customary use in describing the origin of the Work and reproducing the content of the NOTICE file.

7. Disclaimer of Warranty.

   Unless required by applicable law or agreed to in writing, Licensor provides the Work (and each Contributor provides its Contributions) on an "AS IS" BASIS, WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied, including, without limitation, any warranties or conditions of TITLE, NON-INFRINGEMENT, MERCHANTABILITY, or FITNESS FOR A PARTICULAR PURPOSE. You are solely responsible for determining the appropriateness of using or redistributing the Work and assume any risks associated with Your exercise of permissions under this License.

8. Limitation of Liability.

   In no event and under no legal theory, whether in tort (including negligence), contract, or otherwise, unless required by applicable law (such as deliberate and grossly negligent acts) or agreed to in writing, shall any Contributor be liable to You for damages, including any direct, indirect, special, incidental, or consequential damages of any character arising as a result of this License or out of the use or inability to use the Work (including but not limited to damages for loss of goodwill, work stoppage, computer failure or malfunction, or any and all other commercial damages or losses), even if such Contributor has been advised of the possibility of such damages.

9. Accepting Warranty or Additional Liability.

   While redistributing the Work or Derivative Works thereof, You may choose to offer, and charge a fee for, acceptance of support, warranty, indemnity, or other liability obligations and/or rights consistent with this License. However, in accepting such obligations, You may act only on Your own behalf and on Your sole responsibility, not on behalf of any other Contributor, and only if You agree to indemnify, defend, and hold each Contributor harmless for any liability incurred by, or claims asserted against, such Contributor by reason of your accepting any such warranty or additional liability.

END OF TERMS AND CONDITIONS

A.1.2.1 Axis - Java, 1.2.1, 2.1.1, 1.4, 1.4.2

This product includes software developed by The Apache Software Foundation (http://www.apache.org/).

Portions Copyright 2006 International Business Machines Corp.

Portions Copyright 2005-2007 WSO2, Inc.

This product also includes schemas and specification developed by:

- The W3C consortium (http://www.w3c.org)

  This product also includes WS-* schemas developed by International Business Machines Corporation, Microsoft Corporation, BEA Systems, TIBCO Software, SAP AG, Sonic Software, and VeriSign.

  This product also includes a WSDL developed by salesforce.com

- Copyright 1999-2006 salesforce.com, inc.

  Portions of the included xmlbeans library were originally based on the following:

  - software copyright (c) 2000-2003, BEA Systems.

A.1.2.2 Apache Jakarta Commons HttpClient 3.1

Copyright 1999-2007 The Apache Software Foundation

This product includes software developed by The Apache Software Foundation (http://www.apache.org/).

A.1.2.3 Closure 0.1.3

Copyright © 2013 GoogleCode

A.1.2.4 Commons BeanUtils 1.6, 1.7, 1.8

Copyright © 2000-2010 The Apache Software Foundation

A.1.2.5 Commons Byte Code Engineering Library (BCEL) 5.2

All source and documentation of the Commons project is copyrighted by the Apache Software Foundation, and made available under the Apache License, version 2.0

A.1.2.6 Commons Codec 1.2, 1.3

Copyright © 2002-2011 The Apache Software Foundation. All Rights Reserved.

A.1.2.7 Commons Collections 3.1

Copyright © 2001-2008 The Apache Software Foundation. All Rights Reserved.

A.1.2.8 Commons Compress 1.1

Copyright © 2002-2011 The Apache Software Foundation. All Rights Reserved.

A.1.2.9 Commons Digester 1.5, 1.7

Copyright © 2001-2011 The Apache Software Foundation. All Rights Reserved.

This product includes software developed by:

The Apache Software Foundation (http://www.apache.org/).

A.1.2.10 Commons JXPath 1.2

Copyright © 2001-2008 The Apache Software Foundation. All Rights Reserved.

A.1.2.11 JavaServer Pages (JSP) Expression Language (EL) Parser 2.0

Copyright © 1999-2012 The Apache Software Foundation. All Rights Reserved.

A.1.2.12 Jettison 1.0

Copyright © 2006 Envoi Solutions LLC

A.1.2.13 Jetty 7.0.1

Copyright © 2011 The Eclipse Foundation. All Rights Reserved.

A.1.2.14 Jackson JSON Processor 1.9.4

Copyright © 2003-2007 The Apache Software Foundation. All Rights Reserved.

A.1.2.15 JSON PATH 0.9, 1.0

Copyright © 2003-2007 The Apache Software Foundation. All Rights Reserved.

A.1.2.16 JSON Smart 1.0, 1.2

Copyright © 2003-2007 The Apache Software Foundation. All Rights Reserved.

A.1.2.17 Log4J 1.2.8, 1.2.13, 1.2.15, 1.3

Copyright © 1999-2010 Apache Software Foundation. All Rights Reserved.

A.1.2.18 Maven 3.0.4

Copyright © 2012 The Apache Software Foundation. All Rights Reserved.

A.1.2.19 Trinidad

Copyright © 2012 The Apache Software Foundation. All Rights Reserved.

A.1.2.20 Wiseman 1.0

Copyright © 2008-2011 GlassFish.

All source and documentation of the Wiseman project is copyrighted by the Apache Software Foundation, and made available under the Apache License, version 2.0.

A.1.2.21 Xerces 2.8.1, 2.0.1

Copyright © 1999-2010 The Apache Software Foundation. All Rights Reserved.

All source and documentation of the Xerces project is copyrighted by the Apache Software Foundation, and made available under the Apache License, version 2.0.

A.1.2.22 XMLBeans Developer Kit (xbean.jar) 2.3.0, 2.2.0, and 2.1.0

Copyright © 2004 The Apache Software Foundation. All Rights Reserved.

A.2 Flash 10

Copyright © 2012 Adobe Systems Incorporated. All rights reserved.

A.3 JDepend 2.9

Copyright (C) 1999-2004 Clarkware Consulting, Inc.

All Rights Reserved.

Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

1. Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.

2. Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.

3. Neither the name of Clarkware Consulting, Inc. nor the names of its contributors may be used to endorse or promote products derived from this software without prior written permission. For written permission, please contact clarkware@clarkware.com.

THIS SOFTWARE IS PROVIDED "AS IS" AND ANY EXPRESSED OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL CLARKWARE CONSULTING OR ITS CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

A.4 Perl Artistic License

The following modules are licensed to Oracle under the Artistic License (Perl Artistic License: `http://www.perl.com/pub/a/language/misc/Artistic.html`)

A.4.1 Net-DNS 0.48

Net-DNS (http://www.net-dns.org/). The source code for the modified version of `Base.pm` is freely available at http://oss.oracle.com/projects/codefragments/dist/files/Base.pm.zip under the Perl license.

A.4.2 Net-IMAP-Simple (IMAP Perl Module) 0.93

Copyright (c) 1999 Joao Fonseca. All rights reserved. This program is free software; you can redistribute it and/or modify it under the same terms as Perl itself.

Note: `Simple.pm` in this directory is the original Perl module file. The original Perl module file has been modified slightly in this file. The changes between the original Perl module file and this file are as follows:

1. Line 1 of method "new"

   The original file has:

   ```
   my ( $class, $server, %options ) = @_;
   ```

   The modified file (this file) has:

   ```
   my ( $class, $server, $port,$timeout, %options ) = @_;
   ```

2. Line 10 of method "new"

   The original file has:

   ```
   $self->{sock} = new IO::Socket::INET( "$server:143" )
   ```

   The modified file (this file) has:

   ```
   $self->{sock} = new IO::Socket::INET( PeerAddr => $server,
                                PeerPort => $port,
                                Timeout  => $timeout )
   ```

Summary of the changes:

The original Perl module file hard-codes the port in the method "new". The changed file (this file) makes the port a parameter to the method "new".

A.4.3 Perl Interpreter 5.8.8, 5.10.0

This program contains third-party code from the Comprehensive Perl Archive Network ("CPAN"). Under the terms of the CPAN license, Oracle is required to provide the following notices. Note, however, that the Oracle program license that accompanied this product determines your right to use the Oracle program, including the CPAN software, and the terms contained in the following notices do not change those rights. You may obtain copies of the original source code for the CPAN modules at the following site:

http://www.cpan.org/

A.4.4 CPAN Modules

This program contains third-party code from the Comprehensive Perl Archive Network ("CPAN"). Under the terms of the CPAN license, Oracle is required to provide the following notices. Note, however, that the Oracle program license that accompanied this product determines your right to use the Oracle program, including the CPAN software, and the terms contained in the following notices do not change those rights.

A.4.4.1 perl module: IO-tty 1.10, 1.11

Originally by Graham Barr, based on the Ptty module by Nick Ing-Simmons. Now maintained and heavile rewritten by Roland Giersig.

A.4.4.2 perl module: XML::Simple 2.20

Copyright 1999-2004 Grant McLean

A.5 DBD Perl 1.15

Copyright (c) 1994-2006 Tim Bunce

A.6 Flex SDK 3.3, 3.5

PPD-Adobe: "4.3" Adobe Systems PostScript(R) Printer Description File

Copyright 1987-1998 Adobe Systems Incorporated.

All Rights Reserved.

Permission is granted for redistribution of this file as long as this copyright notice is intact and the contents of the file is not altered in any way from its original form.

End of Copyright statement.

PPD file last updated 5 December 2000.

A.7 Flex Flowbox Container

The MIT License

Copyright © Tony Fendall

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (this "Software"), to deal in the Software without restriction, including without limitation, the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions: The above copyright and permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT, IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

A.8 jQuery 1.3.2

Copyright © 2009 John Resig.

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and topermit persons to whom the Software is furnished to do so, subject tothe following conditions:The above copyright notice and this permission notice shall beincluded in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND,EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE ANDNONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

A.9 Rating Component

The MIT License

Copyright ©

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (this "Software"), to deal in the Software without restriction, including without limitation, the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions: The above copyright and permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT, IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

A.10 Sudo 1.6.7p5

Copyright (c) 1994-1996,1998-2005 Todd C. Miller

Permission to use, copy, modify, and distribute this software for any purpose with or without fee is hereby granted, provided that the above copyright notice and this permission notice appear in all copies.

THE SOFTWARE IS PROVIDED "AS IS" AND THE AUTHOR DISCLAIMS ALL WARRANTIES WITH REGARD TO THIS SOFTWARE INCLUDING ALL IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS. IN NO EVENT SHALL THE AUTHOR BE LIABLE FOR ANY SPECIAL, DIRECT, INDIRECT, OR CONSEQUENTIAL DAMAGES OR ANY DAMAGES WHATSOEVER RESULTING FROM LOSS OF USE, DATA OR PROFITS, WHETHER IN AN ACTION OF

CONTRACT, NEGLIGENCE OR OTHER TORTIOUS ACTION, ARISING OUT OF OR IN CONNECTION WITH THE USE OR PERFORMANCE OF THIS SOFTWARE.

Sponsored in part by the Defense Advanced Research Projects Agency (DARPA) and Air Force Research Laboratory, Air Force Materiel Command, USAF, under agreement number F39502-99-1-0512.

Distribution of the following files requires the copyright notice, list of conditions and disclaimer:__ _ the files: err.c, lsearch.c, fnmatch.c, getcwd.c, snprintf.c, strcasecmp.c, fnmatch.h, err.h, and fnmatch.3:

Copyright (c) 1987, 1989, 1990, 1991, 1993, 1994

The Regents of the University of California. All rights reserved.

Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

1. Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.

2. Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.

3. Neither the name of the University nor the names of its contributors may be used to endorse or promote products derived from this software without specific prior written permission.

THIS SOFTWARE IS PROVIDED BY THE REGENTS AND CONTRIBUTORS "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE REGENTS OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

A.11 Info-ZIP Licenses

Copyright (c) 1990-2007 Info-ZIP. All rights reserved.

For the purposes of this copyright and license, "Info-ZIP" is defined as the following set of individuals:

Mark Adler, John Bush, Karl Davis, Harald Denker, Jean-Michel Dubois, Jean-loup Gailly, Hunter Goatley, Ed Gordon, Ian Gorman, Chris Herborth, Dirk Haase, Greg Hartwig, Robert Heath, Jonathan Hudson, Paul Kienitz, David Kirschbaum, Johnny Lee, Onno van der Linden, Igor Mandrichenko, Steve P. Miller, Sergio Monesi, Keith Owens, George Petrov, Greg Roelofs, Kai Uwe Rommel, Steve Salisbury, Dave Smith, Steven M. Schweda, Christian Spieler, Cosmin Truta, Antoine Verheijen, Paul von Behren, Rich Wales, Mike White.

This software is provided "as is," without warranty of any kind, express or implied. In no event shall Info-ZIP or its contributors be held liable for any direct, indirect, incidental, special or consequential damages arising out of the use of or inability to use this software.

Permission is granted to anyone to use this software for any purpose, including commercial applications, and to alter it and redistribute it freely, subject to the above disclaimer and the following restrictions:

1. Redistributions of source code (in whole or in part) must retain the above copyright notice, definition, disclaimer, and this list of conditions.

2. Redistributions in binary form (compiled executables and libraries) must reproduce the above copyright notice, definition, disclaimer, and this list of conditions in documentation and/or other materials provided with the distribution. The sole exception to this condition is redistribution of a standard UnZipSFX binary (including SFXWiz) as part of a self-extracting archive; that is permitted without inclusion of this license, as long as the normal SFX banner has not been removed from the binary or disabled.

3. Altered versions--including, but not limited to, ports to new operating systems, existing ports with new graphical interfaces, versions with modified or added functionality, and dynamic, shared, or static library versions not from Info-ZIP--must be plainly marked as such and must not be misrepresented as being the original source or, if binaries, compiled from the original source. Such altered versions also must not be misrepresented as being Info-ZIP releases--including, but not limited to, labeling of the altered versions with the names "Info-ZIP" (or any variation thereof, including, but not limited to, different capitalizations), "Pocket UnZip," "WiZ" or "MacZip" without the explicit permission of Info-ZIP. Such altered versions are further prohibited from misrepresentative use of the Zip-Bugs or Info-ZIP e-mail addresses or the Info-ZIP URL(s), such as to imply Info-ZIP will provide support for the altered versions.

4. Info-ZIP retains the right to use the names "Info-ZIP," "Zip," "UnZip," "UnZipSFX," "WiZ," "Pocket UnZip," "Pocket Zip," and "MacZip" for its own source and binary releases.

A.11.1 unzip 6.0

Copyright (c) 1990-2007 Info-ZIP. All rights reserved.

A.11.2 zip 3.0

Copyright (c) 1990-2007 Info-ZIP. All rights reserved.

A.12 Microsoft JDBC Drivers SQL Server 2005 JDBC

MICROSOFT SOFTWARE LICENSE TERMS

MICROSOFT SQL SERVER 2005 JDBC DRIVER

October 2007

These license terms are an agreement between Microsoft Corporation (or based on where you live, one of its affiliates) and you. Please read them. They apply to the software named above, which includes the media on which you received it, if any. The terms also apply to any Microsoft:

- updates

- supplements

- Internet-based services

- support services

for this software, unless other terms accompany those items. If so, those terms apply.

By using the software, you accept these terms. If you do not accept them, do not use the software.

If you comply with these license terms, you have the rights below.

1. INSTALLATION AND USE RIGHTS. You may install and use any number of copies of the software on your devices.

2. SCOPE OF LICENSE. The software is licensed, not sold. This agreement only gives you some rights to use the software. Microsoft reserves all other rights. Unless applicable law gives you more rights despite this limitation, you may use the software only as expressly permitted in this agreement. In doing so, you must comply with any technical limitations in the software that only allow you to use it in certain ways. You may not:

    ■ disclose the results of any benchmark tests of the software to any third party without Microsoft's prior written approval;

    ■ reverse engineer, decompile or disassemble the software, except and only to the extent that applicable law expressly permits, despite this limitation;

    ■ publish the software for others to copy; or

    ■ rent, lease or lend the software.

3. TRANSFER TO A THIRD PARTY. The first user of the software may transfer it and this agreement directly to a third party. Before the transfer, that party must agree that this agreement applies to the transfer and use of the software. The first user must uninstall the software before transferring it separately from the device. The first user may not retain any copies.

4. EXPORT RESTRICTIONS. The software is subject to United States export laws and regulations. You must comply with all domestic and international export laws and regulations that apply to the software. These laws include restrictions on destinations, end users and end use. For additional information, see www.microsoft.com/exporting.

5. SUPPORT SERVICES. Because this software is "as is," we may not provide support services for it.

6. ENTIRE AGREEMENT. This agreement, and the terms for supplements, updates, Internet-based services and support services that you use, are the entire agreement for the software and support services.

7. APPLICABLE LAW

    a. United States. If you acquired the software in the United States, Washington state law governs the interpretation of this agreement and applies to claims for breach of it, regardless of conflict of laws principles. The laws of the state where you live govern all other claims, including claims under state consumer protection laws, unfair competition laws, and in tort.

    b. Outside the United States. If you acquired the software in any other country, the laws of that country apply.

8. LEGAL EFFECT. This agreement describes certain legal rights. You may have other rights under the laws of your country. You may also have rights with respect to the party from whom you acquired the software. This agreement does not change your rights under the laws of your country if the laws of your country do not permit it to do so.

9. DISCLAIMER OF WARRANTY. The software is licensed "as-is." You bear the risk of using it. Microsoft gives no express warranties, guarantees or conditions. You may have additional consumer rights under your local laws which this agreement cannot change. To the extent permitted under your local laws, Microsoft excludes the implied warranties of merchantability, fitness for a particular purpose and non-infringement.

10. LIMITATION ON AND EXCLUSION OF REMEDIES AND DAMAGES. You can recover from Microsoft and its suppliers only direct damages up to U.S. $5.00. You cannot recover any other damages, including consequential, lost profits, special, indirect or incidental damages. This limitation applies to:

- anything related to the software, services, content (including code) on third party Internet sites, or third party programs; and

- claims for breach of contract, breach of warranty, guarantee or condition, strict liability, negligence, or other tort to the extent permitted by applicable law.

It also applies even if Microsoft knew or should have known about the possibility of the damages. The above limitation or exclusion may not apply to you because your country may not allow the exclusion or limitation of incidental, consequential or other damages.

Please note: As this software is distributed in Quebec, Canada, some of the clauses in this agreement are provided below in French.

Remarque: Ce logiciel étant distribué au Québec, Canada, certaines des clauses dans ce contrat sont fournies ci-dessous en français.

EXONÉRATION DE GARANTIE. Le logiciel visé par une licence est offert " tel quel ". Toute utilisation de ce logiciel est à votre seule risque et péril. Microsoft n'accorde aucune autre garantie expresse. Vous pouvez bénéficier de droits additionnels en vertu du droit local sur la protection dues consommateurs, que ce contrat ne peut modifier. La ou elles sont permises par le droit locale, les garanties implicites de qualité marchande, d'adéquation à un usage particulier et d'absence de contrefaçon sont exclues.

LIMITATION DES DOMMAGES-INTÉRÊTS ET EXCLUSION DE RESPONSABILITÉ POUR LES DOMMAGES. Vous pouvez obtenir de Microsoft et de ses fournisseurs une indemnisation en cas de dommages directs uniquement à hauteur de 5,00 $US. Vous ne pouvez prétendre à aucune indemnisation pour les autres dommages, y compris les dommages spéciaux, indirects ou accessoires et pertes de bénéfices.

Cette limitation concerne:

- tout ce qui est relié au logiciel, aux services ou au contenu (y compris le code) figurant sur des sites Internet tiers ou dans des programmes tiers; et

- les réclamations au titre de violation de contrat ou de garantie, ou au titre de responsabilité stricte, de négligence ou d'une autre faute dans la limite autorisée par la loi en vigueur.

Elle s'applique également, même si Microsoft connaissait ou devrait connaître l'éventualité d'un tel dommage. Si votre pays n'autorise pas l'exclusion ou la limitation de responsabilité pour les dommages indirects, accessoires ou de quelque nature que ce soit, il se peut que la limitation ou l'exclusion ci-dessus ne s'appliquera pas à votre égard.

EFFET JURIDIQUE. Le présent contrat décrit certains droits juridiques. Vous pourriez avoir d'autres droits prévus par les lois de votre pays. Le présent contrat

ne modifie pas les droits que vous confèrent les lois de votre pays si celles-ci ne le permettent pas.

A.13 Microsoft mfc71.dll, msvcr71.dll 7.10 (v7.1)

© 2012 Microsoft. All rights reserved.

A.14 Cairngorm (v2.2)

Cairngorm v2.2 License

Copyright (c) 2007 - 2009 Adobe

All rights reserved.

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

A.15 Java Secure Channel (JSCH) for SSH2 0.1.44, 1.20, 1.33, 1.37, 1.39

Copyright (c) 2002 - 2010 Atsuhiko Yamanaka, JCraft, Inc.

All rights reserved.

Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

1. Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.

2. Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.

3. The names of the authors may not be used to endorse or promote products derived from this software without specific prior written permission.

THIS SOFTWARE IS PROVIDED "AS IS" AND ANY EXPRESSED OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL JCRAFT, INC. OR ANY CONTRIBUTORS TO THIS SOFTWARE BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS

OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

A.16 Streaming API for XML (StAX) (StAX utils 20070216)

Open Source Implementation of JSR 173

Copyright (c) 2004, Christian Niles, unit12.net

Copyright (c) 2004, Sun Microsystems, Inc.

Copyright (c) 2006, John Kristian

All rights reserved.

Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

- Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.

- Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.

- Neither the name of the listed copyright holders nor the names of its contributors may be used to endorse or promote products derived from this software without specific prior written permission.

THIS SOFTWARE IS PROVIDED BY THE COPYRIGHT HOLDERS AND CONTRIBUTORS "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE COPYRIGHT OWNER OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

A.17 Graph Range Selection

The MIT License

Copyright ©

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (this "Software"), to deal in the Software without restriction, including without limitation, the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions: The above copyright and permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT, IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

A.18 Windows Event Handling

This product contains materials derived from code developed by Jim Christopher that includes the following copyright notice:

Copyright (c) 2001, Jim Christopher, All Rights Reserved.

A.19 flexlib 2.5

The MIT License

Copyright (c)

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

A.20 Flexlib - Docking Toolbar

The MIT License

Copyright ©

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (this "Software"), to deal in the Software without restriction, including without limitation, the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions: The above copyright and permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED "AS IS," WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND

NONINFRINGEMENT, IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

A.21 Flexlib - Highlighter

The MIT License

Copyright ©

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (this "Software"), to deal in the Software without restriction, including without limitation, the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions: The above copyright and permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED "AS IS," WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT, IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

A.22 Flexlib - ScrollableMenu

Copyright (c) 2007 FlexLib Contributors. See: http://code.google.com/p/flexlib/wiki/ProjectContributors

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

A.23 Flexlib - treegrid 2.1

Copyright (c) 2007 FlexLib Contributors. See: http://code.google.com/p/flexlib/wiki/ProjectContributors

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

A.24 HP J2SE(TM) Development Kit (JDK) 1.5, 5.0

Binary Code License

This License Agreement applies to all software made available for downloading through this HP World Wide Web site. Hewlett-Packard Company ("HP") is willing to license the J2SE(TM) Development Kit for the OpenVMS Alpha Operating System, otherwise known as JDK, (hereinafter "Software") only upon your agreeing to the terms of this License Agreement and your manifesting that agreement by downloading aforesaid Software.

1. REPRESENTATION OF AUTHORIZED STATUS

The Software is made available only to authorized licensees of OpenVMS Alpha Operating System (the "Underlying Program"), who are not in violation of any terms of their Underlying Program licenses with HP. By manifesting your assent to this License Agreement, you represent to HP that you (or the organization on behalf of which you are downloading the Software) are such an authorized licensee and you agree that you will use the Software only in combination with and as a modification of the Underlying Program. If you are acting on behalf of an organization, you represent to HP that you are authorized to act on behalf of such organization and that your agreement to the terms of this Agreement creates a legally enforceable obligation of the organization. (As used in this License Agreement, "you" and "your" refers to both you and any organization on behalf of which you are acting.)

2. LICENSE GRANT

Subject to the terms and conditions set forth in this License Agreement, HP grants you a royalty-free, non-exclusive and non-transferable license to use the Software made available for downloading here, and in combination with and as modifications of the Underlying Programs to which the Software pertain, for use in: (i) evaluation of the Software; and, (ii) for development of Java(TM) compatible applets and applications. This license is supplemental to and subject to the licenses covering the Underlying Program.

Licensee may not re-distribute the Software in whole or in part, either separately or included with a product. Refer to the "J2SE(TM) Runtime Environment (JRE) 5.0 for the OpenVMS Alpha Operating System" binary code license for the availability of runtime code which may be distributed with Java compatible applets and applications.

Except with respect to Section 8 of this License Agreement, in the event of any express inconsistency between this License Agreement and the license covering the Underlying Program, the latter shall govern.

3. JAVA PLATFORM INTERFACE

Licensee may not modify the Java Platform Interface ("JPI", identified as classes contained within the "java" package or any subpackages of the "java" package), by creating additional classes within the JPI or otherwise causing the addition to or modification of the classes in the JPI.

4. INTELLECTUAL PROPERTY RIGHTS

The Software made available for downloading here is the property of HP (or its suppliers). The Software and all accompanying documentation are copyrighted. You shall not modify, decompile, disassemble, extract, or otherwise reverse engineer any Software covered by this License Agreement. You shall not make any copy of the Software or its accompanying documentation, except for copying incident to the ordinary and intended use of the Software and the Underlying Program and except for the making of a single archival copy. The Software made available here constitutes the proprietary information of HP (or its suppliers). You agree to take reasonable steps to

prevent the disclosure, unauthorized use or unauthorized distribution of the Software subject to this License Agreement.

5. THIRD PARTY CODE

Some third-party code embedded or bundled with the Software is licensed to you under different terms and conditions as set forth in the `THIRDPARTYLICENSEREADME.txt` file. In addition to any terms and conditions of any third party license identified in the `THIRDPARTYLICENSEREADME.txt` file, the disclaimer of warranty and limitations of liability provisions of this license (Section 7) shall apply to all code distributed as part of or bundled with the Software.

6. EXPORT REGULATIONS

The Software, including any technical data contained therein, may be subject to U.S. export control laws, including the U.S. Export Administration Regulations of the U.S. Department of Commerce, or any successor regulations thereto, and may be subject to export or import laws and regulations of other countries. If you export, re-export, or import the Software you agree that you are responsible for complying with all such export or import requirements and obtaining licenses where necessary.

You agree that you are not prohibited by the U.S. or other government export control regulations from receiving this software or technical data.

7. U.S. GOVERNMENT

If the Software is licensed for use in the performance of a U.S. government prime contract or subcontract, You agree that, consistent with FAR 12.211 and 12.212, commercial computer software, computer software documentation and technical data for commercial items are licensed under vendor's standard commercial license.

8. DISCLAIMER OF WARRANTY AND LIMITATION OF LIABILITY

THE SOFTWARE PROVIDED HERE IS PROVIDED "AS IS," WITHOUT WARRANTY OF ANY KIND. ALL EXPRESS OR IMPLIED CONDITIONS, REPRESENTATIONS AND WARRANTIES, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY, FITNESS FOR PARTICULAR PURPOSE, OR NON-INFRINGEMENT, ARE HEREBY EXCLUDED TO THE EXTENT PERMITTED BY APPLICABLE LAW. IN NO EVENT WILL HP BE LIABLE FOR ANY LOST REVENUE OR PROFIT, OR FOR SPECIAL, INDIRECT, CONSEQUENTIAL, INCIDENTAL OR PUNITIVE DAMAGES, HOWEVER CAUSED AND REGARDLESS OF THE THEORY OF LIABILITY, WITH RESPECT TO ANY SOFTWARE MADE AVAILABLE HERE OR TO THE USE OF SUCH SOFTWARE.

HP MAKES NO REPRESENTATIONS OR WARRANTIES, EXPRESS OR IMPLIED, THAT THE CODE, AND DOCUMENTATION OR ANY INFORMATION RELATING THERETO OR CONTAINED THEREIN WILL NOT INFRINGE ANY PATENT, COPYRIGHT, TRADE SECRETS, OR TRADEMARK OF ANY THIRD PERSON OR PARTY.

9. INDEMNIFICATION

You agree to indemnify, defend, and hold harmless HP and its licensors from any suit, demand, cause of action or other claim of whatever nature arising out of the breach of any term of this License Agreement by you, your agents or your employees that arise or result from the use or distribution of the Program.

10. GENERAL

This Agreement shall be construed, interpreted and applied in accordance with the laws of the State of Delaware. This License Agreement (together with any license agreement concerning the Underlying Program) constitutes the entire agreement

between the parties concerning the Software downloaded through this site and supersedes any prior understandings, agreements or commitments, oral or written, concerning them.

HP Products are manufactured for standard commercial uses and are not intended to be sold or licensed for use in critical safety systems or nuclear facilities.

© 2005-2009 Hewlett-Packard Development Company, L.P.

A.25 Jython 2.1, 2.2, 2.2.1. 2.5.1, 2.5.3

Jython Copyright (c) 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007 Jython Developers. All rights reserved.

Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

- Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.

- Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.

- Neither the name of the Jython Developers nor the names of its contributors may be used to endorse or promote products derived from this software without specific prior written permission.

THIS SOFTWARE IS PROVIDED BY THE COPYRIGHT HOLDERS AND CONTRIBUTORS "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE REGENTS OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

A.26 Standard Performance Evaluation Corporation (SPEC) Benchmark Suites (1.1)

Copyright © 1995-2011 Standard Performance Evaluation Corporation (SPEC). All rights reserved.

Permission to copy without fee all or part of these [SPEC benchmark results] is granted provided that (a) copies are not made or distributed for direct commercial advantage through distribution for profit of materials that are substantially all derived from SPEC materials, (b) the SPEC copyright notice appears, and (c) notice is given that copying is by permission of the Standard Performance Evaluation Corporation (SPEC).

SPEC®, the "performance chart" SPEC®logo and SPECint®are registered trademarks of the Standard Performance Evaluation Corporation. The SPEC® benchmark results reflect results published on www.spec.org as of {DEVELOPMENT NEEDS TO REPLACE "INSERT DATE" WITH THE DATE OF DOWNLOAD AND DELETE THIS

PARENTHETICAL}. For the latest "SPECint®_rate_base2006" benchmark results or for more information, visit http://www.spec.org.

A.27 flextreemap (2.2.0)

TreeMap Component for Adobe Flex

Copyright © 2008 Josh Tynjala

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions: The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

Portions of this source code are subject to the Mozilla Public License Version 1.1 (the "License"); you may not use those files except in compliance with the License. You may obtain a copy of the License at Link1 / Software distributed under the License is distributed on an "AS IS" basis, WITHOUT WARRANTY OF ANY KIND, either express or implied. See the License for the specific language governing rights and limitations under the License. The Original Code is from the Open Source Flex 3 SDK. The Initial Developer of the Original Code is Adobe Systems, Inc. Portions created by Josh Tynjala (joshtynjala.com) are Copyright (C) 2008 Josh Tynjala. All Rights Reserved.

A.28 pngcrush, optimizer tool for PNG files 1.7.13

Copyright © 1998-2002, 2006-2010 Glenn Randers-Pehrson

Copyright © 2005 Greg Roelofs

This is a free, open-source program. Permission is irrevocably granted to everyone to use this version of pngcrush without payment of any fee.

Executable name is `pngcrush`

It was built with libpng version 1.4.1, and is running with libpng version 1.4.1 - February 25, 2010.

- Copyright © 1998-2004, 2006-2010 Glenn Randers-Pehrson
- Copyright © 1996, 1997 Andreas Dilger
- Copyright © 1995, Guy Eric Schalnat, Group 42 Inc.,
- zlib version 1.2.3.9, Copyright © 1998-2002 (or later), Jean-loup Gailly and Mark Adler.

A.29 PowerBroker 4.0.5

Copyright © 2012 BeyondTrust Software, Inc. All rights reserved.

Use of this software and/or document, as and when applicable, is also subject to the terms and conditions of the license between the licensee and BeyondTrust Software, Inc. ("BeyondTrust") or BeyondTrust's authorized remarketer, if and when applicable.

A.30 httplib2 Version 0.7.4

Copyright © 2006 by Joe Gregorio

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

A.31 pyyaml 3.10

Copyright (c) 2006 Kirill Simonov

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

A.32 Lua (liblua) 5.1.3, 5.2.3

Copyright © 1994–2012 Lua.org, PUC-Rio.

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

A.33 OpenSSL 1.0.1e, 1.0.1g, 1.0.1h

Copyright (c) 1998-2008 The OpenSSL Project.

All rights reserved.

Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

1. Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.

2. Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.

3. All advertising materials mentioning features or use of this software must display the following acknowledgment: "This product includes software developed by the OpenSSL Project for use in the OpenSSL Toolkit. (http://www.openssl.org/)"

4. The names "OpenSSL Toolkit" and "OpenSSL Project" must not be used to endorse or promote products derived from this software without prior written permission. For written permission, please contact openssl-core@openssl.org.

5. Products derived from this software may not be called "OpenSSL" nor may "OpenSSL" appear in their names without prior written permission of the OpenSSL Project.

6. Redistributions of any form whatsoever must retain the following acknowledgment: "This product includes software developed by the OpenSSL Project for use in the OpenSSL Toolkit (http://www.openssl.org/)"

THIS SOFTWARE IS PROVIDED BY THE OpenSSL PROJECT "AS IS" AND ANY EXPRESSED OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE OpenSSL PROJECT OR ITS CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN

CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

==

This product includes cryptographic software written by Eric Young (eay@cryptsoft.com). This product includes software written by Tim Hudson (tjh@cryptsoft.com).

Original SSLeay License

Copyright (c) 1995-1998 Eric Young (eay@cryptsoft.com)

All rights reserved.

