Oracle Enterprise Manager Ops Center 12c Administration

Student Guide - Volume I

D75371GC10
Edition 1.0
October 2012
D79572

ORACLE

Authors

Jeff Ferreira
Steve Selting
Jody Glover

Technical Contributors and Reviewers

Jeff Ferreira
Steve Stelting
Gary Riseborough
Jody Glover

Editor

Malavika Jinka

Publishers

Pavithran Adka
Jayanthy Keshavmurthy

Copyright © 2012, Oracle and/or its affiliates. All rights reserved.

Disclaimer

This document contains proprietary information and is protected by copyright and other intellectual property laws. You may copy and print this document solely for your own use in an Oracle training course. The document may not be modified or altered in any way. Except where your use constitutes "fair use" under copyright law, you may not use, share, download, upload, copy, print, display, perform, reproduce, publish, license, post, transmit, or distribute this document in whole or in part without the express authorization of Oracle.

The information contained in this document is subject to change without notice. If you find any problems in the document, please report them in writing to: Oracle University, 500 Oracle Parkway, Redwood Shores, California 94065 USA. This document is not warranted to be error-free.

Restricted Rights Notice

If this documentation is delivered to the United States Government or anyone using the documentation on behalf of the United States Government, the following notice is applicable:

U.S. GOVERNMENT RIGHTS
The U.S. Government's rights to use, modify, reproduce, release, perform, display, or disclose these training materials are restricted by the terms of the applicable Oracle license agreement and/or the applicable U.S. Government contract.

Trademark Notice

Oracle and Java are registered trademarks of Oracle and/or its affiliates. Other names may be trademarks of their respective owners.

Contents

Preface

1 Introducing Oracle Enterprise Manager Ops Center, 12*c*

Objectives 1-2
Today's Technical and Business Challenges (1/2) 1-3
Today's Technical and Business Challenges (2/2) 1-4
About Enterprise Manager Ops Center 1-5
About Enterprise Manager Ops Center: Benefits 1-6
About Enterprise Manager Ops Center: Asset Life Cycle Management 1-7
About Enterprise Manager Ops Center: Integration with Cloud Control 1-8
Component: Overview 1-9
Installation Options: Downloading Installers 1-11
Installation Options: Oracle Engineered Systems (1/2) 1-12
Installation Options: Oracle Engineered Systems (2/2) 1-13
Operating System Management Capabilities 1-14
Main Features 1-15
Main Features: Discovering and Managing Assets 1-16
Main Features: Provisioning Operating Systems and Firmware 1-17
Main Features: Managing Operating System Updates 1-18
Main Features: Monitoring and Managing Assets (1/2) 1-19
Main Features: Monitoring and Managing Assets (2/2) 1-20
Main Features: Managing Incidents 1-21
Main Features: Generating Reports 1-22
Main Features: Creating and Managing Virtual Systems 1-24
User Interface 1-25
User Interface: Navigation Pane 1-26
User Interface: Center Pane 1-28
User Interface: Action Pane 1-29
User Interface: Jobs Pane 1-30
New Features: Enterprise Manager Ops Center 12*c* 1-31
New Features: Enterprise Manager Ops Center 12*c* Release 1 1-32
Quiz 1-33
Summary 1-36

2 Understanding the Architecture
Objectives 2-2
Components in Detail 2-3
Components in Detail: Browser User Interface 2-4
Components in Detail: Knowledge Base and Oracle Solaris 11 Package Repository 2-5
Components in Detail: Enterprise Controller (1/2) 2-6
Components in Detail: Enterprise Controller (2/2) 2-7
Components in Detail: Enterprise Controller Database 2-8
Components in Detail: Proxy Controller (1/4) 2-9
Components in Detail: Proxy Controller (2/4) 2-10
Components in Detail: Proxy Controller (3/4) 2-11
Components in Detail: Proxy Controller (4/4) 2-12
Components in Detail: Agent Controller 2-13
Components in Detail: Assets (1/3) 2-16
Components in Detail: Assets (2/3) 2-17
Components in Detail: Assets (3/3) 2-19
Connected Mode Versus Disconnected Mode (1/2) 2-20
Network Ports and Protocols (1/3) 2-22
Network Ports and Protocols (2/3) 2-23
Network Ports and Protocols (3/3) 2-24
Enterprise Manager Ops Center's Subscription Model 2-27
Enterprise Manager Ops Center's Job Process 2-28
Enterprise Manager Ops Center Infrastructure Stack Plug-in 2-29
Quiz 2-30
Summary 2-34
Practice 2 Overview: Understanding the Architecture 2-35

3 Installing and Configuring Oracle Enterprise Manager Ops Center
Objectives 3-2
Installation: Overview 3-3
System Requirements: Enterprise Controller and Proxy Controller 3-5
System Requirements: Oracle Database 3-7
System Requirements: Oracle Solaris 11 Requirements 3-11
System Requirements: Using the OCDoctor.sh Script 3-14
Ops Center Configuration Options Example Configuration 3-17
Configuration Options Configuration Wizard 3-18
Preparing for Installation Downloading an Update Bundle 3-19
Preparing for Installation Accessing Software and Documentation 3-21
Preparing for Installation Preparing an Oracle Solaris System 3-22
Preparing for Installation Preparing a Linux System 3-24

