

**Unified Infrastructure Manager/ Provisioning**

Version 4.0 Patch 02

**Patch Read Me**

P/N 302-000-599

Rev 01

January 2014

These release notes contain supplemental information about EMC Unified Infrastructure Manager/Provisioning 4.0 Patch 02 (UIM/P 4.0 P 02). Topics include:

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## Revision history

[Table 1 on page 2](#) lists the revision history of this document.

Table 1      **Revision history**

Date	Rev	Description of Change
January 2014	01	GA version of document.

## Product description

EMC Unified Infrastructure Manager/Provisioning is designed to:

- ◆ Discover Converged Hardware Systems.
- ◆ Administer Converged Hardware System resources.
- ◆ Manage the infrastructure service lifecycle.
- ◆ Present Dashboard views that summarize resource utilization, and status of discovered Converged Hardware Systems and managed services.
- ◆ Manage Converged Hardware System device configuration.
- ◆ Provide the foundation for Infrastructure as a Service (IaaS) on Converged Hardware Systems.

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## New features and changes

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### Decommission of shared storage service

When using UIM/P 4.0 and UIM/P 4.0 Patch 01 to perform a full decommission of a shared storage service, VMs were correctly deleted from the shared storage service, however VMs and datastores were also deleted from any attached standard services. This has been corrected in UIM/P 4.0 Patch 02, so that when decommissioning a shared storage service, VMs are no longer deleted from any attached standard services.

When using UIM/P 4.0 Patch 02 to decommission a shared storage service, UIM/P will check for any VMs (running or not) and display an override confirmation that lists all impacted disks. Also, if detaching a standard service, UIM/P 4.0 Patch 02 will display a new override confirmation to warn of possible service interruption.

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### Naming convention for VMAX base initiator groups

With UIM/P 4.0, the pre-requisites for VPLEX configuration imposed a naming convention in which the name of the VMAX base initiator groups containing the actual initiators, were named according to the WWNN of the ports in that initiator group.

As of UIM/P 4.0 Patch 01, the WWNN naming convention, as described above, is no longer mandatory.

However, it should be noted that for unconfigured systems, UIM/P 4.0 Patch 02 uses a simple naming convention for VMAX initiator groups, whereby each initiator is in a base group of its own and that base group's name is the WWPN of the initiator. Although not mandatory, it is highly recommended that you use the same group naming convention for consistency and ease of troubleshooting.

For details, refer to *EMC Unified Infrastructure Manager/Provisioning Configuration Requirements for Converged Hardware Systems*.

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### Handling of shared storage volumes

As of UIM/P 4.0 Patch 01, an issue has been fixed that may cause degraded performance on storage arrays, due to multiple HLU's being assigned to the same storage volume. It occurred when a shared storage volume, which had already been assigned an HLU for one host, was added to a standard service where that HLU was already in use by another volume, forcing UIM to use a different HLU, which could lead to severe performance issues over time as the volumes are used. As of UIM/P 4.0 Patch 01, unique HLU's are used for all shared storage service volumes.

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### Support for Disjoint Layer 2

Optionally, for customers who want to implement Disjoint Layer 2 networks, UIM/P 3.2 P 01 and higher is compatible with UCSM 2.0, which supports Disjoint Layer 2 networks in end-host mode.

In a Disjoint Layer 2 network, separate vNICs are configured to communicate with different network domains to ensure that traffic for the different domains does not flow on the same interface.

VLANs for disjoint domains are assigned different uplink ports (or port channels). Traffic for a VLAN that is part of a disjoint network can only flow through a designated uplink port or port channel that is assigned to that VLAN. Traffic for that VLAN is dropped on all other uplinks. Therefore, with UIM/P 3.2 P 01 and greater, the vNICs that are to communicate with the disjoint domains should be pinned only to the uplink, which is designated to handle traffic for the VLANs on that domain.