This package is an SSL implementation written by Eric Young (eay@cryptsoft.com). The implementation was written so as to conform with Netscapes SSL.

This library is free for commercial and non-commercial use as long as the following conditions are aheared to. The following conditions apply to all code found in this distribution, be it the RC4, RSA, lhash, DES, etc., code; not just the SSL code. The SSL documentation included with this distribution is covered by the same copyright terms except that the holder is Tim Hudson (tjh@cryptsoft.com).

Copyright remains Eric Young's, and as such any Copyright notices in the code are not to be removed.

If this package is used in a product, Eric Young should be given attribution as the author of the parts of the library used.

This can be in the form of a textual message at program startup or in documentation (online or textual) provided with the package.

Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

1. Redistributions of source code must retain the copyright notice, this list of conditions and the following disclaimer.

2. Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.

3. All advertising materials mentioning features or use of this software must display the following acknowledgement:

    "This product includes cryptographic software written by Eric Young (eay@cryptsoft.com)"

    The word 'cryptographic' can be left out if the rouines from the library being used are not cryptographic related :-).

4. If you include any Windows specific code (or a derivative thereof) from the apps directory (application code) you must include an acknowledgement:

    "This product includes software written by Tim Hudson (tjh@cryptsoft.com)"

THIS SOFTWARE IS PROVIDED BY ERIC YOUNG "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE AUTHOR OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS

OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

The licence and distribution terms for any publically available version or derivative of this code cannot be changed. i.e. this code cannot simply be copied and put under another distribution licence [including the GNU Public Licence.]

A.33.1 Net::SSLeay - Perl Extension for using OPPenSSL 1.5.2, 1.63

Copyright (c) 1996-2003 Sampo Kellomäki

Copyright (c) 2005-2006 Florian Ragwitz

Copyright (c) 2005 Mike McCauley

All Rights Reserved.

Distribution and use of this module is under the same terms as the OpenSSL package itself (i.e., free, but mandatory attribution: NO WARRANTY). Please consult LICENSE file in the root of the OpenSSL distribution. While the source distribution of this perl module does not contain Eric's or OpenSSL code, if you use this module you will use OpenSSlL library. Please give Eric and OpenSSL team credit (as required by their licenses).

A.34 libdnet 1.12 ipv6

Copyright (c) 2000-2006 Dug Song (dugsong@monkey.org)

All rights reserved, all wrongs reversed.

Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

1. Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.

2. Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.

3. The names of the authors and copyright holders may not be used to endorse or promote products derived from this software without specific prior written permission.

THIS SOFTWARE IS PROVIDED "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE AUTHOR BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

A.35 libpcap 1.2.1

License: BSD

Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

1. Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.

2. Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.

3. The names of the authors may not be used to endorse or promote products derived from this software without specific prior written permission.

THIS SOFTWARE IS PROVIDED "AS IS" AND WITHOUT ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, WITHOUT LIMITATION, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

A.36 libpcre 7.6

PCRE LICENSE

PCRE is a library of functions to support regular expressions whose syntax and semantics are as close as possible to those of the Perl 5 language.

Release 8 of PCRE is distributed under the terms of the "BSD" licence, as specified below. The documentation for PCRE, supplied in the "doc" directory, is distributed under the same terms as the software itself.

The basic library functions are written in C and are freestanding. Also included in the distribution is a set of C++ wrapper functions, and a just-in-time compiler that can be used to optimize pattern matching. These are both optional features that can be omitted when the library is built.

THE BASIC LIBRARY FUNCTIONS

Written by: Philip Hazel

Email local part: ph10

Email domain: cam.ac.uk

University of Cambridge Computing Service, Cambridge, England.

Copyright (c) 1997-2012 University of Cambridge

All rights reserved.

PCRE JUST-IN-TIME COMPILATION SUPPORT

Written by: Zoltan Herczeg

Email local part: hzmester

Emain domain: freemail.hu

Copyright(c) 2010-2012 Zoltan Herczeg

All rights reserved.

STACK-LESS JUST-IN-TIME COMPILER

Written by: Zoltan Herczeg

Email local part: hzmester

Emain domain: freemail.hu

Copyright(c) 2009-2012 Zoltan Herczeg

All rights reserved.

THE C++ WRAPPER FUNCTIONS

Contributed by: Google Inc.

Copyright (c) 2007-2012, Google Inc.

All rights reserved.

THE "BSD" LICENSE

Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

1. Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.

2. Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.

3. Neither the name of the University of Cambridge nor the name of Google Inc. nor the names of their contributors may be used to endorse or promote products derived from this software without specific prior written permission.

THIS SOFTWARE IS PROVIDED BY THE COPYRIGHT HOLDERS AND CONTRIBUTORS "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE COPYRIGHT OWNER OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

A.37 Sblim CIM Client 2.2.3

Eclipse Public License - v 1.0

THE ACCOMPANYING PROGRAM IS PROVIDED UNDER THE TERMS OF THIS ECLIPSE PUBLIC LICENSE ("AGREEMENT"). ANY USE, REPRODUCTION OR DISTRIBUTION OF THE PROGRAM CONSTITUTES RECIPIENT'S ACCEPTANCE OF THIS AGREEMENT.

1. DEFINITIONS

"Contribution" means:

1. in the case of the initial Contributor, the initial code and documentation distributed under this Agreement, and

2. in the case of each subsequent Contributor:

i) changes to the Program, and

ii) additions to the Program;

where such changes and/or additions to the Program originate from and are distributed by that particular Contributor. A Contribution 'originates' from a Contributor if it was added to the Program by such Contributor itself or anyone acting on such Contributor's behalf. Contributions do not include additions to the Program which: (i) are separate modules of software distributed in conjunction with the Program under their own license agreement, and (ii) are not derivative works of the Program.

"Contributor" means any person or entity that distributes the Program.

"Licensed Patents" mean patent claims licensable by a Contributor which are necessarily infringed by the use or sale of its Contribution alone or when combined with the Program.

"Program" means the Contributions distributed in accordance with this Agreement.

"Recipient" means anyone who receives the Program under this Agreement, including all Contributors.

2. GRANT OF RIGHTS

1. Subject to the terms of this Agreement, each Contributor hereby grants Recipient a non-exclusive, worldwide, royalty-free copyright license to reproduce, prepare derivative works of, publicly display, publicly perform, distribute and sublicense the Contribution of such Contributor, if any, and such derivative works, in source code and object code form.

2. Subject to the terms of this Agreement, each Contributor hereby grants Recipient a non-exclusive, worldwide, royalty-free patent license under Licensed Patents to make, use, sell, offer to sell, import and otherwise transfer the Contribution of such Contributor, if any, in source code and object code form. This patent license shall apply to the combination of the Contribution and the Program if, at the time the Contribution is added by the Contributor, such addition of the Contribution causes such combination to be covered by the Licensed Patents. The patent license shall not apply to any other combinations which include the Contribution. No hardware per se is licensed hereunder.

3. Recipient understands that although each Contributor grants the licenses to its Contributions set forth herein, no assurances are provided by any Contributor that the Program does not infringe the patent or other intellectual property rights of any other entity. Each Contributor disclaims any liability to Recipient for claims brought by any other entity based on infringement of intellectual property rights or otherwise. As a condition to exercising the rights and licenses granted hereunder, each Recipient hereby assumes sole responsibility to secure any other intellectual property rights needed, if any. For example, if a third party patent license is required to allow Recipient to distribute the Program, it is Recipient's responsibility to acquire that license before distributing the Program.

4. Each Contributor represents that to its knowledge it has sufficient copyright rights in its Contribution, if any, to grant the copyright license set forth in this Agreement.

3. REQUIREMENTS

A Contributor may choose to distribute the Program in object code form under its own license agreement, provided that:

a) it complies with the terms and conditions of this Agreement; and

b) its license agreement:

i) effectively disclaims on behalf of all Contributors all warranties and conditions, express and implied, including warranties or conditions of title and non-infringement, and implied warranties or conditions of merchantability and fitness for a particular purpose;

ii) effectively excludes on behalf of all Contributors all liability for damages, including direct, indirect, special, incidental and consequential damages, such as lost profits;

iii) states that any provisions which differ from this Agreement are offered by that Contributor alone and not by any other party; and

iv) states that source code for the Program is available from such Contributor, and informs licensees how to obtain it in a reasonable manner on or through a medium customarily used for software exchange.

When the Program is made available in source code form:

a) it must be made available under this Agreement; and

b) a copy of this Agreement must be included with each copy of the Program.

Contributors may not remove or alter any copyright notices contained within the Program.

Each Contributor must identify itself as the originator of its Contribution, if any, in a manner that reasonably allows subsequent Recipients to identify the originator of the Contribution.

4. COMMERCIAL DISTRIBUTION

Commercial distributors of software may accept certain responsibilities with respect to end users, business partners and the like. While this license is intended to facilitate the commercial use of the Program, the Contributor who includes the Program in a commercial product offering should do so in a manner which does not create potential liability for other Contributors. Therefore, if a Contributor includes the Program in a commercial product offering, such Contributor ("Commercial Contributor") hereby agrees to defend and indemnify every other Contributor ("Indemnified Contributor") against any losses, damages and costs (collectively "Losses") arising from claims, lawsuits and other legal actions brought by a third party against the Indemnified Contributor to the extent caused by the acts or omissions of such Commercial Contributor in connection with its distribution of the Program in a commercial product offering. The obligations in this section do not apply to any claims or Losses relating to any actual or alleged intellectual property infringement. In order to qualify, an Indemnified Contributor must: a) promptly notify the Commercial Contributor in writing of such claim, and b) allow the Commercial Contributor to control, and cooperate with the Commercial Contributor in, the defense and any related settlement negotiations. The Indemnified Contributor may participate in any such claim at its own expense.

For example, a Contributor might include the Program in a commercial product offering, Product X. That Contributor is then a Commercial Contributor. If that Commercial Contributor then makes performance claims, or offers warranties related to Product X, those performance claims and warranties are such Commercial Contributor's responsibility alone. Under this section, the Commercial Contributor would have to defend claims against the other Contributors related to those performance claims and warranties, and if a court requires any other Contributor to pay any damages as a result, the Commercial Contributor must pay those damages.

5. NO WARRANTY

EXCEPT AS EXPRESSLY SET FORTH IN THIS AGREEMENT, THE PROGRAM IS PROVIDED ON AN "AS IS" BASIS, WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, EITHER EXPRESS OR IMPLIED INCLUDING, WITHOUT LIMITATION, ANY WARRANTIES OR CONDITIONS OF TITLE, NON-INFRINGEMENT, MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. Each Recipient is solely responsible for determining the appropriateness of using and distributing the Program and assumes all risks associated with its exercise of rights under this Agreement , including but not limited to the risks and costs of program errors, compliance with applicable laws, damage to or loss of data, programs or equipment, and unavailability or interruption of operations.

6. DISCLAIMER OF LIABILITY

EXCEPT AS EXPRESSLY SET FORTH IN THIS AGREEMENT, NEITHER RECIPIENT NOR ANY CONTRIBUTORS SHALL HAVE ANY LIABILITY FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING WITHOUT LIMITATION LOST PROFITS), HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OR DISTRIBUTION OF THE PROGRAM OR THE EXERCISE OF ANY RIGHTS GRANTED HEREUNDER, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

7. GENERAL

If any provision of this Agreement is invalid or unenforceable under applicable law, it shall not affect the validity or enforceability of the remainder of the terms of this Agreement, and without further action by the parties hereto, such provision shall be reformed to the minimum extent necessary to make such provision valid and enforceable.

If Recipient institutes patent litigation against any entity (including a cross-claim or counterclaim in a lawsuit) alleging that the Program itself (excluding combinations of the Program with other software or hardware) infringes such Recipient's patent(s), then such Recipient's rights granted under Section 2(b) shall terminate as of the date such litigation is filed.

All Recipient's rights under this Agreement shall terminate if it fails to comply with any of the material terms or conditions of this Agreement and does not cure such failure in a reasonable period of time after becoming aware of such noncompliance. If all Recipient's rights under this Agreement terminate, Recipient agrees to cease use and distribution of the Program as soon as reasonably practicable. However, Recipient's obligations under this Agreement and any licenses granted by Recipient relating to the Program shall continue and survive.

Everyone is permitted to copy and distribute copies of this Agreement, but in order to avoid inconsistency the Agreement is copyrighted and may only be modified in the following manner. The Agreement Steward reserves the right to publish new versions (including revisions) of this Agreement from time to time. No one other than the Agreement Steward has the right to modify this Agreement. The Eclipse Foundation is the initial Agreement Steward. The Eclipse Foundation may assign the responsibility to serve as the Agreement Steward to a suitable separate entity. Each new version of the Agreement will be given a distinguishing version number. The Program (including Contributions) may always be distributed subject to the version of the Agreement under which it was received. In addition, after a new version of the Agreement is published, Contributor may elect to distribute the Program (including its Contributions) under the new version. Except as expressly stated in Sections 2(a) and 2(b) above, Recipient receives no rights or licenses to the intellectual property of any Contributor under this Agreement, whether expressly, by implication, estoppel or

otherwise. All rights in the Program not expressly granted under this Agreement are reserved.

This Agreement is governed by the laws of the State of New York and the intellectual property laws of the United States of America. No party to this Agreement will bring a legal action under this Agreement more than one year after the cause of action arose. Each party waives its rights to a jury trial in any resulting litigation.

A.38 winpcap 4.1.2

Copyright (c) 1999 - 2005 NetGroup, Politecnico di Torino (Italy).

Copyright (c) 2005 - 2010 CACE Technologies, Davis (California).

All rights reserved.

Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

1. Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.

2. Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.

3. Neither the name of the Politecnico di Torino, CACE Technologies nor the names of its contributors may be used to endorse or promote products derived from this software without specific prior written permission.

THIS SOFTWARE IS PROVIDED BY THE COPYRIGHT HOLDERS AND CONTRIBUTORS "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE COPYRIGHT OWNER OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

This product includes software developed by the University of California, Lawrence Berkeley Laboratory and its contributors.

This product includes software developed by the Kungliga Tekniska Högskolan and its contributors.

This product includes software developed by Yen Yen Lim and North Dakota State University.

A.39 Additional Licensing Information

Additional licensing information about other third party products included with Oracle Database 11g R1, which is distributed with Enterprise Manager can be found at:

http://download.oracle.com/docs/cd/B28359_
01/license.111/b28287/apxa.htm#sthref85

Additional licensing information about other third party products included with Oracle Database 11g R2, which is distributed with Enterprise Manager can be found at:

http://download.oracle.com/docs/cd/E11882_
01/license.112/e10594/apxa.htm#sthref82

Additional licensing information about other third party products included with Oracle Application Server, which is distributed with Enterprise Manager, can be found at:

http://download.oracle.com/docs/cd/B32110_01/index.htm

Additional licensing information about other third party products included with JDK 6, which is distributed with Enterprise Manager, can be found at:

http://www.oracle.com/technetwork/java/javase/terms/thirdpartyreadme/index
.html

B

Third-Party Licenses for Oracle Enterprise Manager Ops Center

This appendix contains licensing information about certain third-party products included with Oracle Enterprise Manager Ops Center version 12*c* (12.2.2.0.0). Unless otherwise specifically noted, all licenses herein are provided for notice purposes only.

The following sections in this appendix describe the third-party licenses:

- Apache Software Foundation Licenses
    - Apache Software License, Version 2.0
        * AjaxTerm 0.1
        * Apache Commons File Upload 1.3.1
        * Apache Log4j 1.2.14
        * Apache Lucene 3.0.0
        * Apache Web Server 2.4.10
        * Commons Codec 1.6
        * Commons IO 2.2
        * commons-logging.jar 1.1.1
        * Direct Web Remoting (DWR) 2.0.4
        * HTTP Client 4.2.1
        * Jakarta Commons Net 1.1.0
        * Jakarta regexp 1.5
        * JSON Lib 2.2.1
        * Quartz Enterprise Job Scheduler 1.6.0
        * Spring Framework 2.0.2
        * Wiseman 1.0
- Artistic
    - CPAN Modules
        * perl module: Expect 1.21
        * perl module: IO-stty 0.3
        * perl module: IO-tty 1.1

- BSD-Style
  - Dojo Toolkit 1.3.3
  - IPMItool 1.8.10
  - Java Secure Channel (JSCH) 0.1.48
  - JavaScript InfoVis Toolkit (JIT) 1.1.3
  - kXML 2.2.2
  - Open SSL Toolkit 1.0.0i
  - xmlpull 1.1
  - YUI (Yahoo User Interface) Library Compressor 2.4.2
- LGPL
  - j-interop 1.23
  - jcifs 1.2.9
  - libintl-perl 1.2
  - rpm 4.1
  - Sarissa 0.9.6.1
- Other
  - Bouncy Castle Crypto API 1.48
  - com.oreilly.servlet Library Software 1
  - cURL 7.37.0
  - DHCP 3.0pl1
  - Expect 5.39.0
  - EXT JS 3.3
  - Ext.ux.Livegrid 0.1
  - Flot 0.7
  - JQuery 1.5.1
  - JSON 1.5
  - Jython 2.5.1
  - libxml2 2.7.8
  - Python 2.5.2
  - Python 2.5, 2.6, and 2.7
  - ZK Ajax Web Framework 2.3.1
  - zlib 1.2.5

B.1 Apache Software Foundation Licenses

The following sections provide licensing information for the following versions of Apache software licenses:

- Version 2.0

B.1.1 Apache Software License, Version 2.0

Apache License

Version 2.0, January 2004

http://www.apache.org/licenses/

Apache License Version 2.0, January 2004 Link1 / TERMS AND CONDITIONS FOR USE, REPRODUCTION, AND DISTRIBUTION

1. Definitions.

"License" shall mean the terms and conditions for use, reproduction, and distribution as defined by Sections 1 through 9 of this document.

"Licensor" shall mean the copyright owner or entity authorized by the copyright owner that is granting the License.

"Legal Entity" shall mean the union of the acting entity and all other entities that control, are controlled by, or are under common control with that entity. For the purposes of this definition, "control" means (i) the power, direct or indirect, to cause the direction or management of such entity, whether by contract or otherwise, or (ii) ownership of fifty percent (50%) or more of the outstanding shares, or (iii) beneficial ownership of such entity.

"You" (or "Your") shall mean an individual or Legal Entity exercising permissions granted by this License.

"Source" form shall mean the preferred form for making modifications, including but not limited to software source code, documentation source, and configuration files.

"Object" form shall mean any form resulting from mechanical transformation or translation of a Source form, including but not limited to compiled object code, generated documentation, and conversions to other media types.

"Work" shall mean the work of authorship, whether in Source or Object form, made available under the License, as indicated by a copyright notice that is included in or attached to the work (an example is provided in the Appendix below).

"Derivative Works" shall mean any work, whether in Source or Object form, that is based on (or derived from) the Work and for which the editorial revisions, annotations, elaborations, or other modifications represent, as a whole, an original work of authorship. For the purposes of this License, Derivative Works shall not include works that remain separable from, or merely link (or bind by name) to the interfaces of, the Work and Derivative Works thereof.

"Contribution" shall mean any work of authorship, including the original version of the Work and any modifications or additions to that Work or Derivative Works thereof, that is intentionally submitted to Licensor for inclusion in the Work by the copyright owner or by an individual or Legal Entity authorized to submit on behalf of the copyright owner. For the purposes of this definition, "submitted" means any form of electronic, verbal, or written communication sent to the Licensor or its representatives, including but not limited to communication on electronic mailing lists, source code control systems, and issue tracking systems that are managed by, or on behalf of, the Licensor for the purpose of discussing and improving the Work, but excluding communication that is conspicuously marked or otherwise designated in writing by the copyright owner as "Not a Contribution."

"Contributor" shall mean Licensor and any individual or Legal Entity on behalf of whom a Contribution has been received by Licensor and subsequently incorporated within the Work

2. Grant of Copyright License. Subject to the terms and conditions of this License, each Contributor hereby grants to You a perpetual, worldwide, non-exclusive, no-charge, royalty-free, irrevocable copyright license to reproduce, prepare Derivative Works of, publicly display, publicly perform, sublicense, and distribute the Work and such Derivative Works in Source or Object form.

3. Grant of Patent License. Subject to the terms and conditions of this License, each Contributor hereby grants to You a perpetual, worldwide, non-exclusive, no-charge, royalty-free, irrevocable (except as stated in this section) patent license to make, have made, use, offer to sell, sell, import, and otherwise transfer the Work, where such license applies only to those patent claims licensable by such Contributor that are necessarily infringed by their Contribution(s) alone or by combination of their Contribution(s) with the Work to which such Contribution(s) was submitted. If You institute patent litigation against any entity (including a cross-claim or counterclaim in a lawsuit) alleging that the Work or a Contribution incorporated within the Work constitutes direct or contributory patent infringement, then any patent licenses granted to You under this License for that Work shall terminate as of the date such litigation is filed.

4. Redistribution. You may reproduce and distribute copies of the Work or Derivative Works thereof in any medium, with or without modifications, and in Source or Object form, provided that You meet the following conditions:

(a) You must give any other recipients of the Work or Derivative Works a copy of this License; and

(b) You must cause any modified files to carry prominent notices stating that You changed the files; and

(c) You must retain, in the Source form of any Derivative Works that You distribute, all copyright, patent, trademark, and attribution notices from the Source form of the Work, excluding those notices that do not pertain to any part of the Derivative Works; and

(d) If the Work includes a "NOTICE" text file as part of its distribution, then any Derivative Works that You distribute must include a readable copy of the attribution notices contained within such NOTICE file, excluding those notices that do not pertain to any part of the Derivative Works, in at least one of the following places: within a NOTICE text file distributed as part of the Derivative Works; within the Source form or documentation, if provided along with the Derivative Works; or, within a display generated by the Derivative Works, if and wherever such third-party notices normally appear. The contents of the NOTICE file are for informational purposes only and do not modify the License. You may add Your own attribution notices within Derivative Works that You distribute, alongside or as an addendum to the NOTICE text from the Work, provided that such additional attribution notices cannot be construed as modifying the License.

You may add Your own copyright statement to Your modifications and may provide additional or different license terms and conditions for use, reproduction, or distribution of Your modifications, or for any such Derivative Works as a whole, provided Your use, reproduction, and distribution of the Work otherwise complies with the conditions stated in this License.

5. Submission of Contributions. Unless You explicitly state otherwise, any Contribution intentionally submitted for inclusion in the Work by You to the Licensor shall be under the terms and conditions of this License, without any additional terms or conditions. Notwithstanding the above, nothing herein shall supersede or modify the terms of any separate license agreement you may have executed with Licensor regarding such Contributions.

6. Trademarks. This License does not grant permission to use the trade names, trademarks, service marks, or product names of the Licensor, except as required for reasonable and customary use in describing the origin of the Work and reproducing the content of the NOTICE file.

7. Disclaimer of Warranty. Unless required by applicable law or agreed to in writing, Licensor provides the Work (and each Contributor provides its Contributions) on an "AS IS" BASIS, WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied, including, without limitation, any warranties or conditions of TITLE, NON-INFRINGEMENT, MERCHANTABILITY, or FITNESS FOR A PARTICULAR PURPOSE. You are solely responsible for determining the appropriateness of using or redistributing the Work and assume any risks associated with Your exercise of permissions under this License.

8. Limitation of Liability. In no event and under no legal theory, whether in tort (including negligence), contract, or otherwise, unless required by applicable law (such as deliberate and grossly negligent acts) or agreed to in writing, shall any Contributor be liable to You for damages, including any direct, indirect, special, incidental, or consequential damages of any character arising as a result of this License or out of the use or inability to use the Work (including but not limited to damages for loss of goodwill, work stoppage, computer failure or malfunction, or any and all other commercial damages or losses), even if such Contributor has been advised of the possibility of such damages.

9. Accepting Warranty or Additional Liability. While redistributing the Work or Derivative Works thereof, You may choose to offer, and charge a fee for, acceptance of support, warranty, indemnity, or other liability obligations and/or rights consistent with this License. However, in accepting such obligations, You may act only on Your own behalf and on Your sole responsibility, not on behalf of any other Contributor, and only if You agree to indemnify, defend, and hold each Contributor harmless for any liability incurred by, or claims asserted against, such Contributor by reason of your accepting any such warranty or additional liability. END OF TERMS AND CONDITIONS APPENDIX: How to apply the Apache License to your work. To apply the Apache License to your work, attach the following boilerplate notice, with the fields enclosed by brackets "[]" replaced with your own identifying information. (Don't include the brackets!) The text should be enclosed in the appropriate comment syntax for the file format. We also recommend that a file or class name and description of purpose be included on the same "printed page" as the copyright notice for easier identification within third-party archives. Copyright [yyyy] [name of copyright owner] Licensed under the Apache License, Version 2.0 (the "License"); you may not use this file except in compliance with the License. You may obtain a copy of the License at Link2 Unless required by applicable law or agreed to in writing, software distributed under the License is distributed on an "AS IS" BASIS, WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied. See the License for the specific language governing permissions and limitations under the License.

This product includes the following software from the Apache Software Foundation (http://www.apache.org) licensed to Oracle under Apache License 2.0 and that include the following copyright notices:

B.1.1.1 AjaxTerm 0.1

Use of any of this software is governed by the terms of the license below:

Ajaxterm files are released in the Public Domain, (except sarissa* which is licensed under GPL v.2 or LGPL v.2.1 or Apache v.2.0).

Additional License(s)

http://dev.abiss.gr/sarissa/

B.1.1.2 Apache Commons File Upload 1.3.1

Copyright 2002-2008 The Apache Software Foundation

This product includes software developed by The Apache Software Foundation (http://www.apache.org/).

B.1.1.3 Apache Log4j 1.2.14

Copyright 2007 The Apache Software Foundation.

This product includes software developed at The Apache Software Foundation (http://www.apache.org/).

B.1.1.4 Apache Lucene 3.0.0

Copyright 2006 The Apache Software Foundation.

This product includes software developed by The Apache Software Foundation (http://www.apache.org/).

The snowball stemmers in contrib/snowball/src/java/net/sf/snowball were developed by Martin Porter and Richard Boulton. The full snowball package is available from http://snowball.tartarus.org/

The Arabic stemmer (contrib/analyzers) comes with a default stopword list that is BSD-licensed created by Jacques Savoy. The file resides in contrib/analyzers/common/src/resources/org/apache/lucene/analysis/ar/stopwords.txt.

See http://members.unine.ch/jacques.savoy/clef/index.html.

The Persian analyzer (contrib/analyzers) comes with a default stopword list that is BSD-licensed created by Jacques Savoy. The file resides in contrib/analyzers/common/src/resources/org/apache/lucene/analysis/fa/stopwords.txt.

See http://members.unine.ch/jacques.savoy/clef/index.html.

Includes lib/servlet-api-2.4.jar from Apache Tomcat

The SmartChineseAnalyzer source code (under contrib/analyzers) was provided by Xiaoping Gao and copyright 2009 by www.imdict.net.

ICU4J, (under contrib/collation) is licensed under an MIT styles license (contrib/collation/lib/ICU-LICENSE.txt) and Copyright (c) 1995-2008 International Business Machines Corporation and others.

B.1.1.5 Apache Web Server 2.4.10

B.1.1.6 Commons Codec 1.6

Apache Commons Codec

Copyright 2002-2009 The Apache Software Foundation

This product includes software developed by The Apache Software Foundation (http://www.apache.org/).

----

src/test/org/apache/commons/codec/language/DoubleMetaphoneTest.java contains test data from http://aspell.sourceforge.net/test/batch0.tab.

Copyright (C) 2002 Kevin Atkinson (kevina@gnu.org). Verbatim copying and distribution of this entire article is permitted in any medium, provided this notice is preserved.

B.1.1.7 Commons IO 2.2

Copyright 2002-2010 The Apache Software Foundation.

This product includes software developed by The Apache Software Foundation (http://www.apache.org/).

B.1.1.8 commons-logging.jar 1.1.1

Copyright 2003-2007 The Apache Software Foundation

B.1.1.9 Direct Web Remoting (DWR) 2.0.4

Copyright 2003-2007 The Apache Software Foundation.

B.1.1.10 HTTP Client 4.2.1

Copyright 1999-2007 The Apache Software Foundation.

This product includes software developed by The Apache Software Foundation (http://www.apache.org/).

B.1.1.11 Jakarta Commons Net 1.1.0

Copyright 2003-2007 The Apache Software Foundation.

B.1.1.12 Jakarta regexp 1.5

Copyright 2003-2007 The Apache Software Foundation.

B.1.1.13 JSON Lib 2.2.1

Copyright 2003-2007 The Apache Software Foundation.

B.1.1.14 Quartz Enterprise Job Scheduler 1.6.0

Quartz Scheduler source code and documentation are Copyright (c) 2001-2010 Terracotta, Inc..

Quartz Scheduler is licensed under the Apache License, Version 2.0 (the "License"); you may not use Quartz binaries or source in whole or in part except in compliance with the License. You may obtain a copy of the License at:

http://www.apache.org/licenses/LICENSE-2.0

Unless required by applicable law or agreed to in writing, software distributed under the License is distributed on an "AS IS" BASIS, WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied. See the License for the specific language governing permissions and limitations under the License.

B.1.1.15 Spring Framework 2.0.2

Copyright © 2004-2009 Rod Johnson, Juergen Hoeller, Keith Donald, Colin Sampaleanu, Rob Harrop, Alef Arendsen, Thomas Risberg, Darren Davison, Dmitriy

Kopylenko, Mark Pollack, Thierry Templier, Erwin Vervaet, Portia Tung, Ben Hale, Adrian Colyer, John Lewis, Costin Leau, Mark Fisher, Sam Brannen, Ramnivas Laddad, Arjen Poutsma, Chris Beams, Tareq Abedrabbo, Andy Clement

B.1.1.16 Wiseman 1.0

B.2 Artistic

B.2.1 CPAN Modules

This program contains third-party code from the Comprehensive Perl Archive Network ("CPAN"). Under the terms of the CPAN license, Oracle is required to provide the following notices. Note, however, that the Oracle program license that accompanied this product determines your right to use the Oracle program, including the CPAN software, and the terms contained in the following notices do not change those rights.

Source code for the CPAN modules may be obtained at the following sites:

<LIST SITES FOR ALL MODULES>

Copyright (c) 1997 Austin Schutz <ASchutz@users.sourceforge.net> (retired)

expect() interface & functionality enhancements Copyright (c) 1999-2006 Roland Giersig.

This module is now maintained by Roland Giersig <RGiersig@cpan.org>

<For a particular program list each module and site together with the appropriate copyright notice -- if they are different for the different modules. Otherwise, put one copyright notice before the listing of the websites for code.>

This module can be used under the same terms as Perl.

B.2.1.1 perl module: Expect 1.21

Use of any of this software is governed by the terms of the license below:

Copyright (c) 1997 Austin Schutz.

expect() interface & functionality enhancements (c) 1999 Roland Giersig.

All rights reserved. This program is free software; you can redistribute it and/or modify it under the same terms as Perl itself.

The "Artistic License"

      Preamble

The intent of this document is to state the conditions under which a Package may be copied, such that the Copyright Holder maintains some semblance of artistic control over the development of the package, while giving the users of the package the right to use and distribute the Package in a more-or-less customary fashion, plus the right to make reasonable modifications.

Definitions:

"Package" refers to the collection of files distributed by the Copyright Holder, and derivatives of that collection of files created through textual modification.

"Standard Version" refers to such a Package if it has not been modified, or has been modified in accordance with the wishes of the Copyright Holder as specified below.

"Copyright Holder" is whoever is named in the copyright or copyrights for the package.

"You" is you, if you're thinking about copying or distributing this Package.

"Reasonable copying fee" is whatever you can justify on the basis of media cost, duplication charges, time of people involved, and so on. (You will not be required to justify it to the Copyright Holder, but only to the computing community at large as a market that must bear the fee.)

"Freely Available" means that no fee is charged for the item itself, though there may be fees involved in handling the item. It also means that recipients of the item may redistribute it under the same conditions they received it.

1. You may make and give away verbatim copies of the source form of the Standard Version of this Package without restriction, provided that you duplicate all of the original copyright notices and associated disclaimers.

2. You may apply bug fixes, portability fixes and other modifications derived from the Public Domain or from the Copyright Holder. A Package modified in such a way shall still be considered the Standard Version.

3. You may otherwise modify your copy of this Package in any way, provided that you insert a prominent notice in each changed file stating how and when you changed that file, and provided that you do at least ONE of the following:

    a. place your modifications in the Public Domain or otherwise make them Freely Available, such as by posting said modifications to Usenet or an equivalent medium, or placing the modifications on a major archive site such as uunet.uu.net, or by allowing the Copyright Holder to include your modifications in the Standard Version of the Package.

    b. use the modified Package only within your corporation or organization.

    c. rename any non-standard executables so the names do not conflict with standard executables, which must also be provided, and provide a separate manual page for each non-standard executable that clearly documents how it differs from the Standard Version.

    d. d) make other distribution arrangements with the Copyright Holder.

4. You may distribute the programs of this Package in object code or executable form, provided that you do at least ONE of the following:

    a. distribute a Standard Version of the executables and library files, together with instructions (in the manual page or equivalent) on where to get the Standard Version.

    b. accompany the distribution with the machine-readable source of the Package with your modifications.

    c. give non-standard executables non-standard names, and clearly document the differences in manual pages (or equivalent), together with instructions on where to get the Standard Version.

    d. make other distribution arrangements with the Copyright Holder.

5. You may charge a reasonable copying fee for any distribution of this Package. You may charge any fee you choose for support of this Package. You may not charge a fee for this Package itself. However, you may distribute this Package in aggregate with other (possibly commercial) programs as part of a larger (possibly

commercial) software distribution provided that you do not advertise this Package as a product of your own. You may embed this Package's interpreter within an executable of yours (by linking); this shall be construed as a mere form of aggregation, provided that the complete Standard Version of the interpreter is so embedded.