Enterprise Manager Ops Center HA Configuration HA Overview 3-26
Performing an Installation Installation: Overview 3-28
Performing an Installation Beginning the Installation 3-29
Performing an Installation System Requirements Checks 3-30
Performing an Installation install Script Progress 3-31
Performing an Installation Installation Complete 3-32
Performing an Installation Logging In to Enterprise Manager Ops Center 3-33
Performing an Installation Prerequisite Checklist 3-34
Performing an Installation Enterprise Controller Setup Panel 3-35
Performing an Installation Configuring Proxy Controllers 3-37
Performing an Installation Remote Proxy Controllers Panel 3-38
Performing an Installation Proxy Controller Status Panel 3-39
Performing an Installation Connection Mode Panel 3-40
Performing an Installation Connecting to My Oracle Support Panel 3-41
Performing an Installation ASR Contact Information Panel 3-42
Performing an Installation Create Software Libraries Panel 3-43
Performing an Installation Linux and Oracle Solaris Software Source Panel 3-44
Performing an Installation Oracle Solaris 11 Source Repository Panel 3-45
Performing an Installation Configure DHCP for OS Provisioning Panel 3-46
Performing an Installation Summary Panel 3-47
Performing an Installation Configuration Complete 3-48
Installation Validation 3-49
Deploying Additional Proxies 3-51
Deploying Additional Proxies Deploy Proxy Wizard 3-52
Deploying Additional Proxies Manually Deploying a Proxy Controller 3-55
Uninstalling Ops Center 3-57
Setting Session Timeout Values 3-58
Quiz 3-59
Summary 3-63
Practice 3 Overview: Installing Oracle Enterprise Manager Ops Center 3-64

4 Discovering and Managing Assets
Objectives 4-2
Asset Discovery and Management: Overview 4-3
Creating a Discovery Profile Create Profile Action 4-9
Using the Add Assets Action 4-16
Using the Add Assets Action Adding Assets Using Discovery Probes 4-17
Using the Add Assets Action Declaring Servers for OS Provisioning 4-20
Using the Add Assets Action XML Discovery File Format 4-23
Using the Add Assets Action Declaring Servers for SP Configuration 4-25
Switching Management Access 4-28

Using the Find Assets Action 4-31
Using the Find Assets Action Managing Discovered Hardware 4-33
Using the Find Assets Action Managing Discovered Operating Systems 4-34
Using the Find Assets Action Managing Engineered Systems and Summary 4-35
Using Discovery Profile Life-Cycle Actions 4-36
Using Management Credentials Life-Cycle Actions 4-37
Using Management Credentials Life-Cycle Actions: Editing Credentials 4-40
Using Management Credentials Life-Cycle Actions: Copying Credentials 4-41
Using Management Credentials Life-Cycle Actions: Deleting Credentials 4-42
Updating Management Credentials 4-43
Configuring a Windows OS for Discovery 4-47
Configuring a Windows OS for Discovery Creating Discovery Criteria 4-48
Discovering a SPARC Enterprise M-Series Server Overview 4-49
Discovering a SPARC Enterprise M-Series Server Creating Discovery Criteria 4-50
Migrating Assets Between Proxy Controllers 4-51
Deleting Assets 4-53
Quiz 4-56
Summary 4-60
Practice 4 Overview: Discovering and Managing Assets 4-61

5 Monitoring and Administering Assets Using Oracle Enterprise Manager Ops Center
Objectives 5-2
Manually Installing Agent Controller Software: Overview 5-3
Manually Installing Agent Controller Software Agent Installation and Configuration 5-4
Manually Installing Agent Controller Software Agent Install Script Options 5-5
Manually Installing Agent Controller Software agentadm Command 5-6
Manually Installing Agent Controller Software Required agentadm Configuration Arguments 5-7
Manually Installing Agent Controller Software Optional agentadm Configuration Arguments 5-9
Manually Installing Agent Controller Software Agent Configuration Using agentadm 5-10
Manually Installing Agent Controller Software Manual Agent Configuration Results in the UI 5-11
Agent Configuration Agent Configuration for the EC and Proxy 5-12
Agent Configuration Configuring the EC Agent in the UI 5-13
Asset Management and Monitoring: Overview 5-14
Asset Management and Monitoring Hardware Management and Monitoring 5-15
Asset Management and Monitoring System Capabilities (OS Management) 5-17

Asset Management and Monitoring System Capabilities (SP Management) 5-18
Asset Management and Monitoring Monitored System Data (SP Management) 5-19
Asset Management and Monitoring SP Management Action: Example 5-20
Asset Management and Monitoring OS Management and Monitoring 5-21
Asset Management and Monitoring OS Capabilities 5-23
Asset Management and Monitoring OS Capabilities Action: Example 5-25
Asset Management and Monitoring Monitored OS Data (Summary) 5-26
Asset Management and Monitoring Monitored OS Data (Analytics) 5-27
Asset Management and Monitoring Dashboard View of Assets 5-29
Asset Management and Monitoring Dashboard View for All Assets 5-30
Asset Management and Monitoring Dashboard View for a Single Asset 5-31
Asset Management and Monitoring Dashboard View of a Managed Network 5-33
Asset Grouping Overview 5-34
Asset Grouping Standard Views of Assets 5-35
Asset Grouping Operating System View of Assets 5-36
Asset Grouping Server View of Assets 5-37
Asset Grouping User-Defined Groups 5-38
Asset Grouping Creating User-Defined Groups 5-39
Asset Grouping User-Defined Groups in the UI 5-45
Asset Management Organizing Assets 5-46
Asset Management Organizing Single Assets in the UI 5-47
Asset Management Organizing Managed Assets in the UI 5-48
Asset Management Organizing Grouped Assets in the UI 5-49
Quiz 5-50
Summary 5-52
Practice 5 Overview: Monitoring and Administering Assets Using Oracle Enterprise Manager Ops Center 5-53

