

UVS Manager v2.14.17-02 Release Notes

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Release version 2.14.17-02 is a bug fix release of UVS manager v2.14.17. We recommend all customers using v2.14.16 and 2.14.17 upgrade to 2.14.17-02. If you are upgrading from 2.14.16, please also refer to the [release note of 2.14.17](#) & [2.14.17-01](#).

You have to login in Ambedded help desk portal ambedded.freshdesk.com to download the upgrade file.

Please read this release note carefully before you upgrade the UVS manager.

Changelog

- Upgrade the Ceph version to the latest Nautilus version 14.2.12.
- **[Enhancement]** Support future upgrade UVS software without upgrading the Ceph version.
- **[Bug Fixed]** Fix the issue of deploying external iSCSI gateway may fail if the gateway can not link to the internet.
- **[Bug Fixed]** Fix the bug that /var/tmp and /tmp are bound to the same folder /m2/tmp on M.2 SSD.

Upgrade Guide

Upgrade from Version 2.14.17 or 1.14.17-01 to 2.14.17-02

Caution: This section describes the steps to upgrade from 2.14.17 or 2.14.17-01. If you are upgrading from 2.14.16, please refer to the next section [Upgrade from Version 2.14.6](#) to 2.14.17-02 in this document.

The Ceph cluster will not have service downtime during the upgrade.

As we have the upgrade for Ceph, please upgrade the firmware in the following sequence.

1. First of all, upgrade all monitor nodes.
2. After all of the monitors are upgraded successfully, upgrade all OSD nodes.
3. Upgrade the MDS nodes if you have MDS nodes in service.

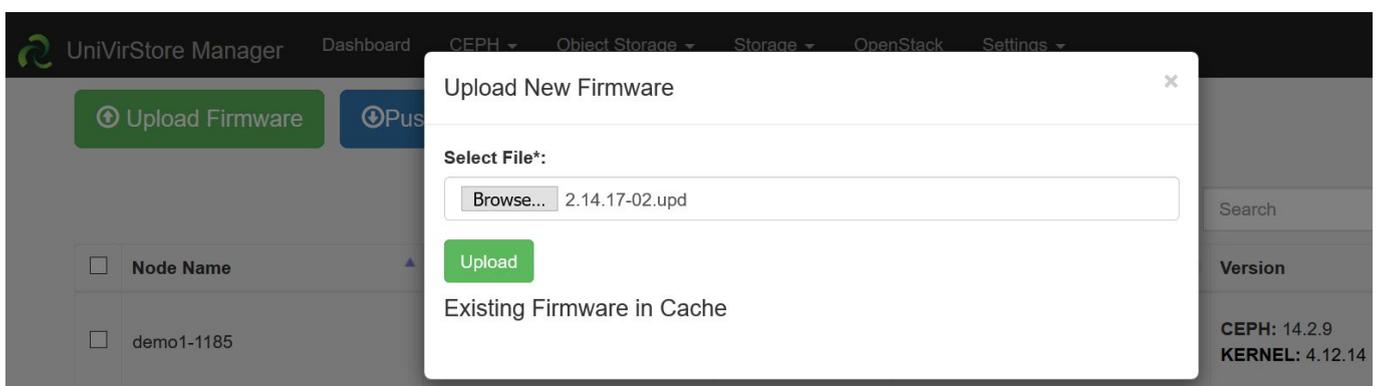
During the upgrade, the upd will do a rolling service restart on all services to make the upgrade active. The service restart for MON and MDS shall be short. OSD upgrade will take a longer time as there are I/O activities during the upgrade. The OSD will take longer to upgrade if your OSD usage is higher.

Finally, you have to upgrade the external RADOS Gateways.

Please follow the following steps to upgrade the UVS manager to 2.14.17-02.

Step1: Upgrade the First Monitor Node

1. Open your UVS manager on a browser and click the menu “**Settings**” -> “**Firmware Update**”.
2. Use the UVS “**Upload Firmware**” feature to **upload** the “2.14.17-02.upd” package to this monitor node.



Step 2: Upgrade all Monitors

1. Please upgrade all other monitors by **push update** to all of the monitors at the same time. One monitor will take 5 minutes to complete the update.

You can enter the role name in the search box to filter the nodes you want to push updates. For example, type “mon” will show only monitor nodes on the list. Select the nodes that you want to update the firmware.

