

ORACLE ENTERPRISE MANAGER PLUG-IN MANUAL

FOR VERSION 12.1.0.3.0



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IMPORTANT NOTE

Purity versions 4.7.0 and above do not support TLS 1.0. Agents hosting the Pure Storage plug-in must support TLS 1.1 and above. If your OS doesn't support TLS 1.1 and above, do not upgrade to 12.1.0.3.0 and do not upgrade your Flash Array to Purity 4.7.0 and above.

Prerequisites

ORACLE ENVIRONMENT PREREQUISITES

The following sections describe the supported software versions and operating systems for the various components of the Oracle® Enterprise Manager system.

Oracle Enterprise Manager

The plug-in supports the following Oracle Enterprise Manager versions:

- Oracle Enterprise Manager Cloud Control 12c R2 (12.1.0.2)
- Oracle Enterprise Manager Cloud Control 12c R3 (12.1.0.3)
- Oracle Enterprise Manager Cloud Control 12c R4 (12.1.0.4)
- Oracle Enterprise Manager Cloud Control 12c R5 (12.1.0.5)
- Oracle Enterprise Manager Cloud Control 13c R1 (13.1.0.0)
- Oracle Enterprise Manager Cloud Control 13c R2 (13.2.0.0)

Oracle Management Server (OMS)

The plug-in is supported for all Oracle Management Server platforms.

Oracle Management Agent (OMA)

The plug-in is supported for the following Oracle Management Agent platforms:

- Linux™ x86
- Linux x86-64
- Microsoft® Windows® (32-bit)
- Microsoft Windows x64 (64-bit)
- Oracle Solaris on x86-64 (64-bit)

PURE ENVIRONMENT PREREQUISITES

The plug-in uses the Pure Storage REST API for data collection from the Pure Storage array. The following versions of the REST API are supported:

- Pure Storage REST API 1.4 and above
- Purity Version 4.7.0 and above

Installing and Configuring the Pure Storage Flash Array Plug-in

INSTALLATION OVERVIEW

This chapter describes installation and configuration steps in detail.

Ensure that the OEM environment is properly setup for plug-in deployment before beginning.

The **emcli** utility must be configured and working locally on the Oracle Management Server to complete the installation successfully.

DOWNLOAD THE PLUG-IN

To download the plug-in, go to the Oracle Extensibility Exchange website (www.oracle.com/goto/emextensibility), and search for the Pure Storage Flash Array plugin. That website will redirect to the VLSS download page (www.vlss-llc.com/pure-storage-oem) where the plug-in Zip file can be downloaded. The Zip file contains the OPAR as well as a PDF copy of this document.

Transfer the OPAR to any accessible location on the Oracle Management Server host.

IMPORT THE PLUG-IN OPAR

After the OPAR is located on the management server, it needs to be imported into the OEM environment. Use the **emcli** utility to import the OPAR.

Login to the OMS from the command line:

```
$ emcli login -username=sysman
```

Type the following command:

```
$ emcli import_update -file="<path to downloaded *.opar file>"-omslocal
```

The **-omslocal** flag indicates that the file is located on the same host as the Oracle Management Server. Please see the Oracle documentation for importing the OPAR from a remote host.

For example:

```
$ emcli import_update -file=/home/oracle/Downloads/ 12.1.0.2.0_vlss.pure.xvp1_2000_0.opar  
-omslocal
```

Processing update: Plug-in – Pure Storage Flash Array. Operation completed successfully.
Update has been uploaded to Enterprise Manager. Please use the Self Update Home to manage this update.

DEPLOY THE PLUG-IN ON THE ORACLE MANAGEMENT SERVER (OMS)

After the OPAR is imported, it must be deployed on the OMS. There are two methods to deploy to the OMS:

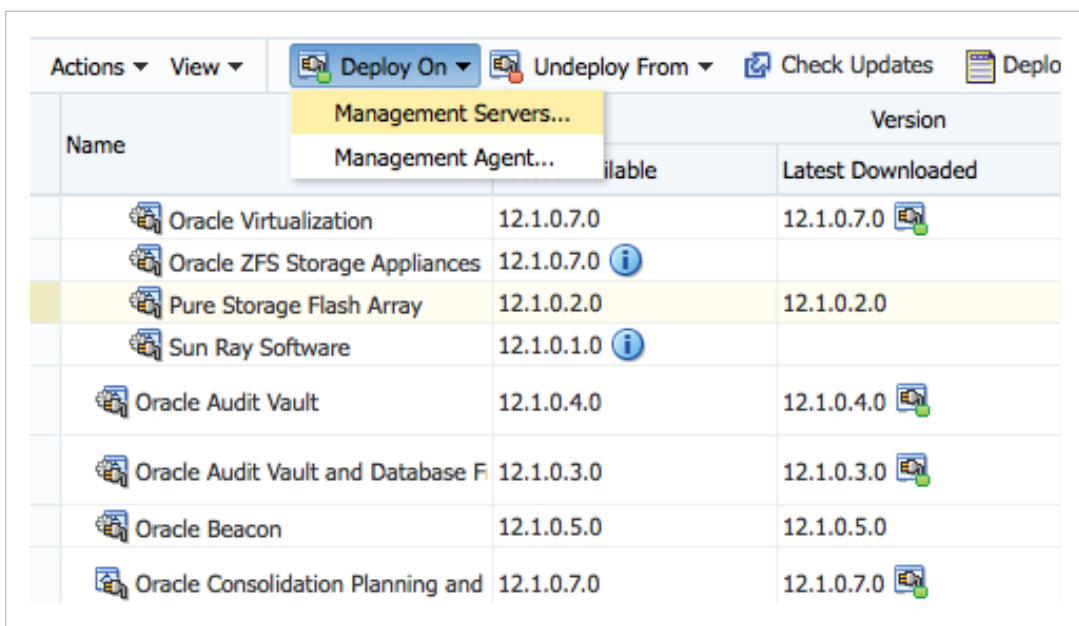
Through the OEM Console

To deploy the plug-in through the console:

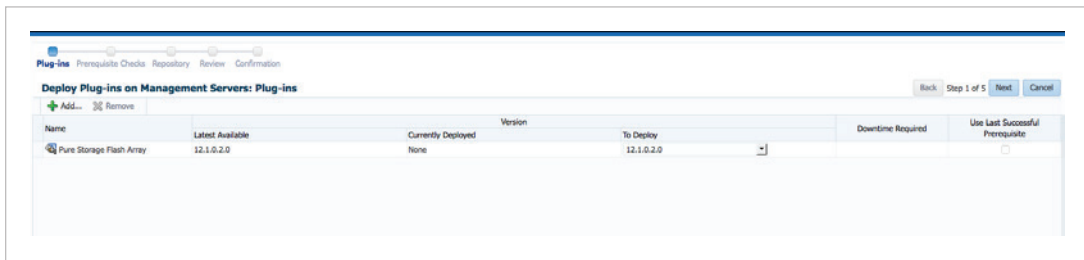
1. From the Setup menu, select Extensibility and then Plug-ins.



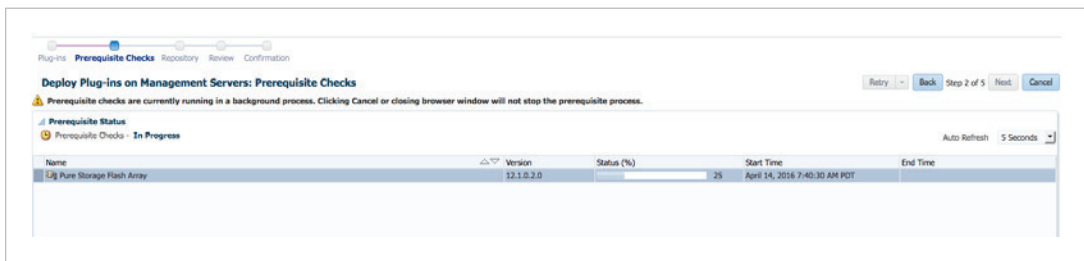
2. From the Plug-ins page, select the Pure Storage Flash Array plug-in. Then select Deploy On and choose Management Servers.



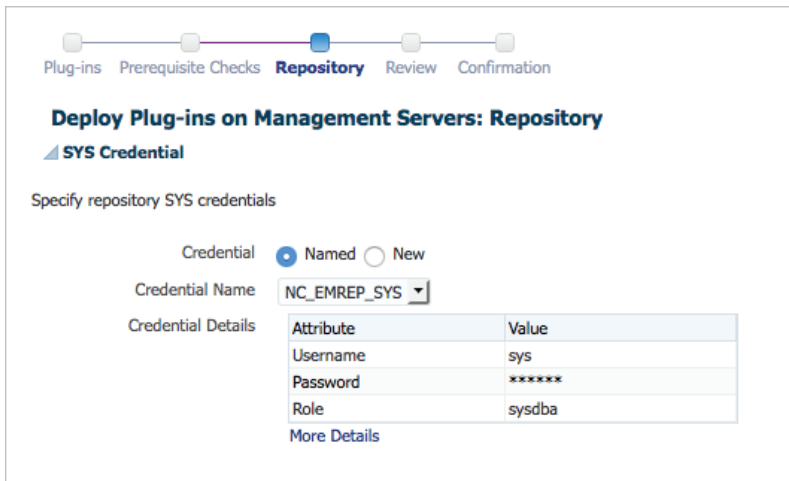
3. In the Deploy Plug-in on Management Servers: Plug-ins page, click **Next**.