6. The scripts and library files supplied as input to or produced as output from the programs of this Package do not automatically fall under the copyright of this Package, but belong to whoever generated them, and may be sold commercially, and may be aggregated with this Package. If such scripts or library files are aggregated with this Package via the so-called "undump" or "unexec" methods of producing a binary executable image, then distribution of such an image shall neither be construed as a distribution of this Package nor shall it fall under the restrictions of Paragraphs 3 and 4, provided that you do not represent such an executable image as a Standard Version of this Package.

7. C subroutines (or comparably compiled subroutines in other languages) supplied by you and linked into this Package in order to emulate subroutines and variables of the language defined by this Package shall not be considered part of this Package, but are the equivalent of input as in Paragraph 6, provided these subroutines do not change the language in any way that would cause it to fail the regression tests for the language.

8. Aggregation of this Package with a commercial distribution is always permitted provided that the use of this Package is embedded; that is, when no overt attempt is made to make this Package's interfaces visible to the end user of the commercial distribution. Such use shall not be construed as a distribution of this Package.

9. The name of the Copyright Holder may not be used to endorse or promote products derived from this software without specific prior written permission.

10. THIS PACKAGE IS PROVIDED "AS IS" AND WITHOUT ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, WITHOUT LIMITATION, THE IMPLIED WARRANTIES OF MERCHANTIBILITY AND FITNESS FOR A PARTICULAR PURPOSE.

The End

B.2.1.2 perl module: IO-stty 0.3

The "Artistic License"

Preamble

The intent of this document is to state the conditions under which a Package may be copied, such that the Copyright Holder maintains some semblance of artistic control over the development of the package, while giving the users of the package the right to use and distribute the Package in a more-or-less customary fashion, plus the right to make reasonable modifications.

Definitions:

"Package" refers to the collection of files distributed by the Copyright Holder, and derivatives of that collection of files created through textual modification.

"Standard Version" refers to such a Package if it has not been modified, or has been modified in accordance with the wishes of the Copyright Holder as specified below.

"Copyright Holder" is whoever is named in the copyright or copyrights for the package.

"You" is you, if you're thinking about copying or distributing this Package.

"Reasonable copying fee" is whatever you can justify on the basis of media cost, duplication charges, time of people involved, and so on. (You will not be required to justify it to the Copyright Holder, but only to the computing community at large as a market that must bear the fee.)

"Freely Available" means that no fee is charged for the item itself, though there may be fees involved in handling the item. It also means that recipients of the item may redistribute it under the same conditions they received it.

1. You may make and give away verbatim copies of the source form of the Standard Version of this Package without restriction, provided that you duplicate all of the original copyright notices and associated disclaimers.

2. You may apply bug fixes, portability fixes and other modifications derived from the Public Domain or from the Copyright Holder. A Package modified in such a way shall still be considered the Standard Version.

3. You may otherwise modify your copy of this Package in any way, provided that you insert a prominent notice in each changed file stating how and when you changed that file, and provided that you do at least ONE of the following:

   a. place your modifications in the Public Domain or otherwise make them Freely Available, such as by posting said modifications to Usenet or an equivalent medium, or placing the modifications on a major archive site such as uunet.uu.net, or by allowing the Copyright Holder to include your modifications in the Standard Version of the Package.

   b. use the modified Package only within your corporation or organization.

   c. rename any non-standard executables so the names do not conflict with standard executables, which must also be provided, and provide a separate manual page for each non-standard executable that clearly documents how it differs from the Standard Version.

   d. make other distribution arrangements with the Copyright Holder.

4. You may distribute the programs of this Package in object code or executable form, provided that you do at least ONE of the following:

   a. distribute a Standard Version of the executables and library files, together with instructions (in the manual page or equivalent) on where to get the Standard Version.

   b. accompany the distribution with the machine-readable source of the Package with your modifications.

   c. give non-standard executables non-standard names, and clearly document the differences in manual pages (or equivalent), together with instructions on where to get the Standard Version.

   d. make other distribution arrangements with the Copyright Holder.

5. You may charge a reasonable copying fee for any distribution of this Package. You may charge any fee you choose for support of this Package. You may not charge a fee for this Package itself. However, you may distribute this Package in aggregate with other (possibly commercial) programs as part of a larger (possibly commercial) software distribution provided that you do not advertise this Package as a product of your own. You may embed this Package's interpreter within an executable of yours (by linking); this shall be construed as a mere form of aggregation, provided that the complete Standard Version of the interpreter is so embedded.

6. The scripts and library files supplied as input to or produced as output from the programs of this Package do not automatically fall under the copyright of this Package, but belong to whoever generated them, and may be sold commercially, and may be aggregated with this Package. If such scripts or library files are aggregated with this Package via the so-called "undump" or "unexec" methods of producing a binary executable image, then distribution of such an image shall neither be construed as a distribution of this Package nor shall it fall under the restrictions of Paragraphs 3 and 4, provided that you do not represent such an executable image as a Standard Version of this Package.

7. C subroutines (or comparably compiled subroutines in other languages) supplied by you and linked into this Package in order to emulate subroutines and variables of the language defined by this Package shall not be considered part of this Package, but are the equivalent of input as in Paragraph 6, provided these subroutines do not change the language in any way that would cause it to fail the regression tests for the language.

8. Aggregation of this Package with a commercial distribution is always permitted provided that the use of this Package is embedded; that is, when no overt attempt is made to make this Package's interfaces visible to the end user of the commercial distribution. Such use shall not be construed as a distribution of this Package.

9. The name of the Copyright Holder may not be used to endorse or promote products derived from this software without specific prior written permission.

10. THIS PACKAGE IS PROVIDED "AS IS" AND WITHOUT ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, WITHOUT LIMITATION, THE IMPLIED WARRANTIES OF MERCHANTIBILITY AND FITNESS FOR A PARTICULAR PURPOSE.

The End

B.2.1.3 perl module: IO-tty 1.1

The "Artistic License"

Preamble

The intent of this document is to state the conditions under which a Package may be copied, such that the Copyright Holder maintains some semblance of artistic control over the development of the package, while giving the users of the package the right to use and distribute the Package in a more-or-less customary fashion, plus the right to make reasonable modifications.

Definitions:

"Package" refers to the collection of files distributed by the Copyright Holder, and derivatives of that collection of files created through textual modification.

"Standard Version" refers to such a Package if it has not been modified, or has been modified in accordance with the wishes of the Copyright Holder as specified below.

"Copyright Holder" is whoever is named in the copyright or copyrights for the package.

"You" is you, if you're thinking about copying or distributing this Package.

"Reasonable copying fee" is whatever you can justify on the basis of media cost, duplication charges, time of people involved, and so on. (You will not be required to justify it to the Copyright Holder, but only to the computing community at large as a market that must bear the fee.)

"Freely Available" means that no fee is charged for the item itself, though there may be fees involved in handling the item. It also means that recipients of the item may redistribute it under the same conditions they received it.

1. You may make and give away verbatim copies of the source form of the Standard Version of this Package without restriction, provided that you duplicate all of the original copyright notices and associated disclaimers.

2. You may apply bug fixes, portability fixes and other modifications derived from the Public Domain or from the Copyright Holder. A Package modified in such a way shall still be considered the Standard Version.

3. You may otherwise modify your copy of this Package in any way, provided that you insert a prominent notice in each changed file stating how and when you changed that file, and provided that you do at least ONE of the following:

   a. place your modifications in the Public Domain or otherwise make them Freely Available, such as by posting said modifications to Usenet or an equivalent medium, or placing the modifications on a major archive site such as uunet.uu.net, or by allowing the Copyright Holder to include your modifications in the Standard Version of the Package.

   b. use the modified Package only within your corporation or organization.

   c. rename any non-standard executables so the names do not conflict with standard executables, which must also be provided, and provide a separate manual page for each non-standard executable that clearly documents how it differs from the Standard Version.

   d. make other distribution arrangements with the Copyright Holder.

4. You may distribute the programs of this Package in object code or executable form, provided that you do at least ONE of the following:

   a. distribute a Standard Version of the executables and library files, together with instructions (in the manual page or equivalent) on where to get the Standard Version.

   b. accompany the distribution with the machine-readable source of the Package with your modifications.

   c. give non-standard executables non-standard names, and clearly document the differences in manual pages (or equivalent), together with instructions on where to get the Standard Version.

   d. make other distribution arrangements with the Copyright Holder.

5. You may charge a reasonable copying fee for any distribution of this Package. You may charge any fee you choose for support of this Package. You may not charge a fee for this Package itself. However, you may distribute this Package in aggregate with other (possibly commercial) programs as part of a larger (possibly commercial) software distribution provided that you do not advertise this Package as a product of your own. You may embed this Package's interpreter within an executable of yours (by linking); this shall be construed as a mere form of aggregation, provided that the complete Standard Version of the interpreter is so embedded.

6. The scripts and library files supplied as input to or produced as output from the programs of this Package do not automatically fall under the copyright of this Package, but belong to whoever generated them, and may be sold commercially, and may be aggregated with this Package. If such scripts or library files are aggregated with this Package via the so-called "undump" or "unexec" methods of

producing a binary executable image, then distribution of such an image shall neither be construed as a distribution of this Package nor shall it fall under the restrictions of Paragraphs 3 and 4, provided that you do not represent such an executable image as a Standard Version of this Package.

7. C subroutines (or comparably compiled subroutines in other languages) supplied by you and linked into this Package in order to emulate subroutines and variables of the language defined by this Package shall not be considered part of this Package, but are the equivalent of input as in Paragraph 6, provided these subroutines do not change the language in any way that would cause it to fail the regression tests for the language.

8. Aggregation of this Package with a commercial distribution is always permitted provided that the use of this Package is embedded; that is, when no overt attempt is made to make this Package's interfaces visible to the end user of the commercial distribution. Such use shall not be construed as a distribution of this Package.

9. The name of the Copyright Holder may not be used to endorse or promote products derived from this software without specific prior written permission.

10. THIS PACKAGE IS PROVIDED "AS IS" AND WITHOUT ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, WITHOUT LIMITATION, THE IMPLIED WARRANTIES OF MERCHANTIBILITY AND FITNESS FOR A PARTICULAR PURPOSE.

The End

B.3 BSD-Style

B.3.1 Dojo Toolkit 1.3.3

Copyright (c) 2005-2009, The Dojo Foundation

All rights reserved.

Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

■ Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.

■ Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.

■ Neither the name of the Dojo Foundation nor the names of its contributors may be used to endorse or promote products derived from this software without specific prior written permission.

THIS SOFTWARE IS PROVIDED BY THE COPYRIGHT HOLDERS AND CONTRIBUTORS "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE COPYRIGHT OWNER OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED

AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

B.3.2 IPMItool 1.8.10

Copyright (c) 2003 Sun Microsystems, Inc. All Rights Reserved.

Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

Redistribution of source code must retain the above copyright notice, this list of conditions and the following disclaimer.

Redistribution in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.

Neither the name of Sun Microsystems, Inc. or the names of contributors may be used to endorse or promote products derived from this software without specific prior written permission.

This software is provided "AS IS," without a warranty of any kind.

ALL EXPRESS OR IMPLIED CONDITIONS, REPRESENTATIONS AND WARRANTIES, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR NON-INFRINGEMENT, ARE HEREBY EXCLUDED.

SUN MICROSYSTEMS, INC. ("SUN") AND ITS LICENSORS SHALL NOT BE LIABLE FOR ANY DAMAGES SUFFERED BY LICENSEE AS A RESULT OF USING, MODIFYING OR DISTRIBUTING THIS SOFTWARE OR ITS DERIVATIVES. IN NO EVENT WILL SUN OR ITS LICENSORS BE LIABLE FOR ANY LOST REVENUE, PROFIT OR DATA, OR FOR DIRECT, INDIRECT, SPECIAL, CONSEQUENTIAL, INCIDENTAL OR PUNITIVE DAMAGES, HOWEVER CAUSED AND REGARDLESS OF THE THEORY OF LIABILITY, ARISING OUT OF THE USE OF OR INABILITY TO USE THIS SOFTWARE, EVEN IF SUN HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

B.3.3 Java Secure Channel (JSCH) 0.1.48

Copyright (c) 2002-2012 Atsuhiko Yamanaka, JCraft,Inc. All rights reserved.

Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

1. Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.

2. Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.

3. The names of the authors may not be used to endorse or promote products derived from this software without specific prior written permission.

THIS SOFTWARE IS PROVIDED "AS IS" AND ANY EXPRESSED OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL JCRAFT, INC. OR ANY CONTRIBUTORS TO

THIS SOFTWARE BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE,EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

B.3.4 JavaScript InfoVis Toolkit (JIT) 1.1.3

Copyright (c) 2010, Nicolas Garcia Belmonte.

All rights reserved

> Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

* Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.

* Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.

* Neither the name of the organization nor the names of its contributors may be used to endorse or promote products derived from this software without specific prior written permission.

THIS SOFTWARE IS PROVIDED BY NICOLAS GARCIA BELMONTE ``AS IS'' AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL NICOLAS GARCIA BELMONTE BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

B.3.5 kXML 2.2.2

Copyright (c) 2002,2003, Stefan Haustein, Oberhausen, Rhld., Germany Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY,

WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

B.3.6 Open SSL Toolkit 1.0.0i

OpenSSL License

Copyright (c) 1998-2008 The OpenSSL Project. All rights reserved.

Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

1. Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.

2. Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.

3. All advertising materials mentioning features or use of this software must display the following acknowledgment:

   "This product includes software developed by the OpenSSL Project for use in the OpenSSL Toolkit. (http://www.openssl.org/)"

4. The names "OpenSSL Toolkit" and "OpenSSL Project" must not be used to endorse or promote products derived from this software without prior written permission. For written permission, please contact openssl-core@openssl.org.

5. Products derived from this software may not be called "OpenSSL" nor may "OpenSSL" appear in their names without prior written permission of the OpenSSL Project.

6. Redistributions of any form whatsoever must retain the following acknowledgment:

   "This product includes software developed by the OpenSSL Project for use in the OpenSSL Toolkit (http://www.openssl.org/)"

THIS SOFTWARE IS PROVIDED BY THE OpenSSL PROJECT "AS IS" AND ANY EXPRESSED OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE OpenSSL PROJECT OR ITS CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

This product includes cryptographic software written by Eric Young (eay@cryptsoft.com). This product includes software written by Tim Hudson (tjh@cryptsoft.com).

Original SSLeay License

Copyright (C) 1995-1998 Eric Young (eay@cryptsoft.com) All rights reserved.

This package is an SSL implementation written by Eric Young (eay@cryptsoft.com).

The implementation was written so as to conform with Netscapes SSL.

This library is free for commercial and non-commercial use as long as the following conditions are aheared to. The following conditions apply to all code found in this distribution, be it the RC4, RSA, lhash, DES, etc., code; not just the SSL code. The SSL documentation included with this distribution is covered by the same copyright terms except that the holder is Tim Hudson (tjh@cryptsoft.com).

Copyright remains Eric Young's, and as such any Copyright notices in the code are not to be removed.

If this package is used in a product, Eric Young should be given attribution as the author of the parts of the library used.

This can be in the form of a textual message at program startup or in documentation (online or textual) provided with the package.

Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

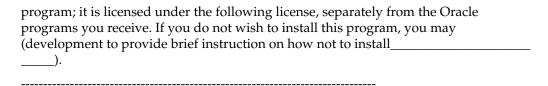1. Redistributions of source code must retain the copyright notice, this list of conditions and the following disclaimer.

2. Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.

3. All advertising materials mentioning features or use of this software must display the following acknowledgement:

   "This product includes cryptographic software written by Eric Young (eay@cryptsoft.com)"

    The word 'cryptographic' can be left out if the rouines from the library being used are not cryptographic related :-).

4. If you include any Windows specific code (or a derivative thereof) from the apps directory (application code) you must include an acknowledgement: "This product includes software written by Tim Hudson (tjh@cryptsoft.com)"

THIS SOFTWARE IS PROVIDED BY ERIC YOUNG "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE AUTHOR OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

The licence and distribution terms for any publically available version or derivative of this code cannot be changed. i.e. this code cannot simply be copied and put under another distribution licence [including the GNU Public Licence.

B.3.7 xmlpull 1.1

Copyright (c) 2002,2003, Stefan Haustein, Oberhausen, Rhld., Germany

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions: The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

B.3.8 YUI (Yahoo User Interface) Library Compressor 2.4.2

Copyright (c) 2009, Yahoo! Inc. All rights reserved.

Redistribution and use of this software in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

- Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.

- Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.

- Neither the name of Yahoo! Inc. nor the names of its contributors may be used to endorse or promote products derived from this software without specific prior written permission of Yahoo! Inc.

THIS SOFTWARE IS PROVIDED BY THE COPYRIGHT HOLDERS AND CONTRIBUTORS "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE COPYRIGHT OWNER OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

B.4 LGPL

B.4.1 j-interop 1.23

You are receiving a copy of the (identify the LGPL code_____) in both source and object code in the following JAR (identify the JAR_____). The terms of the Oracle license do NOT apply to the (identify the LGPL code_____)

program; it is licensed under the following license, separately from the Oracle programs you receive. If you do not wish to install this program, you may (development to provide brief instruction on how not to install_____ _____).

Use of any of this software is governed by the terms of the license below:

GNU Lesser General Public License

Version 2.1, February 1999

Copyright (C) 1991, 1999 Free Software Foundation, Inc. 59 Temple Place, Suite 330, Boston, MA 02111-1307 USA Everyone is permitted to copy and distribute verbatim copies of this license document, but changing it is not allowed.

[This is the first released version of the Lesser GPL. It also counts as the successor of the GNU Library Public License, version 2, hence the version number 2.1.]

Preamble

The licenses for most software are designed to take away your freedom to share and change it. By contrast, the GNU General Public Licenses are intended to guarantee your freedom to share and change free software--to make sure the software is free for all its users.

This license, the Lesser General Public License, applies to some specially designated software packages - typically libraries - of the Free Software Foundation and other authors who decide to use it. You can use it too, but we suggest you first think carefully about whether this license or the ordinary General Public License is the better strategy to use in any particular case, based on the explanations below.

When we speak of free software, we are referring to freedom of use, not price. Our General Public Licenses are designed to make sure that you have the freedom to distribute copies of free software (and charge for this service if you wish); that you receive source code or can get it if you want it; that you can change the software and use pieces of it in new free programs; and that you are informed that you can do these things.

To protect your rights, we need to make restrictions that forbid distributors to deny you these rights or to ask you to surrender these rights. These restrictions translate to certain responsibilities for you if you distribute copies of the library or if you modify it.

For example, if you distribute copies of the library, whether gratis or for a fee, you must give the recipients all the rights that we gave you. You must make sure that they, too, receive or can get the source code. If you link other code with the library, you must provide complete object files to the recipients, so that they can relink them with the library after making changes to the library and recompiling it. And you must show them these terms so they know their rights.

We protect your rights with a two-step method: (1) we copyright the library, and (2) we offer you this license, which gives you legal permission to copy, distribute and/or modify the library.

To protect each distributor, we want to make it very clear that there is no warranty for the free library. Also, if the library is modified by someone else and passed on, the recipients should know that what they have is not the original version, so that the original author's reputation will not be affected by problems that might be introduced by others.

Finally, software patents pose a constant threat to the existence of any free program. We wish to make sure that a company cannot effectively restrict the users of a free program by obtaining a restrictive license from a patent holder. Therefore, we insist that any patent license obtained for a version of the library must be consistent with the full freedom of use specified in this license.

Most GNU software, including some libraries, is covered by the ordinary GNU General Public License. This license, the GNU Lesser General Public License, applies to certain designated libraries, and is quite different from the ordinary General Public License. We use this license for certain libraries in order to permit linking those libraries into non-free programs.

When a program is linked with a library, whether statically or using a shared library, the combination of the two is legally speaking a combined work, a derivative of the original library. The ordinary General Public License therefore permits such linking only if the entire combination fits its criteria of freedom. The Lesser General Public License permits more lax criteria for linking other code with the library.

We call this license the "Lesser" General Public License because it does Less to protect the user's freedom than the ordinary General Public License. It also provides other free software developers Less of an advantage over competing non-free programs. These disadvantages are the reason we use the ordinary General Public License for many libraries. However, the Lesser license provides advantages in certain special circumstances.

For example, on rare occasions, there may be a special need to encourage the widest possible use of a certain library, so that it becomes a de-facto standard. To achieve this, non-free programs must be allowed to use the library. A more frequent case is that a free library does the same job as widely used non-free libraries. In this case, there is little to gain by limiting the free library to free software only, so we use the Lesser General Public License.

In other cases, permission to use a particular library in non-free programs enables a greater number of people to use a large body of free software. For example, permission to use the GNU C Library in non-free programs enables many more people to use the whole GNU operating system, as well as its variant, the GNU/Linux operating system.

Although the Lesser General Public License is Less protective of the users' freedom, it does ensure that the user of a program that is linked with the Library has the freedom and the wherewithal to run that program using a modified version of the Library.

The precise terms and conditions for copying, distribution and modification follow. Pay close attention to the difference between a "work based on the library" and a "work that uses the library". The former contains code derived from the library, whereas the latter must be combined with the library in order to run.

TERMS AND CONDITIONS FOR COPYING, DISTRIBUTION AND MODIFICATION

0. This License Agreement applies to any software library or other program which contains a notice placed by the copyright holder or other authorized party saying it may be distributed under the terms of this Lesser General Public License (also called "this License"). Each licensee is addressed as "you".

A "library" means a collection of software functions and/or data prepared so as to be conveniently linked with application programs (which use some of those functions and data) to form executables.

The "Library", below, refers to any such software library or work which has been distributed under these terms. A "work based on the Library" means either the Library or any derivative work under copyright law: that is to say, a work containing the

Library or a portion of it, either verbatim or with modifications and/or translated straightforwardly into another language. (Hereinafter, translation is included without limitation in the term "modification".)

"Source code" for a work means the preferred form of the work for making modifications to it. For a library, complete source code means all the source code for all modules it contains, plus any associated interface definition files, plus the scripts used to control compilation and installation of the library.

Activities other than copying, distribution and modification are not covered by this License; they are outside its scope. The act of running a program using the Library is not restricted, and output from such a program is covered only if its contents constitute a work based on the Library (independent of the use of the Library in a tool for writing it). Whether that is true depends on what the Library does and what the program that uses the Library does.

1. You may copy and distribute verbatim copies of the Library's complete source code as you receive it, in any medium, provided that you conspicuously and appropriately publish on each copy an appropriate copyright notice and disclaimer of warranty; keep intact all the notices that refer to this License and to the absence of any warranty; and distribute a copy of this License along with the Library.

You may charge a fee for the physical act of transferring a copy, and you may at your option offer warranty protection in exchange for a fee.

2. You may modify your copy or copies of the Library or any portion of it, thus forming a work based on the Library, and copy and distribute such modifications or work under the terms of Section 1 above, provided that you also meet all of these conditions:

a) The modified work must itself be a software library.

b) You must cause the files modified to carry prominent notices stating that you changed the files and the date of any change.

c) You must cause the whole of the work to be licensed at no charge to all third parties under the terms of this License.

d) If a facility in the modified Library refers to a function or a table of data to be supplied by an application program that uses the facility, other than as an argument passed when the facility is invoked, then you must make a good faith effort to ensure that, in the event an application does not supply such function or table, the facility still operates, and performs whatever part of its purpose remains meaningful.

(For example, a function in a library to compute square roots has a purpose that is entirely well-defined independent of the application. Therefore, Subsection 2d requires that any application-supplied function or table used by this function must be optional: if the application does not supply it, the square root function must still compute square roots.)

These requirements apply to the modified work as a whole. If identifiable sections of that work are not derived from the Library, and can be reasonably considered independent and separate works in themselves, then this License, and its terms, do not apply to those sections when you distribute them as separate works. But when you distribute the same sections as part of a whole which is a work based on the Library, the distribution of the whole must be on the terms of this License, whose permissions for other licensees extend to the entire whole, and thus to each and every part regardless of who wrote it.

Thus, it is not the intent of this section to claim rights or contest your rights to work written entirely by you; rather, the intent is to exercise the right to control the distribution of derivative or collective works based on the Library.

In addition, mere aggregation of another work not based on the Library with the Library (or with a work based on the Library) on a volume of a storage or distribution medium does not bring the other work under the scope of this License.

3. You may opt to apply the terms of the ordinary GNU General Public License instead of this License to a given copy of the Library. To do this, you must alter all the notices that refer to this License, so that they refer to the ordinary GNU General Public License, version 2, instead of to this License. (If a newer version than version 2 of the ordinary GNU General Public License has appeared, then you can specify that version instead if you wish.) Do not make any other change in these notices.

Once this change is made in a given copy, it is irreversible for that copy, so the ordinary GNU General Public License applies to all subsequent copies and derivative works made from that copy.

This option is useful when you wish to copy part of the code of the Library into a program that is not a library.

4. You may copy and distribute the Library (or a portion or derivative of it, under Section 2) in object code or executable form under the terms of Sections 1 and 2 above provided that you accompany it with the complete corresponding machine-readable source code, which must be distributed under the terms of Sections 1 and 2 above on a medium customarily used for software interchange.

If distribution of object code is made by offering access to copy from a designated place, then offering equivalent access to copy the source code from the same place satisfies the requirement to distribute the source code, even though third parties are not compelled to copy the source along with the object code.

5. A program that contains no derivative of any portion of the Library, but is designed to work with the Library by being compiled or linked with it, is called a "work that uses the Library". Such a work, in isolation, is not a derivative work of the Library, and therefore falls outside the scope of this License.

However, linking a "work that uses the Library" with the Library creates an executable that is a derivative of the Library (because it contains portions of the Library), rather than a "work that uses the library". The executable is therefore covered by this License. Section 6 states terms for distribution of such executables.

When a "work that uses the Library" uses material from a header file that is part of the Library, the object code for the work may be a derivative work of the Library even though the source code is not. Whether this is true is especially significant if the work can be linked without the Library, or if the work is itself a library. The threshold for this to be true is not precisely defined by law.

If such an object file uses only numerical parameters, data structure layouts and accessors, and small macros and small inline functions (ten lines or less in length), then the use of the object file is unrestricted, regardless of whether it is legally a derivative work. (Executables containing this object code plus portions of the Library will still fall under Section 6.)

Otherwise, if the work is a derivative of the Library, you may distribute the object code for the work under the terms of Section 6. Any executables containing that work also fall under Section 6, whether or not they are linked directly with the Library itself.

6. As an exception to the Sections above, you may also combine or link a "work that uses the Library" with the Library to produce a work containing portions of the

Library, and distribute that work under terms of your choice, provided that the terms permit modification of the work for the customer's own use and reverse engineering for debugging such modifications.

You must give prominent notice with each copy of the work that the Library is used in it and that the Library and its use are covered by this License. You must supply a copy of this License. If the work during execution displays copyright notices, you must include the copyright notice for the Library among them, as well as a reference directing the user to the copy of this License. Also, you must do one of these things:

a) Accompany the work with the complete corresponding machine-readable source code for the Library including whatever changes were used in the work (which must be distributed under Sections 1 and 2 above); and, if the work is an executable linked with the Library, with the complete machine-readable "work that uses the Library", as object code and/or source code, so that the user can modify the Library and then relink to produce a modified executable containing the modified Library. (It is understood that the user who changes the contents of definitions files in the Library will not necessarily be able to recompile the application to use the modified definitions.)

b) Use a suitable shared library mechanism for linking with the Library. A suitable mechanism is one that (1) uses at run time a copy of the library already present on the user's computer system, rather than copying library functions into the executable, and (2) will operate properly with a modified version of the library, if the user installs one, as long as the modified version is interface-compatible with the version that the work was made with.

c) Accompany the work with a written offer, valid for at least three years, to give the same user the materials specified in Subsection 6a, above, for a charge no more than the cost of performing this distribution.

d) If distribution of the work is made by offering access to copy from a designated place, offer equivalent access to copy the above specified materials from the same place.

e) Verify that the user has already received a copy of these materials or that you have already sent this user a copy.

For an executable, the required form of the "work that uses the Library" must include any data and utility programs needed for reproducing the executable from it. However, as a special exception, the materials to be distributed need not include anything that is normally distributed (in either source or binary form) with the major components (compiler, kernel, and so on) of the operating system on which the executable runs, unless that component itself accompanies the executable.

It may happen that this requirement contradicts the license restrictions of other proprietary libraries that do not normally accompany the operating system. Such a contradiction means you cannot use both them and the Library together in an executable that you distribute.

7. You may place library facilities that are a work based on the Library side-by-side in a single library together with other library facilities not covered by this License, and distribute such a combined library, provided that the separate distribution of the work based on the Library and of the other library facilities is otherwise permitted, and provided that you do these two things:

a) Accompany the combined library with a copy of the same work based on the Library, uncombined with any other library facilities. This must be distributed under the terms of the Sections above.

b) Give prominent notice with the combined library of the fact that part of it is a work based on the Library, and explaining where to find the accompanying uncombined form of the same work.

8. You may not copy, modify, sublicense, link with, or distribute the Library except as expressly provided under this License. Any attempt otherwise to copy, modify, sublicense, link with, or distribute the Library is void, and will automatically terminate your rights under this License. However, parties who have received copies, or rights, from you under this License will not have their licenses terminated so long as such parties remain in full compliance.

9. You are not required to accept this License, since you have not signed it. However, nothing else grants you permission to modify or distribute the Library or its derivative works. These actions are prohibited by law if you do not accept this License. Therefore, by modifying or distributing the Library (or any work based on the Library), you indicate your acceptance of this License to do so, and all its terms and conditions for copying, distributing or modifying the Library or works based on it.

10. Each time you redistribute the Library (or any work based on the Library), the recipient automatically receives a license from the original licensor to copy, distribute, link with or modify the Library subject to these terms and conditions. You may not impose any further restrictions on the recipients' exercise of the rights granted herein. You are not responsible for enforcing compliance by third parties with this License.

11. If, as a consequence of a court judgment or allegation of patent infringement or for any other reason (not limited to patent issues), conditions are imposed on you (whether by court order, agreement or otherwise) that contradict the conditions of this License, they do not excuse you from the conditions of this License. If you cannot distribute so as to satisfy simultaneously your obligations under this License and any other pertinent obligations, then as a consequence you may not distribute the Library at all. For example, if a patent license would not permit royalty-free redistribution of the Library by all those who receive copies directly or indirectly through you, then the only way you could satisfy both it and this License would be to refrain entirely from distribution of the Library.

If any portion of this section is held invalid or unenforceable under any particular circumstance, the balance of the section is intended to apply, and the section as a whole is intended to apply in other circumstances.

It is not the purpose of this section to induce you to infringe any patents or other property right claims or to contest validity of any such claims; this section has the sole purpose of protecting the integrity of the free software distribution system which is implemented by public license practices. Many people have made generous contributions to the wide range of software distributed through that system in reliance on consistent application of that system; it is up to the author/donor to decide if he or she is willing to distribute software through any other system and a licensee cannot impose that choice.

This section is intended to make thoroughly clear what is believed to be a consequence of the rest of this License.

12. If the distribution and/or use of the Library is restricted in certain countries either by patents or by copyrighted interfaces, the original copyright holder who places the Library under this License may add an explicit geographical distribution limitation excluding those countries, so that distribution is permitted only in or among countries not thus excluded. In such case, this License incorporates the limitation as if written in the body of this License.

13. The Free Software Foundation may publish revised and/or new versions of the Lesser General Public License from time to time. Such new versions will be similar in

spirit to the present version, but may differ in detail to address new problems or concerns.

Each version is given a distinguishing version number. If the Library specifies a version number of this License which applies to it and "any later version", you have the option of following the terms and conditions either of that version or of any later version published by the Free Software Foundation. If the Library does not specify a license version number, you may choose any version ever published by the Free Software Foundation.

14. If you wish to incorporate parts of the Library into other free programs whose distribution conditions are incompatible with these, write to the author to ask for permission. For software which is copyrighted by the Free Software Foundation, write to the Free Software Foundation; we sometimes make exceptions for this. Our decision will be guided by the two goals of preserving the free status of all derivatives of our free software and of promoting the sharing and reuse of software generally.

NO WARRANTY

15. BECAUSE THE LIBRARY IS LICENSED FREE OF CHARGE, THERE IS NO WARRANTY FOR THE LIBRARY, TO THE EXTENT PERMITTED BY APPLICABLE LAW. EXCEPT WHEN OTHERWISE STATED IN WRITING THE COPYRIGHT HOLDERS AND/OR OTHER PARTIES PROVIDE THE LIBRARY "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. THE ENTIRE RISK AS TO THE QUALITY AND PERFORMANCE OF THE LIBRARY IS WITH YOU. SHOULD THE LIBRARY PROVE DEFECTIVE, YOU ASSUME THE COST OF ALL NECESSARY SERVICING, REPAIR OR CORRECTION.

16. IN NO EVENT UNLESS REQUIRED BY APPLICABLE LAW OR AGREED TO IN WRITING WILL ANY COPYRIGHT HOLDER, OR ANY OTHER PARTY WHO MAY MODIFY AND/OR REDISTRIBUTE THE LIBRARY AS PERMITTED ABOVE, BE LIABLE TO YOU FOR DAMAGES, INCLUDING ANY GENERAL, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES ARISING OUT OF THE USE OR INABILITY TO USE THE LIBRARY (INCLUDING BUT NOT LIMITED TO LOSS OF DATA OR DATA BEING RENDERED INACCURATE OR LOSSES SUSTAINED BY YOU OR THIRD PARTIES OR A FAILURE OF THE LIBRARY TO OPERATE WITH ANY OTHER SOFTWARE), EVEN IF SUCH HOLDER OR OTHER PARTY HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

Additional License(s)

j-interop depends upon gnu crypto project which has GNU's guile license which is interoperable and equivalent to the LGPL, with even more lassitude in that the guile GNU license does not infect any code statically linked with it with its own license.