The following limitations and assumptions apply:

1. If the VLAN designated as the OS Install VLAN is associated with pin groups, and if any of those pin groups are specified on the vNICs, then operating system installation through UIM/P may fail. Therefore, it is not advisable to use pin groups in this case.
2. If a vNIC is provisioned with two or more VLANs and then (outside of UIM/P) the VLANs are added to different disjoint domains, the port that the vNIC is pinned to will go down. However, UIM/P does not generate a service alert to indicate that the port is down.
3. If the isolation zone for a service is updated and the new NFS VLAN or new ESX Management VLAN is pinned, then UIM/P does not add them to all vNICs; UIM/P removes the old management VLANs from all vNICs, but will only add the new vNICs if they are not pinned. However, UIM/P generates a validation error to indicate that the NFS VLAN and/or ESX Management VLAN will need to be manually added to at least one vNIC. To do so, open the Service Editor, select the Network tab, and edit the appropriate vNICs to add the VLANs.

## Environment and system requirements

The *EMC Unified Infrastructure Manager/Provisioning Support Matrix* provides information on supported environments and system requirements.

### Configuration Center console support — Java runtime 1.7.0

The UIM/P Configuration Center console requires Java runtime 1.7.0.

As of UIM/P 4.0 Patch 01, the UIM/P Configuration Center launches with Java runtime versions 1.7.0\_7 to 1.7.0\_25.

### End of service dates and extended support

EMC has a standard software support duration policy which specifies that a major version will reach End of Service Life (EOSL) a minimum of 36 months following the General Availability (GA). EOSL may be followed by an Extended Support period during which customers may elect to pay an additional fee to extend their support coverage rather than migrate to a current software version.

Once a software product reaches EOSL, EMC Technical Support is no longer available under base support/maintenance agreements. Customers interested in uninterrupted support must upgrade to a current release or contract for Extended Support (ES).

EMC Online Support contains a list of documents that provide end-of-service and extended support information for EMC software and hardware products.

To access these documents on EMC Online Support, do the following:

4. Go to <https://support.emc.com/products>
5. Type the product name in the **Find a Product** field and click the arrow button.

The Service Life information, if available for a given product, is displayed on the left side of the associated product page, and states when the product was Generally Available (GA), when it will be out of Service, and if it has Extended Service coverage.

6. Click the **Release and End of Life Dates** link available on the Service Life information section to view existing Service Life information documents. The *EMC Software Release and End of Service Life Notifications* document provides EOSL dates for EMC software products.

**Note:** This policy is in effect for select releases and will be phased in as new versions are made available. In cases where a software release is not eligible for Extended Support, the previous policy, which specifies product support and maintenance under Continuous Coverage Product Maintenance (CCPM), terms still apply.

For information on how to use EMC Online Support, click the **Online Support FAQ** link available at <https://support.emc.com/>.

## Known problems and limitations

Refer to the list of known problems and limitations in the *EMC Unified Infrastructure Manager Version 4.0 Release Notes*.

In addition, at the time of release, UIM/P 4.0 Patch 02 has the known problems and limitations listed in [Table 1 on page 6](#). When applicable, a workaround for the issue is documented.

**Table 1 Known problems and limitations**

CQ	Issue/Diagnosis	Resolution/Workaround
607707	After performing a vCenter Sync on a service, any datastores with a capacity greater than 2 TB are displayed in vCenter with an incorrect capacity of approximately 50 GB.	<p>Use vSphere client to delete the incorrectly-sized datastore, then recreate it.</p> <ol style="list-style-type: none"> <li>1. Delete the incorrectly-sized datastore: <ol style="list-style-type: none"> <li>a. Launch vSphere client.</li> <li>b. Log in as a user with administration rights.</li> <li>c. In the <b>Hosts and Clusters</b> view, navigate to the datacenter then cluster in the left-hand navigation tree.</li> <li>d. Expand the cluster and select a single host.</li> <li>e. With the host selected, click the <b>Configuration</b> tab on the main panel, then click the <b>Storage</b> link in <b>Hardware</b> on the left.</li> <li>f. Click the <b>Datastores</b> button.</li> <li>g. Make a note of the incorrectly-sized datastore name, as you will need to recreate it with that exact name.</li> <li>h. Right-click the incorrectly-sized datastore, and select <b>Delete</b>.</li> </ol> </li> <li>2. Recreate the datastore: <ol style="list-style-type: none"> <li>a. In the same screen, click the <b>Add Storage</b> link.</li> <li>b. Select the disk and move through the wizard.</li> <li>c. Specify the exact same name for the datastore as originally used by UIM.</li> </ol> </li> </ol> <p>Resyncing from UIM will continue to work as expected, and not affect the manually-created datastore.</p>
613002	After performing a full or selective decommission of a shared storage service that has VMs (virtual machines) created using vCenter, even though UIM/P successfully deletes all underlying storage, VM records are still present in vCenter.	<p>This defect has no functional impact, but requires manual clean up to remove the VM records from vCenter.</p> <p>To manually remove VM records from vCenter:</p> <ol style="list-style-type: none"> <li>1. Log into the vCenter service using the vSphere client.</li> <li>2. Navigate to the cluster(s) of the attached service(s).</li> <li>3. In the navigation tree, right-click the VM, and select <b>Remove from Inventory</b>.</li> </ol>
613046	If you detach all the standard services from a shared storage service, then reattach the standard services to the shared storage service, the shared standard service will fail any subsequent provisioning attempts.	Refrain from removing all standard services from a shared storage service.
613083	On a selective decommission (detach) of a standard service from a VPLEX service, if any of the servers in the detached standard services are running VMs on the VPLEX volumes, then the servers will lose communication to the VPLEX storage, interrupting the VMs.	For now, an additional warning message has been added to UIM/P 4.1 Patch 02.