6 Managing Users and Roles
Objectives 6-2
Users and Roles: Overview 6-3
Users and Roles: Overview User and Role Actions 6-4
Users and Roles Overview Roles and Permissions 6-5
Users and Roles Overview Permissions and Tasks 6-6
Users and Roles Overview Roles and Assets 6-7
Adding Local Users 6-8
Viewing Role Details 6-10
Viewing Role Details View User Role Details Wizard 6-11
Managing User Roles 6-13
Managing User Roles Manage Roles Wizard 6-14
Replicating User Roles 6-18

Managing User Roles Replicate User Roles Panel 6-19
Configuring Notification Profiles 6-21
Quiz 6-28
Summary 6-32
Practice 6 Overview: Managing Users and Roles 6-33

7 Managing Software Libraries
Objectives 7-2
About Libraries 7-3
About Libraries: Software Libraries (1/2) 7-4
About Libraries: Software Libraries (2/2) 7-5
About Libraries: Storage Libraries (1/2) 7-6
About Libraries: Storage Libraries (2/2) 7-7
Adding Software Libraries 7-8
Adding Software Libraries: Adding Local Libraries (1/2) 7-9
Adding Software Libraries: Adding Local Libraries (2/2) 7-10
Adding Software Libraries: Adding NAS Libraries (1/2) 7-11
Adding Software Libraries: Adding NAS Libraries (2/2) 7-12
Adding Software Libraries: Editing Library Attributes 7-13
Adding OS Images to Local Software Libraries 7-14
Adding OS Images to Local Software Libraries: Selecting Actions 7-15
Adding OS Images to Local Software Libraries: Uploading ISO Images 7-16
Adding OS Images to Local Software Libraries: Importing OS Images 7-17
Adding OS Images to Local Software Libraries: Downloading OS Images 7-18
Managing OS Images: Viewing Images in Software Libraries 7-19
Managing OS Images: Viewing Default Plans and Profiles 7-20
Managing OS Images: Selecting Management Actions 7-21
Adding Firmware to Software Libraries 7-22
Adding Firmware to Software Libraries: Downloading Firmware Images 7-23
Adding Firmware to Software Libraries: Uploading Firmware Images with Metadata (1/4) 7-24
Adding Firmware to Software Libraries: Uploading Firmware Images with Metadata (2/4) 7-25
Adding Firmware to Software Libraries: Uploading Firmware Images with Metadata (3/4) 7-26
Adding Firmware to Software Libraries: Uploading Firmware Images with Metadata (4/4) 7-27
Adding Firmware to Software Libraries: Uploading Firmware Images without Metadata (1/5) 7-28
Adding Firmware to Software Libraries: Uploading Firmware Images without Metadata (2/5) 7-29

Adding Firmware to Software Libraries: Uploading Firmware Images without Metadata (3/5) 7-30
Adding Firmware to Software Libraries: Uploading Firmware Images without Metadata (4/5) 7-31
Adding Firmware to Software Libraries: Uploading Firmware Images without Metadata (5/5) 7-32
Managing Firmware Images: Viewing Firmware Images in Software Libraries 7-33
Managing Firmware Images: Viewing Default Plans and Profiles 7-34
Managing Firmware Images: Selecting Management Actions 7-35
Managing the Solaris 11 Library: Initial Configuration 7-36
Managing the Solaris 11 Library: Viewing Library Details and Content 7-37
Managing the Solaris 11 Library: Viewing Default Plans and Profiles 7-38
Managing the Solaris 11 Library: Synchronizing the Library 7-39
Quiz 7-43
Summary 7-46
Practice 7 Overview: Managing Libraries 7-47

8 Introducing Plan Management
Objectives 8-2
Plans and Profiles: Overview 8-3
Plans and Profiles: Browser UI 8-4
Plan Management UI 8-6
Deployment Plans: Structure and Creation 8-7
Deployment Plans and Profiles: Default OS Provisioning Plans 8-8
Deployment Plans and Profiles: Default OS Provisioning Profiles 8-9
Deployment Plans and Profiles: Default Firmware Provisioning Plans 8-10
Deployment Plans and Profiles: Default Firmware Provisioning Profiles 8-11
Deployment Plans and Profiles: Creating a Deployment Plan with a Template 8-12
Deployment Plans and Profiles: Copying an Existing Deployment Plan 8-13
Deployment Plans and Profiles: Creating a Deployment Profile 8-14
Deployment Plans and Profiles: Copying an Existing Deployment Profile 8-15
Deployment Plans and Profiles: Versions of Plans and Profiles 8-16
Deployment Plans and Profiles: Versions of Deployment Profiles 8-17
Deployment Plans and Profiles: Updating Deployment Plans from Profiles 8-18
Deployment Plans and Profiles: Referrers to Profiles 8-19
Deployment Plans and Profiles: Deleting a Version of a Profile 8-20
Applying Deployment Plans 8-21
Applying Deployment Plans: Applying a Plan from Deployment Plans Summary 8-22
Applying Deployment Plans: Applying a Plan from the Plan's Action Menu 8-23
Applying Deployment Plans: Applying a Plan from an Asset's Action Menu 8-24