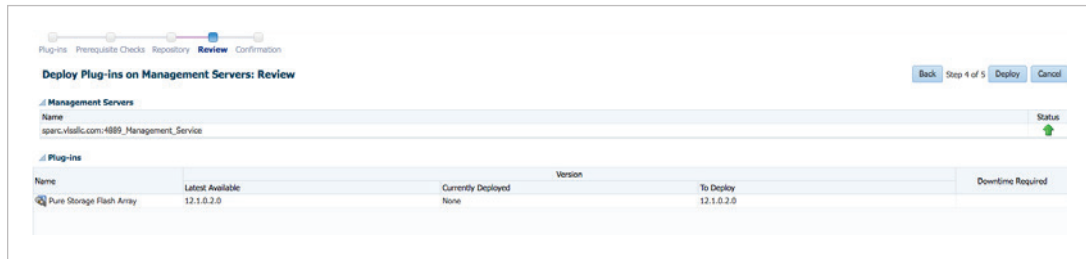
4. In the Deploy Plug-in on Management Servers: Prerequisite Checks page, verify that the checks were successfully completed and click **Next**.



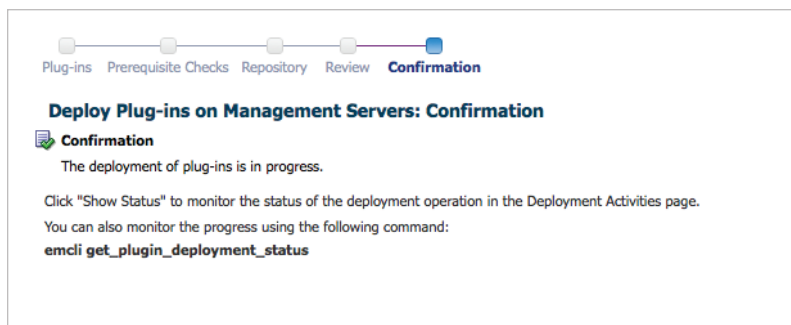
5. In the Deploy Plug-in on Management Servers: Repository page, enter the SYS credentials for the repository and click **Next**.



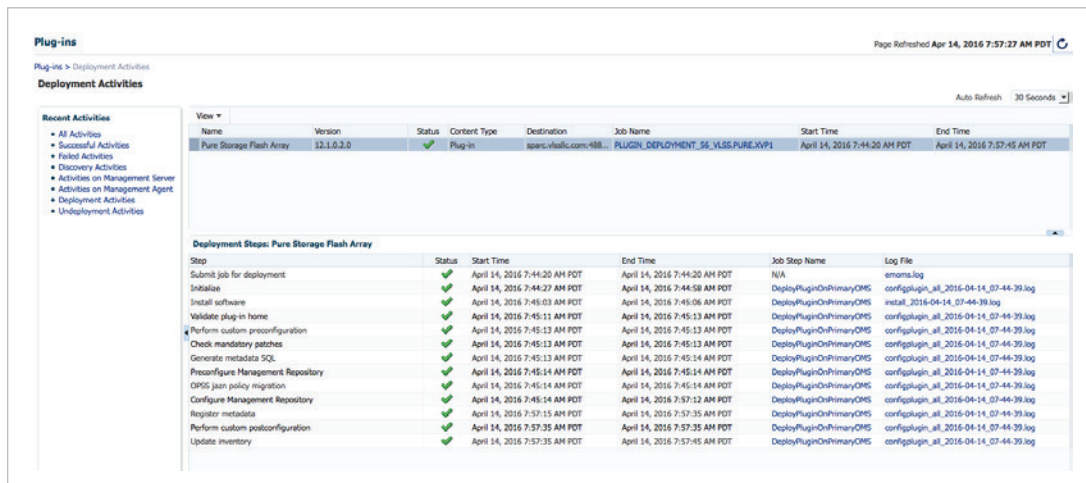
6. In the Deploy Plug-in on Management Servers: Review page, click **Deploy** to deploy the plug-in on the OMS.



7. In the Deploy Plug-in on Management Servers: Confirmation page, click **Show Status** to view the steps of the deployment.



8. In the Deployment Activities page, verify that the deployment was successful with a green checkmark in the Status column.



Through the emcli utility

1. Type the following command:

```
$ emcli deploy_plugin_on_server -sys_password=<Repository SYS password> -plugin=vlss.pure.xvp1:12.1.0.2.0
```

2. The deploy will run in the background after the following output:

Performing pre-requisites check... This will take a while.

Prerequisites check succeeded

Deployment of plug-in on the management servers is in progress

Use “emcli get_plugin_deployment_status -plugin=vlss.pure.xvp1” to track the plug-in deployment status.

3. Verify the deployment is successful by running the status command:

```
$ emcli get_plugin_deployment_status -plugin=vlss.pure.xvp1
```

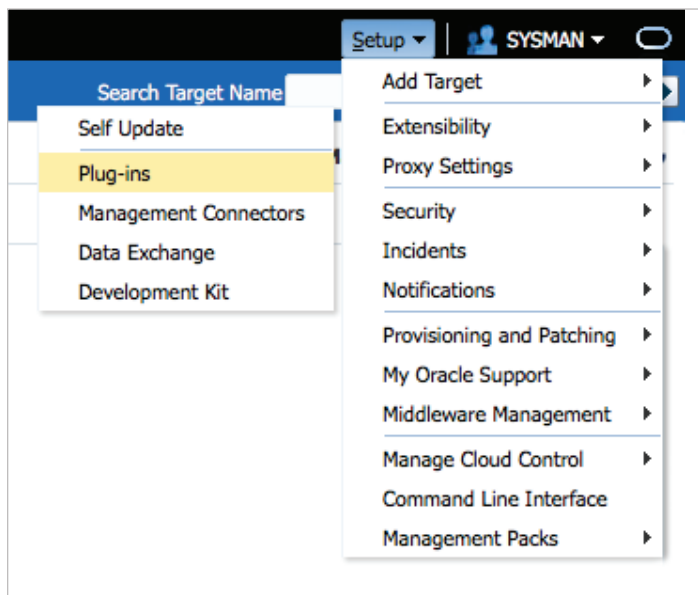
DEPLOY THE PLUG-IN ON THE ORACLE MANAGEMENT AGENT (OMA)

Now the plug-in must be deployed on at least one OMA which can connect to the Pure Storage REST API. Again, there are two methods of deploying to an OMA:

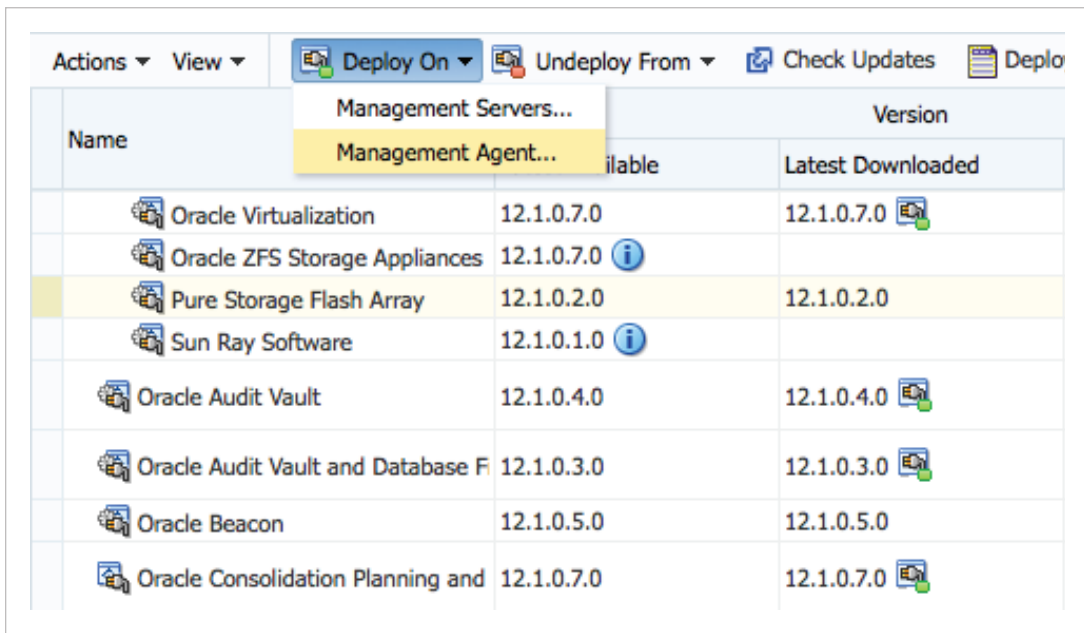
Through the OEM Console

To deploy the plug-in through the console:

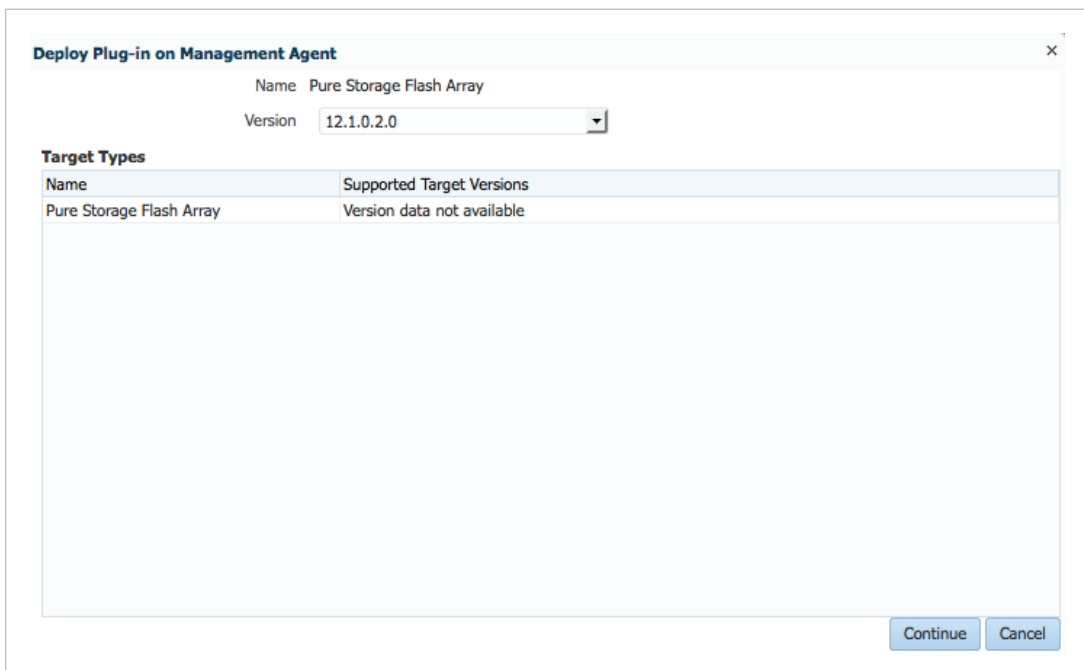
1. From the Setup menu, select Extensibility and then Plug-ins.



- From the Plug-ins page, select the Pure Storage Flash Array plug-in. Then select Deploy On and choose Management Agent.



- In the Deploy Plug-in on Management Agent page, click Continue.



4. In the Deploy Plug-in on Management Agent: Select Management Agent page, select an OMA for deployment and click Continue.

The dialog box is titled "Deploy Plug-in on Management Agent" and "Select Management Agents". It shows the Name "Pure Storage Flash Array" and Version "12.1.0.2.0". Below is a table of Management Agents.

Management Agent	Agent Version	Operating System	Deployed Version	Status
prod.vlssllc.com:3872	12.1.0.5.0	Linux x86-64	None	↑
sparc.vlssllc.com:3872	12.1.0.5.0	Oracle Solaris on SPA	None	↑
test.vlssllc.com:3872	12.1.0.5.0	Linux x86-64	None	↑

Buttons: Back, Continue, Cancel

5. In the Deploy Plug-in on Management Agent: Prerequisite Checks page, verify that the checks were successfully completed and click Next.

The dialog box is titled "Deploy Plug-in on Management Agent" and "Prerequisite Checks". It shows the Name "Pure Storage Flash Array" and Version "12.1.0.2.0". Below is a table of prerequisite checks.

Management Agent	Operating System	Status	Error Message
test.vlssllc.com:3872	Linux x86-64	✓	No Error

* - Dependent Agents

Buttons: Back, Next, Cancel

6. In the Deploy Plug-in on Management Agent: Review page, click **Deploy** to deploy the plug-in on the OMA.

Deploy Plug-in on Management Agent

Review

Name Pure Storage Flash Array

Version 12.1.0.2.0

Management Agents that passed the prerequisite checks.

Management Agent	Operating System	Deployed Plug-in Version	Status	Restart Required
test.vlssl.com:3872	Linux x86-64	None		No

* - Dependent Agents

Back

Deploy

Cancel

7. In the Deploy Plug-in on Management Agent: Confirmation page, click **Show Status**.

Deploy Plug-in on Management Agent

Confirmation

Started deploying plug-in "Pure Storage Flash Array" version 12.1.0.2.0 on the selected Management Agents.
You can monitor the status of the deployment operation in the Deployment Activities page.
You can also monitor the progress using the following command:
emcli get_plugin_deployment_status

Show Status

Close

- In the **Deployment Activities** page, verify that the deployment was successful with a green checkmark in the **Status** column.

Plug-ins Page Refreshed Apr 14, 2016 8:00:22 AM PDT

Plug-ins > Deployment Activities

Deployment Activities Auto Refresh 30 Seconds

Recent Activities

- All Activities
- Successful Activities
- Failed Activities
- Discovery Activities
- Activities on Management Server
- Activities on Management Agent
- Deployment Activities
- Undeployment Activities

Name	Version	Status	Content Type	Destination	Job Name	Start Time	End Time
Pure Storage Flash Array	12.1.0.2.0	✓	Discovery	test.vlssic.com:3872	PLUGIN_DEPLOY_AGENT_2016-04-14 07:59:46_57	April 14, 2016 7:59:42 AM PDT	April 14, 2016 8:01:05 AM PDT
Pure Storage Flash Array	12.1.0.2.0	✓	Plug-in	test.vlssic.com:3872	PLUGIN_DEPLOY_AGENT_2016-04-14 07:59:46_57	April 14, 2016 7:59:42 AM PDT	April 14, 2016 8:01:05 AM PDT

Deployment Steps: Pure Storage Flash Array

Step	Status	Start Time	End Time	Job Step Name	Log File
Submit job for deployment	✓	April 14, 2016 7:59:42 AM PDT	April 14, 2016 7:59:42 AM PDT	N/A	
Initialize	✓	April 14, 2016 7:59:52 AM PDT	April 14, 2016 7:59:58 AM PDT	fixAgent	emoms.log
Validate Environment	✓	April 14, 2016 8:00:21 AM PDT	April 14, 2016 8:00:22 AM PDT	validateEnv	emoms.log
Install software	✓	April 14, 2016 8:00:24 AM PDT	April 14, 2016 8:00:27 AM PDT	payloadTransfer	unslppugin_vlss.pure.xvp1_12.1.0.2.0_57.log
Attach Oracle Home to Inventory	✓	April 14, 2016 8:00:28 AM PDT	April 14, 2016 8:00:37 AM PDT	ouiAttachStep	attachHome_57
Configure plug-in on Management Agent	✓	April 14, 2016 8:00:40 AM PDT	April 14, 2016 8:01:04 AM PDT	pluginConfigurationStep	agentplugindeploy_57.log
Update inventory	✓	April 14, 2016 8:00:58 AM PDT	April 14, 2016 8:01:05 AM PDT	pluginConfigurationStep	emoms.log

Through the emcli utility

- Type the following command:

```
$ emcli deploy_plugin_on_agent -agent_names=<Hostname of agent>:<Port> -plugin=vlss.pure.xvp1:12.1.0.2.0
```
- The deploy will run in the background after the following output:

Performing pre-requisites check... This will take a while.

Prerequisites check succeeded

Deployment of plug-in on the management agent is in progress

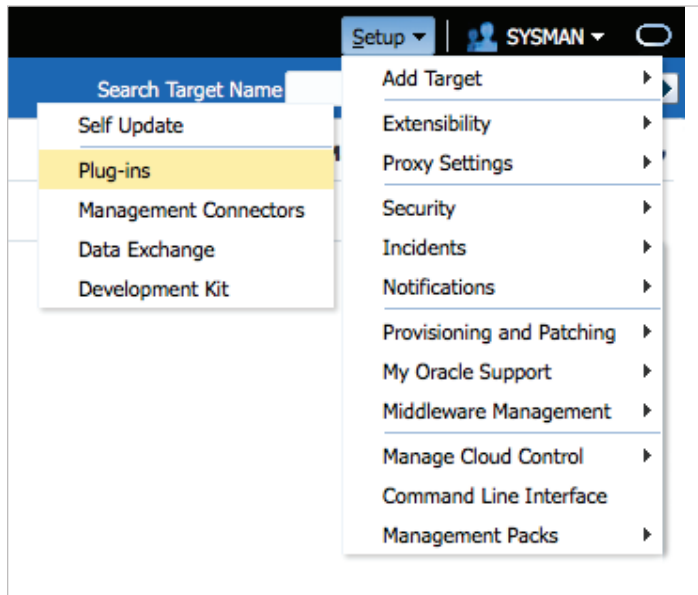
Use “`emcli get_plugin_deployment_status -plugin=vlss.pure.xvp1`” to track the plug-in deployment status.
- Verify the deployment is successful by running the status command:

```
$ emcli get_plugin_deployment_status -plugin=vlss.pure.xvp1
```

