

Oracle® Enterprise Manager Ops Center

Provisioning Oracle Solaris 11 Operating Systems

12c Release 2 (12.2.2.0.0)

E47845-03

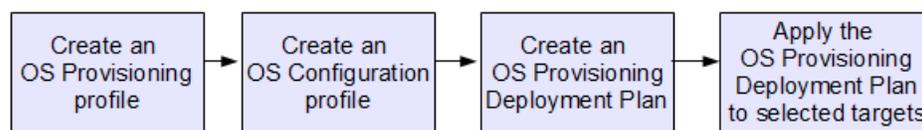
December 2014

This document provides an end-to-end example for how to use Oracle Enterprise Manager Ops Center to create and apply a Provision OS deployment plan to install an Oracle Solaris 11.1 operating system on a piece of configured hardware.

Introduction

Oracle Enterprise Manager Ops Center streamlines the process of installing an Oracle Solaris 11 operating system (OS) on configured or unconfigured hardware. As shown in [Figure 1](#), when you use Oracle Enterprise Manager Ops Center to provision, you create two profiles to define the provisioning parameters and a plan to apply your configuration selection to target systems.

Figure 1 OS Provisioning Flow



As shown in [Figure 1](#), the following is an overview of the OS provisioning process:

1. **Create an OS Provisioning profile:** Defines the OS provisioning parameters, including the platform-specific operating system image and software package, file system layout, user accounts, naming services, and other installation requirements.
2. **Create an OS Configuration profile:** Defines the OS configuration parameters, including the platform, how the operating system is managed (with or without an agent), MPxIO and networking options.
3. **Create an OS Provisioning Deployment Plan:** Defines the OS Provisioning and OS Configuration profiles to use for the provisioning job. To successfully create the plan, the OS Provisioning and OS Configuration profiles must be the same sub-type. For example, Solaris SPARC.
4. **Apply the OS Provisioning Deployment Plan to selected targets:** Selects the targets to provision, defines the boot interface resource assignments, network resource assignments, and server pool assignment (if applicable), and schedule when to begin the provisioning job.

You can reuse the OS Provisioning and OS Configuration profiles and the deployment plan to provision other systems or groups of systems.

Note: To provision operating systems on logical domains, you must use the OS Provisioning and OS Configuration profiles that have Logical Domains as a subtype. The profiles described in this document provision an operating system on configured systems.

See Planning for Operating System Provisioning in the *Oracle Enterprise Manager Ops Center Feature Reference Guide* for things to consider before provisioning.

Oracle Enterprise Manager Ops Center leverages the Oracle Solaris 11 Automated Installer (AI) feature and simplifies it. For example, you do not need to bootstrap a system, create an Automated Installer server, or configure WAN Boot to provision a system with an Oracle Solaris 11 operating system. Each Proxy Controller that is installed on an Oracle Solaris 11 operating system is designed to act as an Automated Installer server without any configuration on your part. The software configures WAN Boot on either a SPARC or x86 Proxy Controller, then selects it as the default connection.

The platform determines the connection options for provisioning Oracle Solaris 11:

- SPARC: Uses WAN Boot or DHCP connection. Oracle Enterprise Manager Ops Center automatically configures and uses WAN Boot. You can configure the software to use a DHCP connection on SPARC platforms. When you configure the software to use DHCP, that connection is used for all profiles and plans executed for Oracle Solaris 11 operating systems on SPARC.
- x86: Uses an ISC DHCP connection.

Oracle Solaris 11 uses group packages to install, or provision, the operating system. The following options are available:

- Oracle Solaris Large Server: Installs the solaris-large-server packages, which provide an Oracle Solaris large server environment.
- Oracle Solaris Small Server: Installs the solaris-small-server packages, which provide a useful command-line Oracle Solaris environment.
- Oracle Solaris Desktop: Installs the solaris-desktop packages, which provide an Oracle Solaris desktop environment.

You create an Oracle Solaris 11 Software Update Library when you install and configure the Oracle Enterprise Manager Ops Center software. The library contains the packages you need to have for provisioning and patching. You can configure the library to sync with the latest information on oracle.com on a set schedule, or you can use the Add Content option to update the library whenever you need to get the latest information. Adding Oracle Solaris 11 images to the software update library creates a default set of OS provisioning and configuration profiles and a default OS Provisioning plan for each image. Default profiles are prefixed with *default-*. For example, the following is the name of a default OS Provisioning profile: *default-profile-Oracle Solaris 11.0 sparc-13.4.0-OracleSolarisSmallServer*.

Profiles and plans simplify and standardize the procedures between different operating systems and platforms. The profiles take care of many of the configuration requirements for you and the plan defines the systems to provision and final configuration options, such as the boot interface and network assignments.

Beginning with Oracle Enterprise Manager Ops Center Release 2 (12.2.0.0.0), you will use two profiles to define your OS provisioning job:

1. **OS Provisioning profile:** Defines the platform, image, provisioning, and installation requirements, such as language, time zone, and console details. For Oracle Solaris 11, you can add an OS Update profile to the OS Provisioning profile. This is useful when you want to install packages as part of provisioning. For example, you can create an OS Update profile to add an FTP package or plug-ins.
2. **OS Configuration profile:** Defines the platform, operating system, and network configuration.