In terms of cryptography, the j-interop library interacts with Microsoft windows machines with secured DCOM connections, using microsoft's security framework. This project uses an implementation of this security model in Java, with the same key strengths and protocols as for other microsoft interop software such as solaris's SMB/CIFS implementation.

choco-wz-02 169:$ less Guile_License.txt

The Guile License

(http://www.gnu.org/software/guile/docs/docs-1.6/guile-ref/Guile-License.html)

The license of Guile consists of the GNU GPL plus a special statement giving blanket permission to link with non-free software. This is the license statement as found in any individual file that it applies to:

This program is free software; you can redistribute it and/or modify it under the terms of the GNU General Public License as published by the Free Software Foundation; either version 2, or (at your option) any later version.

This program is distributed in the hope that it will be useful, but WITHOUT ANY WARRANTY; without even the implied warranty of MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU General Public License for more details.

You should have received a copy of the GNU General Public License along with this software; see the file COPYING. If not, write to the Free Software Foundation, Inc., 59 Temple Place, Suite 330, Boston, MA 02111-1307 USA

As a special exception, the Free Software Foundation gives permission for additional uses of the text contained in its release of GUILE.

The exception is that, if you link the GUILE library with other files to produce an executable, this does not by itself cause the resulting executable to be covered by the GNU General Public License. Your use of that executable is in no way restricted on account of linking the GUILE library code into it.

This exception does not however invalidate any other reasons why the executable file might be covered by the GNU General Public License.

This exception applies only to the code released by the Free Software Foundation under the name GUILE. If you copy code from other Free Software Foundation releases into a copy of GUILE, as the General Public License permits, the exception does not apply to the code that you add in this way. To avoid misleading any one as to the status of such modified files, you must delete this exception notice from them.

If you write modifications of your own for GUILE, it is your choice whether to permit this exception to apply to your modifications. If you do not wish that, delete this exception notice.

B.4.2 jcifs 1.2.9

Copyright (C) 2000 Michael B. Allen

You are receiving a copy of the (identify the LGPL code_____) in both source and object code in the following JAR (identify the JAR_____). The terms of the Oracle license do NOT apply to the (identify the LGPL code_____) program; it is licensed under the following license, separately from the Oracle programs you receive. If you do not wish to install this program, you may (development to provide brief instruction on how not to install_____ _____).

LGPL Disclaimer

For the avoidance of doubt, except that if any license choice other than GPL or LGPL is available it will apply instead, Sun elects to use only the Lesser General Public License version 2.1 (LGPLv2) at this time for any software where a choice of LGPL license versions is made available with the language indicating that LGPLv2.1 or any later version may be used, or where a choice of which version of the LGPL is applied is otherwise unspecified.

GNU LESSER GENERAL PUBLIC LICENSE

Version 2.1, February 1999

Copyright (C) 1991, 1999 Free Software Foundation, Inc.

59 Temple Place, Suite 330, Boston, MA 02111-1307 USA

Everyone is permitted to copy and distribute verbatim copies of this license document, but changing it is not allowed.

[This is the first released version of the Lesser GPL. It also counts as the successor of the GNU Library Public License, version 2, hence the version number 2.1.]

Preamble

The licenses for most software are designed to take away your freedom to share and change it. By contrast, the GNU General Public Licenses are intended to guarantee your freedom to share and change free software--to make sure the software is free for all its users.

This license, the Lesser General Public License, applies to some specially designated software packages-typically libraries-of the Free Software Foundation and other authors who decide to use it. You can use it too, but we suggest you first think carefully about whether this license or the ordinary General Public License is the better strategy to use in any particular case, based on the explanations below.

When we speak of free software, we are referring to freedom of use, not price. Our General Public Licenses are designed to make sure that you have the freedom to distribute copies of free software (and charge for this service if you wish); that you receive source code or can get it if you want it; that you can change the software and use pieces of it in new free programs; and that you are informed that you can do these things.

To protect your rights, we need to make restrictions that forbid distributors to deny you these rights or to ask you to surrender these rights. These restrictions translate to certain responsibilities for you if you distribute copies of the library or if you modify it.

For example, if you distribute copies of the library, whether gratis or for a fee, you must give the recipients all the rights that we gave you. You must make sure that they, too, receive or can get the source code. If you link other code with the library, you must provide complete object files to the recipients, so that they can relink them with the library after making changes to the library and recompiling it. And you must show them these terms so they know their rights.

We protect your rights with a two-step method: (1) we copyright the library, and (2) we offer you this license, which gives you legal permission to copy, distribute and/or modify the library.

To protect each distributor, we want to make it very clear that there is no warranty for the free library. Also, if the library is modified by someone else and passed on, the recipients should know that what they have is not the original version, so that the original author's reputation will not be affected by problems that might be introduced by others.

Finally, software patents pose a constant threat to the existence of any free program. We wish to make sure that a company cannot effectively restrict the users of a free program by obtaining a restrictive license from a patent holder. Therefore, we insist that any patent license obtained for a version of the library must be consistent with the full freedom of use specified in this license.

Most GNU software, including some libraries, is covered by the ordinary GNU General Public License. This license, the GNU Lesser General Public License, applies

to certain designated libraries, and is quite different from the ordinary General Public License. We use this license for certain libraries in order to permit linking those libraries into non-free programs.

When a program is linked with a library, whether statically or using a shared library, the combination of the two is legally speaking a combined work, a derivative of the original library. The ordinary General Public License therefore permits such linking only if the entire combination fits its criteria of freedom. The Lesser General Public License permits more lax criteria for linking other code with the library.

We call this license the "Lesser" General Public License because it does Less to protect the user's freedom than the ordinary General Public License. It also provides other free software developers Less of an advantage over competing non-free programs. These disadvantages are the reason we use the ordinary General Public License for many libraries. However, the Lesser license provides advantages in certain special circumstances.

For example, on rare occasions, there may be a special need to encourage the widest possible use of a certain library, so that it becomes a de-facto standard. To achieve this, non-free programs must be allowed to use the library. A more frequent case is that a free library does the same job as widely used non-free libraries. In this case, there is little to gain by limiting the free library to free software only, so we use the Lesser General Public License.

In other cases, permission to use a particular library in non-free programs enables a greater number of people to use a large body of free software. For example, permission to use the GNU C Library in non-free programs enables many more people to use the whole GNU operating system, as well as its variant, the GNU/Linux operating system.

Although the Lesser General Public License is Less protective of the users' freedom, it does ensure that the user of a program that is linked with the Library has the freedom and the wherewithal to run that program using a modified version of the Library.

The precise terms and conditions for copying, distribution and modification follow. Pay close attention to the difference between a "work based on the library" and a "work that uses the library". The former contains code derived from the library, whereas the latter must be combined with the library in order to run.

GNU LESSER GENERAL PUBLIC LICENSE

TERMS AND CONDITIONS FOR COPYING, DISTRIBUTION AND MODIFICATION

0. This License Agreement applies to any software library or other program which contains a notice placed by the copyright holder or other authorized party saying it may be distributed under the terms of this Lesser General Public License (also called "this License"). Each licensee is addressed as "you".

A "library" means a collection of software functions and/or data prepared so as to be conveniently linked with application programs (which use some of those functions and data) to form executables.

The "Library", below, refers to any such software library or work which has been distributed under these terms. A "work based on the Library" means either the Library or any derivative work under copyright law: that is to say, a work containing the Library or a portion of it, either verbatim or with modifications and/or translated straightforwardly into another language. (Hereinafter, translation is included without limitation in the term "modification".)

"Source code" for a work means the preferred form of the work for making modifications to it. For a library, complete source code means all the source code for all

modules it contains, plus any associated interface definition files, plus the scripts used to control compilation and installation of the library.

Activities other than copying, distribution and modification are not covered by this License; they are outside its scope. The act of running a program using the Library is not restricted, and output from such a program is covered only if its contents constitute a work based on the Library (independent of the use of the Library in a tool for writing it). Whether that is true depends on what the Library does and what the program that uses the Library does.

1. You may copy and distribute verbatim copies of the Library's complete source code as you receive it, in any medium, provided that you conspicuously and appropriately publish on each copy an appropriate copyright notice and disclaimer of warranty; keep intact all the notices that refer to this License and to the absence of any warranty; and distribute a copy of this License along with the Library.

You may charge a fee for the physical act of transferring a copy, and you may at your option offer warranty protection in exchange for a fee.

2. You may modify your copy or copies of the Library or any portion of it, thus forming a work based on the Library, and copy and distribute such modifications or work under the terms of Section 1 above, provided that you also meet all of these conditions:

a) The modified work must itself be a software library.

b) You must cause the files modified to carry prominent notices stating that you changed the files and the date of any change.

c) You must cause the whole of the work to be licensed at no charge to all third parties under the terms of this License.

d) If a facility in the modified Library refers to a function or a table of data to be supplied by an application program that uses the facility, other than as an argument passed when the facility is invoked, then you must make a good faith effort to ensure that, in the event an application does not supply such function or table, the facility still operates, and performs whatever part of its purpose remains meaningful.

(For example, a function in a library to compute square roots has a purpose that is entirely well-defined independent of the application. Therefore, Subsection 2d requires that any application-supplied function or table used by this function must be optional: if the application does not supply it, the square root function must still compute square roots.)

These requirements apply to the modified work as a whole. If identifiable sections of that work are not derived from the Library, and can be reasonably considered independent and separate works in themselves, then this License, and its terms, do not apply to those sections when you distribute them as separate works. But when you distribute the same sections as part of a whole which is a work based on the Library, the distribution of the whole must be on the terms of this License, whose permissions for other licensees extend to the entire whole, and thus to each and every part regardless of who wrote it.

Thus, it is not the intent of this section to claim rights or contest your rights to work written entirely by you; rather, the intent is to exercise the right to control the distribution of derivative or collective works based on the Library.

In addition, mere aggregation of another work not based on the Library with the Library (or with a work based on the Library) on a volume of a storage or distribution medium does not bring the other work under the scope of this License.

3. You may opt to apply the terms of the ordinary GNU General Public License instead of this License to a given copy of the Library. To do this, you must alter all the notices that refer to this License, so that they refer to the ordinary GNU General Public License, version 2, instead of to this License. (If a newer version than version 2 of the ordinary GNU General Public License has appeared, then you can specify that version instead if you wish.) Do not make any other change in these notices.

Once this change is made in a given copy, it is irreversible for that copy, so the ordinary GNU General Public License applies to all subsequent copies and derivative works made from that copy.

This option is useful when you wish to copy part of the code of the Library into a program that is not a library.

4. You may copy and distribute the Library (or a portion or derivative of it, under Section 2) in object code or executable form under the terms of Sections 1 and 2 above provided that you accompany it with the complete corresponding machine-readable source code, which must be distributed under the terms of Sections 1 and 2 above on a medium customarily used for software interchange.

If distribution of object code is made by offering access to copy from a designated place, then offering equivalent access to copy the source code from the same place satisfies the requirement to distribute the source code, even though third parties are not compelled to copy the source along with the object code.

5. A program that contains no derivative of any portion of the Library, but is designed to work with the Library by being compiled or linked with it, is called a "work that uses the Library". Such a work, in isolation, is not a derivative work of the Library, and therefore falls outside the scope of this License.

However, linking a "work that uses the Library" with the Library creates an executable that is a derivative of the Library (because it contains portions of the Library), rather than a "work that uses the library". The executable is therefore covered by this License. Section 6 states terms for distribution of such executables.

When a "work that uses the Library" uses material from a header file that is part of the Library, the object code for the work may be a derivative work of the Library even though the source code is not. Whether this is true is especially significant if the work can be linked without the Library, or if the work is itself a library. The threshold for this to be true is not precisely defined by law.

If such an object file uses only numerical parameters, data structure layouts and accessors, and small macros and small inline functions (ten lines or less in length), then the use of the object file is unrestricted, regardless of whether it is legally a derivative work. (Executables containing this object code plus portions of the Library will still fall under Section 6.)

Otherwise, if the work is a derivative of the Library, you may distribute the object code for the work under the terms of Section 6. Any executables containing that work also fall under Section 6, whether or not they are linked directly with the Library itself.

6. As an exception to the Sections above, you may also combine or link a "work that uses the Library" with the Library to produce a work containing portions of the Library, and distribute that work under terms of your choice, provided that the terms permit modification of the work for the customer's own use and reverse engineering for debugging such modifications.

You must give prominent notice with each copy of the work that the Library is used in it and that the Library and its use are covered by this License. You must supply a copy of this License. If the work during execution displays copyright notices, you must

include the copyright notice for the Library among them, as well as a reference directing the user to the copy of this License. Also, you must do one of these things:

a) Accompany the work with the complete corresponding machine-readable source code for the Library including whatever changes were used in the work (which must be distributed under Sections 1 and 2 above); and, if the work is an executable linked with the Library, with the complete machine-readable "work that uses the Library", as object code and/or source code, so that the user can modify the Library and then relink to produce a modified executable containing the modified Library. (It is understood that the user who changes the contents of definitions files in the Library will not necessarily be able to recompile the application to use the modified definitions.)

b) Use a suitable shared library mechanism for linking with the Library. A suitable mechanism is one that (1) uses at run time a copy of the library already present on the user's computer system, rather than copying library functions into the executable, and (2) will operate properly with a modified version of the library, if the user installs one, as long as the modified version is interface-compatible with the version that the work was made with.

c) Accompany the work with a written offer, valid for at least three years, to give the same user the materials specified in Subsection 6a, above, for a charge no more than the cost of performing this distribution.

d) If distribution of the work is made by offering access to copy from a designated place, offer equivalent access to copy the above specified materials from the same place.

e) Verify that the user has already received a copy of these materials or that you have already sent this user a copy.

For an executable, the required form of the "work that uses the Library" must include any data and utility programs needed for reproducing the executable from it. However, as a special exception, the materials to be distributed need not include anything that is normally distributed (in either source or binary form) with the major components (compiler, kernel, and so on) of the operating system on which the executable runs, unless that component itself accompanies the executable.

It may happen that this requirement contradicts the license restrictions of other proprietary libraries that do not normally accompany the operating system. Such a contradiction means you cannot use both them and the Library together in an executable that you distribute.

7. You may place library facilities that are a work based on the Library side-by-side in a single library together with other library facilities not covered by this License, and distribute such a combined library, provided that the separate distribution of the work based on the Library and of the other library facilities is otherwise permitted, and provided that you do these two things:

a) Accompany the combined library with a copy of the same work based on the Library, uncombined with any other library facilities. This must be distributed under the terms of the Sections above.

b) Give prominent notice with the combined library of the fact that part of it is a work based on the Library, and explaining where to find the accompanying uncombined form of the same work.

8. You may not copy, modify, sublicense, link with, or distribute the Library except as expressly provided under this License. Any attempt otherwise to copy, modify, sublicense, link with, or distribute the Library is void, and will automatically terminate your rights under this License. However, parties who have received copies,

or rights, from you under this License will not have their licenses terminated so long as such parties remain in full compliance.

9. You are not required to accept this License, since you have not signed it. However, nothing else grants you permission to modify or distribute the Library or its derivative works. These actions are prohibited by law if you do not accept this License. Therefore, by modifying or distributing the Library (or any work based on the Library), you indicate your acceptance of this License to do so, and all its terms and conditions for copying, distributing or modifying the Library or works based on it.

10. Each time you redistribute the Library (or any work based on the Library), the recipient automatically receives a license from the original licensor to copy, distribute, link with or modify the Library subject to these terms and conditions. You may not impose any further restrictions on the recipients' exercise of the rights granted herein. You are not responsible for enforcing compliance by third parties with this License.

11. If, as a consequence of a court judgment or allegation of patent infringement or for any other reason (not limited to patent issues), conditions are imposed on you (whether by court order, agreement or otherwise) that contradict the conditions of this License, they do not excuse you from the conditions of this License. If you cannot distribute so as to satisfy simultaneously your obligations under this License and any other pertinent obligations, then as a consequence you may not distribute the Library at all. For example, if a patent license would not permit royalty-free redistribution of the Library by all those who receive copies directly or indirectly through you, then the only way you could satisfy both it and this License would be to refrain entirely from distribution of the Library.

If any portion of this section is held invalid or unenforceable under any particular circumstance, the balance of the section is intended to apply, and the section as a whole is intended to apply in other circumstances.

It is not the purpose of this section to induce you to infringe any patents or other property right claims or to contest validity of any such claims; this section has the sole purpose of protecting the integrity of the free software distribution system which is implemented by public license practices. Many people have made generous contributions to the wide range of software distributed through that system in reliance on consistent application of that system; it is up to the author/donor to decide if he or she is willing to distribute software through any other system and a licensee cannot impose that choice.

This section is intended to make thoroughly clear what is believed to be a consequence of the rest of this License.

12. If the distribution and/or use of the Library is restricted in certain countries either by patents or by copyrighted interfaces, the original copyright holder who places the Library under this License may add an explicit geographical distribution limitation excluding those countries, so that distribution is permitted only in or among countries not thus excluded. In such case, this License incorporates the limitation as if written in the body of this License.

13. The Free Software Foundation may publish revised and/or new versions of the Lesser General Public License from time to time. Such new versions will be similar in spirit to the present version, but may differ in detail to address new problems or concerns.

Each version is given a distinguishing version number. If the Library specifies a version number of this License which applies to it and "any later version", you have the option of following the terms and conditions either of that version or of any later version published by the Free Software Foundation. If the Library does not specify a

license version number, you may choose any version ever published by the Free Software Foundation.

14. If you wish to incorporate parts of the Library into other free programs whose distribution conditions are incompatible with these, write to the author to ask for permission. For software which is copyrighted by the Free Software Foundation, write to the Free Software Foundation; we sometimes make exceptions for this. Our decision will be guided by the two goals of preserving the free status of all derivatives of our free software and of promoting the sharing and reuse of software generally.

NO WARRANTY

15. BECAUSE THE LIBRARY IS LICENSED FREE OF CHARGE, THERE IS NO WARRANTY FOR THE LIBRARY, TO THE EXTENT PERMITTED BY APPLICABLE LAW. EXCEPT WHEN OTHERWISE STATED IN WRITING THE COPYRIGHT HOLDERS AND/OR OTHER PARTIES PROVIDE THE LIBRARY "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. THE ENTIRE RISK AS TO THE QUALITY AND PERFORMANCE OF THE LIBRARY IS WITH YOU. SHOULD THE LIBRARY PROVE DEFECTIVE, YOU ASSUME THE COST OF ALL NECESSARY SERVICING, REPAIR OR CORRECTION.

16. IN NO EVENT UNLESS REQUIRED BY APPLICABLE LAW OR AGREED TO IN WRITING WILL ANY COPYRIGHT HOLDER, OR ANY OTHER PARTY WHO MAY MODIFY AND/OR REDISTRIBUTE THE LIBRARY AS PERMITTED ABOVE, BE LIABLE TO YOU FOR DAMAGES, INCLUDING ANY GENERAL, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES ARISING OUT OF THE USE OR INABILITY TO USE THE LIBRARY (INCLUDING BUT NOT LIMITED TO LOSS OF DATA OR DATA BEING RENDERED INACCURATE OR LOSSES SUSTAINED BY YOU OR THIRD PARTIES OR A FAILURE OF THE LIBRARY TO OPERATE WITH ANY OTHER SOFTWARE), EVEN IF SUCH HOLDER OR OTHER PARTY HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

END OF TERMS AND CONDITIONS

How to Apply These Terms to Your New Libraries

If you develop a new library, and you want it to be of the greatest possible use to the public, we recommend making it free software that everyone can redistribute and change. You can do so by permitting redistribution under these terms (or, alternatively, under the terms of the ordinary General Public License).

To apply these terms, attach the following notices to the library. It is safest to attach them to the start of each source file to most effectively convey the exclusion of warranty; and each file should have at least the "copyright" line and a pointer to where the full notice is found.

<one line to give the library's name and a brief idea of what it does.>

Copyright (C) <year> <name of author>

This library is free software; you can redistribute it and/or modify it under the terms of the GNU Lesser General Public License as published by the Free Software Foundation; either version 2 of the License, or (at your option) any later version.

This library is distributed in the hope that it will be useful, but WITHOUT ANY WARRANTY; without even the implied warranty of MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU Lesser General Public License for more details.

You should have received a copy of the GNU Lesser General Public License along with this library; if not, write to the Free Software Foundation, Inc., 59 Temple Place, Suite 330, Boston, MA 02111-1307 USA

Also add information on how to contact you by electronic and paper mail.

You should also get your employer (if you work as a programmer) or your school, if any, to sign a "copyright disclaimer" for the library, if necessary. Here is a sample; alter the names:

Yoyodyne, Inc., hereby disclaims all copyright interest in the library `Frob' (a library for tweaking knobs) written by James Random Hacker.

<signature of Ty Coon>, 1 April 1990

Ty Coon, President of Vice

That's all there is to it!

B.4.3 libintl-perl 1.2

Use of any of this software is governed by the terms of the license below:

You are receiving a copy of the (identify the LGPL code_____) as well as any modifications made thereto in both source and object code in the following library file (identify the library file_____). The terms of the Oracle license do NOT apply to the (identify the LGPL code_____) program or any modifications made thereto; it is licensed under the following license, separately from the Oracle programs you receive. If you wish to remove this program, you may (development to provide brief instruction on how to remove_____ ___).

GNU LESSER GENERAL PUBLIC LICENSE

Version 2.1, February 1999

Copyright (C) 1991, 1999 Free Software Foundation, Inc.

59 Temple Place, Suite 330, Boston, MA 02111-1307 USA

Everyone is permitted to copy and distribute verbatim copies of this license document, but changing it is not allowed.

[This is the first released version of the Lesser GPL. It also counts as the successor of the GNU Library Public License, version 2, hence the version number 2.1.]

Preamble

The licenses for most software are designed to take away your freedom to share and change it. By contrast, the GNU General Public Licenses are intended to guarantee your freedom to share and change free software--to make sure the software is free for all its users.

This license, the Lesser General Public License, applies to some specially designated software packages - typically libraries - of the Free Software Foundation and other authors who decide to use it. You can use it too, but we suggest you first think carefully about whether this license or the ordinary General Public License is the better strategy to use in any particular case, based on the explanations below.

When we speak of free software, we are referring to freedom of use, not price. Our General Public Licenses are designed to make sure that you have the freedom to distribute copies of free software (and charge for this service if you wish); that you

receive source code or can get it if you want it; that you can change the software and use pieces of it in new free programs; and that you are informed that you can do these things.

To protect your rights, we need to make restrictions that forbid distributors to deny you these rights or to ask you to surrender these rights. These restrictions translate to certain responsibilities for you if you distribute copies of the library or if you modify it.

For example, if you distribute copies of the library, whether gratis or for a fee, you must give the recipients all the rights that we gave you. You must make sure that they, too, receive or can get the source code. If you link other code with the library, you must provide complete object files to the recipients, so that they can relink them with the library after making changes to the library and recompiling it. And you must show them these terms so they know their rights.

We protect your rights with a two-step method: (1) we copyright the library, and (2) we offer you this license, which gives you legal permission to copy, distribute and/or modify the library.

To protect each distributor, we want to make it very clear that there is no warranty for the free library. Also, if the library is modified by someone else and passed on, the recipients should know that what they have is not the original version, so that the original author's reputation will not be affected by problems that might be introduced by others.

^L

Finally, software patents pose a constant threat to the existence of any free program. We wish to make sure that a company cannot effectively restrict the users of a free program by obtaining a restrictive license from a patent holder. Therefore, we insist that any patent license obtained for a version of the library must be consistent with the full freedom of use specified in this license.

Most GNU software, including some libraries, is covered by the ordinary GNU General Public License. This license, the GNU Lesser General Public License, applies to certain designated libraries, and is quite different from the ordinary General Public License. We use this license for certain libraries in order to permit linking those libraries into non-free programs.

When a program is linked with a library, whether statically or using a shared library, the combination of the two is legally speaking a combined work, a derivative of the original library. The ordinary General Public License therefore permits such linking only if the entire combination fits its criteria of freedom. The Lesser General Public License permits more lax criteria for linking other code with the library.

We call this license the "Lesser" General Public License because it does Less to protect the user's freedom than the ordinary General Public License. It also provides other free software developers Less of an advantage over competing non-free programs. These disadvantages are the reason we use the ordinary General Public License for many libraries. However, the Lesser license provides advantages in certain special circumstances.

For example, on rare occasions, there may be a special need to encourage the widest possible use of a certain library, so that it becomes a de-facto standard. To achieve this, non-free programs must be allowed to use the library. A more frequent case is that a free library does the same job as widely used non-free libraries. In this case, there is little to gain by limiting the free library to free software only, so we use the Lesser General Public License.

In other cases, permission to use a particular library in non-free programs enables a greater number of people to use a large body of free software. For example, permission to use the GNU C Library in non-free programs enables many more people to use the whole GNU operating system, as well as its variant, the GNU/Linux operating system.

Although the Lesser General Public License is Less protective of the users' freedom, it does ensure that the user of a program that is linked with the Library has the freedom and the wherewithal to run that program using a modified version of the Library.

The precise terms and conditions for copying, distribution and modification follow. Pay close attention to the difference between a "work based on the library" and a "work that uses the library". The former contains code derived from the library, whereas the latter must be combined with the library in order to run.

^L

GNU LESSER GENERAL PUBLIC LICENSE

TERMS AND CONDITIONS FOR COPYING, DISTRIBUTION AND MODIFICATION

0. This License Agreement applies to any software library or other program which contains a notice placed by the copyright holder or other authorized party saying it may be distributed under the terms of this Lesser General Public License (also called "this License"). Each licensee is addressed as "you".

A "library" means a collection of software functions and/or data prepared so as to be conveniently linked with application programs (which use some of those functions and data) to form executables.

The "Library", below, refers to any such software library or work which has been distributed under these terms. A "work based on the Library" means either the Library or any derivative work under copyright law: that is to say, a work containing the Library or a portion of it, either verbatim or with modifications and/or translated straightforwardly into another language. (Hereinafter, translation is included without limitation in the term "modification".)

"Source code" for a work means the preferred form of the work for making modifications to it. For a library, complete source code means all the source code for all modules it contains, plus any associated interface definition files, plus the scripts used to control compilation and installation of the library.

Activities other than copying, distribution and modification are not covered by this License; they are outside its scope. The act of running a program using the Library is not restricted, and output from such a program is covered only if its contents constitute a work based on the Library (independent of the use of the Library in a tool for writing it). Whether that is true depends on what the Library does and what the program that uses the Library does.

1. You may copy and distribute verbatim copies of the Library's complete source code as you receive it, in any medium, provided that you conspicuously and appropriately publish on each copy an appropriate copyright notice and disclaimer of warranty; keep intact all the notices that refer to this License and to the absence of any warranty; and distribute a copy of this License along with the Library.

You may charge a fee for the physical act of transferring a copy, and you may at your option offer warranty protection in exchange for a fee.

2. You may modify your copy or copies of the Library or any portion of it, thus forming a work based on the Library, and copy and distribute such modifications or work under the terms of Section 1 above, provided that you also meet all of these conditions:

a) The modified work must itself be a software library.

b) You must cause the files modified to carry prominent notices stating that you changed the files and the date of any change.

c) You must cause the whole of the work to be licensed at no charge to all third parties under the terms of this License.

d) If a facility in the modified Library refers to a function or a table of data to be supplied by an application program that uses the facility, other than as an argument passed when the facility is invoked, then you must make a good faith effort to ensure that, in the event an application does not supply such function or table, the facility still operates, and performs whatever part of its purpose remains meaningful.

(For example, a function in a library to compute square roots has a purpose that is entirely well-defined independent of the application. Therefore, Subsection 2d requires that any application-supplied function or table used by this function must be optional: if the application does not supply it, the square root function must still compute square roots.)

These requirements apply to the modified work as a whole. If identifiable sections of that work are not derived from the Library, and can be reasonably considered independent and separate works in themselves, then this License, and its terms, do not apply to those sections when you distribute them as separate works. But when you distribute the same sections as part of a whole which is a work based on the Library, the distribution of the whole must be on the terms of this License, whose permissions for other licensees extend to the entire whole, and thus to each and every part regardless of who wrote it.

Thus, it is not the intent of this section to claim rights or contest your rights to work written entirely by you; rather, the intent is to exercise the right to control the distribution of derivative or collective works based on the Library.

In addition, mere aggregation of another work not based on the Library with the Library (or with a work based on the Library) on a volume of a storage or distribution medium does not bring the other work under the scope of this License.

3. You may opt to apply the terms of the ordinary GNU General Public License instead of this License to a given copy of the Library. To do this, you must alter all the notices that refer to this License, so that they refer to the ordinary GNU General Public License, version 2, instead of to this License. (If a newer version than version 2 of the ordinary GNU General Public License has appeared, then you can specify that version instead if you wish.) Do not make any other change in these notices.

^L

Once this change is made in a given copy, it is irreversible for that copy, so the ordinary GNU General Public License applies to all subsequent copies and derivative works made from that copy.

This option is useful when you wish to copy part of the code of the Library into a program that is not a library.

4. You may copy and distribute the Library (or a portion or derivative of it, under Section 2) in object code or executable form under the terms of Sections 1 and 2 above provided that you accompany it with the complete corresponding machine-readable source code, which must be distributed under the terms of Sections 1 and 2 above on a medium customarily used for software interchange.

If distribution of object code is made by offering access to copy from a designated place, then offering equivalent access to copy the source code from the same place

satisfies the requirement to distribute the source code, even though third parties are not compelled to copy the source along with the object code.

5. A program that contains no derivative of any portion of the Library, but is designed to work with the Library by being compiled or linked with it, is called a "work that uses the Library". Such a work, in isolation, is not a derivative work of the Library, and therefore falls outside the scope of this License.

However, linking a "work that uses the Library" with the Library creates an executable that is a derivative of the Library (because it contains portions of the Library), rather than a "work that uses the library". The executable is therefore covered by this License. Section 6 states terms for distribution of such executables.

When a "work that uses the Library" uses material from a header file that is part of the Library, the object code for the work may be a derivative work of the Library even though the source code is not. Whether this is true is especially significant if the work can be linked without the Library, or if the work is itself a library. The threshold for this to be true is not precisely defined by law.

If such an object file uses only numerical parameters, data structure layouts and accessors, and small macros and small inline functions (ten lines or less in length), then the use of the object file is unrestricted, regardless of whether it is legally a derivative work. (Executables containing this object code plus portions of the Library will still fall under Section 6.)

Otherwise, if the work is a derivative of the Library, you may distribute the object code for the work under the terms of Section 6. Any executables containing that work also fall under Section 6, whether or not they are linked directly with the Library itself.

^L

6. As an exception to the Sections above, you may also combine or link a "work that uses the Library" with the Library to produce a work containing portions of the Library, and distribute that work under terms of your choice, provided that the terms permit modification of the work for the customer's own use and reverse engineering for debugging such modifications.

You must give prominent notice with each copy of the work that the Library is used in it and that the Library and its use are covered by this License. You must supply a copy of this License. If the work during execution displays copyright notices, you must include the copyright notice for the Library among them, as well as a reference directing the user to the copy of this License. Also, you must do one of these things:

a) Accompany the work with the complete corresponding machine-readable source code for the Library including whatever changes were used in the work (which must be distributed under Sections 1 and 2 above); and, if the work is an executable linked with the Library, with the complete machine-readable "work that uses the Library", as object code and/or source code, so that the user can modify the Library and then relink to produce a modified executable containing the modified Library. (It is understood that the user who changes the contents of definitions files in the Library will not necessarily be able to recompile the application to use the modified definitions.)

b) Use a suitable shared library mechanism for linking with the Library. A suitable mechanism is one that (1) uses at run time a copy of the library already present on the user's computer system, rather than copying library functions into the executable, and (2) will operate properly with a modified version of the library, if the user installs one, as long as the modified version is interface-compatible with the version that the work was made with.

c) Accompany the work with a written offer, valid for at least three years, to give the same user the materials specified in Subsection 6a, above, for a charge no more than the cost of performing this distribution.

d) If distribution of the work is made by offering access to copy from a designated place, offer equivalent access to copy the above specified materials from the same place.

e) Verify that the user has already received a copy of these materials or that you have already sent this user a copy.

For an executable, the required form of the "work that uses the Library" must include any data and utility programs needed for reproducing the executable from it. However, as a special exception, the materials to be distributed need not include anything that is normally distributed (in either source or binary form) with the major components (compiler, kernel, and so on) of the operating system on which the executable runs, unless that component itself accompanies the executable.

It may happen that this requirement contradicts the license restrictions of other proprietary libraries that do not normally accompany the operating system. Such a contradiction means you cannot use both them and the Library together in an executable that you distribute.

^L

7. You may place library facilities that are a work based on the Library side-by-side in a single library together with other library facilities not covered by this License, and distribute such a combined library, provided that the separate distribution of the work based on the Library and of the other library facilities is otherwise permitted, and provided that you do these two things:

a) Accompany the combined library with a copy of the same work based on the Library, uncombined with any other library facilities. This must be distributed under the terms of the Sections above.

b) Give prominent notice with the combined library of the fact that part of it is a work based on the Library, and explaining where to find the accompanying uncombined form of the same work.

8. You may not copy, modify, sublicense, link with, or distribute the Library except as expressly provided under this License. Any attempt otherwise to copy, modify, sublicense, link with, or distribute the Library is void, and will automatically terminate your rights under this License. However, parties who have received copies, or rights, from you under this License will not have their licenses terminated so long as such parties remain in full compliance.