UniVirStore Manager Dashboard CEPH Object Storage Storage OpenStack Settings

Upload Firmware Push Update Push RPM

mon

<input checked="" type="checkbox"/>	Node Name	IP Address	Role	UVS Version	Version
<input checked="" type="checkbox"/>	demo1-1185	192.168.1.161	mon mds mgr	2.14.17	CEPH: 14.2.9 KERNEL: 4.12.14
<input checked="" type="checkbox"/>	demo2-1187	192.168.1.162	mon mds mgr	2.14.17	CEPH: 14.2.9 KERNEL: 4.12.14
<input checked="" type="checkbox"/>	demo3-1189	192.168.1.163	mon mds mgr	2.14.17	CEPH: 14.2.9 KERNEL: 4.12.14

UniVirStore Manager Dashboard CEPH Object Storage Storage OpenStack Settings

Upload Firmware Push Update Push RPM

Push UPD to Selected Nodes

Select Push Mode*:
Rolling Push (Push One By One)

Select Push UPD File*:
2.14.17-02.upd

Push

mon

Version

CEPH: 14.2.9
KERNEL: 4.12.14

Step 3: Upgrade OSD nodes

UniVirStore Manager Dashboard CEPH Object Storage Storage OpenStack Settings

Upload Firmware Push Update Push RPM

osd

<input checked="" type="checkbox"/>	Node Name	IP Address	Role	UVS Version	Version
<input checked="" type="checkbox"/>	demo4-118b	192.168.1.164	osd	2.14.17	CEPH: 14.2.9 KERNEL: 4.12.14
<input checked="" type="checkbox"/>	demo5-118d	192.168.1.165	osd	2.14.17	CEPH: 14.2.9 KERNEL: 4.12.14
<input checked="" type="checkbox"/>	demo6-118f	192.168.1.166	osd	2.14.17	CEPH: 14.2.9 KERNEL: 4.12.14
<input checked="" type="checkbox"/>	demo7-1191	192.168.1.167	osd	2.14.17	CEPH: 14.2.9 KERNEL: 4.12.14

Step 4: Upgrade MDS nodes:

You only need to upgrade the active MDS nodes as standby MDS nodes have been upgraded during the Monitor nodes upgrade.

UniVirStore Manager Dashboard CEPH Object Storage Storage OpenStack Settings

Upload Firmware Push Update Push RPM

mds

<input type="checkbox"/>	Node Name	IP Address	Role	UVS Version	Version
<input type="checkbox"/>	demo1-1185	192.168.1.161	mon mds mgr	2.14.17-02	CEPH: 14.2.12 KERNEL: 4.12.14
<input type="checkbox"/>	demo2-1187	192.168.1.162	mon mds mgr	2.14.17-02	CEPH: 14.2.12 KERNEL: 4.12.14
<input type="checkbox"/>	demo3-1189	192.168.1.163	mon mds mgr	2.14.17-02	CEPH: 14.2.12 KERNEL: 4.12.14
<input checked="" type="checkbox"/>	demo8-1193	192.168.1.168	mds	2.14.17	CEPH: 14.2.9 KERNEL: 4.12.14

Step 5: Check the software version after upgrade.

UniVirStore Manager Dashboard CEPH Object Storage Storage OpenStack Settings admin

Upload Firmware Push Update Push RPM

Search

<input type="checkbox"/>	Node Name	IP Address	Role	UVS Version	Version
<input type="checkbox"/>	demo1-1185	192.168.1.161	mon mds mgr	2.14.17-02	CEPH: 14.2.12 KERNEL: 4.12.14
<input type="checkbox"/>	demo2-1187	192.168.1.162	mon mds mgr	2.14.17-02	CEPH: 14.2.12 KERNEL: 4.12.14
<input type="checkbox"/>	demo3-1189	192.168.1.163	mon mds mgr	2.14.17-02	CEPH: 14.2.12 KERNEL: 4.12.14
<input type="checkbox"/>	demo4-118b	192.168.1.164	osd	2.14.17-02	CEPH: 14.2.12 KERNEL: 4.12.14
<input type="checkbox"/>	demo5-118d	192.168.1.165	osd	2.14.17-02	CEPH: 14.2.12 KERNEL: 4.12.14
<input type="checkbox"/>	demo6-118f	192.168.1.166	osd	2.14.17-02	CEPH: 14.2.12 KERNEL: 4.12.14
<input type="checkbox"/>	demo7-1191	192.168.1.167	osd	2.14.17-02	CEPH: 14.2.12 KERNEL: 4.12.14
<input type="checkbox"/>	demo8-1193	192.168.1.168	mds	2.14.17-02	CEPH: 14.2.12 KERNEL: 4.12.14

Showing 1 to 8 of 8 rows

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Upgrade from Version 2.14.16 to 2.14.17-02

There are three major software upgrades. Please read this upgrade notes carefully before you start to upgrade your Mars 400 appliance software.

