Vertiv™ Avocent® DSView™ Solution

Resolving Bulk Firmware Update Issues Technical Note

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Technical Note Section Outline

1. Overview

Through the Vertiv™ Avocent® DSView™ Solution platform, you can use the web UI to perform a bulk update of multiple IP KVM and Vertiv™ Avocent® RM1048P Rack Manager devices. During the bulk update operation, one or more devices may fail to update. This technical note provides step-by-step instructions to resolve failed bulk firmware updates.

This technical note applies to the following Vertiv™ Avocent® DSView™ Solution products:

- Vertiv™ Avocent® MP1000 Management Platform
- Vertiv™ Avocent® RM1048P Rack Manager
- Vertiv™ Avocent® IPIQ IP KVM devices
- Vertiv™ Avocent® IPUHD 4K IP KVM devices

2. Vertiv™ Avocent® IPIQ IP KVM Device Bulk Firmware Update

When attempting to perform a bulk firmware update of several Vertiv™ Avocent® IPIQ IP KVM devices that are physically connected to the back of a Vertiv™ Avocent® RM1048P Rack Manager, one or more firmware updates may fail from the web UI. The rack manager may be either in standalone mode or managed by a Vertiv™ Avocent® MP1000 Management Platform. The following table describes how the firmware update operation may have failed and provides troubleshooting instructions.

Table 2.1 Vertiv™ Avocent® IPIQ IP KVM – Bulk Firmware Update Troubleshooting

ISSUE	SOLUTION
After executing the bulk firmware update from the web UI of the rack manager or management platform, check for an error message that indicates either the <u>update was unable to get a proper response</u> from a Vertiv™ Avocent® IPIQ IP KVM device or the <u>update was unable to initialize properly</u>.	1. Wait at least five minutes after the Vertiv™ Avocent® IPIQ IP KVM Device Bulk Firmware Update operation has failed. 2. Update the firmware for one or more of the Vertiv™ Avocent® IPIQ IP KVM devices that previously failed. Refer to the Perform Firmware Update from Web UI section for instructions. 3. Verify that the firmware update was successful for the selected Vertiv™ Avocent® IPIQ IP KVM devices. Refer to the Get Firmware Update Status section for instructions.

3. Vertiv™ Avocent® IPUHD 4K IP KVM Device Bulk Firmware Update

When attempting to perform a bulk firmware update of several Vertiv™ Avocent® IPUHD 4K IP KVM devices that are physically connected to the back of a Vertiv™ Avocent® RM1048P Rack Manager, one or more firmware updates may fail from the web UI. The rack manager may be either in standalone mode or managed by a Vertiv™ Avocent® MP1000 Management Platform. The following table describes how the firmware update operation may have failed and provides troubleshooting instructions.

Table 3.1 Vertiv™ Avocent® IPUHD 4K IP KVM Device – Bulk Firmware Update Troubleshooting

ISSUES	SOLUTIONS
After executing the bulk firmware update from the web UI of the rack manager or management platform, check for an error message that indicates the update failed due to a parse status code failure.	1. Wait at least five minutes after the Vertiv™ Avocent® IPUHD 4K IP KVM Device Bulk Firmware Update operation has failed. 2. Update the firmware for the Vertiv™ Avocent® IPUHD 4K IP KVM devices that previously failed. Refer to the Perform Firmware Update from Web UI section for instructions. 3. Verify that the firmware update was successful for the selected Vertiv™ Avocent® IPUHD 4K IP KVM devices. Refer to the Get Firmware Update Status section for instructions. -OR- 1. Wait at least five minutes after the Vertiv™ Avocent® IPUHD 4K IP KVM Device Bulk Firmware Update operation has failed. 2. From the *Appliance View* or *Targets List* page of the web UI, delete and then re-add the Vertiv™ Avocent® IPUHD 4K IP KVM device. 3. Update the firmware for the Vertiv™ Avocent® IPUHD 4K IP KVM devices that previously failed. Refer to the Perform Firmware Update from Web UI section for instructions. 4. Verify that the firmware update was successful for the selected Vertiv™ Avocent® IPUHD 4K IP KVM devices. Refer to the Get Firmware Update Status section for instructions.
After executing the bulk firmware update from the web UI of the rack manager or management platform, check for an error message that indicates the update failed due to an unexpected response value.	1. Disconnect the Vertiv™ Avocent® IPUHD 4K IP KVM devices from the back of the rack manager. 2. From the *Appliance View* or *Targets List* page of the web UI, delete the Vertiv™ Avocent® IPUHD 4K IP KVM devices. 3. Restart both the sip-docker and ip-management services using the CLI (Command Line Interface). Refer to the Restart Rack Manager Appliance Services section for instructions. 4. Reconnect the Vertiv™ Avocent® IPUHD 4K IP KVM devices to the back of the rack manager. 5. Update the firmware for the Vertiv™ Avocent® IPUHD 4K IP KVM devices. Refer to the Perform Firmware Update from Web UI section for instructions. 6. Verify that the firmware update was successful for the selected Vertiv™ Avocent® IPUHD 4K IP KVM devices. Refer to the Get Firmware Update Status section for instructions.