You can use the default profiles to provision the operating system, or you can keep the default profiles as templates and copy a profile and give it a name that is more meaningful to your organization. You can reuse any of the profiles and plans to quickly install the operating system on an unconfigured bare metal system or on a configured system.

This example shows how to create an OS Update profile to add a desktop Firefox extensions package, copy a default OS Provisioning profile and a default OS Configuration profile to create new profiles, and then create a new Provision OS deployment plan. The profiles and plan will install an Oracle Solaris 11.1 SRU 16.4 desktop operating system on a configured SPARC server using WAN Boot.

See [Related Articles and Resources](#) for links to related information and articles.

What You Will Need

You need the following to provision an Oracle Solaris 11.1 operating system:

- Enterprise Controller and Proxy Controller installed on a system running the Oracle Solaris 11.1 or later operating system.
- Oracle Solaris 11 Software Update Library. This example uses Oracle Solaris 11.1 SRU 16.4 content.
- Configured hardware to provision.
 - SPARC-based platform with at least OpenBoot PROM (OBP) version 4.17 installed.
 - Updated firmware.
 - Configured service processor.
 - SSH and IPMI Discovery Credentials for the service processor. You can use the system's default credentials or you can create discovery credentials. You will specify the credentials in the discovery profile. See [Discovering and Managing Hardware](#) for how to create SSH and IPMI credentials.
 - IP address for the service processor.
- Service processor discovered and visible in the Oracle Enterprise Manager Ops Center UI.
- A password for root and for the user account that you want to use for your new operating systems.

Note: Oracle Solaris 11 requires that you add a non-root user, such as admin, during installation. When you create the profile, you define the root password and non-root user name and password. The user name and passwords are configured on the operating system during provisioning.

- Network port and MAC address combination. These are used to connect to the server once it is available on the network.
- The roles and permissions to complete the tasks. You need the following Oracle Enterprise Manager Ops Center roles:
 - **Asset Admin** role to discover the service processor.
 - **Plan/Profile Admin** to create an OS Update profile, OS Provisioning profile, OS Configuration profile, and Provision OS deployment plan.
 - **Apply Deployment Plans** to apply the plan.

Provisioning an Oracle Solaris 11 Operating System

Complete the following actions to provision Oracle Solaris 11 operating system on configured and managed hardware:

- [Create an OS Provisioning Profile for Oracle Solaris 11 Operating System](#)
- [Create an OS Configuration Profile for an Oracle Solaris 11 Operating System](#)
- [Create a Provision OS Deployment Plan](#)
- [Discover the Service Processor](#)
- [Apply the Deployment Plan to Provision a System](#)

You can discover the target asset before or after creating the profiles and plans. After you create the profiles and plan, you can reuse and apply the plan to other target assets.

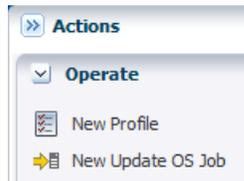
Create an OS Update Profile

You have the option to add an Oracle Solaris 11 OS Update profile to install or uninstall packages as part of an OS Provisioning profile. This example shows how to create an OS Update profile that installs a Firefox extension package. You can add the profile to an OS Provisioning profile. An OS Update profile is not required to provision an OS.

1. Expand **Plan Management** in the Navigation pane, then select **Update Profiles** under **Profiles and Policies**.



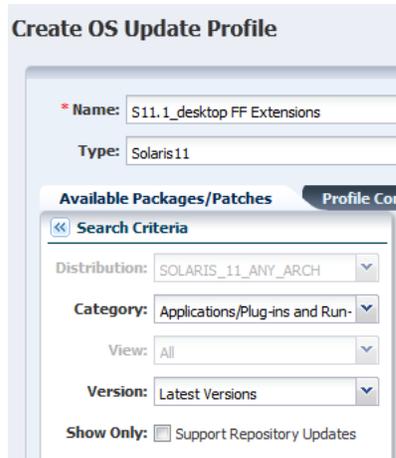
2. Click **New Profile** in the actions pane. Alternatively, you can right click **Update Profiles** in step 1, then click **New Profile** in the Navigation pane.



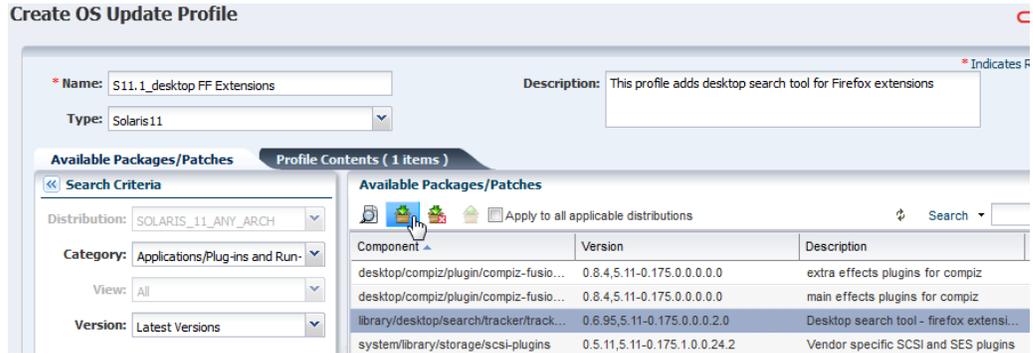
3. Enter a name and description for the profile, then select **Solaris 11**.