1. **UVS manager:** Upgrade from version 16 to version 17 with many new features and bugs fixed.
2. **Upgrade the Ceph:** Upgrade Ceph version from Nautilus 14.2.5 to Nautilus 14.2.12. The UVS manager upgrade assistant will automatically restart the Ceph daemons after pushing the upgrade package to the specified nodes.
3. **RBD Mirroring:** We are proud to present the RBD Mirroring implementation to the UVS manager. Users can deploy rbd-mirroring easily to replicate their RBD images between two Ceph clusters. UVS RBD mirroring features enables you to quickly re-activate your storage service without waiting for the primary site recovery when there is a disaster. RBD mirroring provides your storage a higher availability.

You can select multiple nodes for one push. UVS will do the rolling update one node at a time. There will be no downtime during the upgrade. But, please do follow the following procedure.

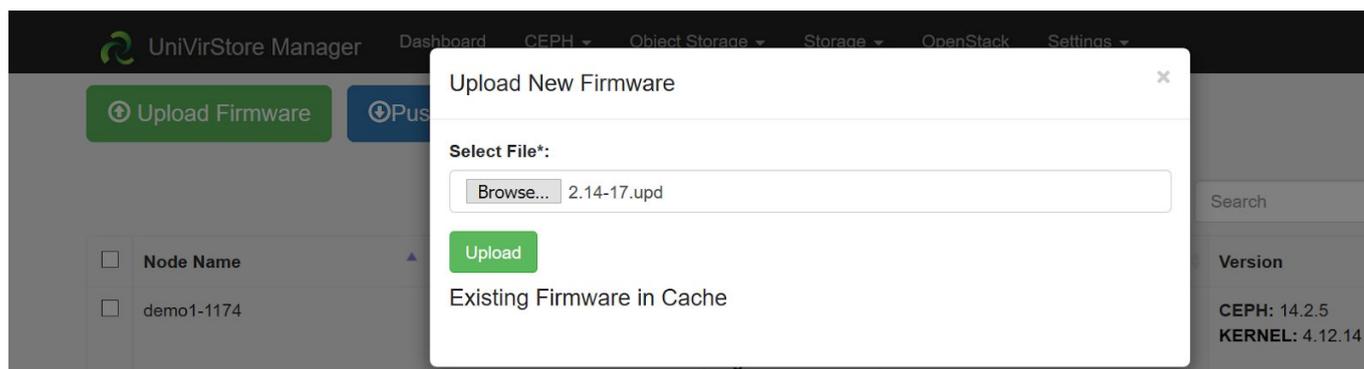
The steps to completely upgrade the software are

1. Upgrade the first monitor node by the firmware update feature of the UVS manager. The first monitor node is the node you are using UVS manager for the upgrade.
2. Upgrade the rest of the monitor & OSD nodes.
3. Upgrade MDS nodes if you have MDS nodes in use.
4. Check the UVS software versions.
5. Upgrade the external RADOS gateways.
6. Upgrade the external iSCSI gateways.
7. Update the cluster timezone.
8. Finally, please upgrade your ceph clients.

Please follow the following sections for details of each step. Also, we put a video about the upgrade on youtube. Here is the link <https://youtu.be/6aCplqCfb6o>.

Step1: Upgrade the First Monitor Node

1. Open your UVS manager on a browser and click the menu “**Settings**” -> “**Firmware Update**”.
2. Use the UVS “**Upload Firmware**” feature to **upload** the “2.14-17.upd” package to this monitor node.



3. After uploading the .upd file, select the current monitor node and press “Push Update” to push the .upd file for the updating.

The screenshot shows the UniVirStore Manager interface. At the top, there are navigation tabs: Dashboard, CEPH, Object Storage, Storage, OpenStack, and Settings. Below the navigation, there are three buttons: Upload Firmware (green), Push Update (blue), and Push RPM (light blue). A search bar is located on the right side of the table.