4. Vertiv™ Avocent® RM1048P Rack Manager Appliance Bulk Firmware Update

When attempting to perform a bulk firmware update of several Vertiv™ Avocent® RM1048P Rack Managers that are managed by a Vertiv™ Avocent® MP1000 Management Platform, one or more firmware updates may fail from the web UI. The following table describes how the firmware update operation may have failed and provides troubleshooting instructions.

Table 4.1 Vertiv™ Avocent® RM1048P Rack Manager – Bulk Firmware Update Troubleshooting

ISSUE	SOLUTION
After executing the bulk firmware update from the web UI of the management platform, check for an error message that indicates the update was <u>unable to retrieve the status information from the appliance</u>. **NOTE: The firmware update operation on the rack managers may be successful despite the above error message displaying in the web UI.**	Before troubleshooting, ensure the updated firmware version is correct in the rack manager. Refer to the Get Rack Manager Appliance Firmware Version section for instructions. If the rack manager's firmware version is incorrect, then proceed with the following steps: 1. From the *Targets - Appliance View* page of the management platform's web UI, delete and then re-add the rack manager. 2. Update the firmware for the rack managers that previously failed. Refer to the Perform Firmware Update from Web UI section of this document for instructions. 3. Verify that the updated firmware version is correct in the rack manager. Refer to the Get Rack Manager Appliance Firmware Version section for instructions.

5. General Procedures

Perform Firmware Update from Web UI

Follow the steps below to perform a bulk firmware update for multiple devices using the web UI.

1. From the left-hand sidebar, click the *Targets* tab and then click either the *Appliance View* link or the *Targets List* link.

2. Hover your mouse over the desired device(s) and check the box on the left side of the row for each device you wish to update. The Firmware Update icon appears above the list of devices.

3. Click the Firmware Update icon. A Firmware Update dialogue box appears.
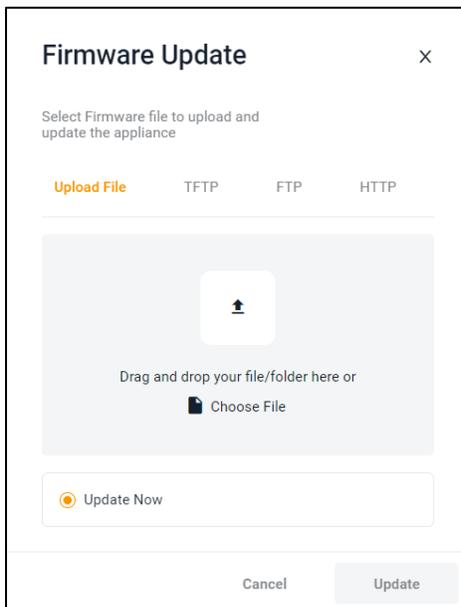
4. Click *Choose File* and browse to the firmware file from your local drive.

5. Select the firmware file and click *Open*.

   -or-

   Drag and drop the firmware file from your local drive.

   NOTE: If you wish update the firmware from TFTP, FTP or HTTP, fill in the required information.

6. Click *Update* to update the firmware.

Get Firmware Update Status

Follow the steps below to verify that a firmware update has been successful:

1. Log in to the web UI of the rack manager or management platform with an administrator user account.

2. From the left-hand sidebar, click *Administration – Firmware Updates* to view the list of firmware updates and the corresponding status of each firmware update.

3. Click the plus icon on the left side of the appropriate firmware update task to view the status of the most recent firmware update. Upon expanding the update task, information will appear in the Previous Firmware Version (if applicable), New Firmware Version, and Status columns.