## Fixed problems

Table 2 on page 7 details the problems and limitations that have been fixed in this release.

**Table 2 Fixed problems**

CQ	Issue	Fix description	Version fixed
604313 604973	UIM/P Configuration Center did not launch when Java runtime 1.7.0_25 is installed on the client.	UIM/P Configuration Center now launches with Java runtime 1.7.0_25 installed on the client.	4.0 P 01
604520	When adopting standard services, discovery of each server can take up to 6 minutes, due to the algorithm used by UIM/P SAU (Service Adoption Utility).	The SAU adoption algorithm has been made more efficient, resulting in significantly faster service adoption times.	4.0 P 01
605292 605281	When provisioning a service, UIM/P automatically checks for Vblock validation and will return a warning if validation did not run or if it failed. Vblock validation does not apply to EMC VSPEX Systems, so the validation check will always return a warning because validation did not run.	The Vblock validation warning no longer appears for EMC VSPEX Systems.	4.0 P 01
605345	Decommissioning VPLEX services could sometimes result in the vSync Status remaining as Synchronization Successful, and with the Delete button disabled. In these cases, the VPLEX service, although fully decommissioned, could not be deleted.	Following a full decommission, the VPLEX service can be deleted.	4.0 P 01
606507	When using UIM/P SAU (Service Adoption Utility) to adopt a shared storage service, LUNs that are created based on grade may be incorrectly adopted as FAST LUNs.	The UIM/P SAU (Service Adoption Utility) now adopts the shared storage service LUNs correctly.	4.0 P 01
606520	If you selectively decommission the virtual volumes from a VPLEX service, then selectively decommission the attached standard services, the storage group and host initiators remain in the VPLEX service storage view. This could lead to potential provisioning errors when attempting to use the same host in another VPLEX service.	Selective decommission of virtual volumes and standard service from a VPLEX service, correctly deletes the associated host initiators.	4.0 P 01
606436	If you adopt a VPLEX service using the UIM/P SAU (Service Adoption Utility), then elastically add a new virtual volume, the back end ports used for masking the new volume may not be the same as those used for the original volume.	This is now working correctly.	4.0 P 01
606986	If a shared storage service has any LUNs that are in a Planned state, and you elastically add a LUN to an attached standard service, then an attempt to provision the standard service will fail.	You can now elastically add a LUN to an standard service, which is attached to a shared storage service that has LUNs that are in the Planned state.	4.0 P 01
607057	If a VPLEX service has any LUNs that are in a Planned state, and you elastically add a LUN to an attached standard service, then an attempt to provision the standard service will fail.	You can now elastically add a LUN to an standard service, which is attached to a VPLEX storage service that has LUNs that are in the Planned state.	4.0 P 01
612791 612884	When performing a full decommission on a shared storage service, VMs and datastores were deleted from any attached standard services.	As of UIM/P 4.0 Patch 02, when decommissioning a shared storage service, VMs or datastores are no longer deleted from any attached standard services.	4.0 P 02