VERIFY PLUG-IN DEPLOYMENT

To verify that the plug-in deployment was successful, check the Extensibility page:

1. From the **Setup** menu, select **Extensibility** and then **Plug-ins**.



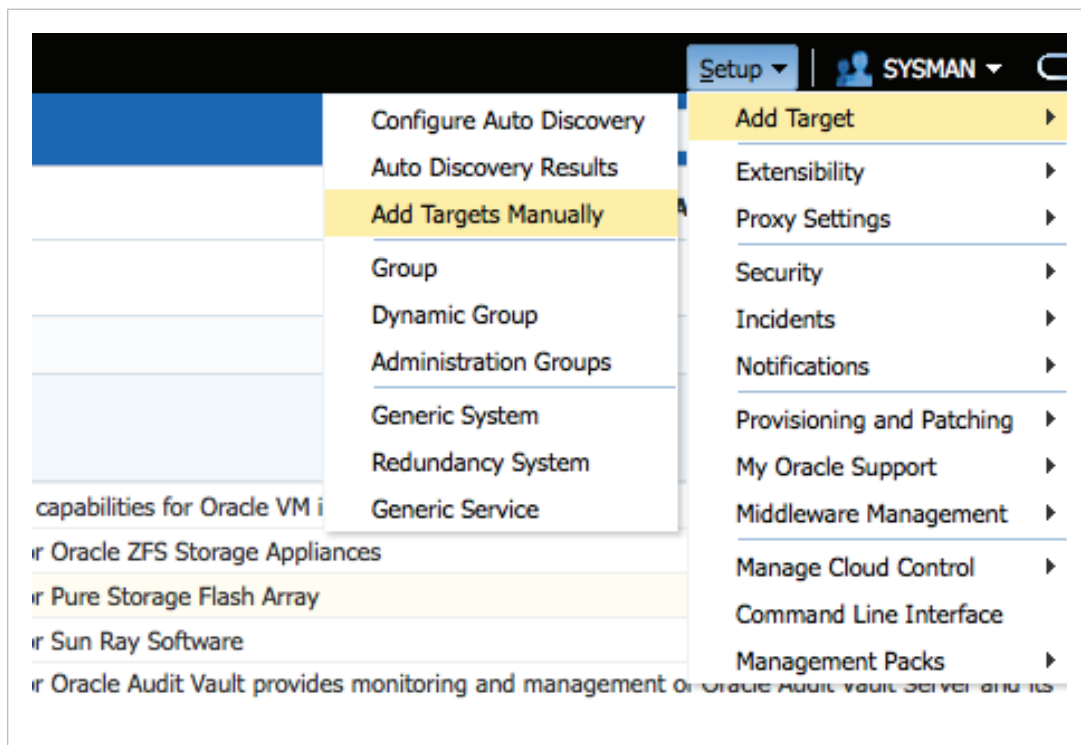
2. From the Plug-ins page, select the **Pure Storage Flash Array** plug-in. Verify that the **On Management Server** column is populated and that the **Management Agent with Plug-in** column is greater than zero.

Actions ▾ View ▾ Deploy On Undeploy From ▾ Check Updates Deployment Activities					
Name	Latest Available	Latest Downloaded	On Management Server	Management Agent with Plug-in	Description
Oracle Virtualization	12.1.0.7.0	12.1.0.7.0		0	Enables management capabilities for Oracle VM in Enterprise Manager.
Oracle ZFS Storage Appliances	12.1.0.7.0			0	Enterprise Manager for Oracle ZFS Storage Appliances.
Pure Storage Flash Array	12.1.0.2.0	12.1.0.2.0	12.1.0.2.0	1	Enterprise Manager for Pure Storage Flash Array.
Sun Ray Software	12.1.0.1.0			0	Enterprise Manager for Sun Ray Software.
Oracle Audit Vault	12.1.0.4.0	12.1.0.4.0		0	Enterprise Manager for Oracle Audit Vault, provides monitoring components.
Oracle Audit Vault and Database Firewall	12.1.0.3.0	12.1.0.3.0		0	Enterprise Manager for Oracle Audit Vault and Database Firewall.
Oracle Beacon	12.1.0.5.0	12.1.0.5.0	12.1.0.5.0	1	Oracle Beacon plugin is required on the Managed Hosts to enable monitoring.
Oracle Consolidation Planning and Control	12.1.0.7.0	12.1.0.7.0		N/A	Enterprise Manager for Oracle Consolidation Planning and Control.

CREATE THE PURE STORAGE FLASH ARRAY TARGET

The Pure Storage Flash Array target is the only target needed to monitor the storage system. It provides a dashboard for monitoring system details, capacity, performance, and historical metrics of the array. To create the Pure Storage Flash Array target:

1. From the **Setup** menu, select **Add Target** and then **Add Targets Manually**.



2. Select **Add Targets Declaratively by Specifying Target Monitoring Properties**.
3. Select **Pure Storage Flash Array** from the drop down and select a Monitoring Agent that has the Pure Storage Plug-in deployed on it. Then click **Add Manually...**

A screenshot of the 'Add Targets Manually' dialog box. It has a title bar 'Add Targets Manually'. Below the title bar is an 'Instruction' section with three radio buttons: 'Add Host Targets', 'Add Targets Using Guided Process', and 'Add Targets Declaratively by Specifying Target Monitoring Properties' (which is selected). Below the instructions are two input fields: 'Target Type' with a dropdown menu showing 'Pure Storage Flash Array', and 'Monitoring Agent' with a text box containing 'prod.vlssllc.com:3872' and a search icon. At the bottom is a blue button labeled 'Add Manually ...'.

4. On the **Add: Pure Storage Flash Array** page, enter a **Target Name**. Then enter an **API Token** that has at least read privileges through the REST API. Finally, enter **Array Hostname / IP Address** for one of the virtual IPs on the array. Then click **OK**.

Add: Pure Storage Flash Array

Add a target to be monitored by Enterprise Manager by specifying target monitoring properties.

Target

* Target Name

PSFA 1

Target Type

Pure Storage Flash Array

Agent

https://prod.vlssllc.com:3872/emd/main/

Properties

* API Token

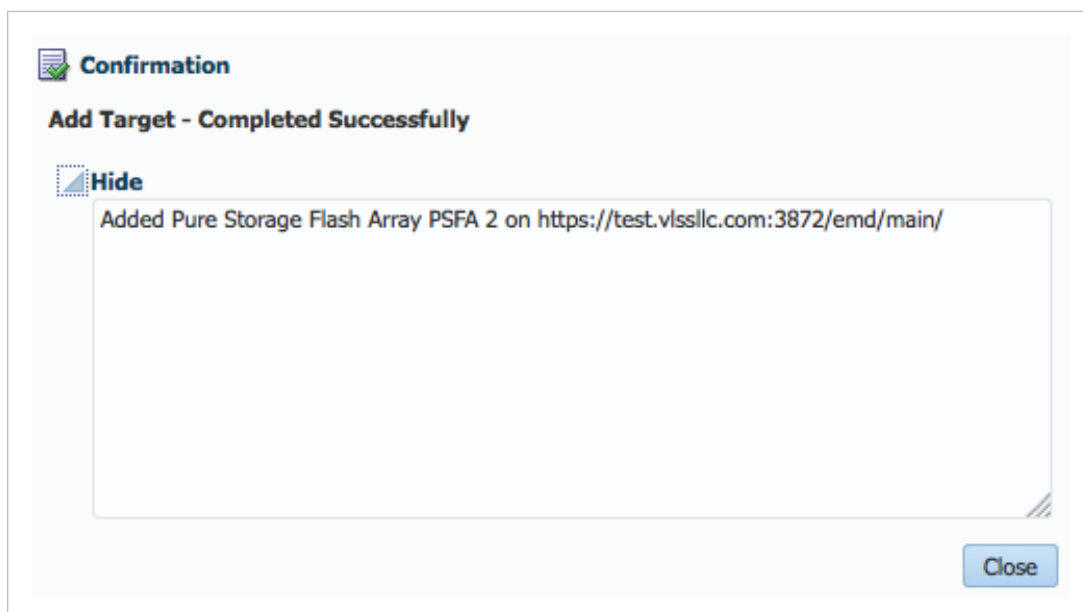
7ba70c74-4904-d1af-c58a-b30d0e01c5cc

* Array Hostname / IP Address

192.168.1.180

[▶ Global Properties](#)

5. The **Add Target** popup should appear and shortly thereafter a confirmation message that the **Add Target – Completed Successfully**.