<input type="checkbox"/>	Node Name	IP Address	Role	UVS Version	Version
<input type="checkbox"/>	demo4-117a	192.168.1.154	osd	2.14-16.20200317	CEPH: 14.2.5 KERNEL: 4.12.14
<input type="checkbox"/>	demo5-117c	192.168.1.155	osd	2.14-16.20200317	CEPH: 14.2.5 KERNEL: 4.12.14
<input type="checkbox"/>	demo6-117e	192.168.1.156	osd	2.14-16.20200317	CEPH: 14.2.5 KERNEL: 4.12.14
<input type="checkbox"/>	demo7-1180	192.168.1.157	osd	2.14-16.20200317	CEPH: 14.2.5 KERNEL: 4.12.14
<input checked="" type="checkbox"/>	demo1-1174	192.168.1.151	mon mds mgr	2.14-16.20200317	CEPH: 14.2.5 KERNEL: 4.12.14
<input type="checkbox"/>	demo2-1176	192.168.1.152	mon mds mgr	2.14-16.20200317	CEPH: 14.2.5 KERNEL: 4.12.14

The screenshot shows the UniVirStore Manager interface with a modal dialog box open. The dialog box is titled "Push UPD to Selected Nodes" and has a close button (X) in the top right corner. Below the title, there is a section labeled "Select Push Mode*:" with a dropdown menu showing "Rolling Push (Push One By One)". At the bottom of the dialog box, there is a green "Push" button.

4. A few minutes later, you'll see the current node has been updated to version 2.14.17-02

UniVirStore Manager Dashboard CEPH Object Storage Storage OpenStack Settings

Upload Firmware Push Update Push RPM

Search

<input type="checkbox"/>	Node Name	IP Address	Role	UVS Version	Version
<input type="checkbox"/>	demo1-1174	192.168.1.151	mon mds mgr	2.14.17-02	CEPH: 14.2.12 KERNEL: 4.12.14
<input type="checkbox"/>	demo2-1176	192.168.1.152	mon mds mgr	2.14-16.20200317	CEPH: 14.2.5 KERNEL: 4.12.14
<input type="checkbox"/>	demo3-1178	192.168.1.153	mon mds mgr	2.14-16.20200317	CEPH: 14.2.5 KERNEL: 4.12.14
<input type="checkbox"/>	demo4-117a	192.168.1.154	osd	2.14-16.20200317	CEPH: 14.2.5 KERNEL: 4.12.14
<input type="checkbox"/>	demo5-117c	192.168.1.155	osd	2.14-16.20200317	CEPH: 14.2.5 KERNEL: 4.12.14
<input type="checkbox"/>	demo6-117e	192.168.1.156	osd	2.14-16.20200317	CEPH: 14.2.5 KERNEL: 4.12.14

Step 2: Upgrade Other Monitors and OSD nodes

2. Please upgrade all other monitors by pushing updates to all of the monitors at the same time. One monitor will take 5 minutes to complete the update.
3. Then after you have upgraded monitors, please push the update to OSD nodes.

You can enter the role name in the search box to filter the nodes you want to push updates. For example, type “mon” will show only monitor nodes on the list. Select the nodes that you want to update the firmware.

UniVirStore Manager Dashboard CEPH Object Storage Storage OpenStack Settings

Upload Firmware Push Update Push RPM

mon

<input type="checkbox"/>	Node Name	IP Address	Role	UVS Version	Version
<input type="checkbox"/>	demo1-1174	192.168.1.151	mon mds mgr	2.14.17-02	CEPH: 14.2.12 KERNEL: 4.12.14
<input checked="" type="checkbox"/>	demo2-1176	192.168.1.152	mon mds mgr	2.14-16.20200317	CEPH: 14.2.5 KERNEL: 4.12.14
<input checked="" type="checkbox"/>	demo3-1178	192.168.1.153	mon mds mgr	2.14-16.20200317	CEPH: 14.2.5 KERNEL: 4.12.14

UniVirStore Manager Dashboard CEPH Object Storage Storage OpenStack Settings

Upload Firmware Push Update Push RPM

osd

<input checked="" type="checkbox"/>	Node Name	IP Address	Role	UVS Version	Version
<input checked="" type="checkbox"/>	demo4-117a	192.168.1.154	osd	2.14-16.20200317	CEPH: 14.2.5 KERNEL: 4.12.14
<input checked="" type="checkbox"/>	demo5-117c	192.168.1.155	osd	2.14-16.20200317	CEPH: 14.2.5 KERNEL: 4.12.14
<input checked="" type="checkbox"/>	demo6-117e	192.168.1.156	osd	2.14-16.20200317	CEPH: 14.2.5 KERNEL: 4.12.14
<input checked="" type="checkbox"/>	demo7-1180	192.168.1.157	osd	2.14-16.20200317	CEPH: 14.2.5 KERNEL: 4.12.14

3. Select the 2.14-17.upd file and choose the rolling push mode. You can only use the rolling push for this update.

Push UPD to Selected Nodes

Select Push Mode*:
Rolling Push (Push One By One)