9. You are not required to accept this License, since you have not signed it. However, nothing else grants you permission to modify or distribute the Library or its derivative works. These actions are prohibited by law if you do not accept this License. Therefore, by modifying or distributing the Library (or any work based on the Library), you indicate your acceptance of this License to do so, and all its terms and conditions for copying, distributing or modifying the Library or works based on it.

10. Each time you redistribute the Library (or any work based on the Library), the recipient automatically receives a license from the original licensor to copy, distribute, link with or modify the Library subject to these terms and conditions. You may not impose any further restrictions on the recipients' exercise of the rights granted herein. You are not responsible for enforcing compliance by third parties with this License.

^L

11. If, as a consequence of a court judgment or allegation of patent infringement or for any other reason (not limited to patent issues), conditions are imposed on you (whether by court order, agreement or otherwise) that contradict the conditions of this License, they do not excuse you from the conditions of this License. If you cannot distribute so as to satisfy simultaneously your obligations under this License and any other pertinent obligations, then as a consequence you may not distribute the Library at all. For example, if a patent license would not permit royalty-free redistribution of the Library by all those who receive copies directly or indirectly through you, then the only way you could satisfy both it and this License would be to refrain entirely from distribution of the Library.

If any portion of this section is held invalid or unenforceable under any particular circumstance, the balance of the section is intended to apply, and the section as a whole is intended to apply in other circumstances.

It is not the purpose of this section to induce you to infringe any patents or other property right claims or to contest validity of any such claims; this section has the sole purpose of protecting the integrity of the free software distribution system which is implemented by public license practices. Many people have made generous contributions to the wide range of software distributed through that system in reliance on consistent application of that system; it is up to the author/donor to decide if he or she is willing to distribute software through any other system and a licensee cannot impose that choice.

This section is intended to make thoroughly clear what is believed to be a consequence of the rest of this License.

12. If the distribution and/or use of the Library is restricted in certain countries either by patents or by copyrighted interfaces, the original copyright holder who places the Library under this License may add an explicit geographical distribution limitation excluding those countries, so that distribution is permitted only in or among countries not thus excluded. In such case, this License incorporates the limitation as if written in the body of this License.

13. The Free Software Foundation may publish revised and/or new versions of the Lesser General Public License from time to time. Such new versions will be similar in spirit to the present version, but may differ in detail to address new problems or concerns.

Each version is given a distinguishing version number. If the Library specifies a version number of this License which applies to it and "any later version", you have the option of following the terms and conditions either of that version or of any later version published by the Free Software Foundation. If the Library does not specify a license version number, you may choose any version ever published by the Free Software Foundation.

^L

14. If you wish to incorporate parts of the Library into other free programs whose distribution conditions are incompatible with these, write to the author to ask for permission. For software which is copyrighted by the Free Software Foundation, write to the Free Software Foundation; we sometimes make exceptions for this. Our decision will be guided by the two goals of preserving the free status of all derivatives of our free software and of promoting the sharing and reuse of software generally.

NO WARRANTY

15. BECAUSE THE LIBRARY IS LICENSED FREE OF CHARGE, THERE IS NO WARRANTY FOR THE LIBRARY, TO THE EXTENT PERMITTED BY APPLICABLE LAW. EXCEPT WHEN OTHERWISE STATED IN WRITING THE COPYRIGHT

HOLDERS AND/OR OTHER PARTIES PROVIDE THE LIBRARY "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. THE ENTIRE RISK AS TO THE QUALITY AND PERFORMANCE OF THE LIBRARY IS WITH YOU. SHOULD THE LIBRARY PROVE DEFECTIVE, YOU ASSUME THE COST OF ALL NECESSARY SERVICING, REPAIR OR CORRECTION.

16. IN NO EVENT UNLESS REQUIRED BY APPLICABLE LAW OR AGREED TO IN WRITING WILL ANY COPYRIGHT HOLDER, OR ANY OTHER PARTY WHO MAY MODIFY AND/OR REDISTRIBUTE THE LIBRARY AS PERMITTED ABOVE, BE LIABLE TO YOU FOR DAMAGES, INCLUDING ANY GENERAL, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES ARISING OUT OF THE USE OR INABILITY TO USE THE LIBRARY (INCLUDING BUT NOT LIMITED TO LOSS OF DATA OR DATA BEING RENDERED INACCURATE OR LOSSES SUSTAINED BY YOU OR THIRD PARTIES OR A FAILURE OF THE LIBRARY TO OPERATE WITH ANY OTHER SOFTWARE), EVEN IF SUCH HOLDER OR OTHER PARTY HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

END OF TERMS AND CONDITIONS

^L

How to Apply These Terms to Your New Libraries

If you develop a new library, and you want it to be of the greatest possible use to the public, we recommend making it free software that everyone can redistribute and change. You can do so by permitting redistribution under these terms (or, alternatively, under the terms of the ordinary General Public License).

To apply these terms, attach the following notices to the library. It is safest to attach them to the start of each source file to most effectively convey the exclusion of warranty; and each file should have at least the "copyright" line and a pointer to where the full notice is found.

Copyright (C)

This library is free software; you can redistribute it and/or modify it under the terms of the GNU Lesser General Public License as published by the Free Software Foundation; either version 2 of the License, or (at your option) any later version.

This library is distributed in the hope that it will be useful, but WITHOUT ANY WARRANTY; without even the implied warranty of MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU Lesser General Public License for more details.

You should have received a copy of the GNU Lesser General Public License along with this library; if not, write to the Free Software Foundation, Inc., 59 Temple Place, Suite 330, Boston, MA 02111-1307 USA

Also add information on how to contact you by electronic and paper mail.

You should also get your employer (if you work as a programmer) or your school, if any, to sign a "copyright disclaimer" for the library, if necessary. Here is a sample; alter the names:

Yoyodyne, Inc., hereby disclaims all copyright interest in the library `Frob' (a library for tweaking knobs) written by James Random Hacker.

, 1 April 1990

Ty Coon, President of Vice

B.4.4 rpm 4.1

You are receiving a copy of the (identify the Library GPL code_____ [e.g., lib subdireto of RPM 4.1]) as well as any modifications made thereto in both source and object code in the following shared library (identify the shared library_____). The terms of the Oracle license do NOT apply to the (identify the Library GPL code_ _____[e.g., lib subdirectory of RPM 4.1]) program or any modifications made thereto; it is licensed under the following license, separately from the Oracle programs you receive. If you wish to remove this program, you may (development to provide brief instruction on how to remove_____).

GNU LIBRARY GENERAL PUBLIC LICENSE

Version 2, June 1991

 Copyright (C) 1991 Free Software Foundation, Inc.

51 Franklin Street, Fifth Floor, Boston, MA 02110-1301 USA

Everyone is permitted to copy and distribute verbatim copies of this license document, but changing it is not allowed.

[This is the first released version of the library GPL. It is numbered 2 because it goes with version 2 of the ordinary GPL.]

Preamble

The licenses for most software are designed to take away your freedom to share and change it. By contrast, the GNU General Public Licenses are intended to guarantee your freedom to share and change free software--to make sure the software is free for all its users.

This license, the Library General Public License, applies to some specially designated Free Software Foundation software, and to any other libraries whose authors decide to use it. You can use it for your libraries, too.

When we speak of free software, we are referring to freedom, not price. Our General Public Licenses are designed to make sure that you have the freedom to distribute copies of free software (and charge for this service if you wish), that you receive source code or can get it if you want it, that you can change the software or use pieces of it in new free programs; and that you know you can do these things.

To protect your rights, we need to make restrictions that forbid anyone to deny you these rights or to ask you to surrender the rights. These restrictions translate to certain responsibilities for you if you distribute copies of the library, or if you modify it.

For example, if you distribute copies of the library, whether gratis or for a fee, you must give the recipients all the rights that we gave you. You must make sure that they, too, receive or can get the source code. If you link a program with the library, you must provide complete object files to the recipients so that they can relink them with the library, after making changes to the library and recompiling it. And you must show them these terms so they know their rights.

Our method of protecting your rights has two steps: (1) copyright the library, and (2) offer you this license which gives you legal permission to copy, distribute and/or modify the library.

Also, for each distributor's protection, we want to make certain that everyone understands that there is no warranty for this free library. If the library is modified by someone else and passed on, we want its recipients to know that what they have is not

the original version, so that any problems introduced by others will not reflect on the original authors' reputations.

Finally, any free program is threatened constantly by software patents. We wish to avoid the danger that companies distributing free software will individually obtain patent licenses, thus in effect transforming the program into proprietary software. To prevent this, we have made it clear that any patent must be licensed for everyone's free use or not licensed at all.

Most GNU software, including some libraries, is covered by the ordinary GNU General Public License, which was designed for utility programs. This license, the GNU Library General Public License, applies to certain designated libraries. This license is quite different from the ordinary one; be sure to read it in full, and don't assume that anything in it is the same as in the ordinary license.

The reason we have a separate public license for some libraries is that they blur the distinction we usually make between modifying or adding to a program and simply using it. Linking a program with a library, without changing the library, is in some sense simply using the library, and is analogous to running a utility program or application program. However, in a textual and legal sense, the linked executable is a combined work, a derivative of the original library, and the ordinary General Public License treats it as such.

Because of this blurred distinction, using the ordinary General Public License for libraries did not effectively promote software sharing, because most developers did not use the libraries. We concluded that weaker conditions might promote sharing better.

However, unrestricted linking of non-free programs would deprive the users of those programs of all benefit from the free status of the libraries themselves. This Library General Public License is intended to permit developers of non-free programs to use free libraries, while preserving your freedom as a user of such programs to change the free libraries that are incorporated in them. (We have not seen how to achieve this as regards changes in header files, but we have achieved it as regards changes in the actual functions of the Library.) The hope is that this will lead to faster development of free libraries.

The precise terms and conditions for copying, distribution and modification follow. Pay close attention to the difference between a "work based on the library" and a "work that uses the library". The former contains code derived from the library, while the latter only works together with the library.

Note that it is possible for a library to be covered by the ordinary General Public License rather than by this special one.

GNU LIBRARY GENERAL PUBLIC LICENSE

TERMS AND CONDITIONS FOR COPYING, DISTRIBUTION AND MODIFICATION

0. This License Agreement applies to any software library which contains a notice placed by the copyright holder or other authorized party saying it may be distributed under the terms of this Library General Public License (also called "this License"). Each licensee is addressed as "you".

A "library" means a collection of software functions and/or data prepared so as to be conveniently linked with application programs (which use some of those functions and data) to form executables.

The "Library", below, refers to any such software library or work which has been distributed under these terms. A "work based on the Library" means either the Library or any derivative work under copyright law: that is to say, a work containing

the Library or a portion of it, either verbatim or with modifications and/or translated straightforwardly into another language. (Hereinafter, translation is included without limitation in the term "modification".)

"Source code" for a work means the preferred form of the work for making modifications to it. For a library, complete source code means all the source code for all modules it contains, plus any associated interface definition files, plus the scripts used to control compilation and installation of the library.

Activities other than copying, distribution and modification are not covered by this License; they are outside its scope. The act of running a program using the Library is not restricted, and output from such a program is covered only if its contents constitute a work based on the Library (independent of the use of the Library in a tool for writing it). Whether that is true depends on what the Library does and what the program that uses the Library does.

1. You may copy and distribute verbatim copies of the Library's complete source code as you receive it, in any medium, provided that you conspicuously and appropriately publish on each copy an appropriate copyright notice and disclaimer of warranty; keep intact all the notices that refer to this License and to the absence of any warranty; and distribute a copy of this License along with the Library.

You may charge a fee for the physical act of transferring a copy, and you may at your option offer warranty protection in exchange for a fee.

2. You may modify your copy or copies of the Library or any portion of it, thus forming a work based on the Library, and copy and distribute such modifications or work under the terms of Section 1 above, provided that you also meet all of these conditions:

a) The modified work must itself be a software library.

b) You must cause the files modified to carry prominent notices stating that you changed the files and the date of any change.

c) You must cause the whole of the work to be licensed at no charge to all third parties under the terms of this License.

d) If a facility in the modified Library refers to a function or a table of data to be supplied by an application program that uses the facility, other than as an argument passed when the facility is invoked, then you must make a good faith effort to ensure that, in the event an application does not supply such function or table, the facility still operates, and performs whatever part of its purpose remains meaningful.

(For example, a function in a library to compute square roots has a purpose that is entirely well-defined independent of the application. Therefore, Subsection 2d requires that any application-supplied function or table used by this function must be optional: if the application does not supply it, the square root function must still compute square roots.)

These requirements apply to the modified work as a whole. If identifiable sections of that work are not derived from the Library, and can be reasonably considered independent and separate works in themselves, then this License, and its terms, do not apply to those sections when you distribute them as separate works. But when you distribute the same sections as part of a whole which is a work based on the Library, the distribution of the whole must be on the terms of this License, whose permissions for other licensees extend to the entire whole, and thus to each and every part regardless of who wrote it.

Thus, it is not the intent of this section to claim rights or contest your rights to work written entirely by you; rather, the intent is to exercise the right to control the distribution of derivative or collective works based on the Library.

In addition, mere aggregation of another work not based on the Library with the Library (or with a work based on the Library) on a volume of a storage or distribution medium does not bring the other work under the scope of this License.

3. You may opt to apply the terms of the ordinary GNU General Public License instead of this License to a given copy of the Library. To do this, you must alter all the notices that refer to this License, so that they refer to the ordinary GNU General Public License, version 2, instead of to this License. (If a newer version than version 2 of the ordinary GNU General Public License has appeared, then you can specify that version instead if you wish.) Do not make any other change in these notices.

Once this change is made in a given copy, it is irreversible for that copy, so the ordinary GNU General Public License applies to all subsequent copies and derivative works made from that copy.

This option is useful when you wish to copy part of the code of the Library into a program that is not a library.

4. You may copy and distribute the Library (or a portion or derivative of it, under Section 2) in object code or executable form under the terms of Sections 1 and 2 above provided that you accompany it with the complete corresponding machine-readable source code, which must be distributed under the terms of Sections 1 and 2 above on a medium customarily used for software interchange.

If distribution of object code is made by offering access to copy from a designated place, then offering equivalent access to copy the source code from the same place satisfies the requirement to distribute the source code, even though third parties are not compelled to copy the source along with the object code.

5. A program that contains no derivative of any portion of the Library, but is designed to work with the Library by being compiled or linked with it, is called a "work that uses the Library". Such a work, in isolation, is not a derivative work of the Library, and therefore falls outside the scope of this License.

However, linking a "work that uses the Library" with the Library creates an executable that is a derivative of the Library (because it contains portions of the Library), rather than a "work that uses the library". The executable is therefore covered by this License. Section 6 states terms for distribution of such executables.

When a "work that uses the Library" uses material from a header file that is part of the Library, the object code for the work may be a derivative work of the Library even though the source code is not. Whether this is true is especially significant if the work can be linked without the Library, or if the work is itself a library. The threshold for this to be true is not precisely defined by law.

If such an object file uses only numerical parameters, data structure layouts and accessors, and small macros and small inline functions (ten lines or less in length), then the use of the object file is unrestricted, regardless of whether it is legally a derivative work. (Executables containing this object code plus portions of the Library will still fall under Section 6.)

Otherwise, if the work is a derivative of the Library, you may distribute the object code for the work under the terms of Section 6. Any executables containing that work also fall under Section 6, whether or not they are linked directly with the Library itself.

6. As an exception to the Sections above, you may also compile or link a "work that uses the Library" with the Library to produce a work containing portions of the

Library, and distribute that work under terms of your choice, provided that the terms permit modification of the work for the customer's own use and reverse engineering for debugging such modifications.

You must give prominent notice with each copy of the work that the Library is used in it and that the Library and its use are covered by this License. You must supply a copy of this License. If the work during execution displays copyright notices, you must include the copyright notice for the Library among them, as well as a reference directing the user to the copy of this License. Also, you must do one of these things:

a) Accompany the work with the complete corresponding machine-readable source code for the Library including whatever changes were used in the work (which must be distributed under Sections 1 and 2 above); and, if the work is an executable linked with the Library, with the complete machine-readable "work that uses the Library", as object code and/or source code, so that the user can modify the Library and then relink to produce a modified executable containing the modified Library. (It is understood that the user who changes the contents of definitions files in the Library will not necessarily be able to recompile the application to use the modified definitions.)

b) Accompany the work with a written offer, valid for at least three years, to give the same user the materials specified in Subsection 6a, above, for a charge no more than the cost of performing this distribution.

c) If distribution of the work is made by offering access to copy from a designated place, offer equivalent access to copy the above specified materials from the same place.

d) Verify that the user has already received a copy of these materials or that you have already sent this user a copy.

For an executable, the required form of the "work that uses the Library" must include any data and utility programs needed for reproducing the executable from it. However, as a special exception, the source code distributed need not include anything that is normally distributed (in either source or binary form) with the major components (compiler, kernel, and so on) of the operating system on which the executable runs, unless that component itself accompanies the executable.

It may happen that this requirement contradicts the license restrictions of other proprietary libraries that do not normally accompany the operating system. Such a contradiction means you cannot use both them and the Library together in an executable that you distribute.

7. You may place library facilities that are a work based on the Library side-by-side in a single library together with other library facilities not covered by this License, and distribute such a combined library, provided that the separate distribution of the work based on the Library and of the other library facilities is otherwise permitted, and provided that you do these two things:

a) Accompany the combined library with a copy of the same work based on the Library, uncombined with any other library facilities. This must be distributed under the terms of the Sections above.

b) Give prominent notice with the combined library of the fact that part of it is a work based on the Library, and explaining where to find the accompanying uncombined form of the same work.

8. You may not copy, modify, sublicense, link with, or distribute the Library except as expressly provided under this License. Any attempt otherwise to copy, modify, sublicense, link with, or distribute the Library is void, and will automatically terminate your rights under this License. However, parties who have received copies,

or rights, from you under this License will not have their licenses terminated so long as such parties remain in full compliance.

9. You are not required to accept this License, since you have not signed it. However, nothing else grants you permission to modify or distribute the Library or its derivative works. These actions are prohibited by law if you do not accept this License. Therefore, by modifying or distributing the Library (or any work based on the Library), you indicate your acceptance of this License to do so, and all its terms and conditions for copying, distributing or modifying the Library or works based on it.

10. Each time you redistribute the Library (or any work based on the Library), the recipient automatically receives a license from the original licensor to copy, distribute, link with or modify the Library subject to these terms and conditions. You may not impose any further restrictions on the recipients' exercise of the rights granted herein. You are not responsible for enforcing compliance by third parties to this License.

11. If, as a consequence of a court judgment or allegation of patent infringement or for any other reason (not limited to patent issues), conditions are imposed on you (whether by court order, agreement or otherwise) that contradict the conditions of this License, they do not excuse you from the conditions of this License. If you cannot distribute so as to satisfy simultaneously your obligations under this License and any other pertinent obligations, then as a consequence you may not distribute the Library at all. For example, if a patent license would not permit royalty-free redistribution of the Library by all those who receive copies directly or indirectly through you, then the only way you could satisfy both it and this License would be to refrain entirely from distribution of the Library.

If any portion of this section is held invalid or unenforceable under any particular circumstance, the balance of the section is intended to apply, and the section as a whole is intended to apply in other circumstances.

It is not the purpose of this section to induce you to infringe any patents or other property right claims or to contest validity of any such claims; this section has the sole purpose of protecting the integrity of the free software distribution system which is implemented by public license practices. Many people have made generous contributions to the wide range of software distributed through that system in reliance on consistent application of that system; it is up to the author/donor to decide if he or she is willing to distribute software through any other system and a licensee cannot impose that choice.

This section is intended to make thoroughly clear what is believed to be a consequence of the rest of this License.

12. If the distribution and/or use of the Library is restricted in certain countries either by patents or by copyrighted interfaces, the original copyright holder who places the Library under this License may add an explicit geographical distribution limitation excluding those countries, so that distribution is permitted only in or among countries not thus excluded. In such case, this License incorporates the limitation as if written in the body of this License.

13. The Free Software Foundation may publish revised and/or new versions of the Library General Public License from time to time. Such new versions will be similar in spirit to the present version, but may differ in detail to address new problems or concerns.

Each version is given a distinguishing version number. If the Library specifies a version number of this License which applies to it and "any later version", you have the option of following the terms and conditions either of that version or of any later version published by the Free Software Foundation. If the Library does not specify a

license version number, you may choose any version ever published by the Free Software Foundation.

14. If you wish to incorporate parts of the Library into other free programs whose distribution conditions are incompatible with these, write to the author to ask for permission. For software which is copyrighted by the Free Software Foundation, write to the Free Software Foundation; we sometimes make exceptions for this. Our decision will be guided by the two goals of preserving the free status of all derivatives of our free software and of promoting the sharing and reuse of software generally.

NO WARRANTY

15. BECAUSE THE LIBRARY IS LICENSED FREE OF CHARGE, THERE IS NO WARRANTY FOR THE LIBRARY, TO THE EXTENT PERMITTED BY APPLICABLE LAW.

EXCEPT WHEN OTHERWISE STATED IN WRITING THE COPYRIGHT HOLDERS AND/OR OTHER PARTIES PROVIDE THE LIBRARY "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. THE ENTIRE RISK AS TO THE QUALITY AND PERFORMANCE OF THE LIBRARY IS WITH YOU. SHOULD THE LIBRARY PROVE DEFECTIVE, YOU ASSUME THE COST OF ALL NECESSARY SERVICING, REPAIR OR CORRECTION.

16. IN NO EVENT UNLESS REQUIRED BY APPLICABLE LAW OR AGREED TO IN WRITING WILL ANY COPYRIGHT HOLDER, OR ANY OTHER PARTY WHO MAY MODIFY AND/OR REDISTRIBUTE THE LIBRARY AS PERMITTED ABOVE, BE LIABLE TO YOU FOR DAMAGES, INCLUDING ANY GENERAL, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES ARISING OUT OF THE USE OR INABILITY TO USE THE LIBRARY (INCLUDING BUT NOT LIMITED TO LOSS OF DATA OR DATA BEING RENDERED INACCURATE OR LOSSES SUSTAINED BY YOU OR THIRD PARTIES OR A FAILURE OF THE LIBRARY TO OPERATE WITH ANY OTHER SOFTWARE), EVEN IF SUCH HOLDER OR OTHER PARTY HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

END OF TERMS AND CONDITIONS

How to Apply These Terms to Your New Libraries

If you develop a new library, and you want it to be of the greatest possible use to the public, we recommend making it free software that everyone can redistribute and change. You can do so by permitting redistribution under these terms (or, alternatively, under the terms of the ordinary General Public License).

To apply these terms, attach the following notices to the library. It is safest to attach them to the start of each source file to most effectively convey the exclusion of warranty; and each file should have at least the "copyright" line and a pointer to where the full notice is found.

<one line to give the library's name and a brief idea of what it does.>

Copyright (C) <year> <name of author>

This library is free software; you can redistribute it and/or modify it under the terms of the GNU Library General Public License as published by the Free Software Foundation; either version 2 of the License, or (at your option) any later version.

This library is distributed in the hope that it will be useful, but WITHOUT ANY WARRANTY; without even the implied warranty of MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU Library General Public License for more details.

You should have received a copy of the GNU Library General Public License along with this library; if not, write to the Free Software Foundation, Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301 USA

Also add information on how to contact you by electronic and paper mail.

You should also get your employer (if you work as a programmer) or your school, if any, to sign a "copyright disclaimer" for the library, if necessary. Here is a sample; alter the names:

Yoyodyne, Inc., hereby disclaims all copyright interest in the library `Frob' (a library for tweaking knobs) written by James Random Hacker.

<signature of Ty Coon>, 1 April 1990

Ty Coon, President of Vice

That's all there is to it!

B.4.5 Sarissa 0.9.6.1

"You are receiving a copy of the (identify the LGPL code_____) as well as any modifications made thereto in both source and object code in the following JAR (identify the JAR_____). The terms of the Oracle license do NOT apply to the (identify the LGPL code_____) program or any modifications made thereto; it is licensed under the following license, separately from the Oracle programs you receive. If you do not wish to install this program, you may (development to provide brief instruction on how not to install_____).

GNU LESSER GENERAL PUBLIC LICENSE

Version 2.1, February 1999

Copyright (C) 1991, 1999 Free Software Foundation, Inc.

59 Temple Place, Suite 330, Boston, MA 02111-1307 USA

Everyone is permitted to copy and distribute verbatim copies of this license document, but changing it is not allowed.

[This is the first released version of the Lesser GPL. It also counts as the successor of the GNU Library Public License, version 2, hence the version number 2.1.]

Preamble

The licenses for most software are designed to take away your freedom to share and change it. By contrast, the GNU General Public Licenses are intended to guarantee your freedom to share and change free software--to make sure the software is free for all its users.

This license, the Lesser General Public License, applies to some specially designated software packages - typically libraries - of the Free Software Foundation and other authors who decide to use it. You can use it too, but we suggest you first think carefully about whether this license or the ordinary General Public License is the better strategy to use in any particular case, based on the explanations below.

When we speak of free software, we are referring to freedom of use, not price. Our General Public Licenses are designed to make sure that you have the freedom to distribute copies of free software (and charge for this service if you wish); that you receive source code or can get it if you want it; that you can change the software and use pieces of it in new free programs; and that you are informed that you can do these things.

To protect your rights, we need to make restrictions that forbid distributors to deny you these rights or to ask you to surrender these rights. These restrictions translate to certain responsibilities for you if you distribute copies of the library or if you modify it.

For example, if you distribute copies of the library, whether gratis or for a fee, you must give the recipients all the rights that we gave you. You must make sure that they, too, receive or can get the source code. If you link other code with the library, you must provide complete object files to the recipients, so that they can relink them with the library after making changes to the library and recompiling it. And you must show them these terms so they know their rights.

We protect your rights with a two-step method: (1) we copyright the library, and (2) we offer you this license, which gives you legal permission to copy, distribute and/or modify the library.

To protect each distributor, we want to make it very clear that there is no warranty for the free library. Also, if the library is modified by someone else and passed on, the recipients should know that what they have is not the original version, so that the original author's reputation will not be affected by problems that might be introduced by others.

Finally, software patents pose a constant threat to the existence of any free program. We wish to make sure that a company cannot effectively restrict the users of a free program by obtaining a restrictive license from a patent holder. Therefore, we insist that any patent license obtained for a version of the library must be consistent with the full freedom of use specified in this license.

Most GNU software, including some libraries, is covered by the ordinary GNU General Public License. This license, the GNU Lesser General Public License, applies to certain designated libraries, and is quite different from the ordinary General Public License. We use this license for certain libraries in order to permit linking those libraries into non-free programs.

When a program is linked with a library, whether statically or using a shared library, the combination of the two is legally speaking a combined work, a derivative of the original library. The ordinary General Public License therefore permits such linking only if the entire combination fits its criteria of freedom. The Lesser General Public License permits more lax criteria for linking other code with the library.

We call this license the "Lesser" General Public License because it does Less to protect the user's freedom than the ordinary General Public License. It also provides other free software developers Less of an advantage over competing non-free programs. These disadvantages are the reason we use the ordinary General Public License for many libraries. However, the Lesser license provides advantages in certain special circumstances.

For example, on rare occasions, there may be a special need to encourage the widest possible use of a certain library, so that it becomes a de-facto standard. To achieve this, non-free programs must be allowed to use the library. A more frequent case is that a free library does the same job as widely used non-free libraries. In this case, there is little to gain by limiting the free library to free software only, so we use the Lesser General Public License.

In other cases, permission to use a particular library in non-free programs enables a greater number of people to use a large body of free software. For example, permission to use the GNU C Library in non-free programs enables many more people to use the whole GNU operating system, as well as its variant, the GNU/Linux operating system.

Although the Lesser General Public License is Less protective of the users' freedom, it does ensure that the user of a program that is linked with the Library has the freedom and the wherewithal to run that program using a modified version of the Library.

The precise terms and conditions for copying, distribution and modification follow. Pay close attention to the difference between a "work based on the library" and a "work that uses the library". The former contains code derived from the library, whereas the latter must be combined with the library in order to run.

GNU LESSER GENERAL PUBLIC LICENSE

TERMS AND CONDITIONS FOR COPYING, DISTRIBUTION AND MODIFICATION

0. This License Agreement applies to any software library or other program which contains a notice placed by the copyright holder or other authorized party saying it may be distributed under the terms of this Lesser General Public License (also called "this License"). Each licensee is addressed as "you".

A "library" means a collection of software functions and/or data prepared so as to be conveniently linked with application programs (which use some of those functions and data) to form executables.

The "Library", below, refers to any such software library or work which has been distributed under these terms. A "work based on the Library" means either the Library or any derivative work under copyright law: that is to say, a work containing the Library or a portion of it, either verbatim or with modifications and/or translated straightforwardly into another language. (Hereinafter, translation is included without limitation in the term "modification".)

"Source code" for a work means the preferred form of the work for making modifications to it. For a library, complete source code means all the source code for all modules it contains, plus any associated interface definition files, plus the scripts used to control compilation and installation of the library.

Activities other than copying, distribution and modification are not covered by this License; they are outside its scope. The act of running a program using the Library is not restricted, and output from such a program is covered only if its contents constitute a work based on the Library (independent of the use of the Library in a tool for writing it). Whether that is true depends on what the Library does and what the program that uses the Library does.

1. You may copy and distribute verbatim copies of the Library's complete source code as you receive it, in any medium, provided that you conspicuously and appropriately publish on each copy an appropriate copyright notice and disclaimer of warranty; keep intact all the notices that refer to this License and to the absence of any warranty; and distribute a copy of this License along with the Library.

    You may charge a fee for the physical act of transferring a copy, and you may at your option offer warranty protection in exchange for a fee.

2. You may modify your copy or copies of the Library or any portion of it, thus forming a work based on the Library, and copy and distribute such modifications or work under the terms of Section 1 above, provided that you also meet all of these conditions:

    a. The modified work must itself be a software library.

    b. You must cause the files modified to carry prominent notices stating that you changed the files and the date of any change.

c. You must cause the whole of the work to be licensed at no charge to all third parties under the terms of this License.

d. If a facility in the modified Library refers to a function or a table of data to be supplied by an application program that uses the facility, other than as an argument passed when the facility is invoked, then you must make a good faith effort to ensure that, in the event an application does not supply such function or table, the facility still operates, and performs whatever part of its purpose remains meaningful.

(For example, a function in a library to compute square roots has a purpose that is entirely well-defined independent of the application. Therefore, Subsection 2d requires that any application-supplied function or table used by this function must be optional: if the application does not supply it, the square root function must still compute square roots.)

These requirements apply to the modified work as a whole. If identifiable sections of that work are not derived from the Library, and can be reasonably considered independent and separate works in themselves, then this License, and its terms, do not apply to those sections when you distribute them as separate works. But when you distribute the same sections as part of a whole which is a work based on the Library, the distribution of the whole must be on the terms of this License, whose permissions for other licensees extend to the entire whole, and thus to each and every part regardless of who wrote it.

Thus, it is not the intent of this section to claim rights or contest your rights to work written entirely by you; rather, the intent is to exercise the right to control the distribution of derivative or collective works based on the Library.

In addition, mere aggregation of another work not based on the Library with the Library (or with a work based on the Library) on a volume of a storage or distribution medium does not bring the other work under the scope of this License.

3. You may opt to apply the terms of the ordinary GNU General Public License instead of this License to a given copy of the Library. To do this, you must alter all the notices that refer to this License, so that they refer to the ordinary GNU General Public License, version 2, instead of to this License. (If a newer version than version 2 of the ordinary GNU General Public License has appeared, then you can specify that version instead if you wish.) Do not make any other change in these notices.

Once this change is made in a given copy, it is irreversible for that copy, so the ordinary GNU General Public License applies to all subsequent copies and derivative works made from that copy.

This option is useful when you wish to copy part of the code of the Library into a program that is not a library.

4. You may copy and distribute the Library (or a portion or derivative of it, under Section 2) in object code or executable form under the terms of Sections 1 and 2 above provided that you accompany it with the complete corresponding machine-readable source code, which must be distributed under the terms of Sections 1 and 2 above on a medium customarily used for software interchange.

If distribution of object code is made by offering access to copy from a designated place, then offering equivalent access to copy the source code from the same place satisfies the requirement to distribute the source code, even though third parties are not compelled to copy the source along with the object code.

5. A program that contains no derivative of any portion of the Library, but is designed to work with the Library by being compiled or linked with it, is called a "work that uses the Library". Such a work, in isolation, is not a derivative work of the Library, and therefore falls outside the scope of this License.

However, linking a "work that uses the Library" with the Library creates an executable that is a derivative of the Library (because it contains portions of the Library), rather than a "work that uses the library". The executable is therefore covered by this License. Section 6 states terms for distribution of such executables.

When a "work that uses the Library" uses material from a header file that is part of the Library, the object code for the work may be a derivative work of the Library even though the source code is not. Whether this is true is especially significant if the work can be linked without the Library, or if the work is itself a library. The threshold for this to be true is not precisely defined by law.

If such an object file uses only numerical parameters, data structure layouts and accessors, and small macros and small inline functions (ten lines or less in length), then the use of the object file is unrestricted, regardless of whether it is legally a derivative work. (Executables containing this object code plus portions of the Library will still fall under Section 6.)

Otherwise, if the work is a derivative of the Library, you may distribute the object code for the work under the terms of Section 6. Any executables containing that work also fall under Section 6, whether or not they are linked directly with the Library itself.

6. As an exception to the Sections above, you may also combine or link a "work that uses the Library" with the Library to produce a work containing portions of the Library, and distribute that work under terms of your choice, provided that the terms permit modification of the work for the customer's own use and reverse engineering for debugging such modifications.