A screenshot of the 'Create OS Update Profile' form. The form has a title bar 'Create OS Update Profile'. It contains two input fields: 'Name' and 'Description'. The 'Name' field contains the text 'S11.1_desktop FF Extensions'. The 'Description' field contains the text 'This profile adds desktop search tool for Firefox extensions'. Below the 'Name' field is a dropdown menu labeled 'Type' with 'Solaris11' selected.

4. Select Distribution, Category, View, and Version from the Search Criteria. Select Show Only **Support Repository Updates** to further filter the list. The available search criteria are determined by your selection. In this example, select **Applications/Plug-ins and Run-times** from the Category menu and **Latest Versions**. A list of available packages appears on the right side of the page.



5. To get more information about a package, select the package and click the **View Details** icon, which is the first icon. To add the Firefox Extensions plug-in package components to the Profile Contents, select the components and click the **Install** icon.



6. Click **Create OS Update Profile**. The profile appears in the list of Update profiles.

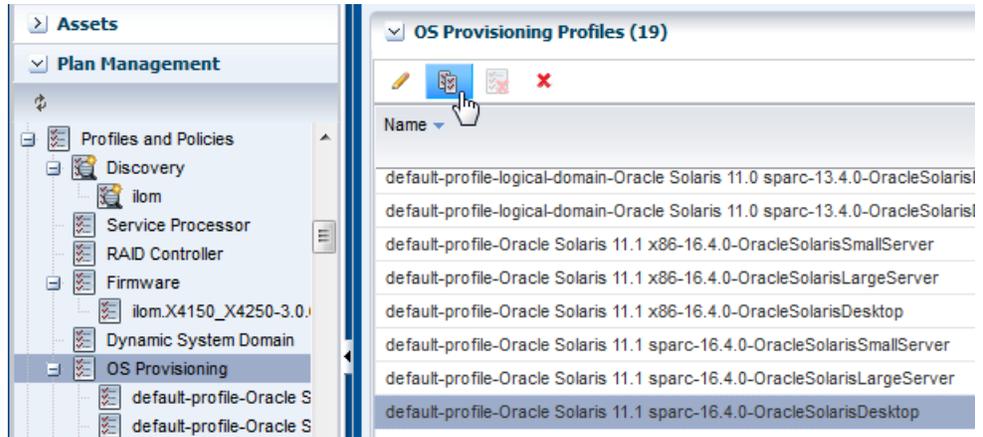
Create an OS Provisioning Profile for Oracle Solaris 11 Operating System

You can use the default profiles, make a copy of a default profile, or create a profile. One of the advantages to copying a default profile is that the correct platform, operating system image, and software group are pre-selected based on the image. This example shows how to copy the *default-profile-Oracle Solaris 11.1 SPARC-16.4.0-OracleSolarisDesktop* default profile to create a profile.

1. Expand **Plan Management** in the Navigation pane, then select **OS Provisioning** in the **Profiles and Policies** navigation tree.

A list of OS profiles appears in the center pane. Resize the column to view the entire profile name.

2. Select the default profile for the image. In this case, *default-profile-Oracle Solaris 11.1 SPARC-16.4-OracleSolarisDesktop*. Click the **Copy Profile** icon in the center pane.



3. Rename the profile. Revise and expand the profile description. The subtype and target type are based on the image and are not editable. Click **Next**.

4. On the Specify OSP Parameters page, the OS image, OS Image Version, and Software group are already selected based on the image. You can select one or more feature software groups. This example does not use additional feature software groups, but it does include the *S11.1_desktop FF Extensions Oracle Solaris 11 OS Update* profile created earlier. Select the profile from the list of user-defined update profiles. Click **Next**.

Specify OSP Parameters

Select an OS image from the list of images available.
Select one system software group and any optional feature software groups that fit your requirements. You can use Ctrl+Click and Shift+Click to select multiple software groups.

* OS Image: Oracle Solaris 11.1 sparc (AI)

* OS Image Version: SRU 16.4.0

* Software Group:

- System Software Groups
 - pkg://solaris/group/system/solaris-small-server
 - pkg://solaris/group/system/solaris-large-server
 - pkg://solaris/group/system/solaris-desktop
- Feature Software Groups
 - pkg://solaris/group/feature/trusted-desktop
 - pkg://solaris/group/feature/storage-server
 - pkg://solaris/group/feature/storage-nas

Include Custom Scripts

Solaris 11 Update Profile: S11.1_desktop FF Extensions

- Specify the OS Setup parameters by editing the default values, as needed and entering the root password twice. Click **Next**.

Specify OS Setup

Specify language, time zone, terminal type, console and root password for the OS.

Language: English (7-bit ASCII)

Time Zone: GMT

Terminal Type: vt100

Console Serial Port: ttya

Console Baud Rate: 9600

NFS4 Domain: dynamic

Root Password: ●●●●

Confirm Password: ●●●●

Manual Net Boot

- Language: Select a language from the list.
- Time Zone: Specify the time zone for the operating system.
- Terminal Type: Select a terminal type from the list.
- Console Serial Port: To monitor the installation using a serial connection, select the correct console serial port device.
- Console Baud Rate: To monitor the installation using a serial connection, select the correct serial port device baud rate.
- NFS4 Domain: Enter the NFS4 domain name that the target system will use. The dynamic value for NFSv4 domain name enables the NFSv4 domain to be

derived dynamically, at run time, based on the naming service configuration. You can also provide valid domain name to hard code the value for NFSv4 domain.