Applying Deployment Plans: Pre-Deployment Options 8-25
Plan Management Tabs: Operational Plans Category 8-26
Operational Plans and Profiles: Overview 8-27
Operational Plans and Profiles: Operational Plans and Profiles in the BUI 8-28
Operational Plans and Profiles: Creating an Operational Profile and Plan 8-29
Create an Operational Profile: Step 1 - Identify Profile 8-30
Creating an Operational Profile: Step 2 - Script 8-31
Creating an Operational Profile: Step 3 - Specify Additional Variables 8-33
Creating an Operational Profile: Step 4 - Summary 8-34
Operational Plans and Profiles: Applying an Operational Plan 8-35
Applying an Operational Plan: Applying a Plan from the Plan Management Tab 8-36
Applying an Operational Plan: Applying a Plan from the Asset Tab 8-37
Applying an Operational Plan: Operational Plan Selection and Variable Definition 8-38
Applying an Operational Plan: Job for an Operational Plan and Event Logs 8-39
Applying an Operational Plan: Alert-Based Execution of Operational Plans 8-40
Changes in Enterprise Manager Ops Center 12*c* 8-41
Quiz 8-43
Summary 8-46
Practice 8 Overview: Introducing Plan Management 8-47

9 Provisioning Firmware Using Oracle Enterprise Manager Ops Center
Objectives 9-2
Firmware Provisioning Overview 9-3
Firmware Provisioning Overview Preparing for Firmware Provisioning 9-4
Managing Firmware Images Storing Firmware Images 9-5
Managing Firmware Images Uploading Firmware Using Manual Metadata 9-7
Managing Firmware Images Uploading Firmware Using XML Metadata 9-14
Managing Firmware Images Uploaded Firmware 9-16
Managing Firmware Images Editing Firmware Metadata 9-17
Managing Firmware Images Identifying Default Firmware Profiles 9-18
Managing Firmware Images Identifying Default Deployment Plans 9-19
Managing Firmware Profiles Editing or Copying Firmware Provisioning Profiles 9-20
Managing Firmware Profiles Editing a Firmware Provisioning Profile 9-21
Managing Firmware Profiles Copying a Firmware Provisioning Profile 9-27
Managing Firmware Profiles Creating a Firmware Provisioning Profile 9-29
Managing Deployment Plans Creating a Deployment Plan 9-31
Managing Deployment Plans Editing a Deployment Plan 9-33
Running Firmware Reports 9-34
Provisioning Firmware 9-42
Provisioning Firmware Apply Deployment Plan Action 9-43

Provisioning Firmware Update Firmware Action 9-44
Provisioning Firmware Update Firmware Wizard – Minimal Interaction 9-45
Provisioning Firmware Update Firmware Wizard – Override Values 9-46
Enabling Automatic Firmware Downloads 9-48
Quiz 9-52
Summary 9-57
Practice 9 Overview: Provisioning Firmware 9-58

10 Provisioning Operating Systems Using Enterprise Manager Ops Center
Objectives 10-2
OS Provisioning: Overview (1/2) 10-3
OS Provisioning: Overview (2/2) 10-4
OS Provisioning: Preparing for OS Provisioning 10-5
Locating OS Images, Default OS Profiles, and Default Deployment Plans (1/3) 10-6
Locating OS Images, Default OS Profiles, and Default Deployment Plans (2/3) 10-7
Locating OS Images, Default OS Profiles, and Default Deployment Plans (3/3) 10-8
Configuring DHCP 10-9
Configuring DHCP: Enabling DHCP Services 10-10
Configuring DHCP: Configuring Subnets 10-11
Configuring DHCP: Configuring External DHCP Servers 10-12
Editing and Copying OS Provisioning Profiles (1/2) 10-13
Editing and Copying OS Provisioning Profiles (2/2) 10-14
Creating OS Provisioning Profiles: Starting the Create Profile Wizard 10-15
Creating OS Provisioning Profiles: Selecting Profile Types 10-16
Creating OS Provisioning Profiles: Identifying Profiles 10-17
Creating OS Provisioning Profiles: Creating Solaris 10 Profiles (1/11) 10-18
Creating OS Provisioning Profiles: Creating Solaris 10 Profiles (2/11) 10-19
Creating OS Provisioning Profiles: Creating Solaris 10 Profiles (3/11) 10-20
Creating OS Provisioning Profiles: Creating Solaris 10 Profiles (4/11) 10-21
Creating OS Provisioning Profiles: Creating Solaris 10 Profiles (5/11) 10-22
Creating OS Provisioning Profiles: Creating Solaris 10 Profiles (6/11) 10-23
Creating OS Provisioning Profiles: Creating Solaris 10 Profiles (7/11) 10-24
Creating OS Provisioning Profiles: Creating Solaris 10 Profiles (8/11) 10-25
Creating OS Provisioning Profiles: Creating Solaris 10 Profiles (9/11) 10-26
Creating OS Provisioning Profiles: Creating Solaris 10 Profiles (10/11) 10-27
Creating OS Provisioning Profiles: Creating Solaris 10 Profiles (11/11) 10-28
Creating OS Provisioning Profiles: Creating Solaris 11 Profiles (1/4) 10-29
Creating OS Provisioning Profiles: Creating Solaris 11 Profiles (2/4) 10-30
Creating OS Provisioning Profiles: Creating Solaris 11 Profiles (3/4) 10-31
Creating OS Provisioning Profiles: Creating Solaris 11 Profiles (4/4) 10-32
Creating OS Provisioning Profiles: Creating Linux Profiles (1/6) 10-33