You must give prominent notice with each copy of the work that the Library is used in it and that the Library and its use are covered by this License. You must supply a copy of this License. If the work during execution displays copyright notices, you must include the copyright notice for the Library among them, as well as a reference directing the user to the copy of this License. Also, you must do one of these things:

a. Accompany the work with the complete corresponding machine-readable source code for the Library including whatever changes were used in the work (which must be distributed under Sections 1 and 2 above); and, if the work is an executable linked with the Library, with the complete machine-readable "work that uses the Library", as object code and/or source code, so that the user can modify the Library and then relink to produce a modified executable containing the modified Library. (It is understood that the user who changes the contents of definitions files in the Library will not necessarily be able to recompile the application to use the modified definitions.)

b. Use a suitable shared library mechanism for linking with the Library. A suitable mechanism is one that (1) uses at run time a copy of the library already present on the user's computer system, rather than copying library functions into the executable, and (2) will operate properly with a modified version of the library, if the user installs one, as long as the modified version is interface-compatible with the version that the work was made with.

c. Accompany the work with a written offer, valid for at least three years, to give the same user the materials specified in Subsection 6a, above, for a charge no more than the cost of performing this distribution.

d. If distribution of the work is made by offering access to copy from a designated place, offer equivalent access to copy the above specified materials from the same place.

e. Verify that the user has already received a copy of these materials or that you have already sent this user a copy.

For an executable, the required form of the "work that uses the Library" must include any data and utility programs needed for reproducing the executable from it. However, as a special exception, the materials to be distributed need not include anything that is normally distributed (in either source or binary form) with the major components (compiler, kernel, and so on) of the operating system on which the executable runs, unless that component itself accompanies the executable.

It may happen that this requirement contradicts the license restrictions of other proprietary libraries that do not normally accompany the operating system. Such a contradiction means you cannot use both them and the Library together in an executable that you distribute.

7. You may place library facilities that are a work based on the Library side-by-side in a single library together with other library facilities not covered by this License, and distribute such a combined library, provided that the separate distribution of the work based on the Library and of the other library facilities is otherwise permitted, and provided that you do these two things:

a. Accompany the combined library with a copy of the same work based on the Library, uncombined with any other library facilities. This must be distributed under the terms of the Sections above.

b. Give prominent notice with the combined library of the fact that part of it is a work based on the Library, and explaining where to find the accompanying uncombined form of the same work.

8. You may not copy, modify, sublicense, link with, or distribute the Library except as expressly provided under this License. Any attempt otherwise to copy, modify, sublicense, link with, or distribute the Library is void, and will automatically terminate your rights under this License. However, parties who have received copies, or rights, from you under this License will not have their licenses terminated so long as such parties remain in full compliance.

9. You are not required to accept this License, since you have not signed it. However, nothing else grants you permission to modify or distribute the Library or its derivative works. These actions are prohibited by law if you do not accept this License. Therefore, by modifying or distributing the Library (or any work based on the Library), you indicate your acceptance of this License to do so, and all its terms and conditions for copying, distributing or modifying the Library or works based on it.

10. Each time you redistribute the Library (or any work based on the Library), the recipient automatically receives a license from the original licensor to copy, distribute, link with or modify the Library subject to these terms and conditions. You may not impose any further restrictions on the recipients' exercise of the rights granted herein. You are not responsible for enforcing compliance by third parties with this License.

11. If, as a consequence of a court judgment or allegation of patent infringement or for any other reason (not limited to patent issues), conditions are imposed on you (whether by court order, agreement or otherwise) that contradict the conditions of this License, they do not excuse you from the conditions of this License. If you cannot distribute so as to satisfy simultaneously your obligations under this

License and any other pertinent obligations, then as a consequence you may not distribute the Library at all. For example, if a patent license would not permit royalty-free redistribution of the Library by all those who receive copies directly or indirectly through you, then the only way you could satisfy both it and this License would be to refrain entirely from distribution of the Library.

If any portion of this section is held invalid or unenforceable under any particular circumstance, the balance of the section is intended to apply, and the section as a whole is intended to apply in other circumstances.

It is not the purpose of this section to induce you to infringe any patents or other property right claims or to contest validity of any such claims; this section has the sole purpose of protecting the integrity of the free software distribution system which is implemented by public license practices. Many people have made generous contributions to the wide range of software distributed through that system in reliance on consistent application of that system; it is up to the author/donor to decide if he or she is willing to distribute software through any other system and a licensee cannot impose that choice.

This section is intended to make thoroughly clear what is believed to be a consequence of the rest of this License.

12. If the distribution and/or use of the Library is restricted in certain countries either by patents or by copyrighted interfaces, the original copyright holder who places the Library under this License may add an explicit geographical distribution limitation excluding those countries, so that distribution is permitted only in or among countries not thus excluded. In such case, this License incorporates the limitation as if written in the body of this License.

13. The Free Software Foundation may publish revised and/or new versions of the Lesser General Public License from time to time. Such new versions will be similar in spirit to the present version, but may differ in detail to address new problems or concerns.

Each version is given a distinguishing version number. If the Library specifies a version number of this License which applies to it and "any later version", you have the option of following the terms and conditions either of that version or of any later version published by the Free Software Foundation. If the Library does not specify a license version number, you may choose any version ever published by the Free Software Foundation.

14. If you wish to incorporate parts of the Library into other free programs whose distribution conditions are incompatible with these, write to the author to ask for permission. For software which is copyrighted by the Free Software Foundation, write to the Free Software Foundation; we sometimes make exceptions for this. Our decision will be guided by the two goals of preserving the free status of all derivatives of our free software and of promoting the sharing and reuse of software generally.

NO WARRANTY

15. BECAUSE THE LIBRARY IS LICENSED FREE OF CHARGE, THERE IS NO WARRANTY FOR THE LIBRARY, TO THE EXTENT PERMITTED BY APPLICABLE LAW. EXCEPT WHEN OTHERWISE STATED IN WRITING THE COPYRIGHT HOLDERS AND/OR OTHER PARTIES PROVIDE THE LIBRARY "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. THE ENTIRE RISK AS TO THE QUALITY AND PERFORMANCE OF THE LIBRARY

IS WITH YOU. SHOULD THE LIBRARY PROVE DEFECTIVE, YOU ASSUME THE COST OF ALL NECESSARY SERVICING, REPAIR OR CORRECTION.

16. IN NO EVENT UNLESS REQUIRED BY APPLICABLE LAW OR AGREED TO IN WRITING WILL ANY COPYRIGHT HOLDER, OR ANY OTHER PARTY WHO MAY MODIFY AND/OR REDISTRIBUTE THE LIBRARY AS PERMITTED ABOVE, BE LIABLE TO YOU FOR DAMAGES, INCLUDING ANY GENERAL, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES ARISING OUT OF THE USE OR INABILITY TO USE THE LIBRARY (INCLUDING BUT NOT LIMITED TO LOSS OF DATA OR DATA BEING RENDERED INACCURATE OR LOSSES SUSTAINED BY YOU OR THIRD PARTIES OR A FAILURE OF THE LIBRARY TO OPERATE WITH ANY OTHER SOFTWARE), EVEN IF SUCH HOLDER OR OTHER PARTY HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

END OF TERMS AND CONDITIONS

How to Apply These Terms to Your New Libraries

If you develop a new library, and you want it to be of the greatest possible use to the public, we recommend making it free software that everyone can redistribute and change. You can do so by permitting redistribution under these terms (or, alternatively, under the terms of the ordinary General Public License).

To apply these terms, attach the following notices to the library. It is safest to attach them to the start of each source file to most effectively convey the exclusion of warranty; and each file should have at least the "copyright" line and a pointer to where the full notice is found.

Copyright (C)

This library is free software; you can redistribute it and/or modify it under the terms of the GNU Lesser General Public License as published by the Free Software Foundation; either version 2 of the License, or (at your option) any later version.

This library is distributed in the hope that it will be useful, but WITHOUT ANY WARRANTY; without even the implied warranty of MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU Lesser General Public License for more details.

You should have received a copy of the GNU Lesser General Public License along with this library; if not, write to the Free Software Foundation, Inc., 59 Temple Place, Suite 330, Boston, MA 02111-1307 USA

Also add information on how to contact you by electronic and paper mail.

You should also get your employer (if you work as a programmer) or your school, if any, to sign a "copyright disclaimer" for the library, if necessary. Here is a sample; alter the names:

Yoyodyne, Inc., hereby disclaims all copyright interest in the library `Frob' (a library for tweaking knobs) written by James Random Hacker.

1 April 1990

Ty Coon, President of Vice

B.5 Other

B.5.1 Bouncy Castle Crypto API 1.48

Copyright (c) 2000 - 2012 The Legion Of The Bouncy Castle (http://www.bouncycastle.org)

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

B.5.2 com.oreilly.servlet Library Software 1

The source code, object code, and documentation in the com.oreilly.servlet package are licensed by Hunter Digital Ventures, LLC.

B.5.3 cURL 7.37.0

Use of any of this software is governed by the terms of the license below:

COPYRIGHT AND PERMISSION NOTICE

Copyright (c) 1996 - 2009, Daniel Stenberg, <daniel@haxx.se>.

All rights reserved.

Permission to use, copy, modify, and distribute this software for any purpose with or without fee is hereby granted, provided that the above copyright notice and this permission notice appear in all copies.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT OF THIRD PARTY RIGHTS. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

Except as contained in this notice, the name of a copyright holder shall not be used in advertising or otherwise to promote the sale, use or other dealings in this Software without prior written authorization of the copyright holder.

B.5.4 DHCP 3.0pl1

Copyright © 2004-2011 by Internet Systems Consortium, Inc. ("ISC")

Copyright © 1995-2003 by Internet Software Consortium

Permission to use, copy, modify, and/or distribute this software for any purpose with or without fee is hereby granted, provided that the above copyright notice and this permission notice appear in all copies.

THE SOFTWARE IS PROVIDED "AS IS" AND ISC DISCLAIMS ALL WARRANTIES WITH REGARD TO THIS SOFTWARE INCLUDING ALL IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS. IN NO EVENT SHALL ISC BE LIABLE FOR ANY SPECIAL, DIRECT, INDIRECT, OR CONSEQUENTIAL DAMAGES OR ANY DAMAGES WHATSOEVER RESULTING FROM LOSS OF USE, DATA OR PROFITS, WHETHER IN AN ACTION OF CONTRACT, NEGLIGENCE OR OTHER TORTIOUS ACTION, ARISING OUT OF OR IN CONNECTION WITH THE USE OR PERFORMANCE OF THIS SOFTWARE.

B.5.5 Expect 5.39.0

Use of any of this software is governed by the terms of the license below:

Our company policy requires a license to use Expect. Where can we get a license?

Expect (in its various versions) is a work product authored by Federal employees. So, pursuant to 17 USC 105 it is not subject to copyright in the United States and may be freely used by your organization without need for licensing.

B.5.6 EXT JS 3.3

B.5.7 Ext.ux.Livegrid 0.1

This Oracle product includes EXT.UX.LIVEGRID Software licensed from Thorsten Suckow-Homberg which may not be used independently of the Oracle product.

B.5.8 Flot 0.7

Copyright (c) 2007-2009 IOLA and Ole Laursen

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

B.5.9 JQuery 1.5.1

Copyright (c) 2011 John Resig, http://jquery.com/

Permission is hereby granted, free of charge, to any person obtaininga copy of this software and associated documentation files (the"Software"), to deal in the Software without restriction, includingwithout limitation the rights to use, copy, modify, merge, publish,distribute, sublicense, and/or sell copies of the Software, and topermit persons to whom the Software is furnished to do so, subject tothe following conditions:

The above copyright notice and this permission notice shall beincluded in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OFMERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BELIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

B.5.10 JSON 1.5

Copyright (c) 2002 JSON.org

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

The Software shall be used for Good, not Evil.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

B.5.11 Jython 2.5.1

Jython Copyright (c) 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007 Jython Developers. All rights reserved. Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

- Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.

- Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.

- Neither the name of the Jython Developers nor the names of its contributors may be used to endorse or promote products derived from this software without specific prior written permission.

THIS SOFTWARE IS PROVIDED BY THE COPYRIGHT HOLDERS AND CONTRIBUTORS "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE REGENTS OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

B.5.12 libxml2 2.7.8

Copyright (c) xmlsoft

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

B.5.13 Python 2.5.2

Python 2.5 license

This is the official license for the Python 2.5 release:

A. HISTORY OF THE SOFTWARE

==========================

Python was created in the early 1990s by Guido van Rossum at Stichting Mathematisch Centrum (CWI, see http://www.cwi.nl) in the Netherlands as a successor of a language called ABC. Guido remains Python's principal author, although it includes many contributions from others.

In 1995, Guido continued his work on Python at the Corporation for National Research Initiatives (CNRI, see http://www.cnri.reston.va.us) in Reston, Virginia where he released several versions of the software.

In May 2000, Guido and the Python core development team moved to BeOpen.com to form the BeOpen PythonLabs team. In October of the same year, the PythonLabs team

moved to Digital Creations (now Zope Corporation, see http://www.zope.com). In 2001, the Python Software Foundation (PSF, see http://www.python.org/psf/) was formed, a non-profit organization created specifically to own Python-related Intellectual Property. Zope Corporation is a sponsoring member of the PSF.

All Python releases are Open Source (see http://www.opensource.org for the Open Source Definition). Historically, most, but not all, Python releases have also been GPL-compatible; the table below summarizes the various releases.

Release	Derived from	Year	Owner	GPL-compatible? (1)
0.9.0 thru 1.2		1991-1995	CWI	yes
1.3 thru 1.5.2	1.2	1995-1999	CNRI	yes
1.6	1.5.2	2000	CNRI	no
2.0	1.6	2000	BeOpen.com	no
1.6.1	1.6	2001	CNRI	yes (2)
2.1	2.0+1.6.1	2001	PSF	no
2.0.1	2.0+1.6.1	2001	PSF	yes
2.1.1	2.1+2.0.1	2001	PSF	yes
2.2	2.1.1	2001	PSF	yes
2.1.2	2.1.1	2002	PSF	yes
2.1.3	2.1.2	2002	PSF	yes
2.2.1	2.2	2002	PSF	yes
2.2.2	2.2.1	2002	PSF	yes
2.2.3	2.2.2	2003	PSF	yes
2.3	2.2.2	2002-2003	PSF	yes
2.3.1	2.3	2002-2003	PSF	yes
2.3.2	2.3.1	2002-2003	PSF	yes
2.3.3	2.3.2	2002-2003	PSF	yes
2.3.4	2.3.3	2004	PSF	yes
2.3.5	2.3.4	2005	PSF	yes
2.4	2.3	2004	PSF	yes
2.4.1	2.4	2005	PSF	yes
2.4.2	2.4.1	2005	PSF	yes
2.4.3	2.4.2	2006	PSF	yes
2.5	2.4	2006	PSF	yes

Footnotes:

1. GPL-compatible doesn't mean that we're distributing Python under the GPL. All Python licenses, unlike the GPL, let you distribute a modified version without making your changes open source. The GPL-compatible licenses make it possible to combine Python with other software that is released under the GPL; the others don't.

2. According to Richard Stallman, 1.6.1 is not GPL-compatible, because its license has a choice of law clause. According to CNRI, however, Stallman's lawyer has told CNRI's lawyer that 1.6.1 is "not incompatible" with the GPL.

Thanks to the many outside volunteers who have worked under Guido's direction to make these releases possible.

B. TERMS AND CONDITIONS FOR ACCESSING OR OTHERWISE USING PYTHON

```
================================================================
```

PYTHON SOFTWARE FOUNDATION LICENSE VERSION 2

1. This LICENSE AGREEMENT is between the Python Software Foundation ("PSF"), and the Individual or Organization ("Licensee") accessing and otherwise using this software ("Python") in source or binary form and its associated documentation.

2. Subject to the terms and conditions of this License Agreement, PSF hereby grants Licensee a nonexclusive, royalty-free, world-wide license to reproduce, analyze, test, perform and/or display publicly, prepare derivative works, distribute, and otherwise use Python alone or in any derivative version, provided, however, that PSF's License Agreement and PSF's notice of copyright, i.e., "Copyright (c) 2001, 2002, 2003, 2004, 2005, 2006 Python Software Foundation; All Rights Reserved" are retained in Python alone or in any derivative version prepared by Licensee.

3. In the event Licensee prepares a derivative work that is based on or incorporates Python or any part thereof, and wants to make the derivative work available to others as provided herein, then Licensee hereby agrees to include in any such work a brief summary of the changes made to Python.

4. PSF is making Python available to Licensee on an "AS IS" basis. PSF MAKES NO REPRESENTATIONS OR WARRANTIES, EXPRESS OR IMPLIED. BY WAY OF EXAMPLE, BUT NOT LIMITATION, PSF MAKES NO AND DISCLAIMS ANY REPRESENTATION OR WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE OR THAT THE USE OF PYTHON WILL NOT INFRINGE ANY THIRD PARTY RIGHTS.

5. PSF SHALL NOT BE LIABLE TO LICENSEE OR ANY OTHER USERS OF PYTHON FOR ANY INCIDENTAL, SPECIAL, OR CONSEQUENTIAL DAMAGES OR LOSS AS A RESULT OF MODIFYING, DISTRIBUTING, OR OTHERWISE USING PYTHON, OR ANY DERIVATIVE THEREOF, EVEN IF ADVISED OF THE POSSIBILITY THEREOF.

6. This License Agreement will automatically terminate upon a material breach of its terms and conditions.

7. Nothing in this License Agreement shall be deemed to create any relationship of agency, partnership, or joint venture between PSF and Licensee. This License Agreement does not grant permission to use PSF trademarks or trade name in a trademark sense to endorse or promote products or services of Licensee, or any third party.

8. By copying, installing or otherwise using Python, Licensee agrees to be bound by the terms and conditions of this License Agreement.

BEOPEN.COM LICENSE AGREEMENT FOR PYTHON 2.0

BEOPEN PYTHON OPEN SOURCE LICENSE AGREEMENT VERSION 1

1. This LICENSE AGREEMENT is between BeOpen.com ("BeOpen"), having an office at 160 Saratoga Avenue, Santa Clara, CA 95051, and the Individual or Organization ("Licensee") accessing and otherwise using this software in source or binary form and its associated documentation ("the Software").

2. Subject to the terms and conditions of this BeOpen Python License Agreement, BeOpen hereby grants Licensee a non-exclusive, royalty-free, world-wide license to reproduce, analyze, test, perform and/or display publicly, prepare derivative works, distribute, and otherwise use the Software alone or in any derivative version, provided, however, that the BeOpen Python License is retained in the Software, alone or in any derivative version prepared by Licensee.

3. BeOpen is making the Software available to Licensee on an "AS IS" basis. BEOPEN MAKES NO REPRESENTATIONS OR WARRANTIES, EXPRESS OR IMPLIED. BY WAY OF EXAMPLE, BUT NOT LIMITATION, BEOPEN MAKES NO AND DISCLAIMS ANY REPRESENTATION OR WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE OR THAT THE USE OF THE SOFTWARE WILL NOT INFRINGE ANY THIRD PARTY RIGHTS.

4. BEOPEN SHALL NOT BE LIABLE TO LICENSEE OR ANY OTHER USERS OF THE SOFTWARE FOR ANY INCIDENTAL, SPECIAL, OR CONSEQUENTIAL DAMAGES OR LOSS AS A RESULT OF USING, MODIFYING OR DISTRIBUTING THE SOFTWARE, OR ANY DERIVATIVE THEREOF, EVEN IF ADVISED OF THE POSSIBILITY THEREOF.

5. This License Agreement will automatically terminate upon a material breach of its terms and conditions.

6. This License Agreement shall be governed by and interpreted in all respects by the law of the State of California, excluding conflict of law provisions. Nothing in this License Agreement shall be deemed to create any relationship of agency, partnership, or joint venture between BeOpen and Licensee. This License Agreement does not grant permission to use BeOpen trademarks or trade names in a trademark sense to endorse or promote products or services of Licensee, or any third party. As an exception, the "BeOpen Python" logos available at http://www.pythonlabs.com/logos.html may be used according to the permissions granted on that web page.

7. By copying, installing or otherwise using the software, Licensee agrees to be bound by the terms and conditions of this License Agreement.

CNRI LICENSE AGREEMENT FOR PYTHON 1.6.1

1. This LICENSE AGREEMENT is between the Corporation for National Research Initiatives, having an office at 1895 Preston White Drive, Reston, VA 20191 ("CNRI"), and the Individual or Organization ("Licensee") accessing and otherwise using Python 1.6.1 software in source or binary form and its associated documentation.

2. Subject to the terms and conditions of this License Agreement, CNRI hereby grants Licensee a nonexclusive, royalty-free, world-wide license to reproduce, analyze, test, perform and/or display publicly, prepare derivative works, distribute, and otherwise use Python 1.6.1 alone or in any derivative version, provided, however, that CNRI's License Agreement and CNRI's notice of copyright, i.e., "Copyright (c) 1995-2001 Corporation for National Research Initiatives; All Rights Reserved" are retained in Python 1.6.1 alone or in any derivative version prepared by Licensee. Alternately, in lieu of CNRI's License Agreement, Licensee may substitute the following text (omitting the quotes): "Python 1.6.1 is made available subject to the terms and conditions in CNRI's License Agreement. This Agreement together with Python 1.6.1 may be located on the Internet using the following unique, persistent identifier (known as a handle): 1895.22/1013. This Agreement may also be obtained from a proxy server on the Internet using the following URL: http://hdl.handle.net/1895.22/1013".

3. In the event Licensee prepares a derivative work that is based on or incorporates Python 1.6.1 or any part thereof, and wants to make the derivative work available to others as provided herein, then Licensee hereby agrees to include in any such work a brief summary of the changes made to Python 1.6.1.

4. CNRI is making Python 1.6.1 available to Licensee on an "AS IS" basis. CNRI MAKES NO REPRESENTATIONS OR WARRANTIES, EXPRESS OR IMPLIED. BY WAY OF EXAMPLE, BUT NOT LIMITATION, CNRI MAKES NO AND DISCLAIMS ANY REPRESENTATION OR WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE OR THAT THE USE OF PYTHON 1.6.1 WILL NOT INFRINGE ANY THIRD PARTY RIGHTS.

5. CNRI SHALL NOT BE LIABLE TO LICENSEE OR ANY OTHER USERS OF PYTHON 1.6.1 FOR ANY INCIDENTAL, SPECIAL, OR CONSEQUENTIAL

DAMAGES OR LOSS AS A RESULT OF MODIFYING, DISTRIBUTING, OR OTHERWISE USING PYTHON 1.6.1, OR ANY DERIVATIVE THEREOF, EVEN IF ADVISED OF THE POSSIBILITY THEREOF.

6. This License Agreement will automatically terminate upon a material breach of its terms and conditions.

7. This License Agreement shall be governed by the federal intellectual property law of the United States, including without limitation the federal copyright law, and, to the extent such U.S. federal law does not apply, by the law of the Commonwealth of Virginia, excluding Virginia's conflict of law provisions. Notwithstanding the foregoing, with regard to derivative works based on Python 1.6.1 that incorporate non-separable material that was previously distributed under the GNU General Public License (GPL), the law of the Commonwealth of Virginia shall govern this License Agreement only as to issues arising under or with respect to Paragraphs 4, 5, and 7 of this License Agreement. Nothing in this License Agreement shall be deemed to create any relationship of agency, partnership, or joint venture between CNRI and Licensee. This License Agreement does not grant permission to use CNRI trademarks or trade name in a trademark sense to endorse or promote products or services of Licensee, or any third party.

8. By clicking on the "ACCEPT" button where indicated, or by copying, installing or otherwise using Python 1.6.1, Licensee agrees to be bound by the terms and conditions of this License Agreement.

  ACCEPT

CWI LICENSE AGREEMENT FOR PYTHON 0.9.0 THROUGH 1.2

Copyright (c) 1991 - 1995, Stichting Mathematisch Centrum Amsterdam, The Netherlands. All rights reserved.

Permission to use, copy, modify, and distribute this software and its documentation for any purpose and without fee is hereby granted, provided that the above copyright notice appear in all copies and that both that copyright notice and this permission notice appear in supporting documentation, and that the name of Stichting Mathematisch Centrum or CWI not be used in advertising or publicity pertaining to distribution of the software without specific, written prior permission.

STICHTING MATHEMATISCH CENTRUM DISCLAIMS ALL WARRANTIES WITH REGARD TO THIS SOFTWARE, INCLUDING ALL IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS, IN NO EVENT SHALL STICHTING MATHEMATISCH CENTRUM BE LIABLE FOR ANY SPECIAL, INDIRECT OR CONSEQUENTIAL DAMAGES OR ANY DAMAGES WHATSOEVER RESULTING FROM LOSS OF USE, DATA OR PROFITS, WHETHER IN AN ACTION OF CONTRACT, NEGLIGENCE OR OTHER TORTIOUS ACTION, ARISING OUT OF OR IN CONNECTION WITH THE USE OR PERFORMANCE OF THIS SOFTWARE.

Licenses and Acknowledgements for Incorporated Software
==

This section is an incomplete, but growing list of licenses and acknowledgements for third-party software incorporated in the Python distribution.

Mersenne Twister

===============

The _random module includes code based on a download from http://www.math.keio.ac.jp/ matumoto/MT2002/emt19937ar.html. The following are the verbatim comments from the original code:

A C-program for MT19937, with initialization improved 2002/1/26.

Coded by Takuji Nishimura and Makoto Matsumoto.

Before using, initialize the state by using init_genrand(seed) or init_by_array(init_key, key_length).

Copyright (C) 1997 - 2002, Makoto Matsumoto and Takuji Nishimura, All rights reserved.

Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

1. Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.

2. Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.

3. The names of its contributors may not be used to endorse or promote products derived from this software without specific prior written permission.

THIS SOFTWARE IS PROVIDED BY THE COPYRIGHT HOLDERS AND CONTRIBUTORS "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE COPYRIGHT OWNER OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

Any feedback is very welcome.

http://www.math.keio.ac.jp/matumoto/emt.html

email: matumoto@math.keio.ac.jp

Sockets

=======

The socket module uses the functions, getaddrinfo(), and getnameinfo(), which are coded in separate source files from the WIDE Project, http://www.wide.ad.jp/.

Copyright (C) 1995, 1996, 1997, and 1998 WIDE Project.

All rights reserved.

Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

1. Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.

2. Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.

3. Neither the name of the project nor the names of its contributors may be used to endorse or promote products derived from this software without specific prior written permission.

THIS SOFTWARE IS PROVIDED BY THE PROJECT AND CONTRIBUTORS "AS IS" AND GAI_ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE PROJECT OR CONTRIBUTORS BE LIABLE FOR GAI_ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON GAI_ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN GAI_ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

Floating point exception control

===============================

The source for the fpectl module includes the following notice:

Copyright (c) 1996.

The Regents of the University of California.

All rights reserved.

Permission to use, copy, modify, and distribute this software for any purpose without fee is hereby granted, provided that this entire notice is included in all copies of any software which is or includes a copy or modification of this software and in all copies of the supporting documentation for such software.

This work was produced at the University of California, Lawrence Livermore National Laboratory under contract no. W-7405-ENG-48 between the U.S. Department of Energy and The Regents of the University of California for the operation of UC LLNL.

DISCLAIMER

This software was prepared as an account of work sponsored by an agency of the United States Government. Neither the United States Government nor the University of California nor any of their employees, makes any warranty, express or implied, or assumes any liability or responsibility for the accuracy, completeness, or usefulness of any information, apparatus, product, or process disclosed, or represents that its use would not infringe privately-owned rights. Reference herein to any specific commercial products, process, or service by trade name, trademark, manufacturer, or otherwise, does not necessarily constitute or imply its endorsement, recommendation, or favoring by the United States Government or the University of California. The views and opinions of authors expressed herein do not necessarily state or reflect those of the United States Government or the University of California, and shall not be used for advertising or product endorsement purposes.

MD5 message digest algorithm

===========================

The source code for the md5 module contains the following notice:

Copyright (C) 1999, 2002 Aladdin Enterprises. All rights reserved.

This software is provided 'as-is', without any express or implied warranty. In no event will the authors be held liable for any damages arising from the use of this software.

Permission is granted to anyone to use this software for any purpose, including commercial applications, and to alter it and redistribute it freely, subject to the following restrictions:

1. The origin of this software must not be misrepresented; you must not claim that you wrote the original software. If you use this software in a product, an acknowledgment in the product documentation would be appreciated but is not required.

2. Altered source versions must be plainly marked as such, and must not be misrepresented as being the original software.

3. This notice may not be removed or altered from any source distribution.

L. Peter Deutsch

ghost@aladdin.com

Independent implementation of MD5 (RFC 1321).

This code implements the MD5 Algorithm defined in RFC 1321, whose text is available at

   http://www.ietf.org/rfc/rfc1321.txt

The code is derived from the text of the RFC, including the test suite (section A.5) but excluding the rest of Appendix A. It does not include any code or documentation that is identified in the RFC as being copyrighted.

The original and principal author of md5.h is L. Peter Deutsch <ghost@aladdin.com>. Other authors are noted in the change history that follows (in reverse chronological order):

2002-04-13 lpd Removed support for non-ANSI compilers; removed references to Ghostscript; clarified derivation from RFC 1321; now handles byte order either statically or dynamically.

1999-11-04 lpd Edited comments slightly for automatic TOC extraction.

1999-10-18 lpd Fixed typo in header comment (ansi2knr rather than md5); added conditionalization for C++ compilation from Martin Purschke <purschke@bnl.gov>.

1999-05-03 lpd Original version.

Asynchronous socket services

============================

The asynchat and asyncore modules contain the following notice:

Copyright 1996 by Sam Rushing

          All Rights Reserved

Permission to use, copy, modify, and distribute this software and its documentation for any purpose and without fee is hereby granted, provided that the above copyright notice appear in all copies and that both that copyright notice and this permission notice appear in supporting documentation, and that the name of Sam Rushing not be used in advertising or publicity pertaining to distribution of the software without specific, written prior permission.

SAM RUSHING DISCLAIMS ALL WARRANTIES WITH REGARD TO THIS SOFTWARE, INCLUDING ALL IMPLIED WARRANTIES OF MERCHANTABILITY

AND FITNESS, IN NO EVENT SHALL SAM RUSHING BE LIABLE FOR ANY SPECIAL, INDIRECT OR CONSEQUENTIAL DAMAGES OR ANY DAMAGES WHATSOEVER RESULTING FROM LOSS OF USE, DATA OR PROFITS, WHETHER IN AN ACTION OF CONTRACT, NEGLIGENCE OR OTHER TORTIOUS ACTION, ARISING OUT OF OR IN CONNECTION WITH THE USE OR PERFORMANCE OF THIS SOFTWARE.

Cookie management

=================

The Cookie module contains the following notice:

Copyright 2000 by Timothy O'Malley <timo@alum.mit.edu>

      All Rights Reserved

Permission to use, copy, modify, and distribute this software and its documentation for any purpose and without fee is hereby granted, provided that the above copyright notice appear in all copies and that both that copyright notice and this permission notice appear in supporting documentation, and that the name of Timothy O'Malley not be used in advertising or publicity pertaining to distribution of the software without specific, written prior permission.

Timothy O'Malley DISCLAIMS ALL WARRANTIES WITH REGARD TO THIS SOFTWARE, INCLUDING ALL IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS, IN NO EVENT SHALL Timothy O'Malley BE LIABLE FOR ANY SPECIAL, INDIRECT OR CONSEQUENTIAL DAMAGES OR ANY DAMAGES WHATSOEVER RESULTING FROM LOSS OF USE, DATA OR PROFITS, WHETHER IN AN ACTION OF CONTRACT, NEGLIGENCE OR OTHER TORTIOUS ACTION, ARISING OUT OF OR IN CONNECTION WITH THE USE OR PERFORMANCE OF THIS SOFTWARE.

Profiling

=========

The profile and pstats modules contain the following notice:

Copyright 1994, by InfoSeek Corporation, all rights reserved.

Written by James Roskind

Permission to use, copy, modify, and distribute this Python software and its associated documentation for any purpose (subject to the restriction in the following sentence) without fee is hereby granted, provided that the above copyright notice appears in all copies, and that both that copyright notice and this permission notice appear in supporting documentation, and that the name of InfoSeek not be used in advertising or publicity pertaining to distribution of the software without specific, written prior permission. This permission is explicitly restricted to the copying and modification of the software to remain in Python, compiled Python, or other languages (such as C) wherein the modified or derived code is exclusively imported into a Python module.

INFOSEEK CORPORATION DISCLAIMS ALL WARRANTIES WITH REGARD TO THIS SOFTWARE, INCLUDING ALL IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS. IN NO EVENT SHALL INFOSEEK CORPORATION BE LIABLE FOR ANY SPECIAL, INDIRECT OR CONSEQUENTIAL DAMAGES OR ANY DAMAGES WHATSOEVER RESULTING FROM LOSS OF USE, DATA OR PROFITS, WHETHER IN AN ACTION OF CONTRACT, NEGLIGENCE OR OTHER TORTIOUS ACTION, ARISING OUT OF OR IN CONNECTION WITH THE USE OR PERFORMANCE OF THIS SOFTWARE.

Execution tracing

=================

The trace module contains the following notice:

portions copyright 2001, Autonomous Zones Industries, Inc., all rights...err... reserved and offered to the public under the terms of the Python 2.2 license.

Author: Zooko O'Whielacronx

http://zooko.com/

mailto:zooko@zooko.com

Copyright 2000, Mojam Media, Inc., all rights reserved.

Author: Skip Montanaro

Copyright 1999, Bioreason, Inc., all rights reserved.

Author: Andrew Dalke

Copyright 1995-1997, Automatrix, Inc., all rights reserved.

Author: Skip Montanaro

Copyright 1991-1995, Stichting Mathematisch Centrum, all rights reserved.