- Password: Enter the root password for the root user on systems provisioned using this profile. Re-enter the password for confirmation. The default password is *admin*.
6. Specify the User Account details, such as an admin user, then click **Next**. You cannot use root as the login user name.

Specify User Account

Specify user account to be used for the OS.

Username:

Full Name:

Password:

Confirm Password:

7. Click **Next**. This example does not use an iSCSI Disk for operating system provisioning.

Specify iSCSI Disk Usage

Specify if iSCSI disk is used for OS provisioning.

Use iSCSI Disk

8. Review and edit the default file system layout, then click **Next**.
- This example uses the default file system parameters. To change the default File System space allocation, click the size field and enter a new size.

Specify File System Layout

Specify the file systems that need to be created.

File Systems (2)

| File System Type | Mount Point | Device | Size (MB) |
|------------------|-------------|-------------|------------------------|
| swap | swap | rpool | 4096 |
| zfs | / | rootdisk.s0 | Remaining unused space |

9. Select **None**, then click **Next** to skip using a naming service. To use a naming service, select the service and complete the required fields.

Specify Naming Services

Specify the name service, the domain name, and the corresponding name server. If the name service is specified, the hostname would be automatically derived from it. Otherwise, the hostname will be generated by substituting the '.' in the target's IP address with the domain name.

Name Service: NONE DNS NIS NIS+ LDAP

- Review the parameters and click **Finish** to create the Oracle Solaris 11 OS Provisioning profile.

Summary

Review the properties of the profile. Click Finish to save the profile.

Name: Solaris 11.1 SPARC-16.4.0-Desktop
Description: OSP Desktop for Oracle Solaris 11.1 SPARC-16.4.0
Target Type: OSP SPARC
OS Image: Oracle Solaris 11.1 sparc (SRU 16.4.0) (AI)
Software Group: pkg://solaris/group/system/solaris-desktop
Language: English (7-bit ASCII)
Time Zone: GMT
Terminal Type: vt100
Console Serial Port: ttya
Console Baud Rate: 9600
NFS4 Domain: dynamic
Manual Net Boot:
Solaris 11 Update Profile: S11.1_uninstall games
Username: admin
Full Name: admin
Use iSCSI Disk:

File Systems (2)

| File System Type | Mount Point | Device | Size (MB) |
|------------------|-------------|-------------|------------------------|
| swap | swap | rpool | 4096 |
| zfs | / | rootdisk.s0 | Remaining unused space |

The profile appears in the center pane and in the Profiles and Policies section of **Plan Management**.

Solaris 11.1 SPARC-16.4.0-Desktop

Name: Solaris 11.1 SPARC-16.4.0-Desktop **Subtype:** Solaris SPARC
Description: OSP Desktop for Oracle Solaris 11.1 SPARC-16.4.0 **Version:** 1
Target Type: OSP SPARC **Last Modified:** 02/04/2014 10:44:11 pm MST

Profile Details

OS Image: Oracle Solaris 11.1 sparc (SRU 16.4.0) (AI) **Language:** English (7-bit ASCII)
Solaris 11 Update Profile: S11.1_uninstall games **Terminal Type:** vt100
Time Zone: GMT **Console Baud Rate:** 9600
Console Serial Port: ttya
NFS4 Domain: dynamic
 Manual Net Boot
 Save NVRAMRC values
Software Group: pkg://solaris/group/system/solaris-desktop
Name Service: NONE
Username: admin Use iSCSI Disk
Full Name: admin

File Systems (2)

| File System Type | Mount Point | Device | Size (MB) |
|------------------|-------------|-------------|------------------------|
| swap | swap | rpool | 4096 |
| zfs | / | rootdisk.s0 | Remaining unused space |

Create an OS Configuration Profile for an Oracle Solaris 11 Operating System

The OS Configuration profile defines how the OS is managed (with or without an agent) and the networking options. The profile is platform-specific, but not SRU-specific.

The OS Configuration profile lets you define the network interface that you want to use on the operating system. The first interface you define in this wizard is the boot interface and also the primary interface. You can add more than one network interface. When you apply the plan to a target, you can select which network interface is the primary interface and define the IP address.

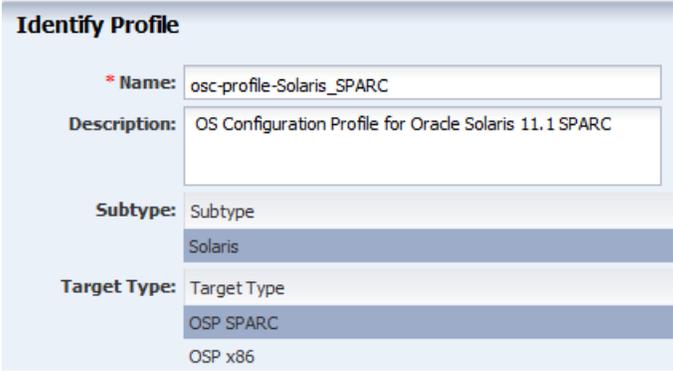
Note: Before you begin, contact your network administrator for the list of available networks and interfaces.