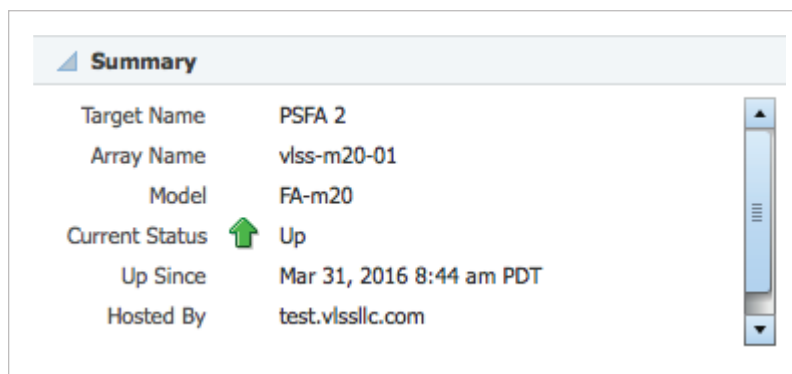
Using the Plug-In

PURE STORAGE FLASH ARRAY HOME PAGE

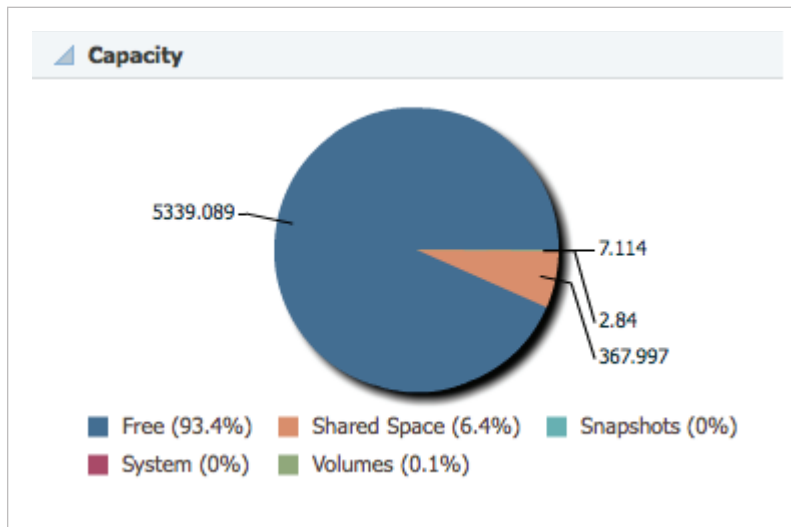


The Pure Storage Flash Array home page is a single-pane dashboard into the array. It contains the following sections:

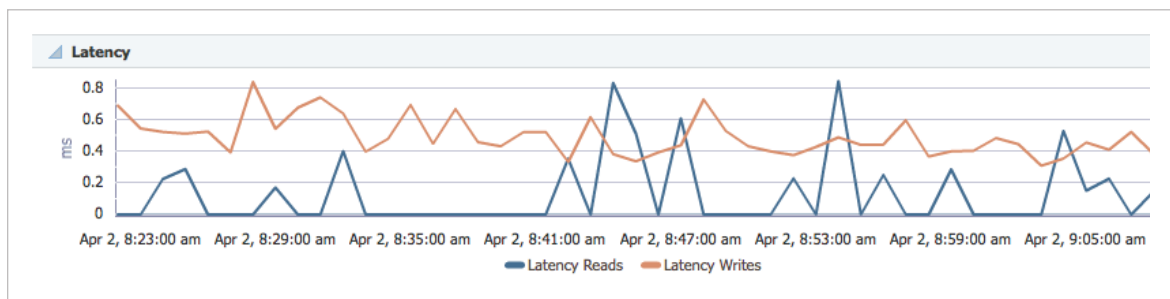
1. The **Summary** pane – displays the relevant system information of the array, including array name, array model, uptime and Purity version.



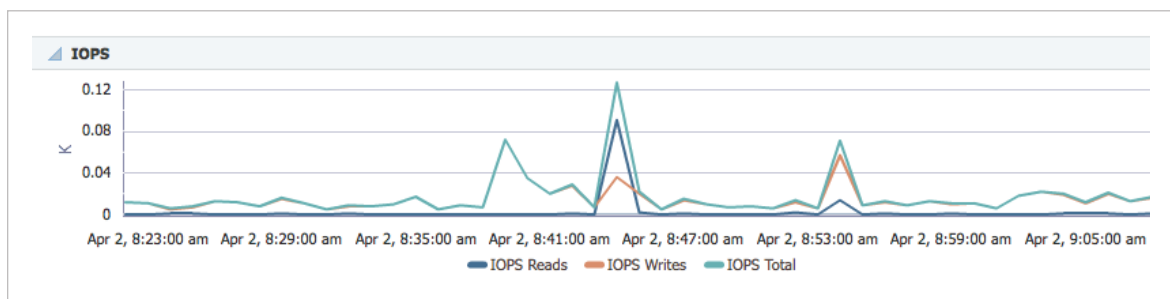
2. The **Capacity** pane – displays the current usage of the storage array, including volumes, shared space, snapshots, system and free space.



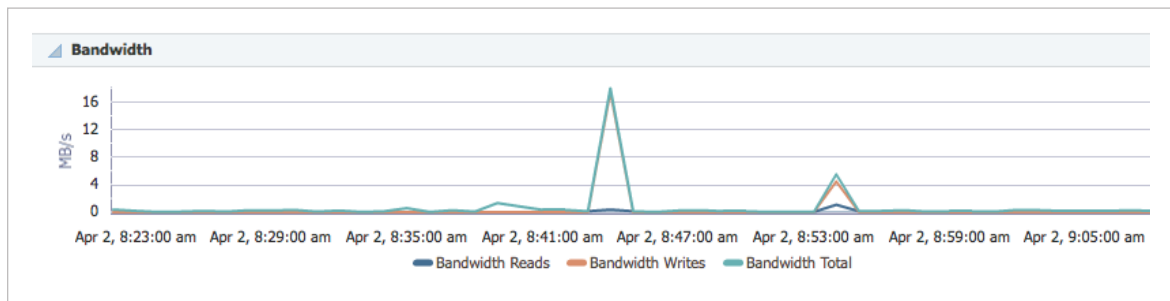
3. The **Latency** pane – displays the read and write latency of the array for the past hour in milliseconds. There is a time domain radio selector that shows the latency over the past hour, day, week or month.



4. The **IOPS** pane – displays the read, write and total IOPS of the array for the past hour in KIOPS (or thousands of IOPS). There is a time domain radio selector that shows the IOPS over the past hour, day, week or month.



5. The **Bandwidth** pane – displays the read, write and total bandwidth of the array for the past hour in MB/s. There is a time domain radio selector that shows the bandwidth over the past hour, day, week or month.

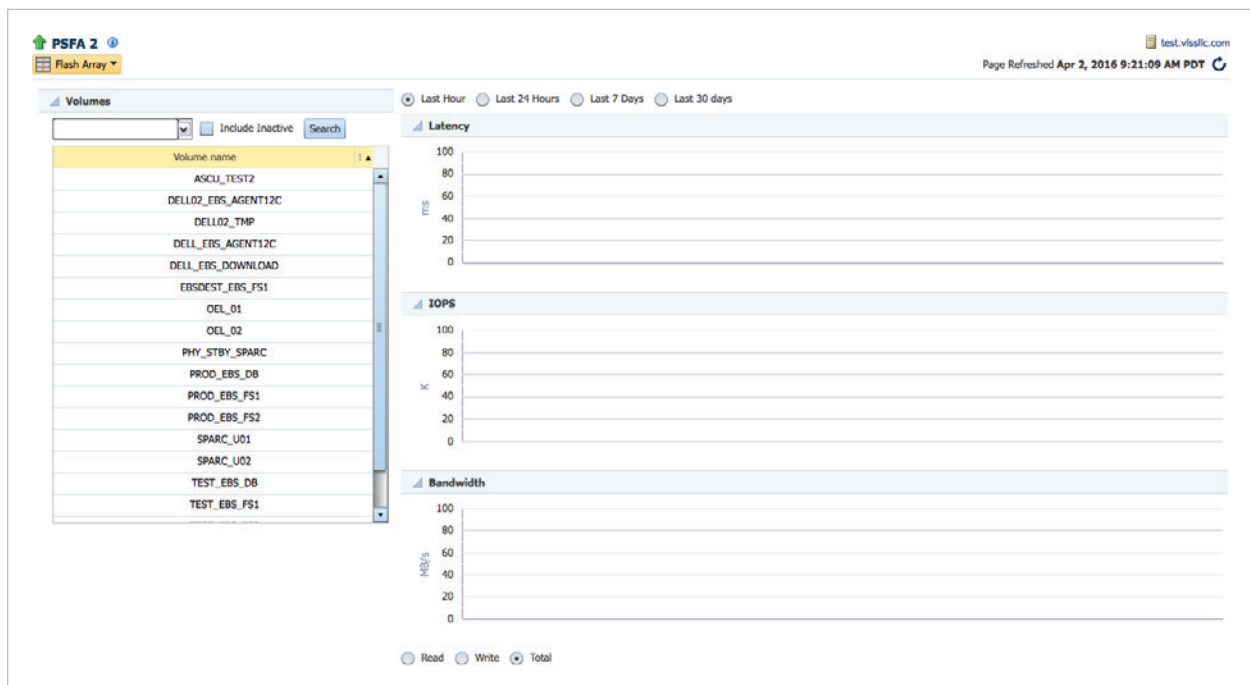
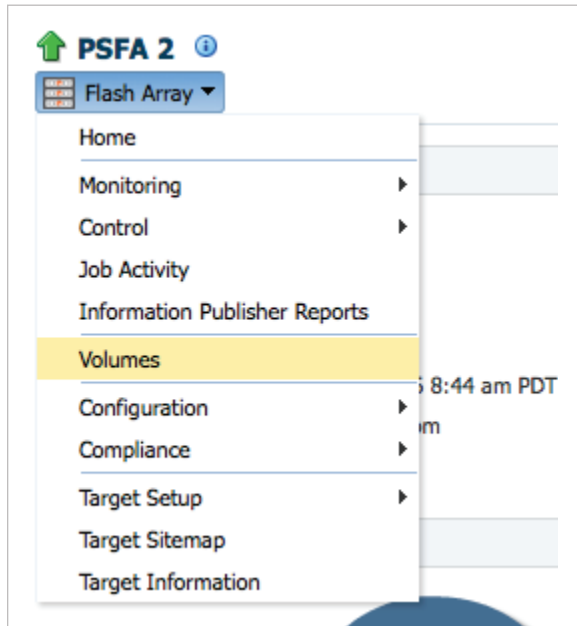