Permission to use, copy, modify, and distribute this Python software and its associated documentation for any purpose without fee is hereby granted, provided that the above copyright notice appears in all copies, and that both that copyright notice and this permission notice appear in supporting documentation, and that the name of neither Automatrix, Bioreason or Mojam Media be used in advertising or publicity pertaining to distribution of the software without specific, written prior permission.

UUencode and UUdecode functions

==============================

The uu module contains the following notice:

Copyright 1994 by Lance Ellinghouse

Cathedral City, California Republic, United States of America.

   All Rights Reserved

Permission to use, copy, modify, and distribute this software and its documentation for any purpose and without fee is hereby granted, provided that the above copyright notice appear in all copies and that both that copyright notice and this permission notice appear in supporting documentation, and that the name of Lance Ellinghouse not be used in advertising or publicity pertaining to distribution of the software without specific, written prior permission.

LANCE ELLINGHOUSE DISCLAIMS ALL WARRANTIES WITH REGARD TO THIS SOFTWARE, INCLUDING ALL IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS, IN NO EVENT SHALL LANCE ELLINGHOUSE CENTRUM BE LIABLE FOR ANY SPECIAL, INDIRECT OR CONSEQUENTIAL DAMAGES OR ANY DAMAGES WHATSOEVER RESULTING FROM LOSS OF USE, DATA OR PROFITS, WHETHER IN AN ACTION OF CONTRACT, NEGLIGENCE OR OTHER TORTIOUS ACTION, ARISING OUT OF OR IN CONNECTION WITH THE USE OR PERFORMANCE OF THIS SOFTWARE.

Modified by Jack Jansen, CWI, July 1995:

- Use binascii module to do the actual line-by-line conversion between ascii and binary. This results in a 1000-fold speedup. The C version is still 5 times faster, though.

- Arguments more compliant with Python standard

XML Remote Procedure Calls

========================

The xmlrpclib module contains the following notice:

The XML-RPC client interface is

Copyright (c) 1999-2002 by Secret Labs AB Copyright (c) 1999-2002 by Fredrik Lundh

By obtaining, using, and/or copying this software and/or its associated documentation, you agree that you have read, understood, and will comply with the following terms and conditions:

Permission to use, copy, modify, and distribute this software and its associated documentation for any purpose and without fee is hereby granted, provided that the above copyright notice appears in all copies, and that both that copyright notice and this permission notice appear in supporting documentation, and that the name of Secret Labs AB or the author not be used in advertising or publicity pertaining to distribution of the software without specific, written prior permission.

SECRET LABS AB AND THE AUTHOR DISCLAIMS ALL WARRANTIES WITH REGARD TO THIS SOFTWARE, INCLUDING ALL IMPLIED WARRANTIES OF MERCHANT- ABILITY AND FITNESS. IN NO EVENT SHALL SECRET LABS AB OR THE AUTHOR BE LIABLE FOR ANY SPECIAL, INDIRECT OR CONSEQUENTIAL DAMAGES OR ANY DAMAGES WHATSOEVER RESULTING FROM LOSS OF USE, DATA OR PROFITS, WHETHER IN AN ACTION OF CONTRACT, NEGLIGENCE OR OTHER TORTIOUS ACTION, ARISING OUT OF OR IN CONNECTION WITH THE USE OR PERFORMANCE OF THIS SOFTWARE.

B.5.14 Python 2.5, 2.6, and 2.7

Python 2.7 license

This is the official license for the Python 2.7 release:

A. HISTORY OF THE SOFTWARE

Python was created in the early 1990s by Guido van Rossum at Stichting Mathematisch Centrum (CWI, see http://www.cwi.nl) in the Netherlands as a successor of a language called ABC. Guido remains Python's principal author, although it includes many contributions from others.

In 1995, Guido continued his work on Python at the Corporation for National Research Initiatives (CNRI, see http://www.cnri.reston.va.us) in Reston, Virginia where he released several versions of the software.

In May 2000, Guido and the Python core development team moved to BeOpen.com to form the BeOpen PythonLabs team. In October of the same year, the PythonLabs team moved to Digital Creations (now Zope Corporation, see http://www.zope.com). In 2001, the Python Software Foundation (PSF, see http://www.python.org/psf/) was formed, a non-profit organization created specifically to own Python-related Intellectual Property. Zope Corporation is a sponsoring member of the PSF.

All Python releases are Open Source (see http://www.opensource.org for the Open Source Definition). Historically, most, but not all, Python releases have also been GPL-compatible; the table below summarizes the various releases.

Release	Derived	Year	Owner	GPL-

```
                from                           compatible? (1)
0.9.0 thru 1.2              1991-1995   CWI     yes
1.3 thru 1.5.2  1.2        1995-1999   CNRI    yes
1.6             1.5.2      2000        CNRI    no
2.0             1.6        2000        BeOpen.com  no
1.6.1           1.6        2001        CNRI    yes (2)
2.1             2.0+1.6.1  2001        PSF     no
2.0.1           2.0+1.6.1  2001        PSF     yes
2.1.1           2.1+2.0.1  2001        PSF     yes
2.2             2.1.1      2001        PSF     yes
2.1.2           2.1.1      2002        PSF     yes
2.1.3           2.1.2      2002        PSF     yes
2.2.1           2.2        2002        PSF     yes
2.2.2           2.2.1      2002        PSF     yes
2.2.3           2.2.2      2003        PSF     yes
2.3             2.2.2      2002-2003   PSF     yes
2.3.1           2.3        2002-2003   PSF     yes
2.3.2           2.3.1      2002-2003   PSF     yes
2.3.3           2.3.2      2002-2003   PSF     yes
2.3.4           2.3.3      2004        PSF     yes
2.3.5           2.3.4      2005        PSF     yes
2.4             2.3        2004        PSF     yes
2.4.1           2.4        2005        PSF     yes
2.4.2           2.4.1      2005        PSF     yes
2.4.3           2.4.2      2006        PSF     yes
2.5             2.4        2006        PSF     yes
2.7             2.6        2010        PSF     yes
```

Footnotes:

1. GPL-compatible doesn't mean that we're distributing Python under the GPL. All Python licenses, unlike the GPL, let you distribute a modified version without making your changes open source. The GPL-compatible licenses make it possible to combine Python with other software that is released under the GPL; the others don't.

2. According to Richard Stallman, 1.6.1 is not GPL-compatible, because its license has a choice of law clause. According to CNRI, however, Stallman's lawyer has told CNRI's lawyer that 1.6.1 is "not incompatible" with the GPL.

Thanks to the many outside volunteers who have worked under Guido's direction to make these releases possible.

B. TERMS AND CONDITIONS FOR ACCESSING OR OTHERWISE USING PYTHON

PYTHON SOFTWARE FOUNDATION LICENSE VERSION 2

1. This LICENSE AGREEMENT is between the Python Software Foundation ("PSF"), and the Individual or Organization ("Licensee") accessing and otherwise using this software ("Python") in source or binary form and its associated documentation.

2. Subject to the terms and conditions of this License Agreement, PSF hereby grants Licensee a nonexclusive, royalty-free, world-wide license to reproduce, analyze, test, perform and/or display publicly, prepare derivative works, distribute, and otherwise use Python alone or in any derivative version, provided, however, that PSF's License Agreement and PSF's notice of copyright, i.e., "Copyright (c) 2001, 2002, 2003, 2004, 2005, 2006 Python Software Foundation; All Rights Reserved" are retained in Python alone or in any derivative version prepared by Licensee.

3. In the event Licensee prepares a derivative work that is based on or incorporates Python or any part thereof, and wants to make the derivative work available to others as provided herein, then Licensee hereby agrees to include in any such work a brief summary of the changes made to Python.

4. PSF is making Python available to Licensee on an "AS IS" basis. PSF MAKES NO REPRESENTATIONS OR WARRANTIES, EXPRESS OR IMPLIED. BY WAY OF EXAMPLE, BUT NOT LIMITATION, PSF MAKES NO AND DISCLAIMS ANY REPRESENTATION OR WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE OR THAT THE USE OF PYTHON WILL NOT INFRINGE ANY THIRD PARTY RIGHTS.

5. PSF SHALL NOT BE LIABLE TO LICENSEE OR ANY OTHER USERS OF PYTHON FOR ANY INCIDENTAL, SPECIAL, OR CONSEQUENTIAL DAMAGES OR LOSS AS A RESULT OF MODIFYING, DISTRIBUTING, OR OTHERWISE USING PYTHON, OR ANY DERIVATIVE THEREOF, EVEN IF ADVISED OF THE POSSIBILITY THEREOF.

6. This License Agreement will automatically terminate upon a material breach of its terms and conditions.

7. Nothing in this License Agreement shall be deemed to create any relationship of agency, partnership, or joint venture between PSF and Licensee. This License Agreement does not grant permission to use PSF trademarks or trade name in a trademark sense to endorse or promote products or services of Licensee, or any third party.

8. 8. By copying, installing or otherwise using Python, Licensee agrees to be bound by the terms and conditions of this License Agreement.

BEOPEN.COM LICENSE AGREEMENT FOR PYTHON 2.0

BEOPEN PYTHON OPEN SOURCE LICENSE AGREEMENT VERSION 1

1. This LICENSE AGREEMENT is between BeOpen.com ("BeOpen"), having an office at 160 Saratoga Avenue, Santa Clara, CA 95051, and the Individual or Organization ("Licensee") accessing and otherwise using this software in source or binary form and its associated documentation ("the Software").

2. 2Subject to the terms and conditions of this BeOpen Python License Agreement, BeOpen hereby grants Licensee a non-exclusive, royalty-free, world-wide license to reproduce, analyze, test, perform and/or display publicly, prepare derivative works, distribute, and otherwise use the Software alone or in any derivative version, provided, however, that the BeOpen Python License is retained in the Software, alone or in any derivative version prepared by Licensee.

3. BeOpen is making the Software available to Licensee on an "AS IS" basis. BEOPEN MAKES NO REPRESENTATIONS OR WARRANTIES, EXPRESS OR IMPLIED. BY WAY OF EXAMPLE, BUT NOT LIMITATION, BEOPEN MAKES NO AND DISCLAIMS ANY REPRESENTATION OR WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE OR THAT THE USE OF THE SOFTWARE WILL NOT INFRINGE ANY THIRD PARTY RIGHTS.

4. BEOPEN SHALL NOT BE LIABLE TO LICENSEE OR ANY OTHER USERS OF THE SOFTWARE FOR ANY INCIDENTAL, SPECIAL, OR CONSEQUENTIAL DAMAGES OR LOSS AS A RESULT OF USING, MODIFYING OR DISTRIBUTING THE SOFTWARE, OR ANY DERIVATIVE THEREOF, EVEN IF ADVISED OF THE POSSIBILITY THEREOF.

5. This License Agreement will automatically terminate upon a material breach of its terms and conditions.

6. This License Agreement shall be governed by and interpreted in all respects by the law of the State of California, excluding conflict of law provisions. Nothing in this License Agreement shall be deemed to create any relationship of agency, partnership, or joint venture between BeOpen and Licensee. This License Agreement does not grant permission to use BeOpen trademarks or trade names in a trademark sense to endorse or promote products or services of Licensee, or any third party. As an exception, the "BeOpen Python" logos available at http://www.pythonlabs.com/logos.html may be used according to the permissions granted on that web page.

7. By copying, installing or otherwise using the software, Licensee agrees to be bound by the terms and conditions of this License Agreement.

CNRI LICENSE AGREEMENT FOR PYTHON 1.6.1

1. This LICENSE AGREEMENT is between the Corporation for National Research Initiatives, having an office at 1895 Preston White Drive, Reston, VA 20191 ("CNRI"), and the Individual or Organization ("Licensee") accessing and otherwise using Python 1.6.1 software in source or binary form and its associated documentation.

2. Subject to the terms and conditions of this License Agreement, CNRI hereby grants Licensee a nonexclusive, royalty-free, world-wide license to reproduce, analyze, test, perform and/or display publicly, prepare derivative works, distribute, and otherwise use Python 1.6.1 alone or in any derivative version, provided, however, that CNRI's License Agreement and CNRI's notice of copyright, i.e., "Copyright (c) 1995-2001 Corporation for National Research Initiatives; All Rights Reserved" are retained in Python 1.6.1 alone or in any derivative version prepared by Licensee. Alternately, in lieu of CNRI's License Agreement, Licensee may substitute the following text (omitting the quotes): "Python 1.6.1 is made available subject to the terms and conditions in CNRI's License Agreement. This Agreement together with Python 1.6.1 may be located on the Internet using the following unique, persistent identifier (known as a handle): 1895.22/1013. This Agreement may also be obtained from a proxy server on the Internet using the following URL: http://hdl.handle.net/1895.22/1013".

3. In the event Licensee prepares a derivative work that is based on or incorporates Python 1.6.1 or any part thereof, and wants to make the derivative work available to others as provided herein, then Licensee hereby agrees to include in any such work a brief summary of the changes made to Python 1.6.1.

4. CNRI is making Python 1.6.1 available to Licensee on an "AS IS" basis. CNRI MAKES NO REPRESENTATIONS OR WARRANTIES, EXPRESS OR IMPLIED. BY WAY OF EXAMPLE, BUT NOT LIMITATION, CNRI MAKES NO AND DISCLAIMS ANY REPRESENTATION OR WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE OR THAT THE USE OF PYTHON 1.6.1 WILL NOT INFRINGE ANY THIRD PARTY RIGHTS.

5. CNRI SHALL NOT BE LIABLE TO LICENSEE OR ANY OTHER USERS OF PYTHON 1.6.1 FOR ANY INCIDENTAL, SPECIAL, OR CONSEQUENTIAL DAMAGES OR LOSS AS A RESULT OF MODIFYING, DISTRIBUTING, OR OTHERWISE USING PYTHON 1.6.1, OR ANY DERIVATIVE THEREOF, EVEN IF ADVISED OF THE POSSIBILITY THEREOF.

6. This License Agreement will automatically terminate upon a material breach of its terms and conditions.

7. This License Agreement shall be governed by the federal intellectual property law of the United States, including without limitation the federal copyright law, and, to the extent such U.S. federal law does not apply, by the law of the Commonwealth of Virginia, excluding Virginia's conflict of law provisions. Notwithstanding the foregoing, with regard to derivative works based on Python 1.6.1 that incorporate non-separable material that was previously distributed under the GNU General Public License (GPL), the law of the Commonwealth of Virginia shall govern this License Agreement only as to issues arising under or with respect to Paragraphs 4, 5, and 7 of this License Agreement. Nothing in this License Agreement shall be deemed to create any relationship of agency, partnership, or joint venture between CNRI and Licensee. This License Agreement does not grant permission to use CNRI trademarks or trade name in a trademark sense to endorse or promote products or services of Licensee, or any third party.

8. By clicking on the "ACCEPT" button where indicated, or by copying, installing or otherwise using Python 1.6.1, Licensee agrees to be bound by the terms and conditions of this License Agreement.

    ACCEPT

CWI LICENSE AGREEMENT FOR PYTHON 0.9.0 THROUGH 1.2

Copyright (c) 1991 - 1995, Stichting Mathematisch Centrum Amsterdam, The Netherlands. All rights reserved.

Permission to use, copy, modify, and distribute this software and its documentation for any purpose and without fee is hereby granted, provided that the above copyright notice appear in all copies and that both that copyright notice and this permission notice appear in supporting documentation, and that the name of Stichting Mathematisch Centrum or CWI not be used in advertising or publicity pertaining to distribution of the software without specific, written prior permission.

STICHTING MATHEMATISCH CENTRUM DISCLAIMS ALL WARRANTIES WITH REGARD TO THIS SOFTWARE, INCLUDING ALL IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS, IN NO EVENT SHALL STICHTING MATHEMATISCH CENTRUM BE LIABLE FOR ANY SPECIAL, INDIRECT OR CONSEQUENTIAL DAMAGES OR ANY DAMAGES WHATSOEVER RESULTING FROM LOSS OF USE, DATA OR PROFITS, WHETHER IN AN ACTION OF CONTRACT, NEGLIGENCE OR OTHER TORTIOUS ACTION, ARISING OUT OF OR IN CONNECTION WITH THE USE OR PERFORMANCE OF THIS SOFTWARE.

Licenses and Acknowledgements for Incorporated Software

This section is an incomplete, but growing list of licenses and acknowledgements for third-party software incorporated in the Python distribution.

Mersenne Twister

The _random module includes code based on a download from http://www.math.keio.ac.jp/ matumoto/MT2002/emt19937ar.html. The following are the verbatim comments from the original code:

A C-program for MT19937, with initialization improved 2002/1/26.

Coded by Takuji Nishimura and Makoto Matsumoto.

Before using, initialize the state by using init_genrand(seed) or init_by_array(init_key, key_length).

Copyright (C) 1997 - 2002, Makoto Matsumoto and Takuji Nishimura, All rights reserved.

Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

1. Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.

2. Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.

3. The names of its contributors may not be used to endorse or promote products derived from this software without specific prior written permission.

4. THIS SOFTWARE IS PROVIDED BY THE COPYRIGHT HOLDERS AND CONTRIBUTORS "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE COPYRIGHT OWNER OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

Any feedback is very welcome.

http://www.math.keio.ac.jp/matumoto/emt.html

email: matumoto@math.keio.ac.jp

Sockets

The socket module uses the functions, getaddrinfo(), and getnameinfo(), which are coded in separate source files from the WIDE Project, http://www.wide.ad.jp/.

Copyright (C) 1995, 1996, 1997, and 1998 WIDE Project.

All rights reserved.

Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

1. Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.

2. Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.

3. Neither the name of the project nor the names of its contributors may be used to endorse or promote products derived from this software without specific prior written permission.

THIS SOFTWARE IS PROVIDED BY THE PROJECT AND CONTRIBUTORS "AS IS" AND GAI_ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE PROJECT OR CONTRIBUTORS BE LIABLE FOR GAI_ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF

SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON GAI_ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN GAI_ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

Floating point exception control

The source for the fpectl module includes the following notice:

Copyright (c) 1996.

The Regents of the University of California

All rights reserved.

Permission to use, copy, modify, and distribute this software for any purpose without fee is hereby granted, provided that this entire notice is included in all copies of any software which is or includes a copy or modification of this software and in all   copies of the supporting documentation for such software.

This work was produced at the University of California, Lawrence Livermore National Laboratory under contract no. W-7405-ENG-48   between the U.S. Department of Energy and The Regents of the University of California for the operation of UC LLNL.

DISCLAIMER

This software was prepared as an account of work sponsored by an agency of the United States Government. Neither the United States Government nor the University of California nor any of their employees, makes any warranty, express or implied, or assumes any liability or responsibility for the accuracy, completeness, or usefulness of any information, apparatus, product, or process disclosed, or represents that its use would not infringe privately-owned rights. Reference herein to any specific commercial products, process, or service by trade name, trademark, manufacturer, or otherwise, does not necessarily constitute or imply its endorsement, recommendation, or favoring by the United States Government or the University of California. The views and opinions of authors expressed herein do not necessarily state or reflect those of the United States Government or the University of California, and shall not be used for advertising or product endorsement purposes.

MD5 message digest algorithm

The source code for the md5 module contains the following notice:

Copyright (C) 1999, 2002 Aladdin Enterprises. All rights reserved.

This software is provided 'as-is', without any express or implied warranty. In no event will the authors be held liable for any damages arising from the use of this software.

Permission is granted to anyone to use this software for any purpose, including commercial applications, and to alter it and redistribute it freely, subject to the following restrictions:

1. The origin of this software must not be misrepresented; you must not claim that you wrote the original software. If you use this software in a product, an acknowledgment in the product documentation would be appreciated but is not required.

2. Altered source versions must be plainly marked as such, and must not be misrepresented as being the original software.

3. This notice may not be removed or altered from any source distribution.

L. Peter Deutsch

ghost@aladdin.com

Independent implementation of MD5 (RFC 1321).

This code implements the MD5 Algorithm defined in RFC 1321, whose text is available at:

```
http://www.ietf.org/rfc/rfc1321.txt
```

The code is derived from the text of the RFC, including the test suite (section A.5) but excluding the rest of Appendix A. It does not include any code or documentation that is identified in the RFC as being copyrighted.

The original and principal author of md5.h is L. Peter Deutsch <ghost@aladdin.com>. Other authors are noted in the change history that follows (in reverse chronological order):

2002-04-13 lpd Removed support for non-ANSI compilers; removed references to Ghostscript; clarified derivation from RFC 1321; now handles byte order either statically or dynamically.

1999-11-04 lpd Edited comments slightly for automatic TOC extraction.

1999-10-18 lpd Fixed typo in header comment (ansi2knr rather than md5); added conditionalization for C++ compilation from Martin Purschke <purschke@bnl.gov>.

1999-05-03 lpd Original version.

Asynchronous socket services

The asynchat and asyncore modules contain the following notice:

Copyright 1996 by Sam Rushing

All Rights Reserved

Permission to use, copy, modify, and distribute this software and its documentation for any purpose and without fee is hereby granted, provided that the above copyright notice appear in all copies and that both that copyright notice and this permission notice appear in supporting documentation, and that the name of Sam Rushing not be used in advertising or publicity pertaining to distribution of the software without specific, written prior permission.

SAM RUSHING DISCLAIMS ALL WARRANTIES WITH REGARD TO THIS SOFTWARE, INCLUDING ALL IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS, IN NO EVENT SHALL SAM RUSHING BE LIABLE FOR ANY SPECIAL, INDIRECT OR CONSEQUENTIAL DAMAGES OR ANY DAMAGES WHATSOEVER RESULTING FROM LOSS OF USE, DATA OR PROFITS, WHETHER IN AN ACTION OF CONTRACT, NEGLIGENCE OR OTHER TORTIOUS ACTION, ARISING OUT OF OR IN CONNECTION WITH THE USE OR PERFORMANCE OF THIS SOFTWARE.

Cookie management

The Cookie module contains the following notice:

Copyright 2000 by Timothy O'Malley <timo@alum.mit.edu>

All Rights Reserved

Permission to use, copy, modify, and distribute this software and its documentation for any purpose and without fee is hereby granted, provided that the above copyright notice appear in all copies and that both that copyright notice and this permission notice appear in supporting documentation, and that the name of Timothy O'Malley

not be used in advertising or publicity pertaining to distribution of the software without specific, written prior permission.

Timothy O'Malley DISCLAIMS ALL WARRANTIES WITH REGARD TO THIS SOFTWARE, INCLUDING ALL IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS, IN NO EVENT SHALL Timothy O'Malley BE LIABLE FOR ANY SPECIAL, INDIRECT OR CONSEQUENTIAL DAMAGES OR ANY DAMAGES WHATSOEVER RESULTING FROM LOSS OF USE, DATA OR PROFITS, WHETHER IN AN ACTION OF CONTRACT, NEGLIGENCE OR OTHER TORTIOUS ACTION, ARISING OUT OF OR IN CONNECTION WITH THE USE OR PERFORMANCE OF THIS SOFTWARE.

Profiling

The profile and pstats modules contain the following notice:

Copyright 1994, by InfoSeek Corporation, all rights reserved.

Written by James Roskind

Permission to use, copy, modify, and distribute this Python software and its associated documentation for any purpose (subject to the restriction in the following sentence) without fee is hereby granted, provided that the above copyright notice appears in all copies, and that both that copyright notice and this permission notice appear in supporting documentation, and that the name of InfoSeek not be used in advertising or publicity pertaining to distribution of the software without specific, written prior permission. This permission is explicitly restricted to the copying and modification of the software to remain in Python, compiled Python, or other languages (such as C) wherein the modified or derived code is exclusively imported into a Python module.

INFOSEEK CORPORATION DISCLAIMS ALL WARRANTIES WITH REGARD TO THIS SOFTWARE, INCLUDING ALL IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS. IN NO EVENT SHALL INFOSEEK CORPORATION BE LIABLE FOR ANY SPECIAL, INDIRECT OR CONSEQUENTIAL DAMAGES OR ANY DAMAGES WHATSOEVER RESULTING FROM LOSS OF USE, DATA OR PROFITS, WHETHER IN AN ACTION OF CONTRACT, NEGLIGENCE OR OTHER TORTIOUS ACTION, ARISING OUT OF OR IN CONNECTION WITH THE USE OR PERFORMANCE OF THIS SOFTWARE.

Execution tracing

The trace module contains the following notice:

portions copyright 2001, Autonomous Zones Industries, Inc., all rights...

err... reserved and offered to the public under the terms of the Python 2.2 license.

Author: Zooko O'Whielacronx

http://zooko.com/

mailto:zooko@zooko.com

Copyright 2000, Mojam Media, Inc., all rights reserved.

Author: Skip Montanaro

Copyright 1999, Bioreason, Inc., all rights reserved.

Author: Andrew Dalke

Copyright 1995-1997, Automatrix, Inc., all rights reserved.

Author: Skip Montanaro

Copyright 1991-1995, Stichting Mathematisch Centrum, all rights reserved.

Permission to use, copy, modify, and distribute this Python software and its associated documentation for any purpose without fee is hereby granted, provided that the above copyright notice appears in all copies, and that both that copyright notice and this permission notice appear in supporting documentation, and that the name of neither Automatrix, Bioreason or Mojam Media be used in advertising or publicity pertaining to distribution of the software without specific, written prior permission.

UUencode and UUdecode functions

The uu module contains the following notice:

Copyright 1994 by Lance Ellinghouse

Cathedral City, California Republic, United States of America.

All Rights Reserved

Permission to use, copy, modify, and distribute this software and its documentation for any purpose and without fee is hereby granted, provided that the above copyright notice appear in all copies and that both that copyright notice and this permission notice appear in supporting documentation, and that the name of Lance Ellinghouse not be used in advertising or publicity pertaining to distribution of the software without specific, written prior permission.

LANCE ELLINGHOUSE DISCLAIMS ALL WARRANTIES WITH REGARD TO THIS SOFTWARE, INCLUDING ALL IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS, IN NO EVENT SHALL LANCE ELLINGHOUSE CENTRUM BE LIABLE FOR ANY SPECIAL, INDIRECT OR CONSEQUENTIAL DAMAGES OR ANY DAMAGES WHATSOEVER RESULTING FROM LOSS OF USE, DATA OR PROFITS, WHETHER IN AN ACTION OF CONTRACT, NEGLIGENCE OR OTHER TORTIOUS ACTION, ARISING OUT OF OR IN CONNECTION WITH THE USE OR PERFORMANCE OF THIS SOFTWARE.

Modified by Jack Jansen, CWI, July 1995:

- Use binascii module to do the actual line-by-line conversion between ascii and binary. This results in a 1000-fold speedup. The C version is still 5 times faster, though.

- Arguments more compliant with Python standard

XML Remote Procedure Calls

The xmlrpclib module contains the following notice:

The XML-RPC client interface is

Copyright (c) 1999-2002 by Secret Labs AB Copyright (c) 1999-2002 by Fredrik Lundh

By obtaining, using, and/or copying this software and/or its associated documentation, you agree that you have read, understood, and will comply with the following terms and conditions:

Permission to use, copy, modify, and distribute this software and its associated documentation for any purpose and without fee is hereby granted, provided that the above copyright notice appears in all copies, and that both that copyright notice and this permission notice appear in supporting documentation, and that the name of Secret Labs AB or the author not be used in advertising or publicity pertaining to distribution of the software without specific, written prior permission.

SECRET LABS AB AND THE AUTHOR DISCLAIMS ALL WARRANTIES WITH REGARD TO THIS SOFTWARE, INCLUDING ALL IMPLIED WARRANTIES OF MERCHANT- ABILITY AND FITNESS. IN NO EVENT SHALL SECRET LABS AB OR THE AUTHOR BE LIABLE FOR ANY SPECIAL, INDIRECT OR

CONSEQUENTIAL DAMAGES OR ANY DAMAGES WHATSOEVER RESULTING FROM LOSS OF USE, DATA OR PROFITS, WHETHER IN AN ACTION OF CONTRACT, NEGLIGENCE OR OTHER TORTIOUS ACTION, ARISING OUT OF OR IN CONNECTION WITH THE USE OR PERFORMANCE OF THIS SOFTWARE.

test_epoll

The test_epoll contains the following notice:

Copyright (c) 2001-2006 Twisted Matrix Laboratories.

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

Select kqueue

The select and contains the following notice for the kqueue interface:

Copyright (c) 2000 Doug White, 2006 James Knight, 2007 Christian Heimes All rights reserved.

Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

1. Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.

2. Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.

THIS SOFTWARE IS PROVIDED BY THE AUTHOR AND CONTRIBUTORS "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE AUTHOR OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

strtod and dtoa

The file Python/dtoa.c, which supplies C functions dtoa and strtod for conversion of C doubles to and from strings, is derived from the file of the same name by David M. Gay, currently available from http://www.netlib.org/fp/. The original file, as retrieved on March 16, 2009, contains the following copyright and licensing notice:

The author of this software is David M. Gay.

Copyright (c) 1991, 2000, 2001 by Lucent Technologies.

Permission to use, copy, modify, and distribute this software for any purpose without fee is hereby granted, provided that this entire notice is included in all copies of any software which is or includes a copy or modification of this software and in all copies of the supporting documentation for such software.

THIS SOFTWARE IS BEING PROVIDED "AS IS", WITHOUT ANY EXPRESS OR IMPLIED WARRANTY. IN PARTICULAR, NEITHER THE AUTHOR NOR LUCENT MAKES ANY REPRESENTATION OR WARRANTY OF ANY KIND CONCERNING THE MERCHANTABILITY OF THIS SOFTWARE OR ITS FITNESS FOR ANY PARTICULAR PURPOSE.

B.5.15 ZK Ajax Web Framework 2.3.1

Oracle products include third-party software subject to the proprietary interests of Oracle's suppliers.

B.5.16 zlib 1.2.5

Copyright (C) 1995-2010 Jean-loup Gailly and Mark Adler

This software is provided 'as-is', without any express or implied warranty. In no event will the authors be held liable for any damages arising from the use of this software.

Permission is granted to anyone to use this software for any purpose, including commercial applications, and to alter it and redistribute it freely, subject to the following restrictions:

1.   The origin of this software must not be misrepresented; you must not claim that you wrote the original software. If you use this software in a product, an acknowledgment in the product documentation would be appreciated but is not required.

2.   Altered source versions must be plainly marked as such, and must not be misrepresented as being the original software.

3.   This notice may not be removed or altered from any source distribution.

Jean-loup Gailly   Mark Adler

jloup@gzip.org   madler@alumni.caltech.edu

The data format used by the zlib library is described by RFCs (Request for Comments) 1950 to 1952 in the files http://www.ietf.org/rfc/rfc1950.txt (zlib format), rfc1951.txt (deflate format) and rfc1952.txt (gzip format).

C

Oracle Licenses for Oracle Enterprise Manager Ops Center

This appendix contains licensing information about certain Oracle technologies included with Oracle Enterprise Manager Ops Center version 12c. Unless otherwise specifically noted, all licenses herein are provided for notice purposes only.

The following sections in this chapter describe the licenses:

- Java Developers Kit 7u2
- LDOM Manager 1.2, 1.3, 2.0, 2.1, and 2.2
- Oracle HW Manager Pack 2.2.1
- JAX-B 2.1.13
- JAX-WS 2.1.4
- Glassfish 3.1.1
- JWSDP 1.6
- JMX-WS 1.0
- Oracle Instant Client 11.2.0.3
- Oracle Universal Connection Pool 11.1.0.7
- TopLink 11.1.1.4.0
- Oracle BI Publisher Desktop 11.1.1.3
- OVM Storage Connect Framework (Plugin Manager) 1.2.8
- OVM Storage Connect - SCCaller API 0.4.0
- Sun Storage 7000 Storage Connect Plugin 1.0.1

C.1 Java Developers Kit 7u2

Licensing information can be found here:

http://www.oracle.com/technetwork/java/javase/terms/license/index.html

C.2 LDOM Manager 1.2, 1.3, 2.0, 2.1, and 2.2

Licensing information can be found here:

http://www.oracle.com/technetwork/server-storage/vm/documentation/index.html

C.3 Oracle HW Manager Pack 2.2.1

Licensing information can be found here:

http://docs.oracle.com/cd/E20451_01/index.html

C.4 JAX-B 2.1.13

Licensing information can be found here:

http://jaxb.java.net/2.1.13/docs/

C.5 JAX-WS 2.1.4

Licensing information can be found here:

http://jax-ws.java.net/2.1.4/docs/

C.6 Glassfish 3.1.1

Licensing information can be found here:

http://www.oracle.com/technetwork/middleware/glassfish/downloads/glassfish-3
12-3rdparty-readme-1521433.html

C.7 JWSDP 1.6

JWSDP includes the following products:

JAXB

The following software may be included in this product: iso-relax.jar v2002/07/07.
Use of any of this software is governed by the terms of the license below:

The MIT License

Copyright (c)

Permission is hereby granted, free of charge, to any person obtaining a copy of this
software and associated documentation files (the "Software"), to deal in the Software
without restriction, including without limitation the rights to use, copy, modify, merge,
publish, distribute, sublicense, and/or sell copies of the Software, and to permit
persons to whom the Software is furnished to do so, subject to the following
conditions:

The above copyright notice and this permission notice shall be included in all copies or
substantial portions of the Software.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND,
EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES
OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND
NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT
HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY,
WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING
FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR
OTHER DEALINGS IN THE SOFTWARE

The following software may be included in this product: Resolver. Use of any of this
software is governed by the terms of the license below:

xml-commons/LICENSE.txt $Id: THIRDPARTYLICENSEREADME,v 1.3 2005/05/27 08:34:40 rameshm Exp $

See README.txt for additional licensing information.

===

The Apache Software License, Version 1.1

Copyright (c) 2001-2002 The Apache Software Foundation. All rights reserved.

Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

1. Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.

2. Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.

3. The end-user documentation included with the redistribution, if any, must include the following acknowledgment:

   "This product includes software developed by the Apache Software Foundation (http://www.apache.org/)."