Select Push UPD File*:
2.14-17.upd

Push

Step 3: Upgrade the MDS Nodes

UniVirStore Manager Dashboard CEPH Object Storage Storage OpenStack Settings

Upload Firmware Push Update Push RPM

mds

<input type="checkbox"/>	Node Name	IP Address	Role	UVS Version	Version
<input type="checkbox"/>	demo1-1174	192.168.1.151	mon mds mgr	2.14.17-02	CEPH: 14.2.12 KERNEL: 4.12.14
<input type="checkbox"/>	demo2-1176	192.168.1.152	mon mds mgr	2.14.17-02	CEPH: 14.2.12 KERNEL: 4.12.14
<input type="checkbox"/>	demo3-1178	192.168.1.153	mon mds mgr	2.14.17-02	CEPH: 14.2.12 KERNEL: 4.12.14
<input checked="" type="checkbox"/>	demo8-1182	192.168.1.158	mds	2.14-16.20200317	CEPH: 14.2.5 KERNEL: 4.12.14

If you have MDS in use, you shall also upgrade the MDS nodes after the OSD. Select the MDS nodes and upgrade them by rolling push. You only need to upgrade the active MDS nodes as standby MDS nodes have been upgraded during the Monitor nodes upgrade.

Step 4: Check the software version after upgrade.

After you complete the upgrade and reboot, please check the firmware version of each node by navigating to the Settings -> Firmware Update.

The correct software versions after this upgrade shall be

1. UVS: 2.14.17-02
2. Ceph : 14.2.12
3. Kernel: 4.12.14

The screenshot shows the UniVirStore Manager interface. At the top, there are navigation tabs: Dashboard, CEPH, Object Storage, Storage, OpenStack, and Settings. The user is logged in as 'admin'. Below the navigation are three buttons: 'Upload Firmware', 'Push Update', and 'Push RPM'. A search bar is located on the right. The main content is a table with the following columns: Node Name, IP Address, Role, UVS Version, and Version. The table contains 8 rows of node information.

<input type="checkbox"/>	Node Name	IP Address	Role	UVS Version	Version
<input type="checkbox"/>	demo1-1174	192.168.1.151	mon mds mgr	2.14.17-02	CEPH: 14.2.12 KERNEL: 4.12.14
<input type="checkbox"/>	demo2-1176	192.168.1.152	mon mds mgr	2.14.17-02	CEPH: 14.2.12 KERNEL: 4.12.14
<input type="checkbox"/>	demo3-1178	192.168.1.153	mon mds mgr	2.14.17-02	CEPH: 14.2.12 KERNEL: 4.12.14
<input type="checkbox"/>	demo4-117a	192.168.1.154	osd	2.14.17-02	CEPH: 14.2.12 KERNEL: 4.12.14
<input type="checkbox"/>	demo5-117c	192.168.1.155	osd	2.14.17-02	CEPH: 14.2.12 KERNEL: 4.12.14
<input type="checkbox"/>	demo6-117e	192.168.1.156	osd	2.14.17-02	CEPH: 14.2.12 KERNEL: 4.12.14
<input type="checkbox"/>	demo7-1180	192.168.1.157	osd	2.14.17-02	CEPH: 14.2.12 KERNEL: 4.12.14
<input type="checkbox"/>	demo8-1182	192.168.1.158	mds	2.14.17-02	CEPH: 14.2.12 KERNEL: 4.12.14

Showing 1 to 8 of 8 rows

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Step 5: Upgrade the external RADOS Gateway.

During the firmware update, we've updated the internal RADOS Gateway daemons collocated with monitor nodes. If you have external RADOS gateways, you can upgrade the external RGW one by one by deleting and re-deploying them. The UVS manager "Delete" external gateway feature purges only the ceph information on the RGW container; this will not delete RADOS data. Please refer to the UVS document section "[Creating RADOS Gateways on x86 servers](#)" for details about pulling the new docker image for Ceph Nautilus.

Step 6: Upgrade the external iSCSI Gateway.

During the firmware update, we've updated the internal iSCSI Gateway daemons collocated with monitor nodes. For the external iSCSI gateways, you could upgrade your Ceph packages manually. You don't have to re-deploy the iSCSI sessions.

- CentOS: # yum update ceph-common
- Debian/Ubuntu: # sudo apt upgrade ceph-common

Step 7: Change cluster timezone

UVS uses “UTC” as the UVS default timezone. Since UVS 2.14.17, UVS provides a new function for changing your timezone of the Ceph cluster & UVS. After changing the timezone, the logs and services’ time will match your local timezone. For your convenience, please go to the “**Settings**” >> “**NTP**” page and set the cluster timezone as the last step for the upgrade.