6. The **Job Activity** pane – displays the job activity against the target.

Job Activity	
For jobs whose start date is within the last 7 days.	
Suspended Executions	0
Problem Executions	0
Action Required Executions	0
Scheduled Executions	0
Running Executions	0

PURE STORAGE FLASH ARRAY VOLUMES PAGE

Navigate to the Volumes page from the Flash Array menu.



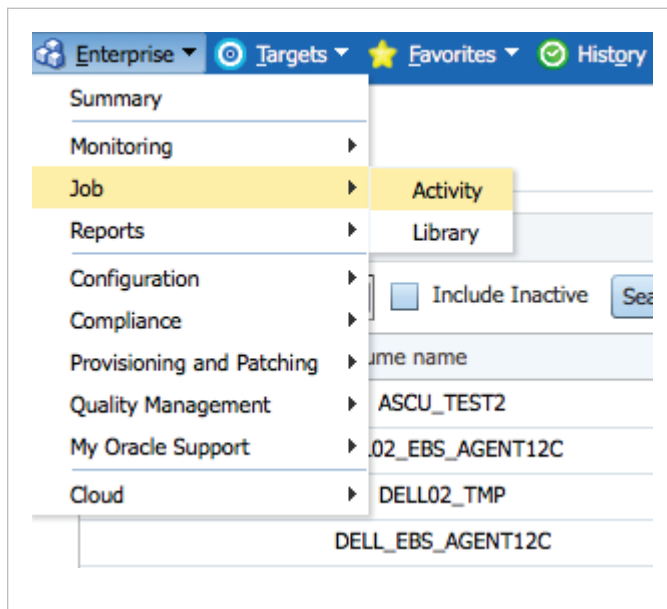
The volume information should be visible, with all volumes listed on the left. A green check indicates snapshots. Additional functions are as follows:

- Search box restricts results.
- “Include Inactive” shows volumes that no longer exist.
- Time and Read / Write / Total radio buttons work on selected volumes, which are multiselect-enabled.

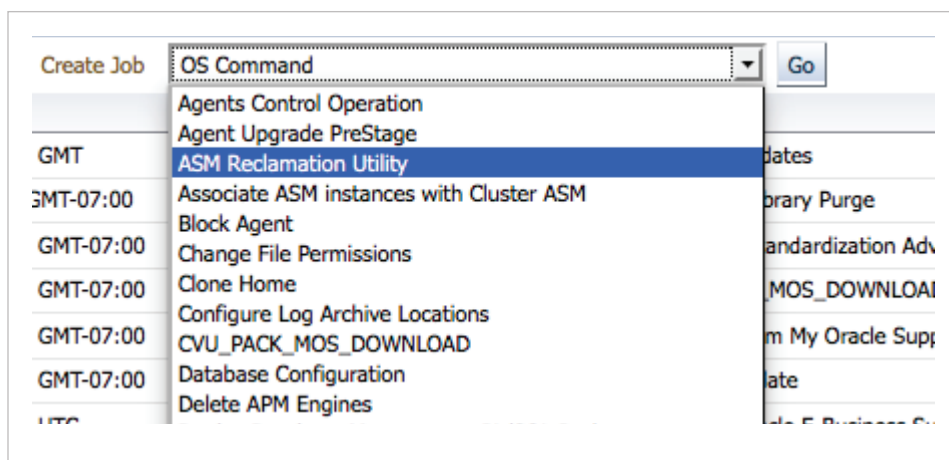
ASM RECLAMATION UTILITY

The ASM Reclamation Utility is a new job that becomes available with the Pure Storage Flash Array plugin. The ASRU consolidates the fragmented data within an ASM disk group to allow the Pure Storage array to reclaim unused space in the underlying volumes. The Pure Storage Flash Array target must be on the same host as the disk group.

1. From the Enterprise menu, select **Job** and then **Activity**.



2. From the Create Job page, select the **ASM Reclamation Utility**.



- From the Jobs page, select the **General** tab, then enter a **Name** and a **Description** for the new job. **Target Type** will show “Pure Storage Flash Array”.

The screenshot shows the 'Create ASM Reclamation Utility Job' form with the 'General' tab selected. The 'Name' field contains 'ASRU RUN #1' and the 'Description' field contains 'Disk Group Reclamation Run #1'. The 'Target Type' is set to 'Pure Storage Flash Array'. Below the 'Target' section, there is a table with one entry:

Select	Name	Type	Host	Time Zone
<input type="checkbox"/>	PSFA 2	Pure Storage Flash Array	test-vslsllc.com	Pacific Daylight Time

- Select the **Parameters** tab. Complete the three required fields:
 - Disk Group:** the ASM disk group from which to reclaim space.
 - ASM SID:** the SID of the ASM instance (usually +ASM).
 - Oracle Home:** the Oracle home of the ASM instance, usually the Grid home.

Click **Submit**.

The screenshot shows the 'Create ASM Reclamation Utility Job' form with the 'Parameters' tab selected. The 'DISK GROUP' field contains 'DATA', the 'ASM SID' field contains '+ASM', and the 'ORACLE_HOME' field contains '/u01/app/grid/product/12.1.0'. To the right, there is a 'Target Properties' table:

Name	Description
%emd_root%	location of Agent
%superbin%	location of Perl binary used by Agent
%TargetName%	target name
%TargetType%	target type
%ord_gtp_comment%	Comment
%ord_gtp_department%	Department
%ord_gtp_target_version%	Target Version
%ord_gtp_cost_center%	Cost Center
%ord_gtp_os%	Operating System
%ord_gtp_platform%	Platform
%ord_gtp_lifecycle_status%	Lifecycle Status
%ord_gtp_location%	Location
%ord_gtp_cs%	Customer Support Identifier
%ord_gtp_site%	Site
%ord_gtp_deployment_type%	Deployment Type
%ord_gtp_contact%	Contact
%ord_gtp_line_of_bus%	Line of Business
%ARRAY_HOST%	Array Hostname / IP Address
%API_TOKEN%	API Token

UNDEPLOY THE PLUG-IN

Undeploy the plug-in from the Management Agents

Before undeploying, make sure all Pure Storage Flash Array targets have been deleted.

1. From the Undeploy From menu, select Management Agent.

Plug-ins

This page lists the plug-ins available, downloaded, and deployed to the Enterprise Manager system. Use this page to deploy or undeploy plug-in

Actions ▾ View ▾ Deploy On Undeploy From ▾ Check Updates Deployment Activities

Name	Management Servers...	Version		Management Agent with Plug-in
	Management Agent...	Latest Downloaded	On Management Server	
Oracle Storage Management	12.1.0.0.0	12.1.0.0.0		0 Er
Oracle VDI	12.1.0.2.0			0 Er
Oracle Virtual Infrastructure	12.1.0.3.0	12.1.0.2.0		0 Er
Oracle Virtual Networking	12.1.0.2.0	12.1.0.2.0		0 Er
Oracle Virtualization	12.1.0.7.0	12.1.0.7.0		0 Er
Oracle ZFS Storage Appliances	12.1.0.7.0			0 Er
Pure Storage Flash Array	12.1.0.2.0	12.1.0.2.0	12.1.0.2.0	2 Er
Sun Ray Software	12.1.0.1.0			0 Er
Oracle Audit Vault	12.1.0.4.0	12.1.0.4.0		0 Er

2. From the Undeploy Plug-in from Management Agent: General page, select Add and choose plug-in instances.

Undeploy Plug-in from Management Agent ×

General

Name: Pure Storage Flash Array

Management Agent with this plug-in

Add... Remove

Management Agent	Operating System	Deployed Version	Status
Add a Management Agent for plug-in undeployment			

* - Dependent Agents

3. In the Undeploy Plug-in from Management Agent: General page, verify that the correct plug-in instances are displayed and click Continue.

Undeploy Plug-in from Management Agent

General

Name Pure Storage Flash Array

Management Agent with this plug-in

+

Add...