Creating OS Provisioning Profiles: Creating Linux Profiles (2/6) 10-34
Creating OS Provisioning Profiles: Creating Linux Profiles (3/6) 10-35
Creating OS Provisioning Profiles: Creating Linux Profiles (4/6) 10-36
Creating OS Provisioning Profiles: Creating Linux Profiles (5/6) 10-37
Creating OS Provisioning Profiles: Creating Linux Profiles (6/6) 10-38
Creating Deployment Plans (1/3) 10-39
Creating Deployment Plans (2/3) 10-40
Creating Deployment Plans (3/3) 10-41
Provisioning Operating Systems 10-42
Provisioning Operating Systems: Applying Deployment Plans (1/2) 10-43
Provisioning Operating Systems: Applying Deployment Plans (2/2) 10-44
Provisioning Operating Systems: Provisioning with Minimal Interaction (1/5) 10-45
Provisioning an OS Provisioning with Minimal Interaction (2/5) 10-46
Provisioning an OS Provisioning with Minimal Interaction (3/5) 10-47
Provisioning an OS Provisioning with Minimal Interaction (4/5) 10-48
Provisioning an OS Provisioning with Minimal Interaction (5/5) 10-49
Provisioning Operating Systems: Overriding Profile Values (1/2) 10-50
Provisioning Operating Systems: Overriding Profile Values (2/2) 10-51
Installing JET Modules: Overview 10-52
Installing JET Modules: Default JET Modules 10-53
Installing JET Modules: Specifying JET Parameters and Importing JET Templates 10-55
Installing JET Modules Downloading JET Packages 10-56
Installing JET Modules Installing JET Packages onto Proxy Controllers 10-57
Quiz 10-58
Summary 10-63
Practice 8 Overview: Provisioning Operating Systems 10-64

11 Performing Update Management using Enterprise Manager Ops Center
Objectives 11-2
OS Updates 11-3
OS Updates: Operating System Support 11-4
OS Updates: Prerequisites for OS Updates 11-5
OS Updates: Methods for Adding Update Content 11-6
OS Updates: Solaris 8-10 and Linux OS Updates (1/2) 11-7
OS Updates: Solaris 8-10 and Linux OS Updates (2/2) 11-8
OS Updates: Linux and Solaris 8-10 Software Update Library 11-9
OS Updates: Oracle Solaris 11 Software Update Library 11-10
Performing Bulk Uploads: About the Bulk Upload Facility 11-11
Performing Bulk Uploads: Actions in the User Interface 11-12
Performing Bulk Uploads: Examining Bulk Upload Results 11-13

Solaris 8-10 and Linux Catalogs 11-14
Solaris 8-10 and Linux Catalogs: Actions 11-15
Working with Solaris 8-10 and Linux Catalogs: Viewing a Catalog 11-16
Working with Solaris 8-10 and Linux Catalogs: Creating a Snapshot of Catalog State 11-17
Working with Solaris 8-10 and Linux Catalogs: Patching an Asset from a Catalog 11-18
Options for Performing OS Updates 11-19
Options for Performing OS Updates: Update Actions for a Solaris 8-10 or Linux Asset 11-20
Options for Performing OS Updates: Update Actions for a Solaris 11 Asset 11-21
Options for Performing OS Updates: Updating an OS from an Update Profile 11-22
Options for Performing OS Updates: Updating an OS by Applying a Deployment Plan 11-23
Options for Performing OS Updates: Update Options from Report Results 11-24
Configuring the New OS Update Job Wizard 11-25
Configuring the New OS Update Job Wizard: Job Information Screen 11-26
Configuring the New OS Update Job Wizard: Job Schedule Screen 11-27
Configuring the New OS Update Job Wizard: Components of the Job Wizard 11-28
Configuring the New OS Update Job Wizard: Tasks in an OS Update Job 11-29
Configuring the New OS Update Job Wizard: Example Settings for a Multi-Task Job 11-30
OS Update Profiles 11-31
Creating OS Update Profiles: Starting the Create OS Update Profile Wizard 11-32
Creating OS Update Profiles: Searching for Packages and Patches 11-33
Creating OS Update Profiles: Installing Packages and Patches 11-34
Creating OS Update Profiles: Viewing OS Update Profiles 11-35
OS Update Policies 11-36
Creating OS Update Policies: Starting the Create OS Update Policy Wizard 11-37
Creating OS Update Policies: Configuring the Create OS Update Policy Wizard 11-38
Creating OS Update Policies: Viewing OS Update Policies 11-39
Selecting Custom OS Update Profiles and Policies for New Update OS Jobs 11-40
OS Update Jobs 11-41
OS Update Jobs: Update Process 11-42
Working with OS Update Jobs: Tracking the Status of Update Jobs 11-43
Working with OS Update Jobs: Answering Questions for an Update Job (1/2) 11-44
Working with OS Update Jobs: Answering Questions for an Update Job (2/2) 11-45
Working with OS Update Jobs: Viewing Task Progress for a Simulation Mode Job 11-46