This wizard lets you choose from a list of 32 interfaces. The 32 interfaces are all possible network interfaces, not available interfaces.

By default, the primary interface is the boot interface. You can change the primary interface to a different interface when you deploy the plan.

You can create an OS Configuration profile by creating a new profile or copying a default profile and then editing the profile. This example copies a default SPARC profile.

1. Expand **Plan Management** in the Navigation pane, then select **OS Configuration** in the **Profiles and Policies** tree.
A list of existing OS Configuration profiles appears in the center pane.
2. Click **Copy Profile** in the Actions or center pane.
3. Name the profile and enter a profile description. Select **Solaris** and **OSP SPARC** as the Subtype and Target Type. Click **Next**.



Identify Profile

* Name: osc-profile-Solaris_SPARC

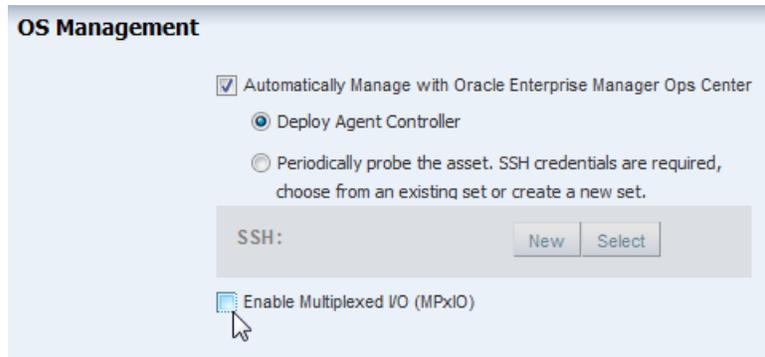
Description: OS Configuration Profile for Oracle Solaris 11.1 SPARC

Subtype: Subtype
Solaris
OSP SPARC

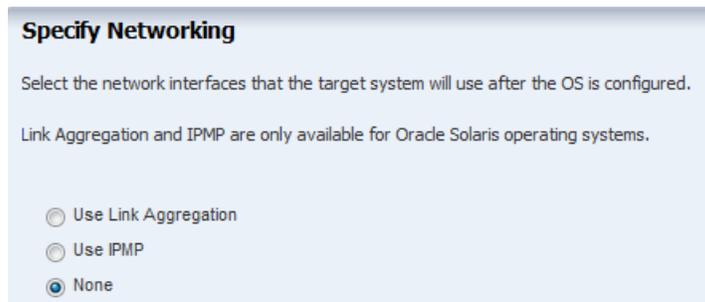
Target Type: Target Type
OSP SPARC
OSP x86

4. The default setting is to automatically manage the operating system with Oracle Enterprise Manager Ops Center and Deploy the Agent Controller. This option provides the most robust management capabilities. Deselect MPxIO for this example, as we do not want to enable SAN storage connectivity for the desktop system that is the target for this profile. Click **Next**.

Note: If you are going to use a SAN storage library and want to use iSCSI to create LUNs for virtual guests, such as zones, select Enable MPxIO.



5. Select **None** for the Networking Services and click **Next**.



6. Select the network interface that you want to use in the configuring process. The boot interface is always the first interface that appears in the table. If you want to add another interface, click the **Add** icon and select a network interface that you know is available. Click **Next**.

Note: Contact your network administrator for the list of available networks and interfaces.

This example uses the `net_0` interface as the primary and boot interface, and `net_10` as a second network interface.

Note: By default, the primary interface is the boot interface. You can change the primary interface to a different interface when you apply the plan to targets.

Specify Network Interfaces

Specify all network interfaces that you want to use on the OS.

When adding multiple interfaces, always define the first interface as the boot interface.

Network Interfaces (2)

| Controller | Interface | Address Allocation Method |
|------------|-----------|---------------------------|
| default | net_0 | Use Static IP |
| default | net_10 | Use Static IP |

- Review the summary of the parameters selected for configuring Oracle Solaris 11 operating system, then click **Finish** to create the OS Configuration profile.

Summary

Review the properties of the profile. Click Finish to save the profile.

Name: osc-profile-Solaris_SPARC

Description: OS Configuration Profile for Oracle Solaris 11.1 SPARC

Target Type: OSP SPARC

Automatically Manage with Oracle Enterprise Manager

Ops Center:

Deploy Agent Controller:

Enable Multiplexed I/O (MPxIO):

Network Interfaces (2)

| Controller | Interface | Address Allocation Method |
|------------|-----------|---------------------------|
| default | net_0 | Use Static IP |
| default | net_10 | Use Static IP |

Expand the Plan Management section. In the section OS Configuring of Profiles and Policies section you can select the OS Configuration profile to view its details in the center pane.

Create a Provision OS Deployment Plan

To provision the operating system, associate the OS Provisioning profile and OS Configuration profile with a deployment plan. Several different types of deployment plans use OS Provisioning and OS Configuration profiles. This example uses a Provision OS deployment plan. When you create a plan you can configure the plan to stop when a step fails to complete or for the plan to complete as many of the steps as possible. This plan will use the default, which is stop at failure.

Note: When you create the plan, both the OS Provisioning profile and the OS Configuration profile must have the same platform subtype. This example uses the Solaris SPARC subtype for both profiles.