Restart Rack Manager Appliance Services

Follow the steps below to restart one or more services running on the Vertiv™ Avocent® RM1048P Rack Manager using the CLI:

1. Launch a serial connection to the rack manager using port 22 with an SSH application such as PuTTY.

2. Log in as an admin user.

3. Enter a valid password for the rack manager to access the CLI.

4. On the CLI menu, type **11** to select the Diagnostics option and press **Enter**.

```
Options:
0  Exit the CLI
1  Show/Configure Network Settings
2  Show Thermal and Power Data
3  Show/Configure Chassis
4  Show/Configure Manager
5  Backup and Restore
6  Account Settings
7  Update Firmware
8  Reset to Factory Defaults
9  Shutdown
10 Reboot
11 Diagnostics
Select an option:
/> 11
```

5. Enter **4** to select the Restart Service option and press **Enter**.

```
Options:
0  Root Menu. ENTER to Refresh Menu. ".." For Previous Menu.
1  Show Logs
2  Save Logs to USB
3  Show Services
4  Restart Service
5  Restart the Network Interface
6  Set Logging Level for a Service
7  Ping an Address
8  Trace Route
9  TCP Connect
10 Test connection to NTP servers
11 Show Attached Devices
12 Manage UMIQ to IPIQ conversion
Select an option:
/diagnostics> 4
```

6. The list of services that are running on the rack manager are displayed. The following screenshot only captures a subset of all services running on the rack manager.

```
1    41d20c49f9a4                    Up 9 days
2    alarm                           Up 9 days (healthy)
3    api-gateway-docker              Up 9 days
4    authentication                  Up 9 days (healthy)
5    authorization                   Up 9 days (healthy)
6    cli                             Up 9 days
7    corona-viewer                   Up 9 days
8    credential                      Up 9 days (healthy)
9    dashboard                       Up 9 days
10   data-dictionary                 Up 9 days (healthy)
11   database                        Up 11 days
12   device                          Up 9 days (healthy)
13   device-access                   Up 9 days
14   device-access-proxy             Up 9 days (healthy)
15   device-manager                  Up 9 days (healthy)
16   devicestatus                    Up 9 days (healthy)
17   dhcp-server                     Up 9 days
18   discovery                       Up 9 days (healthy)
19   egress-ldap                     Up 9 days
20   egress-radius                   Up 9 days
21   egress-tacacs                   Up 9 days
22   event                           Up 9 days (healthy)
23   featureflags-management         Up 9 days (healthy)
24   fpm-frr                         Up 11 days
25   ie                              Up 9 days
26   ip-management                   Up 9 days (healthy)
27   ip-pool                         Up 9 days (healthy)
28   ldap-authentication             Up 9 days (healthy)
29   localization                    Up 9 days (healthy)
```

7. Enter the number associated with the service to restart and press **Enter**. Repeat this step for other services that need to be restarted.

8. When the selected services have been restarted, log in to the rack manager's web UI with an administrator user account and verify that the main UI page displays correctly.

Get Rack Manager Appliance Firmware Version

Follow the steps below to get the firmware version of the rack manager using the CLI:

1. Launch a serial connection to the rack manager using port 22 with an SSH application such as PuTTY.

2. Log in as an admin user.

3. Enter a valid password for the rack manager to access the CLI.

4. On the CLI main page, the rack manager firmware version is specified in the Firmware Version property.

```
RM1048 CLI

:: / (ROOT MENU)
Vrf_app0            : 10.207.15.68 (DHCP)
# Service Root
Product             : Avocent RM1048
UUID                : 03000200-0400-0500-0006-000700085a7e
Software Version    : 1.122.7
Firmware Version    : 202006 134-45s vpp 20.09-17s v1.63.3
Serial Number       : 463054PE2048008
# Chassis
Asset Tag           : None
Location            :
SKU                 : Default string
# Manager
Enrollment          : STANDALONE
Current Date/Time : 2024-11-01T21:52:10+0000
Options:
0  Exit the CLI
1  Show/Configure Network Settings
2  Show Thermal and Power Data
3  Show/Configure Chassis
4  Show/Configure Manager
5  Backup and Restore
6  Account Settings
7  Update Firmware
8  Reset to Factory Defaults
9  Shutdown
10 Reboot
11 Diagnostics
Select an option:
/>
```