This guide provides an end-to-end example for how to use Oracle Enterprise Manager Ops Center.

**Introduction**

Oracle Solaris 11 uses a different update mechanism than earlier versions of the operating system. Oracle Solaris 11 uses packages to update the operating system and any non-global zones. The packages are part of an Image Packaging System (IPS) that is integrated with the ZFS file system. The ZFS integration automatically creates an alternate boot environment every time an operating system is installed or updated. You can quickly and easily create an alternate boot environment when needed, and manage existing boot environments. Creating an alternate boot environment provides a safe method of testing an update before deploying it to your live environment.

The global zone is the default operating system and has control over all the processes. A global zone always exists even when no other zones are configured. The global zone is used for systemwide administrative control. Non-global zones, or simply zones, are configured inside the global zone.

You can patch zones that run on a supported configuration. When you update the global zone or the Oracle Solaris 11 operating system, depending on the IPS package setting, the non-global zones are also updated. If the package setting is to update the non-global zones, then the non-global zones are also updated.

A boot environment is created, whenever you update or make any changes to Oracle Solaris 11 operating system.

This example describes how you can update a boot environment by creating several profiles and plans and include them in a larger deployment plan to consistently apply updates to Oracle Solaris 11 operating system.

You will create a boot environment profile for Oracle Solaris 11 operating system, a profile for updating Oracle Solaris 11, create a deployment plan for updating Oracle Solaris 11 operating system, and then apply the deployment plan.

See Related Articles and Resources for links to related information and articles.

**What You Will Need**

You will need the following to update an Oracle Solaris 11 operating system:

- The operating system that is being updated must be agent-managed.
- Enterprise Controller and a Proxy Controller installed on an Oracle Solaris 11 operating system.
Oracle Solaris 11 Software Update Library must have latest packages.
An Update Admin and a Plan/Profile Admin role to create a Profile.

Updating an Oracle Solaris 11 Operating System

Complete the following actions to update your Oracle Solaris 11 operating system:

- Create a Profile for Boot Environment for Oracle Solaris 11 Operating System
- Create a Profile for Updating Oracle Solaris 11 Operating System
- Create a Deployment Plan for Updating Oracle Solaris 11 Operating System
- Apply the Deployment Plan for Updating Oracle Solaris 11 Operating System

Create a Profile for Boot Environment for Oracle Solaris 11 Operating System

The steps to create a profile for boot environment for Oracle Solaris 11 operating system are:

1. Click Plan Management, then expand Profiles and Policies. Click Boot Environments option.

2. Click Create Profile from the Actions pane to start the Create Profile for Boot Environments wizard. Enter the following information.
   - Name: Enter the name of the profile
   - Description: (Optional) Enter the description of the profile
   - Subtype: Select Solaris 11 for the subtype
3. Click Next to specify the boot environment parameters. Enter the following information.

- **BE Policy**: Select Create a New Boot Environment when needed
- **Boot Environment Name**: Select Auto-generate a unique Boot Environment name.

Click Next to display the summary for the boot environment profile.

4. Click Finish to create the profile for boot environment for Oracle Solaris 11 operating system.

After the profile is created, you can view the profile for the boot environment for Oracle Solaris 11 operating system in the center pane.
Create a Profile for Updating Oracle Solaris 11 Operating System

The steps to create a profile for updating an Oracle Solaris 11 operating system are:

1. Click Plan Management in the Navigation pane.
2. Click Update Profiles under Profiles and Policies hierarchy.
3. Click New Profile in the Actions pane to start the Create OS Update Profile wizard. Enter the following information.
   - Name: Enter the name of the profile
   - Type: Enter the type as Solaris 11
   - Description: (Optional) Enter the description of the profile

   Use the Search Criteria to search the category you want to upgrade. Click Upgrade icon.

   Click Create OS Update Profile to create the profile.
Create a Deployment Plan for Updating Oracle Solaris 11 Operating System

The steps to create a deployment plan for updating an Oracle Solaris 11 operating system are.

1. In the Navigation pane, under Plan Management, expand Deployment Plans. Click Update Solaris 11 OS option.
2. Click **Create Plan from Template** in the Actions Pane.

3. Enter a plan name and the plan description. Select the Failure Policy as Stop at failure.

4. Each step has a drop-down menu of available actions in the Associated Profiles / Deployment Plan field. On the Update OS step, select the profile that you have just defined, and then click **Save**.

5. The created deployment plan now appears under the Deployment Plan branch of Plan Management drawer of Navigation pane.
Apply the Deployment Plan for Updating Oracle Solaris 11 Operating System

After you create the deployment plan, you must select the target asset to run the deployment plan.

1. Click Plan Management, then expand Deployment plans. Click Update Solaris 11 OS.

2. Select the deployment plan that you just created and click Apply Deployment Plan in the Actions pane.

The Select Target Assets window is displayed.

3. Select the target assets and click Add to Target List. Select Apply the plan with minimal interaction and click Next.
4. Do not select the check box for Do not review steps that are not included in the plan. Click Next.

5. For the Global Update Settings window, select Perform Update as the Execution Mode and click Next to skip the Pre Install Script.

6. Click Next to display the Create a Boot Environment Summary.
7. Click Next to view the Update OS Summary.

8. Click Next to Schedule the job. Select Now to execute the deployment plan on the selected target and click Apply.

The job runs to execute the deployment plan.
You can view the boot environment in the center pane.
What’s Next?

You can update an alternate boot environment by deploying a Software Deployment / Update deployment plan and selecting the alternate boot environment as the target.

Related Articles and Resources

For more information on updating your Oracle Solaris 11 operating systems, see the following:

- Chapters in Oracle Enterprise Manager Ops Center Feature Reference Guide:
  - Plans and Profiles
  - Operating System Updates
  - Oracle Solaris Zones
  - Software Libraries

- Oracle Enterprise Manager Ops Center Concepts Guide


- See the Operate How To library at http://docs.oracle.com/cd/E40871_01/nav/operatehowto.htm for more information about operating Oracle Enterprise Manager Ops Center.

- See the Deploy How To library at http://docs.oracle.com/cd/E40871_01/nav/deployhowto.htm for more information about deploying Oracle Enterprise Manager Ops Center.

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