Working with OS Update Jobs: Re-Running an Update Job in Actual Run Mode 11-47
Deployment Plans 11-48
Deployment Plans: Template for Install Server Plan 11-49
Deployment Plans: Template for Software Deployment/Update Plan 11-50
Deployment Plans: Template for Update Solaris 11 OS Plan 11-51
Deployment Plans: Update Solaris 11 OS Plan with OS Update Profile 11-52
Working with Deployment Plans: Applying a Solaris 11 Deployment Plan 11-53
Working with Deployment Plans: Viewing the Job Status for an OS Update Plan 11-54
Changes in OS Update Management for Enterprise Manager Ops Center 12*c* 11-55
Quiz 11-56
Summary 11-60
Practice 11: Overview 11-61

12 Performing Advanced Update Management with Enterprise Manager Ops Center

Objectives 12-2
Preparing for Disconnected Mode (1/2) 12-3
Preparing for Disconnected Mode (2/2) 12-4
Downloading Metadata: Copying the Harvester Bundle 12-5
Downloading Metadata: Running the Harvester 12-6
Downloading Metadata: Specifying General Commands 12-7
Downloading Metadata: Specifying Configuration Commands 12-8
Downloading Metadata: Example config.ini File 12-9
Downloading Metadata: Specifying Commands for Patch Downloads 12-10
Downloading Metadata: Running the Harvester Script (1/2) 12-11
Downloading Metadata: Running the Harvester Script (2/2) 12-12
Downloading Metadata: Example of Harvester Script Output 12-13
Setting Up Disconnected Mode: Options 12-14
Setting Up Disconnected Mode: Configuring Disconnected Mode 12-15
Setting Up Disconnected Mode: Switching to Disconnected Mode (1/3) 12-16
Setting Up Disconnected Mode: Switching to Disconnected Mode (2/3) 12-17
Setting Up Disconnected Mode: Switching to Disconnected Mode (3/3) 12-18
Local Content: Overview 12-19
Local Content: Navigation and Actions in the Browser UI 12-20
Adding Solaris 8-10 and Linux Local Content: Uploading Configuration Files (1/2) 12-21
Adding Solaris 8-10 and Linux Local Content: Uploading Configuration Files (2/2) 12-22

Adding Solaris 8-10 and Linux Local Content: Uploading Local Software Packages (1/2) 12-23
Adding Solaris 8-10 and Linux Local Content: Uploading Local Software Packages (2/2) 12-24
Adding Solaris 8-10 and Linux Local Content: Uploading Local Actions (1/2) 12-25
Adding Solaris 8-10 and Linux Local Content: Uploading Local Actions (2/2) 12-26
Adding Solaris 8-10 and Linux Local Content: Adding Local Content to OS Update Profiles (1/2) 12-27
Adding Solaris 8-10 and Linux Local Content: Adding Local Content to OS Update Profiles (2/2) 12-28
Adding Solaris 11 Local Content: Overview 12-29
Adding Solaris 11 Local Content: Creating an IPS Package 12-30
Adding Solaris 11 Local Content: Publishing an IPS Package 12-31
Adding Solaris 11 Local Content: Uploading IPS Content (1/2) 12-32
Adding Solaris 11 Local Content: Uploading IPS Content (2/2) 12-33
Updating Solaris Boot Environments: Solaris Live Upgrade Capabilities 12-34
Updating Solaris Boot Environments: Solaris Live Upgrade File Systems 12-35
Updating Solaris Boot Environments: Applying an Update to an Inactive BE 12-36
Updating Solaris Boot Environments: Supported Operating Systems 12-37
Creating Boot Environments: Overview 12-38
Creating Boot Environments During OS Updates: Solaris 10 (1/2) 12-39
Creating Boot Environments During OS Updates: Solaris 10 (2/2) 12-40
Creating Boot Environments by Using Profiles 12-41
Creating Boot Environments by Using Profiles: Solaris 10 (1/3) 12-42
Creating Boot Environments by Using Profiles: Solaris 10 (2/3) 12-43
Creating Boot Environments by Using Profiles: Solaris 10 (3/3) 12-44
Creating Boot Environments by Using Profiles: Solaris 11 (1/2) 12-45
Creating Boot Environments by Using Profiles: Solaris 11 (2/2) 12-46
Creating Boot Environments by Using the Create New Boot Environment Action – Solaris 11 12-47
Viewing and Managing Boot Environments 12-48
Viewing and Managing Boot Environments: Solaris 10 Boot Environments Tab 12-49
Viewing and Managing Boot Environments: Solaris 11 Boot Environments Tab 12-50
Viewing and Managing Boot Environments: Management Capabilities 12-51
Viewing and Managing Boot Environments: Activating and Rebooting Boot Environments 12-52
Viewing and Managing Boot Environments: Synchronizing Boot Environments 12-53