×

Remove

Management Agent	Operating System	Deployed Version	Status
test.vlssllc.com:3872	Linux x86-64	12.1.0.2.0	<div>↑</div>
prod.vlssllc.com:3872	Linux x86-64	12.1.0.2.0	<div>↑</div>

* - Dependent Agents

ContinueCancel

4. In the Undeploy Plug-in from Management Agent: Prerequisite Checks page, verify that the checks were successfully completed and click Next.

Undeploy Plug-in from Management Agent

Prerequisite Checks

Name Pure Storage Flash Array

Management Agent	Operating System	Status	Error Message
test.vlssllc.com:3872	Linux x86-64	<div>✓</div>	No Error
prod.vlssllc.com:3872	Linux x86-64	<div>✓</div>	No Error


* - Dependent Agents

BackNextCancel

5. In the Undeploy Plug-in from Management Agent: Review page, click Undeploy to undeploy the plug-in from the OMA.



Undeploy Plug-in from Management Agent

Review

 **Undeployment of plug-ins from the Management Agent deletes the targets monitored by the plug-in, and also restarts the Management Agent. During downtime, the Management Agent will not be able to monitor any targets.**

Name Pure Storage Flash Array

Management Agent with this plug-in

Management Agent	Operating System	Deployed Plug-in Version	Status
test.vlssllc.com:3872	Linux x86-64	12.1.0.2.0	
prod.vlssllc.com:3872	Linux x86-64	12.1.0.2.0	

* - Dependent Agents

Back


Undeploy

Cancel

6. In the Undeploy Plug-in from Management Agent: Confirmation page, click Show Status.

Undeploy Plug-in from Management Agent

Confirmation

 The Undeployment of plug-in "Pure Storage Flash Array" has started on selected Management Agents.
You can monitor the status of the deployment operation in the Deployment Activities page.
You can also monitor the progress using the following command:
`emcli get_plugin_deployment_status -plugin=vlss.pure.xvp1`

Show Status

Close

7. In the Deployment Activities page, verify that the undeployment was successful with a green checkmark in the Status column.

Plug-ins Page Refreshed Apr 2, 2016 9:33:10 AM PDT

Plug-ins > Deployment Activities

Deployment Activities Auto Refresh 1 Minute

Recent Activities

- All Activities
- Successful Activities
- Failed Activities
- Discovery Activities
- Activities on Management Server
- Activities on Management Agent
- Deployment Activities
- Undeployment Activities

Name	Version	Status	Content Type	Destination	Job Name	Start Time	End Time
Pure Storage Flash Array	12.1.0.2.0	✓	Discovery	test.visslic.com:38...	PLUGIN_AGENT_UNDEPLOYMENT_48_14596147...	April 2, 2016 9:33:05 AM PDT	April 2, 2016 9:33:05 AM PDT
Pure Storage Flash Array	12.1.0.2.0	✓	Discovery	prod.visslic.com:3...	PLUGIN_AGENT_UNDEPLOYMENT_48_14596147...	April 2, 2016 9:33:05 AM PDT	April 2, 2016 9:33:05 AM PDT
Pure Storage Flash Array	12.1.0.2.0	✓	Plug-in	prod.visslic.com:3...	PLUGIN_AGENT_UNDEPLOYMENT_48_14596147...	April 2, 2016 9:33:05 AM PDT	April 2, 2016 9:33:05 AM PDT
Pure Storage Flash Array	12.1.0.2.0	✓	Plug-in	test.visslic.com:38...	PLUGIN_AGENT_UNDEPLOYMENT_48_14596147...	April 2, 2016 9:32:58 AM PDT	April 2, 2016 9:32:58 AM PDT

Deployment Steps: Pure Storage Flash Array

Step	Status	Start Time	End Time	Job Step Name	Log File
Initialize	✓	April 2, 2016 9:33:05 AM PDT	April 2, 2016 9:33:05 AM PDT	invokeDeconfigFromShared	emoms.log
Delete target	✓	April 2, 2016 9:33:05 AM PDT	April 2, 2016 9:33:05 AM PDT	invokeDeconfigFromShared	emoms.log
Deconfigure plug-in from Mana...	✓	April 2, 2016 9:33:20 AM PDT	April 2, 2016 9:34:26 AM PDT	invokeDeconfigFromShared	agentplugindeploy_48.log
Update inventory	✓	April 2, 2016 9:33:20 AM PDT	April 2, 2016 9:34:26 AM PDT	invokeDeconfigFromShared	emoms.log

Undeploy the plug-in from the Management Server

1. From the Undeploy From menu, select Management Servers.

Plug-ins

This page lists the plug-ins available, downloaded, and deployed to the Enterprise Manager system. Use this page to deploy or undeploy plug-ins.

Actions ▾ View ▾ Deploy On Undeploy From ▾ Check Updates Deployment Activities

Name	Version	Management Servers...		Management Agent...
		Latest Downloaded	On Management Server	
Oracle VDI	12.1.0.2.0			
Oracle Virtual Infrastructure	12.1.0.3.0	12.1.0.2.0		
Oracle Virtual Networking	12.1.0.2.0	12.1.0.2.0		
Oracle Virtualization	12.1.0.7.0	12.1.0.7.0		
Oracle ZFS Storage Appliances	12.1.0.7.0			
Pure Storage Flash Array	12.1.0.2.0	12.1.0.2.0	12.1.0.2.0	
Sun Ray Software	12.1.0.1.0			
Oracle Audit Vault	12.1.0.4.0	12.1.0.4.0		

2. In the Undeploy Plug-in from Management Server: General page, enter the SYSMAN Repository Password. Click Continue.

Undeploy Plug-in From Management Server

General

Name Pure Storage Flash Array

Version 12.1.0.2.0

* Repository SYS Password

Target Types

Name	Supported Target Versions
Pure Storage Flash Array	Version data not available

Continue

Cancel

3. In the Undeploy Plug-in from Management Server: Review page, click Undeploy to undeploy the plug-in from the OMA.

Undeploy Plug-in From Management Server

Review

Name Pure Storage Flash Array

Version 12.1.0.2.0

Management Servers

Name	Currently Deployed Plug-in Version	Status
sparc.vlssl.com:4889_Management_Service	12.1.0.2.0	

Back

Undeploy

Cancel

4. In the Undeploy Plug-in from Management Agent: Confirmation page, click Show Status.

Undeploy Plug-in From Management Server

Confirmation

✓ The undeployment of plug-in "Pure Storage Flash Array" version 12.1.0.2.0 is in progress.

You can monitor the status of the undeployment operation in the Deployment Activities page.

You can also monitor the progress using the following command:

```
emcli get_plugin_deployment_status -plugin=vlss.pure.xvp1
```

[Show Status](#)[Close](#)

5. In the Deployment Activities page, verify that the undeployment was successful with a green checkmark in the Status column.

Plug-ins

Page Refreshed Apr 2, 2016 9:40:15 AM PDT

Plug-ins > Deployment Activities

Deployment Activities

Auto Refresh 1 Minute

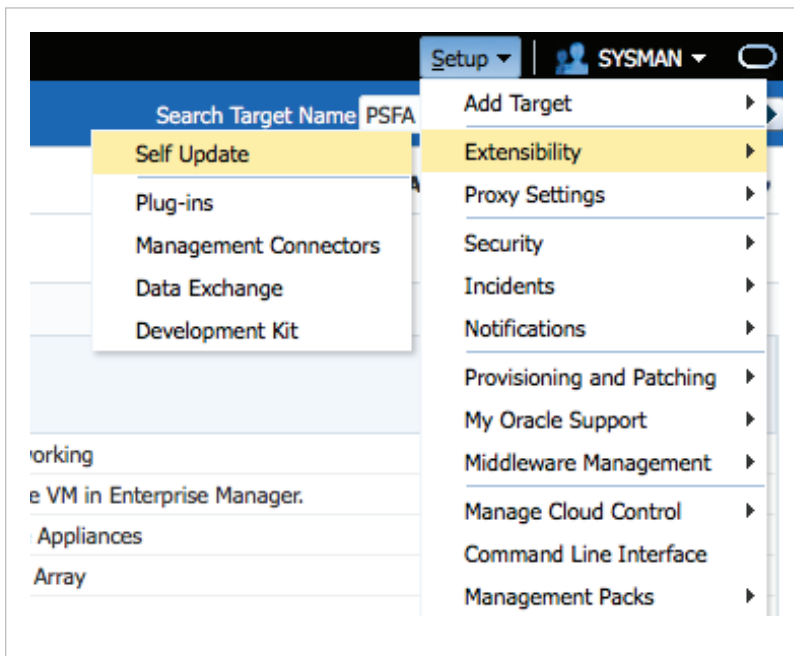
Name	Version	Status	Content Type	Destination	Job Name	Start Time	End Time
Pure Storage Flash Array	12.1.0.2.0	✓	Plug-in	spec:vlss.com:4...	PLUGIN_UNDEPLOYMENT_49_VLSS.PURE.XVP1	April 2, 2016 9:37:07 AM PDT	April 2, 2016 9:39:43 AM PDT