   Alternately, this acknowledgment may appear in the software itself, if and wherever such third-party acknowledgments normally appear.

4. The names "Apache" and "Apache Software Foundation" must not be used to endorse or promote products derived from this software without prior written permission. For written permission, please contact apache@apache.org.

5. Products derived from this software may not be called "Apache", nor may "Apache" appear in their name, without prior written permission of the Apache Software Foundation.

THIS SOFTWARE IS PROVIDED "AS IS" AND ANY EXPRESSED OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE APACHE SOFTWARE FOUNDATION OR ITS CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.
===

This software consists of voluntary contributions made by many individuals on behalf of the Apache Software Foundation. For more information on the Apache Software Foundation, please see http://www.apache.org/.

JAXP

The following software may be included in this product: DOM Level 2. Use of any of this software is governed by the terms of the license below:

W3C? SOFTWARE NOTICE AND LICENSE

Copyright (c) 1994-2002 World Wide Web Consortium, (Massachusetts Institute of Technology, Institut National de Recherche en Informatique et en Automatique, Keio University). All Rights Reserved. http://www.w3.org/Consortium/Legal/

This W3C work (including software, documents, or other related items) is being provided by the copyright holders under the following license. By obtaining, using and/or copying this work, you (the licensee) agree that you have read, understood, and will comply with the following terms and conditions:

Permission to use, copy, modify, and distribute this software and its documentation, with or without modification, for any purpose and without fee or royalty is hereby granted, provided that you include the following on ALL copies of the software and documentation or portions thereof, including modifications, that you make:

1. The full text of this NOTICE in a location viewable to users of the redistributed or derivative work.

2. Any pre-existing intellectual property disclaimers, notices, or terms and conditions. If none exist, a short notice of the following form (hypertext is preferred, text is permitted) should be used within the body of any redistributed or derivative code: "Copyright ? [$date-of-software] World Wide Web Consortium, (Massachusetts Institute of Technology, Institut National de Recherche en Informatique et en Automatique, Keio University). All Rights Reserved. http://www.w3.org/Consortium/Legal/"

3. Notice of any changes or modifications to the W3C files, including the date changes were made. (We recommend you provide URIs to the location from which the code is derived.)

THIS SOFTWARE AND DOCUMENTATION IS PROVIDED "AS IS," AND COPYRIGHT HOLDERS MAKE NO REPRESENTATIONS OR WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO, WARRANTIES OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE OR THAT THE USE OF THE SOFTWARE OR DOCUMENTATION WILL NOT INFRINGE ANY THIRD PARTY PATENTS, COPYRIGHTS, TRADEMARKS OR OTHER RIGHTS. COPYRIGHT HOLDERS WILL NOT BE LIABLE FOR ANY DIRECT, INDIRECT, SPECIAL OR CONSEQUENTIAL DAMAGES ARISING OUT OF ANY USE OF THE SOFTWARE OR DOCUMENTATION.

The name and trademarks of copyright holders may NOT be used in advertising or publicity pertaining to the software without specific, written prior permission. Title to copyright in this software and any associated documentation will at all times remain with copyright holders.

The following software may be included in this product: Xalan 2.x. Use of any of this software is governed by the terms of the license below:

Apache License

Version 2.0, January 2004

http://www.apache.org/licenses/

TERMS AND CONDITIONS FOR USE, REPRODUCTION, AND DISTRIBUTION

1. Definitions.

    "License" shall mean the terms and conditions for use, reproduction, and distribution as defined by Sections 1 through 9 of this document.

"Licensor" shall mean the copyright owner or entity authorized by the copyright owner that is granting the License.

"Legal Entity" shall mean the union of the acting entity and all other entities that control, are controlled by, or are under common control with that entity. For the purposes of this definition, "control" means (i) the power, direct or indirect, to cause the direction or management of such entity, whether by contract or otherwise, or (ii) ownership of fifty percent (50%) or more of the outstanding shares, or (iii) beneficial ownership of such entity.

"You" (or "Your") shall mean an individual or Legal Entity exercising permissions granted by this License.

"Source" form shall mean the preferred form for making modifications, including but not limited to software source code, documentation source, and configuration files.

"Object" form shall mean any form resulting from mechanical transformation or translation of a Source form, including but not limited to compiled object code, generated documentation, and conversions to other media types.

"Work" shall mean the work of authorship, whether in Source or Object form, made available under the License, as indicated by a copyright notice that is included in or attached to the work (an example is provided in the Appendix below).

"Derivative Works" shall mean any work, whether in Source or Object form, that is based on (or derived from) the Work and for which the editorial revisions, annotations, elaborations, or other modifications represent, as a whole, an original work of authorship. For the purposes of this License, Derivative Works shall not include works that remain separable from, or merely link (or bind by name) to the interfaces of, the Work and Derivative Works thereof.

"Contribution" shall mean any work of authorship, including the original version of the Work and any modifications or additions to that Work or Derivative Works thereof, that is intentionally submitted to Licensor for inclusion in the Work by the copyright owner or by an individual or Legal Entity authorized to submit on behalf of the copyright owner. For the purposes of this definition, "submitted" means any form of electronic, verbal, or written communication sent to the Licensor or its representatives, including but not limited to communication on electronic mailing lists, source code control systems, and issue tracking systems that are managed by, or on behalf of, the Licensor for the purpose of discussing and improving the Work, but excluding communication that is conspicuously marked or otherwise designated in writing by the copyright owner as "Not a Contribution."

"Contributor" shall mean Licensor and any individual or Legal Entity on behalf of whom a Contribution has been received by Licensor and subsequently incorporated within the Work.

2. Grant of Copyright License. Subject to the terms and conditions of this License, each Contributor hereby grants to You a perpetual, worldwide, non-exclusive, no-charge, royalty-free, irrevocable copyright license to reproduce, prepare Derivative Works of, publicly display, publicly perform, sublicense, and distribute the Work and such Derivative Works in Source or Object form.

3. Grant of Patent License. Subject to the terms and conditions of this License, each Contributor hereby grants to You a perpetual, worldwide, non-exclusive, no-charge, royalty-free, irrevocable (except as stated in this section) patent license to make, have made, use, offer to sell, sell, import, and otherwise transfer the

Work, where such license applies only to those patent claims licensable by such Contributor that are necessarily infringed by their Contribution(s) alone or by combination of their Contribution(s) with the Work to which such Contribution(s) was submitted. If You institute patent litigation against any entity (including a cross-claim or counterclaim in a lawsuit) alleging that the Work or a Contribution incorporated within the Work constitutes direct or contributory patent infringement, then any patent licenses granted to You under this License for that Work shall terminate as of the date such litigation is filed.

4. Redistribution. You may reproduce and distribute copies of the Work or Derivative Works thereof in any medium, with or without modifications, and in Source or Object form, provided that You meet the following conditions:

   a. You must give any other recipients of the Work or Derivative Works a copy of this License; and

   b. You must cause any modified files to carry prominent notices stating that You changed the files; and

   c. You must retain, in the Source form of any Derivative Works that You distribute, all copyright, patent, trademark, and attribution notices from the Source form of the Work, excluding those notices that do not pertain to any part of the Derivative Works; and

   d. If the Work includes a "NOTICE" text file as part of its distribution, then any Derivative Works that You distribute must include a readable copy of the attribution notices contained within such NOTICE file, excluding those notices that do not pertain to any part of the Derivative Works, in at least one of the following places: within a NOTICE text file distributed as part of the Derivative Works; within the Source form or documentation, if provided along with the Derivative Works; or, within a display generated by the Derivative Works, if and wherever such third-party notices normally appear. The contents of the NOTICE file are for informational purposes only and do not modify the License. You may add Your own attribution notices within Derivative Works that You distribute, alongside or as an addendum to the NOTICE text from the Work, provided that such additional attribution notices cannot be construed as modifying the License.

   You may add Your own copyright statement to Your modifications and may provide additional or different license terms and conditions for use, reproduction, or distribution of Your modifications, or for any such Derivative Works as a whole, provided Your use, reproduction, and distribution of the Work otherwise complies with the conditions stated in this License.

5. Submission of Contributions. Unless You explicitly state otherwise, any Contribution intentionally submitted for inclusion in the Work by You to the Licensor shall be under the terms and conditions of this License, without any additional terms or conditions. Notwithstanding the above, nothing herein shall supersede or modify the terms of any separate license agreement you may have executed with Licensor regarding such Contributions.

6. Trademarks. This License does not grant permission to use the trade names, trademarks, service marks, or product names of the Licensor, except as required for reasonable and customary use in describing the origin of the Work and reproducing the content of the NOTICE file.

7. Disclaimer of Warranty. Unless required by applicable law or agreed to in writing, Licensor provides the Work (and each Contributor provides its Contributions) on an "AS IS" BASIS, WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied, including, without limitation, any warranties or

conditions of TITLE, NON-INFRINGEMENT, MERCHANTABILITY, or FITNESS FOR A PARTICULAR PURPOSE. You are solely responsible for determining the appropriateness of using or redistributing the Work and assume any risks associated with Your exercise of permissions under this License.

8. Limitation of Liability. In no event and under no legal theory, whether in tort (including negligence), contract, or otherwise, unless required by applicable law (such as deliberate and grossly negligent acts) or agreed to in writing, shall any Contributor be liable to You for damages, including any direct, indirect, special, incidental, or consequential damages of any character arising as a result of this License or out of the use or inability to use the Work (including but not limited to damages for loss of goodwill, work stoppage, computer failure or malfunction, or any and all other commercial damages or losses), even if such Contributor has been advised of the possibility of such damages.

9. Accepting Warranty or Additional Liability. While redistributing the Work or Derivative Works thereof, You may choose to offer, and charge a fee for, acceptance of support, warranty, indemnity, or other liability obligations and/or rights consistent with this License. However, in accepting such obligations, You may act only on Your own behalf and on Your sole responsibility, not on behalf of any other Contributor, and only if You agree to indemnify, defend, and hold each Contributor harmless for any liability incurred by, or claims asserted against, such Contributor by reason of your accepting any such warranty or additional liability.

END OF TERMS AND CONDITIONS

APPENDIX: How to apply the Apache License to your work.

To apply the Apache License to your work, attach the following boilerplate notice, with the fields enclosed by brackets "[]" replaced with your own identifying information. (Don't include the brackets!) The text should be enclosed in the appropriate comment syntax for the file format. We also recommend that a file or class name and description of purpose be included on the same "printed page" as the copyright notice for easier identification within third-party archives.

Copyright [yyyy] [name of copyright owner]

Licensed under the Apache License, Version 2.0 (the "License"); you may not use this file except in compliance with the License. You may obtain a copy of the License at

http://www.apache.org/licenses/LICENSE-2.0

Unless required by applicable law or agreed to in writing, software distributed under the License is distributed on an "AS IS" BASIS, WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied.

See the License for the specific language governing permissions and limitations under the License.

The following software may be included in this product: BCEL 5.x. Use of any of this software is governed by the terms of the license below:

Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met: Redistribution of source code must retain the above copyright notice, this list of conditions and the following disclaimer. Redistribution in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution. All advertising materials mentioning features or use of this software must display the following acknowledgment: This product includes software developed by the Java Apache Project for use in the Apache JServ servlet engine project (http://java.apache.org/).

The names "Apache JServ", "Apache JServ Servlet Engine" and "Java Apache Project" must not be used to endorse or promote products derived from this software without prior written permission. Products derived from this software may not be called "Apache JServ" nor may "Apache" nor "Apache JServ" appear in their names without prior written permission of the Java Apache Project. Redistribution of any form whatsoever must retain the following acknowledgment: This product includes software developed by the Java Apache Project for use in the Apache JServ servlet engine project (http://java.apache.org/).

THIS SOFTWARE IS PROVIDED BY THE JAVA APACHE PROJECT "AS IS" AND ANY EXPRESSED OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE JAVA APACHE PROJECT OR ITS CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

The following software may be included in this product: RegExp v1.x. Use of any of this software is governed by the terms of the license below:

Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met: Redistribution of source code must retain the above copyright notice, this list of conditions and the following disclaimer. Redistribution in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution. All advertising materials mentioning features or use of this software must display the following acknowledgment: This product includes software developed by the Java Apache Project for use in the Apache JServ servlet engine project (http://java.apache.org/).

The names "Apache JServ", "Apache JServ Servlet Engine" and "Java Apache Project" must not be used to endorse or promote products derived from this software without prior written permission. Products derived from this software may not be called "Apache JServ" nor may "Apache" nor "Apache JServ" appear in their names without prior written permission of the Java Apache Project. Redistribution of any form whatsoever must retain the following acknowledgment: This product includes software developed by the Java Apache Project for use in the Apache JServ servlet engine project (http://java.apache.org/).

THIS SOFTWARE IS PROVIDED BY THE JAVA APACHE PROJECT "AS IS" AND ANY EXPRESSED OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE JAVA APACHE PROJECT OR ITS CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

The following software may be included in this product: Jcup. Use of any of this software is governed by the terms of the license below:

CUP Parser Generator Copyright Notice, License, and Disclaimer

Copyright 1996-1999 by Scott Hudson, Frank Flannery, C. Scott Ananian

Permission to use, copy, modify, and distribute this software and its documentation for any purpose and without fee is hereby granted, provided that the above copyright notice appear in all copies and that both the copyright notice and this permission notice and warranty disclaimer appear in supporting documentation, and that the names of the authors or their employers not be used in advertising or publicity pertaining to distribution of the software without specific, written prior permission.

The authors and their employers disclaim all warranties with regard to this software, including all implied warranties of merchantability and fitness. In no event shall the authors or their employers be liable for any special, indirect or consequential damages or any damages whatsoever resulting from loss of use, data or profits, whether in an action of contract, negligence or other tortious action, arising out of or in connection with the use or performance of this software.

The following software may be included in this product: Jlex. Use of any of this software is governed by the terms of the license below:

JLEX COPYRIGHT NOTICE, LICENSE AND DISCLAIMER.

The following software may be included in this product: Xerces v2.6.x. Use of any of this software is governed by the terms of the license below:

Copyright 1996-2003 by Elliot Joel Berk and C. Scott Ananian

Permission to use, copy, modify, and distribute this software and its documentation for any purpose and without fee is hereby granted, provided that the above copyright notice appear in all copies and that both the copyright notice and this permission notice and warranty disclaimer appear in supporting documentation, and that the name of the authors or their employers not be used in advertising or publicity pertaining to distribution of the software without specific, written prior permission.

The authors and their employers disclaim all warranties with regard to this software, including all implied warranties of merchantability and fitness. In no event shall the authors or their employers be liable for any special, indirect or consequential damages or any damages whatsoever resulting from loss of use, data or profits, whether in an action of contract, negligence or other tortious action, arising out of or in connection with the use or performance of this software.

Java is a trademark of Sun Microsystems, Inc. References to the Java programming language in relation to JLex are not meant to imply that Sun endorses this product.

Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met: Redistribution of source code must retain the above copyright notice, this list of conditions and the following disclaimer. Redistribution in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution. All advertising materials mentioning features or use of this software must display the following acknowledgment: This product includes software developed by the Java Apache Project for use in the Apache JServ servlet engine project (http://java.apache.org/).

The names "Apache JServ", "Apache JServ Servlet Engine" and "Java Apache Project" must not be used to endorse or promote products derived from this software without prior written permission. Products derived from this software may not be called "Apache JServ" nor may "Apache" nor "Apache JServ" appear in their names without

prior written permission of the Java Apache Project. Redistribution of any form whatsoever must retain the following acknowledgment: This product includes software developed by the Java Apache Project for use in the Apache JServ servlet engine project (http://java.apache.org/).

THIS SOFTWARE IS PROVIDED BY THE JAVA APACHE PROJECT "AS IS" AND ANY EXPRESSED OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE JAVA APACHE PROJECT OR ITS CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

SAAJ

Java WSDP Registry Server

The following software may be included in this product: Xindice 1.x. Use of any of this software is governed by the terms of the license below:

Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met: Redistribution of source code must retain the above copyright notice, this list of conditions and the following disclaimer. Redistribution in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution. All advertising materials mentioning features or use of this software must display the following acknowledgment: This product includes software developed by the Java Apache Project for use in the Apache JServ servlet engine project (http://java.apache.org/).

The names "Apache JServ", "Apache JServ Servlet Engine" and "Java Apache Project" must not be used to endorse or promote products derived from this software without prior written permission. Products derived from this software may not be called "Apache JServ" nor may "Apache" nor "Apache JServ" appear in their names without prior written permission of the Java Apache Project. Redistribution of any form whatsoever must retain the following acknowledgment: This product includes software developed by the Java Apache Project for use in the Apache JServ servlet engine project (http://java.apache.org/).

THIS SOFTWARE IS PROVIDED BY THE JAVA APACHE PROJECT "AS IS" AND ANY EXPRESSED OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE JAVA APACHE PROJECT OR ITS CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

XML Digital Signatures

The following software may be included in this product: Apache XML Security. Use of any of this software is governed by the terms of the license below:

Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met: Redistribution of source code must retain the above copyright notice, this list of conditions and the following disclaimer. Redistribution in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution. All advertising materials mentioning features or use of this software must display the following acknowledgment: This product includes software developed by the Java Apache Project for use in the Apache JServ servlet engine project (http://java.apache.org/).

The names "Apache JServ", "Apache JServ Servlet Engine" and "Java Apache Project" must not be used to endorse or promote products derived from this software without prior written permission. Products derived from this software may not be called "Apache JServ" nor may "Apache" nor "Apache JServ" appear in their names without prior written permission of the Java Apache Project. Redistribution of any form whatsoever must retain the following acknowledgment: This product includes software developed by the Java Apache Project for use in the Apache JServ servlet engine project (http://java.apache.org/).

THIS SOFTWARE IS PROVIDED BY THE JAVA APACHE PROJECT "AS IS" AND ANY EXPRESSED OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE JAVA APACHE PROJECT OR ITS CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

The following software may be included in this product: DOM Level 2. Use of any of this software is governed by the terms of the license below:

W3C? SOFTWARE NOTICE AND LICENSE

Copyright ? 1994-2002 World Wide Web Consortium, (Massachusetts Institute of Technology, Institut National de Recherche en Informatique et en Automatique, Keio University). All Rights Reserved. http://www.w3.org/Consortium/Legal/

This W3C work (including software, documents, or other related items) is being provided by the copyright holders under the following license. By obtaining, using and/or copying this work, you (the licensee) agree that you have read, understood, and will comply with the following terms and conditions:

Permission to use, copy, modify, and distribute this software and its documentation, with or without modification, for any purpose and without fee or royalty is hereby granted, provided that you include the following on ALL copies of the software and documentation or portions thereof, including modifications, that you make:

1. The full text of this NOTICE in a location viewable to users of the redistributed or derivative work.

2. Any pre-existing intellectual property disclaimers, notices, or terms and conditions. If none exist, a short notice of the following form (hypertext is preferred, text is permitted) should be used within the body of any redistributed

or derivative code: "Copyright ? [$date-of-software] World Wide Web Consortium, (Massachusetts Institute of Technology, Institut National de Recherche en Informatique et en Automatique, Keio University). All Rights Reserved. http://www.w3.org/Consortium/Legal/"

3. Notice of any changes or modifications to the W3C files, including the date changes were made. (We recommend you provide URIs to the location from which the code is derived.)

THIS SOFTWARE AND DOCUMENTATION IS PROVIDED "AS IS," AND COPYRIGHT HOLDERS MAKE NO REPRESENTATIONS OR WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO, WARRANTIES OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE OR THAT THE USE OF THE SOFTWARE OR DOCUMENTATION WILL NOT INFRINGE ANY THIRD PARTY PATENTS, COPYRIGHTS, TRADEMARKS OR OTHER RIGHTS. COPYRIGHT HOLDERS WILL NOT BE LIABLE FOR ANY DIRECT, INDIRECT, SPECIAL OR CONSEQUENTIAL DAMAGES ARISING OUT OF ANY USE OF THE SOFTWARE OR DOCUMENTATION.

The name and trademarks of copyright holders may NOT be used in advertising or publicity pertaining to the software without specific, written prior permission. Title to copyright in this software and any associated documentation will at all times remain with copyright holders.

XML Web Services Security

The following software may be included in this product: Apache XML Security. Use of any of this software is governed by the terms of the license below:

Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met: Redistribution of source code must retain the above copyright notice, this list of conditions and the following disclaimer. Redistribution in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution. All advertising materials mentioning features or use of this software must display the following acknowledgment: This product includes software developed by the Java Apache Project for use in the Apache JServ servlet engine project (http://java.apache.org/).

The names "Apache JServ", "Apache JServ Servlet Engine" and "Java Apache Project" must not be used to endorse or promote products derived from this software without prior written permission. Products derived from this software may not be called "Apache JServ" nor may "Apache" nor "Apache JServ" appear in their names without prior written permission of the Java Apache Project. Redistribution of any form whatsoever must retain the following acknowledgment: This product includes software developed by the Java Apache Project for use in the Apache JServ servlet engine project (http://java.apache.org/).

THIS SOFTWARE IS PROVIDED BY THE JAVA APACHE PROJECT "AS IS" AND ANY EXPRESSED OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE JAVA APACHE PROJECT OR ITS CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING

NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

C.8 JMX-WS 1.0

Licensing information can be found here:

http://ws-jmx-connector.java.net/license.txt

C.9 Oracle Instant Client 11.2.0.3

Oracle Technology Network Development and Distribution License Terms for Instant Client

Export Controls on the Programs

Selecting the "Accept License Agreement" button is a confirmation of your agreement that you comply, now and during the trial term, with each of the following statements:

- You are not a citizen, national, or resident of, and are not under control of, the government of Cuba, Iran, Sudan, Libya, North Korea, Syria, nor any country to which the United States has prohibited export.

- You will not download or otherwise export or re-export the Programs, directly or indirectly, to the above mentioned countries nor to citizens, nationals or residents of those countries.

- You are not listed on the United States Department of Treasury lists of Specially Designated Nationals, Specially Designated Terrorists, and Specially Designated Narcotic Traffickers, nor are you listed on the United States Department of Commerce Table of Denial Orders.

- You will not download or otherwise export or re-export the Programs, directly or indirectly, to persons on the above mentioned lists.

- You will not use the Programs for, and will not allow the Programs to be used for, any purposes prohibited by United States law, including, without limitation, for the development, design, manufacture or production of nuclear, chemical or biological weapons of mass destruction.

EXPORT RESTRICTIONS

You agree that U.S. export control laws and other applicable export and import laws govern your use of the programs, including technical data; additional information can be found on Oracle®'s Global Trade Compliance web site (http://www.oracle.com/products/export).

You agree that neither the programs nor any direct product thereof will be exported, directly, or indirectly, in violation of these laws, or will be used for any purpose prohibited by these laws including, without limitation, nuclear, chemical, or biological weapons proliferation.

Oracle Employees: Under no circumstances are Oracle Employees authorized to download software for the purpose of distributing it to customers. Oracle products are available to employees for internal use or demonstration purposes only. In keeping with Oracle's trade compliance obligations under U.S. and applicable multilateral law, failure to comply with this policy could result in disciplinary action up to and including termination.

Note: You are bound by the Oracle Technology Network ("OTN") License Agreement terms. The OTN License Agreement terms also apply to all updates you receive under your Technology Track subscription.

The OTN License Agreement terms below supercede any shrinkwrap license on the OTN Technology Track software CDs and previous OTN License terms (including the Oracle Program License as modified by the OTN Program Use Certificate).

Oracle Technology Network Development and Distribution License Agreement for Instant Client

"We," "us," and "our" refers to Oracle America, Inc. "You" and "your" refers to the individual or entity that wishes to use the Programs from Oracle under this Agreement. "Programs" refers to the Software Products referenced below that you wish to download and use and Program documentation. "License" refers to your right to use the Programs and Program documentation under the terms of this Agreement. The substantive and procedural laws of California govern this Agreement. You and Oracle agree to submit to the exclusive jurisdiction of, and venue in, the courts of San Francisco, San Mateo, or Santa Clara counties in California in any dispute arising out of or relating to this Agreement.

We are willing to license the Programs to you only upon the condition that you accept all of the terms contained in this Agreement. Read the terms carefully and select the "Accept" button at the bottom of the page to confirm your acceptance. If you are not willing to be bound by these terms, select the "Do Not Accept" button and the registration process will not continue.

Software Product

- Instant Client

License Rights

License.

We grant you a non-exclusive right and license to use the Programs solely for your business purposes and development and testing purposes, subject to the terms of this Agreement. You may allow third parties to use the Programs, subject to the terms of this Agreement, provided such third party use is for your business operations only.

Distribution License

We grant you a non-exclusive right and license to distribute the Programs, provided that you do not charge your end users for use of the Programs. Your distribution of such Programs shall at a minimum include the following terms in an executed license agreement between you and the end user that: (1) restrict the use of the Programs to the business operations of the end user; (2) prohibit (a) the end user from assigning, giving, or transferring the Programs or an interest in them to another individual or entity (and if your end user grants a security interest in the Programs, the secured party has no right to use or transfer the Programs); (b) make the Programs available in any manner to any third party for use in the third party's business operations (unless such access is expressly permitted for the specific program license or materials from the services you have acquired); and (c) title to the Programs from passing to the end user or any other party; (3) prohibit the reverse engineering (unless required by law for interoperability), disassembly or decompilation of the Programs and prohibit duplication of the Programs except for a sufficient number of copies of each Program for the end user's licensed use and one copy of each Program media; (4) disclaim, to the extent permitted by applicable law, our liability for any damages, whether direct, indirect, incidental, or consequential, arising from the use of the Programs; (5) require the end user at the termination of the Agreement, to discontinue use and destroy or return to you all copies of the Programs and documentation; (6) prohibit publication of

any results of benchmark tests run on the Programs; (7) require the end user to comply fully with all relevant export laws and regulations of the United States and other applicable export and import laws to assure that neither the Programs, nor any direct product thereof, are exported, directly or indirectly, in violation of applicable laws; (8) do not require us to perform any obligations or incur any liability not previously agreed to between you and us; (9) permit you to audit your end user's use of the Programs or to assign your right to audit the end user's use of the Programs to us; (10) designate us as a third party beneficiary of the end user license agreement; (11) include terms consistent with those contained in the sections of this Agreement entitled "Disclaimer of Warranties and Exclusive Remedies," "No Technical Support," "End of Agreement," "Relationship Between the Parties," and "Open Source"; and (11) exclude the application of the Uniform Computer Information Transactions Act.

You may allow your end users to permit third parties to use the Programs on such end user's behalf for the purposes set forth in the end user license agreement, subject to the terms of such agreement. You shall be financially responsible for all claims and damages to us caused by your failure to include the required contractual terms set forth above in each end user license agreement between you and an end user. We are a third party beneficiary of any end user license agreement between you and the end user, but do not assume any of your obligations thereunder, and you agree that you will not enter into any end user license agreement that excludes us as a third party beneficiary and will inform your end users of our rights.

If you want to use the Programs for any purpose other than as expressly permitted under this Agreement you must contact us to obtain the appropriate license. We may audit your use of the Programs. Program documentation is either shipped with the Programs, or documentation may be accessed online at http://www.oracle.com/technetwork/indexes/documentation/index.html.

You agree to: (a) defend and indemnify us against all claims and damages caused by your distribution of the Programs in breach of this Agreement and/or failure to include the required contractual provisions in your end user agreement as stated above; (b) keep executed end user agreements and records of end user information including name, address, date of distribution and identity of Programs distributed; (c) allow us to inspect your end user agreements and records upon request; and, (d) enforce the terms of your end user agreements so as to effect a timely cure of any end user breach, and to notify us of any breach of the terms.

Ownership and Restrictions

We retain all ownership and intellectual property rights in the Programs. You may make a sufficient number of copies of the Programs for the licensed use and one copy of the Programs for backup purposes.

You may not:

- use the Programs for any purpose other than as provided above;

- charge your end users for use of the Programs;

- remove or modify any Program markings or any notice of our proprietary rights;

- assign this agreement or give the Programs, Program access or an interest in the Programs to any individual or entity except as provided under this agreement;

- cause or permit reverse engineering (unless required by law for interoperability), disassembly or decompilation of the Programs;

- disclose results of any Program benchmark tests without our prior consent.

Export

You agree that U.S. export control laws and other applicable export and import laws govern your use of the Programs, including technical data; additional information can be found on Oracle's Global Trade Compliance web site located at http://www.oracle.com/products/export/index.html. You agree that neither the Programs nor any direct product thereof will be exported, directly, or indirectly, in violation of these laws, or will be used for any purpose prohibited by these laws including, without limitation, nuclear, chemical, or biological weapons proliferation.

Disclaimer of Warranty and Exclusive Remedies

THE PROGRAMS ARE PROVIDED "AS IS" WITHOUT WARRANTY OF ANY KIND. WE FURTHER DISCLAIM ALL WARRANTIES, EXPRESS AND IMPLIED, INCLUDING WITHOUT LIMITATION, ANY IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR NONINFRINGEMENT.

IN NO EVENT SHALL WE BE LIABLE FOR ANY INDIRECT, INCIDENTAL, SPECIAL, PUNITIVE OR CONSEQUENTIAL DAMAGES, OR DAMAGES FOR LOSS OF PROFITS, REVENUE, DATA OR DATA USE, INCURRED BY YOU OR ANY THIRD PARTY, WHETHER IN AN ACTION IN CONTRACT OR TORT, EVEN IF WE HAVE BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. OUR ENTIRE LIABILITY FOR DAMAGES HEREUNDER SHALL IN NO EVENT EXCEED ONE THOUSAND DOLLARS (U.S. $1,000).

No Technical Support

Our technical support organization will not provide technical support, phone support, or updates to you or end users for the Programs licensed under this agreement.

Restricted Rights

If you distribute a license to the United States government, the Programs, including documentation, shall be considered commercial computer software and you will place a legend, in addition to applicable copyright notices, on the documentation, and on the media label, substantially similar to the following:

NOTICE OF RESTRICTED RIGHTS

"Programs delivered subject to the DOD FAR Supplement are 'commercial computer software' and use, duplication, and disclosure of the programs, including documentation, shall be subject to the licensing restrictions set forth in the applicable Oracle license agreement. Otherwise, programs delivered subject to the Federal Acquisition Regulations are 'restricted computer software' and use, duplication, and disclosure of the programs, including documentation, shall be subject to the restrictions in FAR 52.227-19, Commercial Computer Software-Restricted Rights (June 1987). Oracle Corporation, 500 Oracle Parkway, Redwood City, CA 94065."

End of Agreement

You may terminate this Agreement by destroying all copies of the Programs. We have the right to terminate your right to use the Programs if you fail to comply with any of the terms of this Agreement, in which case you shall destroy all copies of the Programs.

Relationship Between the Parties

The relationship between you and us is that of licensee/licensor. Neither party will represent that it has any authority to assume or create any obligation, express or implied, on behalf of the other party, nor to represent the other party as agent, employee, franchisee, or in any other capacity. Nothing in this Agreement shall be construed to limit either party's right to independently develop or distribute software

that is functionally similar to the other party's products, so long as proprietary information of the other party is not included in such software.

Open Source

"Open Source" software - software available without charge for use, modification and distribution - is often licensed under terms that require the user to make the user's modifications to the Open Source software or any software that the user 'combines' with the Open Source software freely available in source code form. If you use Open Source software in conjunction with the Programs, you must ensure that your use does not: (i) create, or purport to create, obligations of us with respect to the Oracle Programs; or (ii) grant, or purport to grant, to any third party any rights to or immunities under our intellectual property or proprietary rights in the Oracle Programs. For example, you may not develop a software program using an Oracle Program and an Open Source program where such use results in a program file(s) that contains code from both the Oracle Program and the Open Source program (including without limitation libraries) if the Open Source program is licensed under a license that requires any "modifications" be made freely available. You also may not combine the Oracle Program with programs licensed under the GNU General Public License ("GPL") in any manner that could cause, or could be interpreted or asserted to cause, the Oracle Program or any modifications thereto to become subject to the terms of the GPL.

Entire Agreement

You agree that this Agreement is the complete agreement for the Programs and licenses, and this Agreement supersedes all prior or contemporaneous Agreements or representations. If any term of this Agreement is found to be invalid or unenforceable, the remaining provisions will remain effective.

Last updated: 01/24/08

Should you have any questions concerning this License Agreement, or if you desire to contact Oracle for any reason, please write:

Oracle America, Inc.

500 Oracle Parkway,

Redwood City, CA 94065

Oracle may contact you to ask if you had a satisfactory experience installing and using this OTN software download.

C.10 Oracle Universal Connection Pool 11.1.0.7

Licensing information can be found here:

http://www.oracle.com/technetwork/licenses/standard-license-152015.html

C.11 TopLink 11.1.1.4.0

Licensing information can be found here:

http://docs.oracle.com/cd/E23943_01/doc.1111/e14860/products.htm#BABBCFGG

C.12 Oracle BI Publisher Desktop 11.1.1.3

Oracle Enterprise Manager Ops Center customers may use the embedded Oracle Business Intelligence Publisher to run the shipped, unmodified reports. If customers

want to modify the shipped reports, or create and run new BI Publisher reports, they must purchase a Full Use license of Business Intelligence Publisher.

C.13 OVM Storage Connect Framework (Plugin Manager) 1.2.8

Licensing information can be found here:

https://edelivery.oracle.com/EPD/LinuxLicense/get_form?fullscreen=1&ARU_LANG=US

C.14 OVM Storage Connect - SCCaller API 0.4.0

Licensing information can be found here:

https://edelivery.oracle.com/EPD/LinuxLicense/get_form?fullscreen=1&ARU_LANG=US

C.15 Sun Storage 7000 Storage Connect Plugin 1.0.1

Licensing information can be found here:

http://www.oracle.com/technetwork/server-storage/sun-unified-storage/downloads/zfssa-plugins-1489830.html

Index