Viewing and Managing Boot Environments: Patching Solaris 10 Boot Environments (1/2) 12-54
Viewing and Managing Boot Environments: Patching Solaris 10 Boot Environments (2/2) 12-55
Changes in Enterprise Manager Ops Center 12*c* Release 1 12-56
Quiz 12-57
Summary 12-59
Practice 12 Overview: Performing Advanced Update Management 12-60

13 Managing Incidents, Service Requests, and Notifications using Enterprise Manager Ops Center
Objectives 13-2
Monitored Data and Monitoring Policies: Overview 13-3
Monitoring: Monitored Data for a Server 13-4
Monitoring: Monitoring Policy for a Server 13-5
Monitoring: Monitored Data for an OS Instance 13-6
Monitoring: Monitoring Policy for an OS Instance 13-7
Monitoring Policies and Alert Monitoring Rules: Overview 13-8
Monitoring Policies: Default Monitoring Policies in the Browser UI 13-9
Monitoring Policies: Alert Monitoring Rules in a Monitoring Policy 13-10
Monitoring Policies: Managing Monitoring Policies 13-11
Managing Monitoring Policies: Viewing Assets Associated with a Monitoring Policy 13-12
Managing Monitoring Policies: Editing an Asset's Monitoring Policy 13-13
Managing Monitoring Policies: Disabling Alert Monitoring Rules 13-14
Managing Monitoring Policies: Deleting Alert Monitoring Rules 13-15
Managing Monitoring Policies: Creating and Using Custom Monitoring Policies 13-16
Managing Monitoring Policies: Extracting a Monitoring Policy from an Asset 13-17
Managing Monitoring Policies: Creating a Monitoring Policy 13-18
Managing Monitoring Policies: Alert Monitoring Rules 13-19
Managing Monitoring Policies: Editing Alert Monitoring Rules 13-20
Managing Monitoring Policies: Editing Monitoring Thresholds in Analytics 13-21
Managing Monitoring Policies: Editing Parameters of a Monitoring Rule 13-22
Managing Monitoring Policies: Creating a New Threshold Monitoring Rule 13-23
Managing Monitoring Policies: Setting a Default Policy and Applying a Policy 13-24
Managing Monitoring Policies: Setting a Monitoring Policy as Default 13-25
Managing Monitoring Policies: Applying a Monitoring Policy to Assets 13-26
Notification and Incident Management: Overview 13-27
Notification and Incident Management: Viewing Alerts, Notifications, and Incidents 13-28

Notification and Incident Management: Message Center in the Browser UI 13-29
Notification and Incident Management: Asset View of Incidents in the Browser UI 13-30
Notifications and Notification Profile: Overview 13-31
Notification Management: Configuring a Notification Profile 13-32
Notification Management: Email Notification from Ops Center 13-33
Incident Management: Overview 13-34
Incident Management: Actions to Manage Incidents 13-35
Incident Management Actions to Manage Incidents 13-36
Incident Management: Viewing and Editing Incident Information 13-37
Incident Management: Viewing Incident Information in the Browser UI 13-38
Incident Management: Viewing Alerts and Annotations for an Incident 13-39
Incident Management: Adding an Annotation to an Incident 13-40
Incident Management: Service Dependencies 13-41
Service Dependencies: Defining a Service Provider 13-42
Service Dependencies: Defining a Service Consumer 13-43
Service Dependencies: Viewing the Possible Causes of an Incident 13-44
Incident Management: Managing Incident Ownership 13-45
Incident Management: Assigning an Incident 13-46
Incident Management: Acknowledging an Incident 13-47
Incident Management My Incident Queue for Ops Center User 13-48
Incident Management: Possible Actions for Incidents 13-49
Incident Management: Placing an Asset into Maintenance Mode 13-50
Incident Management: Asset in Maintenance Mode 13-51
Incident Management: Taking an Action on an Incident 13-52
Incident Management: Marking an Incident as Being Repaired 13-53
Incident Management: Closing an Incident 13-54
Incident Management: Managing Service Requests 13-55
Incident Management: Service Requests in the Browser UI 13-56
Incident Management: Service Request Details in the Browser UI 13-57
Incident Management: Managing ASR Capabilities 13-58
Changes in Incident Management for Enterprise Manager Ops Center 12*c* 13-59
Quiz 13-61
Summary 13-64

14 Working with Enterprise Manager Ops Center Reports
Objectives 14-2
Ops Center Reporting Capabilities: Overview 14-3
Ops Center Charts: Overview 14-4
Enterprise Manager Ops Center Charts: System Chart – Energy and Power Consumption 14-5