Deployment Steps: Pure Storage Flash Array

Step	Status	Start Time	End Time	Job Step Name	Log File
Submit job for undeployment	✓	April 2, 2016 9:37:07 AM PDT	April 2, 2016 9:37:07 AM PDT	N/A	emoms.log
Initialize	✓	April 2, 2016 9:37:47 AM PDT	April 2, 2016 9:37:55 AM PDT	UndeployPluginFromPrimaryOM	configplugin_deconfig_2016-04-02_09-37-27.log
Validate plug-in home	✓	April 2, 2016 9:37:59 AM PDT	April 2, 2016 9:38:07 AM PDT	UndeployPluginFromPrimaryOM	configplugin_deconfig_2016-04-02_09-37-27.log
Delete plug-in's metadata	✓	April 2, 2016 9:38:09 AM PDT	April 2, 2016 9:38:23 AM PDT	UndeployPluginFromPrimaryOM	configplugin_deconfig_2016-04-02_09-37-27.log
Deconfigure plug-in from Mana...	✓	April 2, 2016 9:38:23 AM PDT	April 2, 2016 9:39:11 AM PDT	UndeployPluginFromPrimaryOM	schemadrop_2016-04-02_09-37-27.trc
Update inventory	✓	April 2, 2016 9:39:12 AM PDT	April 2, 2016 9:39:32 AM PDT	UndeployPluginFromPrimaryOM	configplugin_deconfig_2016-04-02_09-37-27.log
Remove plug-in's Oracle home	✓	April 2, 2016 9:39:32 AM PDT	April 2, 2016 9:39:43 AM PDT	UndeployPluginFromPrimaryOM	deinstall_2016-04-02_09-37-27.log

Delete the plug-in from the repository

1. From the Setup menu, select Extensibility and then select Self Update.



2. In the Self Update page, select the Plug-in folder.

Self Update Page Refreshed Apr 2, 2016

Oracle periodically provides new functionality and updates for existing features in Enterprise Manager. The Self Update home allows administrators to receive notifications and view, download, and apply such updates. While these updates are applied automatically, a manual check can be made at any time.

Status

Connection Mode: **Online** Last Download Time: Jan 28, 2016 11:17:15 AM PST Last Apply Time: Jan 28, 2016 11:31:51 AM PST
 Most Recent Refresh Time: Apr 2, 2016 4:25:17 AM PDT Last Download Type: Plug-in Last Apply Type: Plug-in

Actions: Open Check Updates Plug-in

Type	Available Updates	Downloaded Updates	Applied Updates	Description
EM Deployment Prerequisite Resources	0	0	0	EM Deployment Pre-requisite Checks are the metadata used for checking prerequisites for Install, Upgrade, Patching Plugins.
Enterprise Configuration Search	0	0	0	Configuration search definitions can be used at the enterprise level to search the configuration data of managed target databases.
Extensibility Development Kit	0	0	1	Extensibility Development Kit (EDK) is a standalone tool designed to help development of Enterprise Manager extension (Plug-ins).
Management Connector	20	0	1	Management Connectors are components that integrate different enterprise frameworks into the Enterprise Manager.
Metric Extensions	0	0	0	Metric Extensions enhance Enterprise Manager's monitoring capability by allowing you to create new metrics to monitor your environment.
Middleware Profiles and Gold Images	1	0	0	A collection of Software Components used for provisioning of Oracle Application Server homes.
Monitoring Templates	0	0	0	Monitoring Templates can be used to standardize monitoring across your enterprise by applying a subset of monitoring templates.
Oracle Database Provisioning Profiles and Images	0	0	0	A collection of Software Components used for provisioning of Oracle Database, Clusterware and Grid Infrastructure.
Plug-in	57	26	10	Plug-in extends Enterprise Manager to manage newer target type as well as to bring vertical functionality.
Provisioning Bundle	0	0	0	Provisioning bundle is a collection of deployment procedures, software library entities, and other related artifacts that are used for provisioning and patching of various Oracle and non-Oracle Products.

- The Plug-in Updates page will list all available plug-ins.

Self Update Page Refreshed Apr 2,

Self Update > Plug-in

Plug-in Updates

Actions ▾ Download Apply Plug-in Search Description ➔

Status	OS Platform	Plug-in Name	Re Version	Vendor	Size(MB)	Description
Applied	Generic Platform	Oracle Beacon	0 12.1.0.5.0	ORACLE	134.627	Oracle Beacon plugin is required on the Managed Hosts to supp
Applied	Generic Platform	Oracle CSA	0 12.1.0.5.0	ORACLE	0.478	Client System Analyzer
Applied	Generic Platform	Management Services and Repository	0 12.1.0.5.0	ORACLE	0.292	This Plugin is used for monitoring Oracle Management Services
Applied	Generic Platform	Oracle Home	0 12.1.0.5.0	ORACLE	2.003	Oracle Home Plugin is used for monitoring and management of
Available	Generic Platform	Oracle Unified Directory	0 12.1.0.1.0	ORACLE	21.508	Enterprise Manager for OUD
Available	Generic Platform	Oracle Key Manager	0 12.1.0.1.0	ORACLE	0.987	Enterprise Manager for Oracle Key Manager
Available	Generic Platform	Oracle Flash Storage System	0 12.1.0.1.0	ORACLE	1.197	Enterprise Manager for Oracle Flash Storage System
Available	Generic Platform	Oracle Instant Messaging Server	0 12.1.0.1.0	ORACLE	0.497	Enterprise Manager for Oracle Instant Messaging Server is used
Available	Generic Platform	MySQL Database	0 12.1.0.3.0	ORACLE	73.919	Enterprise Manager for MySQL Database
Available	Generic Platform	MySQL Database	0 12.1.0.2.0	ORACLE	24.918	Enterprise Manager for MySQL Database
Available	Generic Platform	MySQL Database	0 12.1.0.1.0	ORACLE	24.284	Enterprise Manager for MySQL Database
Available	Generic Platform	Oracle Tuxedo	0 12.1.0.3.0	ORACLE	4.858	Enterprise Manager for Oracle Tuxedo
Available	Generic Platform	Oracle Tuxedo	0 12.1.0.2.0	ORACLE	4.022	Enterprise Manager for Oracle Tuxedo

- Enter Pure into the Search Description field. Click the right-arrow button.

Enter text to search

Description Pure ➔

	Re Version	Vendor
	0 12.1.0.5.0	ORACLE
	0 12.1.0.5.0	ORACLE
d Repository	0 12.1.0.5.0	ORACLE
	0 12.1.0.5.0	ORACLE
	0 12.1.0.1.0	ORACLE
	0 12.1.0.1.0	ORACLE

- The Plug-in Updates page will refresh to display details of the Pure plug-in, already selected.

Self Update Page Refreshed

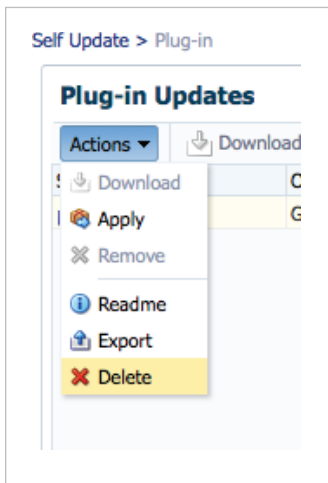
Self Update > Plug-in

Plug-in Updates

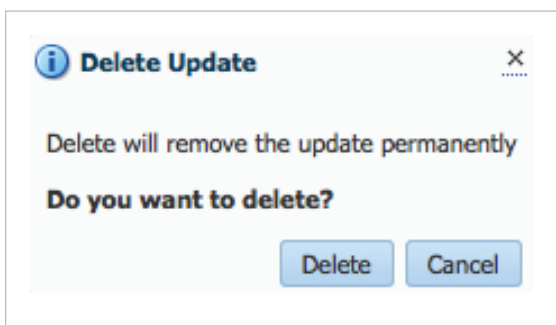
Actions ▾ Download Apply Plug-in Search Description Pure ➔

Status	OS Platform	Plug-in Name	Re Version	Vendor	Size(MB)	Description
Downloaded	Generic Platform	Pure Storage Flash Array	0 12.1.0.2.0	VLSS	1.120	Enterprise Manager for Pure Storage Flash Array

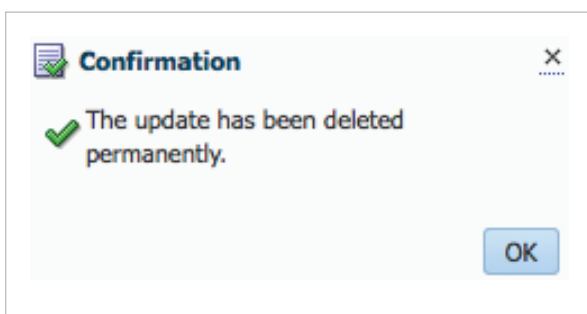
6. From the **Actions** menu, select **Delete**.



7. The **Delete Update** screen will confirm that you want to delete the plug-in.



8. The **Confirmation** screen will report completion.



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