## Documentation

The most current documentation is available on the EMC Online Support website:  
<https://support.emc.com/>

## Installing UIM/P Version 4.0 P 02

The patch media is provided in two forms:

- ◆ Install media — to install a full UIM/P appliance with 4.0 P 02 preinstalled. Refer to the *EMC Unified Infrastructure Manager/Provisioning Software Installation and Configuration Guide* for detailed instructions. While installing the appliance, provide the URL for the 4.0 P 02 OVF file.
- ◆ Update media — to upgrade a UIM/P appliance to 4.0 P 02. See [“Upgrading the UIM/P appliance to 4.0 P 02” on page 8](#) for instructions.

## Upgrading the UIM/P appliance to 4.0 P 02

Upgrades to Version 4.0 P 02 can be performed directly on appliances running UIM/P Version 3.1.x and higher.

This procedure must be completed for each UIM/P appliance.

**Note:** When upgrading from UIM/P Versions 3.1.x or 3.2.x, any devices that were discovered prior to the upgrade will automatically be rediscovered following the upgrade. Be aware that communication with the devices will occur during this process. Upgrading from UIM/P Version 4.0 will not cause automatic rediscovery of devices.

1. Take a snapshot of the UIM/P appliance, using vSphere Client:
  - a. Open vSphere Client, and connect to the vCenter Server managing your appliance.
  - b. Right-click the UIM/P appliance, and select **Snapshot > Take Snapshot**.

**Note:** A snapshot of the UIM/P appliance is important in order to prevent loss of data and allow proper rollback if an error occurs during the upgrade.

2. Download the UIMP-4.0.0.2.xxx-Update-Media.iso file to the server where you are running vSphere Client.
3. Use vSphere Client to mount the UIMP-4.0.0.2.xxx-Update-Media.iso file on your UIM/P 3.1.x appliance.
4. In a supported browser, type the following URL into the address bar:  
<https://<hostname>:5480>, where <hostname> is the fully qualified hostname of your UIM/P 3.1.x appliance.
5. Log in as the root **user**.
6. Click the **Update** tab.
7. Click the **Check Updates** button, to find updates on the mounted update media.



8. Click the **Install Updates** button. Installation can take up to 30 minutes to complete. You do not need to reboot the appliance or restart any services.

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**Note:** If an update failure occurs, a message is recorded in the `/opt/ionix-uim/logs/appliance-update.log` file.

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**Note:** A reboot may be required after updating the UIM/P appliance. To reboot, click the System tab at the top of the UIM/P appliance management webpage, then click Actions, and then Reboot. The reboot may take 10 minutes to complete.

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9. Log out of the console by selecting **Logout user root**.

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**Note:** To ensure your browser reloads any updated flexui files, restart the browser before accessing the UIM/P console.

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## Verifying the installation

1. In a supported browser, type the following URL into the address bar:  
*https://<hostname>*, where <hostname> is the fully qualified hostname of your UIM/P appliance.
2. Log into the UIM/P console.
3. Click the **Help** option on the UIM/P menu bar.
4. Select the **About** option to open the About Unified Infrastructure Manager/Provisioning window.
5. Verify the version of this release is **4.0.0.2.xxx**.

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## Uninstalling UIM/P Version 4.0 P 02

To uninstall the patch, revert to the vSphere snapshot of the UIM/P appliance:

1. Open vSphere Client, and connect to the vCenter Server managing your VMWare environment.
2. Right-click the UIM/P appliance, and select **Snapshot > Revert to Current Snapshot**.

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## Verifying the uninstall

1. Click the **Help** option on the UIM/P menu bar.
2. Select the **About** option to open the About Unified Infrastructure Manager/Provisioning window.
3. Verify the UIM/P version appears as it did before the patch was applied.

## Troubleshooting and getting help

EMC support, product, and licensing information can be obtained, as follows:

**Product information** — For documentation, release notes, software updates, or for information about EMC products, licensing, and service, go to the EMC Online Support website (registration required) at:

<https://support.emc.com/>

**Technical support** — For technical support, go to EMC Customer Service on the EMC Online Support site. To open a service request through EMC Online Support, you must have a valid support agreement. Contact your EMC sales representative for details about obtaining a valid support agreement or to answer any questions about your account.

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