- Expand **Plan Management**, expand **Deployment Plans**, then select **Provision OS** in the Navigation pane.

2. Click **Create Plan from Template** in the Actions pane.
3. Name the plan and provide a description.
4. For each step, click the **Associated Profile/Deployment Plan** field to display a list of available profiles. Select the OS Provisioning profile and OS Configuration profiles that you created earlier.

Create a Deployment Plan ?

* **Plan Name:** Plan_Solaris 11.1 SPARC-16.4.0-Desktop

Description: OSP Desktop for Oracle Solaris 11.1 SPARC-16.4.0, uninstall games

Failure Policy: Stop at failure Complete as much as possible

Target Type: Servers

Template Name: Provision OS

Deployment Plan Steps

| Step | Profile/Plan Type | Associated Profile/Deployment Plan | Nu Re |
|------------------------------|--------------------------|---|----------|
| Provision OS (Required step) | OS Provisioning Profile | Solaris 11.1 SPARC-16.4.0-Desktop v1 (Solari... | 0 |
| Configure OS (Required step) | OS Configuration Profile | osc-profile-Solaris_SPARC v1 (Solaris | 1 |

5. Click **Save** to create the Provision OS deployment plan.

The plan appears in the Provision OS section of Deployment Plans. Click the plan to see details in the center pane.

Plan_Solaris 11.1 SPARC-16.4.0-Desktop

Details Results Referrers Version History Jobs

Plan Name: Plan_Solaris 11.1 SPARC-16.4.0-Desktop **Created:** 02/04/2014 11:24:24 pm MST

Version: 1 **Last Modified:** 02/04/2014 11:24:24 pm MST

Description: OSP Desktop for Oracle Solaris 11.1 SPARC-16.4.0, uninstall games **Template:** Provision OS v3

Target Type: OSP SPARC **Referrers:** 0

Failure Policy: Stop at failure

Deployment Plan Steps

| Step | Associated Profile/Deployment Plan | Number of Results |
|--------------|--------------------------------------|-------------------|
| Provision OS | Solaris 11.1 SPARC-16.4.0-Desktop v1 | 0 |
| Configure OS | osc-profile-Solaris_SPARC v1 | 1 |

Discover the Service Processor

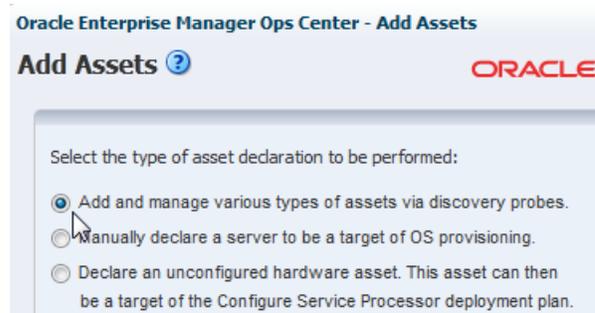
You must discover the service processor before you can provision the hardware. Because this example describes provisioning a configured service processor, create a discovery profile to discover the service processor. For bare metal systems with unconfigured service processors, use the Declare Server option. See [Related Articles and Resources](#) for links to related information and articles.

You can discover individual service processors, or you can create a discovery file that contains the information to add several service processors at the same time.

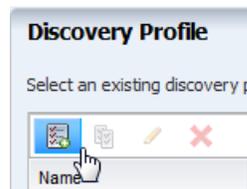
This example shows how to create a generic discovery profile to add a single server. You will add the IP address and discovery credentials for the service processor as part

of the discovery. After you create the discovery profile, you can use the profile and edit, as needed, to add service processors in the future.

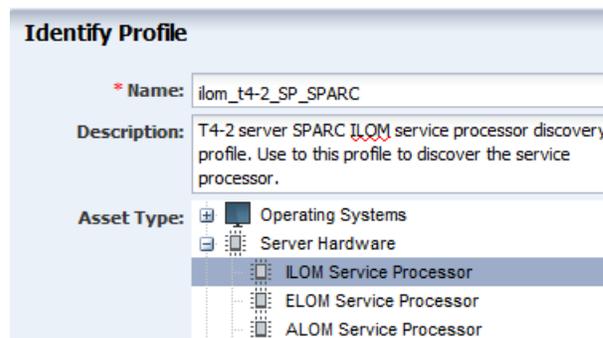
1. Expand **Assets** in the Navigation pane. Right-click **All Assets**, then click **Add Assets**, or click **Add Assets** in the Actions pane.
2. Select **Add and manage various types of assets via discovery probes**, then click **Next**.



3. Click the **Create Profile** icon to create a discovery profile to discover ILOM service processors.



- a. Enter a name and description for the profile.
- b. Expand **Server Hardware**, then select **ILOM Service Processor**.



- c. Click **Next**.
- d. Tags are not used in this example, click **Next**.
- e. You can add IP ranges now, or later. For this example, IP ranges are added later, click **Next**.
- f. Click **Select** for SSH and IPMI to select and add the SSH and IPMI discovery credentials that you created earlier, then click **Next**. To create discovery credentials, click **New** and complete the wizard.

Discovery Credentials

Optionally specify the discovery and/or management credential sets for each protocol. These credentials are used to probe the assets.