Enterprise Manager Ops Center Charts: OS Chart – CPU Utilization 14-6
Enterprise Manager Ops Center Reports: Overview 14-7
Enterprise Manager Ops Center Reports: Reports in the Browser UI 14-8
Enterprise Manager Ops Center Reports: Creating a New Report 14-9
Enterprise Manager Ops Center Reports: Configuring and Running a Report 14-10
Enterprise Manager Ops Center Reports: Viewing Report Results 14-11
Enterprise Manager Ops Center Reports: Standard Report Options 14-12
Standard Report Options: Exporting Report Results 14-13
Standard Report Options: Scheduling Options for Reports 14-14
Standard Report Options: Saving a Report as a Template 14-15
OS Update Reports: Solaris and Linux OS Update Reports 14-16
Solaris and Linux OS Update Reports: Report Definitions (1/2) 14-17
Solaris and Linux OS Update Reports: Report Definitions (2/2) 14-18
Solaris and Linux OS Update Reports: Change History Report 14-19
Solaris and Linux OS Update Reports: Baseline Analysis Report 14-20
Solaris and Linux OS Update Reports: Profile Report 14-21
Solaris and Linux OS Update Reports: Recommended Software Configuration Report 14-22
Solaris and Linux OS Update Reports: Solaris Update Compliance Report 14-23
Solaris and Linux OS Update Reports: Common Vulnerabilities and Exposures Report 14-24
Solaris and Linux OS Update Reports: Host Compliance Report 14-25
Solaris and Linux OS Update Reports: Catalog Compare Report 14-26
Solaris and Linux OS Update Reports: Incident Compliance Report 14-27
Solaris and Linux OS Update Reports: System Catalog Report 14-28
Solaris and Linux OS Update Reports: Additional Reports 14-29
Additional OS Update Reports: Distribution Update Report 14-30
Additional OS Update Reports: Service Pack Compliance Report 14-31
Additional OS Update Reports: Package Compliance Report 14-32
OS Update Reports: Windows OS Update Reports 14-33
System Information Report: Overview 14-35
System Information Report: Attribute Selection and Filtering 14-36
System Information Report: Sample Report Results (PDF Format) 14-37
Incident Reports: Overview 14-38
Incident Reports: Incident Summary Report 14-39
Incident Reports: Incident Detail Report 14-40
Firmware Compliance Report: Overview 14-41
Firmware Compliance Report: Firmware Profile Selection 14-42
Changes in Report Capabilities for Enterprise Manager Ops Center 12*c* 14-43

Quiz 14-44
Summary 14-47
Practice 14 Overview: Working with Reports 14-48

15 Performing Enterprise Manager Ops Center Administration
Objectives 15-2
Administration Scripts: Overview 15-3
Administration Scripts: The ecadm Script 15-4
Administration Scripts: ecadm Configuration Subcommands 15-5
Administration Scripts: ecadm HA Management Subcommands 15-6
Administration Scripts: proxyadm Command 15-7
Administration Scripts agentadm Command 15-8
Adding and Removing Proxy Controllers: Overview 15-9
Adding a Proxy Controller: Deploying a Proxy Controller from the Browser UI (1/2) 15-10
Adding a Proxy Controller: Deploying a Proxy Wizard from the Browser UI (2/2) 15-11
Adding a Proxy Controller: Newly Deployed Proxy Controller 15-12
Removing a Proxy Controller: Unconfiguring/Uninstalling a Proxy Controller 15-13
Networking in Ops Center: Overview 15-14
Networking in Ops Center: Networks Navigation Panel in the Browser UI 15-16
Administer Managed Networks on a Proxy: Associating Networks with a Proxy Controller 15-17
Associating Networks with a Proxy Controller: Proxy/Network Associations in the Browser UI 15-18
Associating Networks with a Proxy Controller: Proxy Controller with Associated Networks 15-19
Migrating Assets Between Proxy Controllers: Overview 15-20
Migrating Assets Between Proxy Controllers: Asset Migration in the Browser UI 15-21
Migrating Assets Between Proxy Controllers: Asset Migration Job 15-22
Performing Debugging using OCDoctor: Overview 15-23
Performing Debugging using OCDoctor: Performing Self Diagnosis on an Asset 15-24
Performing Debugging using OCDoctor: Self Diagnosis Wizard 15-25
Enterprise Controller Configuration Settings: Overview 15-26
Enterprise Controller Configuration Settings: Viewing Configuration Categories 15-27
Enterprise Controller Configuration Settings: Changing Configuration Settings 15-28
Upgrading Enterprise Manager Ops Center: Overview 15-29

Updating Enterprise Manager Ops Center: Downloading Updates in Connected Mode 15-30
Updating Enterprise Manager Ops Center: Steps in the Download Wizard 15-31
Upgrading the Enterprise Controller: Launching the Upgrade Wizard in the Browser UI 15-32
Upgrading the Enterprise Controller: Steps in the Enterprise Controller Upgrade Wizard 15-33
Upgrading Proxy Controllers: Viewing and Upgrading Proxy Controllers 15-34
Upgrading Agent Controllers: Viewing and Upgrading Agent Controllers 15-35
Upgrading Agent Controllers: Upgrading Agent Controllers from the Browser UI 15-36
Ops Center Backup and Restore: Overview 15-37
Ops Center Backup: Backup Command Syntax 15-38
Ops Center Backup: Sample Backup Script Execution 15-39
Ops Center Restore: Sample Restore Script Execution 15-40
Changes in Administration for Enterprise Manager Ops Center 12*c* 15-41
Quiz 15-42
Summary 15-44
Practice 15 Overview: Performing Administration 15-45