Discovery

Use system's default credentials

SSH: root-changeme New Select Clear

IPMI: ROOT-CHANGEME New Select Clear

- g. Click **Finish**.
4. Select the discovery profile and enter the following server information, then click **Add Now**:

Discovery Profile - ilom_t4-2_SP_SPARC

Select an existing discovery profile or create a new profile to describe your assets' characteristics.

| Name | Asset Type | Last Modified |
|--------------------|------------------------|----------------------------|
| ilom-t4-2 | ILOM Service Processor | 08/29/2013 11:20:56 am MDT |
| ilom-x4170m2 | ILOM Service Processor | 08/26/2013 1:13:44 pm MDT |
| ilom_t4-2_SP_SPARC | ILOM Service Processor | 09/06/2013 12:03:36 pm MDT |

IP ranges have not been specified within the selected profile. You must specify hostnames or IP addresses of assets you wish to discover. You may provide multiple names/addresses in comma-separated form. Also the assets must be associated with a managed network to route the discovery to the appropriate Proxy Controller, or use automatic routing.

Hostnames/IP Addresses:

Network:

Credentials

Specify the discovery and management credential sets for each protocol. These credentials are used to probe the assets. Select an existing set of credentials or create a new set of credentials.

< Previous Add Now Advanced Cancel

- IP Address: Specify an IP address to route the discovery to the correct Proxy Controller. You do not need to use a server's actual IP address. You can use an IP address that is on the same subnet as the server to be discovered.
- Network: Select Automatic. To point to a specific network, click the menu to view available networks.
- Model: Select the hardware model.

A job starts to discover the asset. When the job completes successfully, expand **Servers** in Assets to see the service processor.

Apply the Deployment Plan to Provision a System

To select targets to provision and begin a provisioning job, apply the deployment plan.

1. Expand **Plan Management**, expand **Deployment Plans**, expand **Provision OS**, then select the plan that you created. The plan details appear in the center pane.

The screenshot shows the details of a deployment plan. The plan name is 'Plan_Solaris 11.1 SPARC-16.4.0-Desktop', created on 02/04/2014 at 11:24:24 pm MST. The version is 1, and it was last modified at the same time. The description is 'OSP Desktop for Oracle Solaris 11.1 SPARC-16.4.0, uninstall games'. The target type is 'OSP SPARC', and the failure policy is 'Stop at failure'. The template is 'Provision OS v3' and there are 0 referrers.

| Deployment Plan Steps | | |
|-----------------------|--------------------------------------|-------------------|
| Step | Associated Profile/Deployment Plan | Number of Results |
| Provision OS | Solaris 11.1 SPARC-16.4.0-Desktop v1 | 0 |
| Configure OS | osc-profile-Solaris_SPARC v1 | 1 |

2. Click **Apply Deployment Plan** in the Actions pane.
3. Expand **Servers** in the target selector. Select the target assets and click **Add to Target List**. Click **Next**.

The default setting filters the assets according to the plan's characteristics. You can only select eligible systems to add to the Target List.

The 'Select Target Assets' dialog box shows a list of available items. The 'Available Items' pane lists assets under 'Servers', including 'my_host1.example.com' (SPARC T4-2, Server). The 'Target List(1)' pane shows 'my_host1.example.com' has been added. There are buttons for 'Add to Target List' and 'Remove from Target List'. Below the panes, there are checkboxes for 'Filter assets according to plan's characteristics' (checked) and radio buttons for 'Apply with minimal interaction.' (selected) and 'Allow me to override any profile values.'

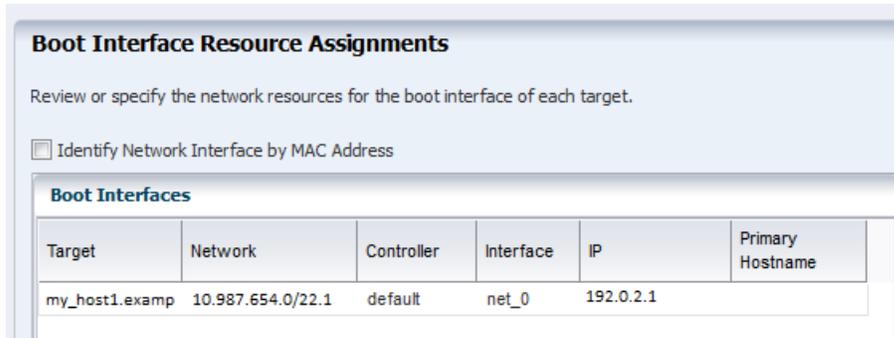
4. On the Introduction page, the check box is selected to skip steps that are not included in the plan. Click **Next**.

The screenshot shows the introduction page for the deployment plan. It has tabs for 'Steps', 'Targets', and 'Help'. The 'Introduction' section contains the text: 'This deployment plan is composed of multiple steps. Review the values on each included step.' Below this text is a checked checkbox with the label 'Do not review steps that are not included in the plan.'

5. On the Provision OS page, click **Next**.



- Define the boot interface resource assignments by select a network from the list of available networks and entering an IP Address and host name. Click **Next**.



- Review the Provision OS Summary, then click **Next**.



- Click **Next** to complete the OS Configuration steps.



- Define the IP address for each network and select which network is the primary network. By default, the boot interface that is defined in the OS Configuration profile appears as the primary interface. Click **Next**.

Other than selecting which network is the primary network interface, the IP address field is the only editable field.

Network Resource Assignments

Review or specify the network resources for each target.

Target: my_host1.example.com

Network Interfaces (2)

| Network | Controller | Interface | IP | Primary |
|-------------------|------------|-----------|------------|----------------------------------|
| 10.987.654.0/22.1 | default | net_0 | 192.0.2.1 | <input checked="" type="radio"/> |
| 10.987.654.0/22.1 | default | net_10 | 192.0.2.20 | <input type="radio"/> |

10. Select **Do not assign to a Server Pool**. Click **Next**.

Provision OS - Plan_ Solaris 11.1 SPARC-16.4.0-Desktop v1 ORACLE

Steps | Targets | Help

1. Introduction
2. Provision OS
3. Boot Interface Resource Assignments
4. Provision OS Summary
5. Configure OS
6. Network Resource Assignments
- 7. Server Pool**

Server Pool

You can assign the target to a server pool. The type of pool is determined by the target's capabilities. Select an assignment choice:

Do not assign to a Server Pool. The new server will execute in stand-alone mode. You may add the server to a pool at a later time.

Assign to a compatible Server Pool.

Create a new Server Pool based on the attributes of the new server and assign the server, using default pool settings. The pool settings can be changed later after it has been created.

11. Review the OS Configuration Summary, then click **Next**.

Provision OS - S11.1_SPARC_9.6_Desktop v1 C

Steps | Targets | Help

1. Introduction
2. Provision OS
3. Boot Interface Resource Assignments
4. Provision OS Summary
5. Configure OS
6. Network Resource Assignments
7. Server Pool
- 8. Configure OS Summary**
9. Schedule Job

Configure OS Summary

Review the values that will be applied to the targets. ocbm-octest-sp.us.oracle.com.

Automatically Manage with Oracle Enterprise Manager

Ops Center:

Deploy Agent Controller:

Enable Multiplexed I/O (MPxIO):

Target: ocbm-octest-sp.us.oracle.com

Network Interfaces (1)

| Network | Controller | Interface | IP | Hostname |
|------------------|------------|-----------|-----------|----------|
| 10.98.765.0/24.1 | default | net_0 | 192.0.2.1 | my_host1 |

Server Pool: Do not assign to a Server Pool.

12. Select **Now** to schedule the job for now. Click **Apply** to apply the deployment plan and begin the OS provisioning job.

The provisioning job takes time to complete. You can view the progress and status of the provisioning job from the Jobs pane.

When the job is completed, go to **Assets** and expand **Servers** to see your operating system. Click the operating system in the Navigation pane to display the details in the center pane.

What's Next?

You can use the OS Provisioning and OS Configuration profiles to consistently and quickly provision operating systems. You can also use the profiles and deployment plans as building blocks in multi-step or complex plans. For example, depending on the plan, you can either use the OS Provisioning and OS Configuration profiles or the Provision OS deployment plan as steps in the following plans:

- **Install Server:** This multi-step plan contains steps that use profiles to deploy a server. With this plan you can provision the operating system, update the BIOS,

update the operating system, install software, execute preinstall and postinstall scripts, add operational profiles, add monitoring profiles, and create guests.

- **Configure and Install Dynamic System Domain:** This multi-step plan contains steps that use a profile to create a Dynamic System Domain and the Install Server plan to install and update the operating system.
- **Configure M-Series Hardware, Create and Install Domain:** This complex plan contains steps that use profiles to configure a service processor, update firmware, and create a Dynamic System Domain. You can add a step to use the Install Server plan to install and update the operating system on an M-series system.
- **Configure Server Hardware and Install OS:** This complex plan contains steps that use profiles to configure the service processor, configure the RAID Controller, and update firmware. You can add a step to use the Install Server plan to install and update the operating system.

When you create a multi-step or complex plan from the template, you often have the choice to add or skip steps. You can choose to skip steps, such as updating the BIOS.

Related Articles and Resources

The Oracle Enterprise Manager Ops Center 12c Release 2 documentation is available at http://docs.oracle.com/cd/E40871_01/index.htm.

The following chapters in the *Oracle Enterprise Manager Ops Center Feature Reference Guide* contain more information:

- See **Asset Management** for more information on discovery, declaring servers, and an example discovery file.
- See **Plans and Profiles** for information about plans and profiles, including using complex plans.
- See **Operating System Provisioning** for more information about OS provisioning.
- See **Discovering and Managing Hardware** for how to create SSH and IPMI credentials.

The *Oracle Enterprise Manager Ops Center Administration Guide* has information about user roles and permissions.

For end-to-end examples, see the workflows and how to documentation in the Deploy How To library at http://docs.oracle.com/cd/E40871_01/nav/deployhowto.htm and the Operate How To library at http://docs.oracle.com/cd/E40871_01/nav/operatehowto.htm.

For in-depth information about Oracle Solaris 11, see the Oracle Solaris 11 documentation at http://docs.oracle.com/cd/E23824_01/index.html.

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>.

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impaired.

Oracle Enterprise Manager Ops Center Provisioning Oracle Solaris 11 Operating Systems, 12c Release 2 (12.2.2.0.0)
E47845-03

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