

# Pluribus Networks

## Release Notes for Netvisor® ONE

Version 5.2.1 HF4

October 2021



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## End User License Agreement (cont'd)

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14.9. ANY CLAIM, DISPUTE, OR CONTROVERSY (WHETHER IN CONTRACT, TORT, OR OTHERWISE, WHETHER PREEXISTING, PRESENT OR FUTURE, AND INCLUDING STATUTORY, CONSUMER PROTECTION, COMMON LAW, INTENTIONAL TORT AND EQUITABLE CLAIMS) BETWEEN YOU AND PLURIBUS, its agents, employees, principals, successors, assigns, affiliates (collectively for purposes of this paragraph, "PLURIBUS") arising from or relating to this EULA, its interpretation, or the breach, termination or validity thereof, the relationships which result from this EULA (including, to the full extent permitted by applicable law, relationships with third parties who are not signatories to this Agreement) SHALL BE EXCLUSIVELY AND FINALLY SETTLED BY ARBITRATION. THE ARBITRATION SHALL BE HELD IN SANTA CLARA, CALIFORNIA AND CONDUCTED IN ACCORDANCE WITH THE COMMERCIAL ARBITRATION RULES OF THE AMERICAN ARBITRATION ASSOCIATION. THE ARBITRATION SHALL BE CONDUCTED BEFORE THREE ARBITRATORS, ONE SELECTED BY EACH OF THE PARTIES, AND THE THIRD SELECTED BY THE FIRST TWO ARBITRATORS. JUDGMENT UPON THE AWARD RENDERED MAY BE ENTERED IN ANY COURT HAVING JURISDICTION, OR APPLICATION MAY BE MADE TO SUCH COURT FOR JUDICIAL ACCEPTANCE OF THE AWARD AND IN ORDER OF ENFORCEMENT AS THE CASE MAY BE.

## Pluribus Support Guidelines for Third Party Components

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When you report a product fault or failure and Pluribus Support can trace the issue to the use of third party memory products, cables, transceivers, filters, or other non-Pluribus Networks components by you, the customer, or the reseller, Pluribus Networks may withhold support under warranty or a Pluribus Networks support program such as FreedomCare™ service.

When a product fault or defect occurs in the network, and Pluribus Networks concludes that the fault or defect is not attributable to the use of third-party memory, cables, transceivers, filters, or other non-Pluribus Networks components installed by a customer or reseller, Pluribus continues to provide support for the affected product under warranty or covered by a Pluribus support program.

The source of the fault or error is the key to determining Pluribus Networks support obligations.

Pluribus also reserves the right to charge the customer per then current time and material rates for services provided to the customer when Pluribus Networks determines, after having provided such services, that the root cause of the defect or fault was caused by a third party vendor-supplied product.

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**Note:** For any clarification, it is recommended to contact Pluribus Networks - Account Management, Product Management or Customer Advocacy teams.

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## Supported Platforms

### Dell Platforms

| Dell Platforms | Dell Platforms |
|----------------|----------------|
| • S4048-ON*    | • S4148T-ON    |
| • S4048T-ON*   | • S5048F-ON    |
| • S4112F-ON    | • S5232F-ON    |
| • S4112T-ON    | • S5248F-ON    |
| • S4128F-ON    | • S6000-ON     |
| • S4128T-ON    | • S6010-ON     |
| • S4148F-ON    | • Z9100-ON     |

**Warning:** \*The Dell S4048-ON and S4048T-ON platforms require 4GB RAM and 16GB SSD disks to run Netvisor® ONE software.

**Warning:** Be sure to check your Dell platform for the hard drive type. The required hard disk type is mSATA. To check your hard disk type, use the following command at the root level:

```
root@switch-name# hdparm -I /dev/sda
dev/sda:
ATA device, with non-removable media
Model Number: InnoDisk Corp. - mSATA 3IE3
Serial Number: BCA11605240360037
Firmware Revision: S16425i
Transport: Serial, ATA8-AST, SATA 1.0a, SATA II Extensions, SATA Rev
2.5, SATA Rev 2.6, SATA Rev 3.0
```

The supported mSATA types for Dell platforms is typically 16GB 3IE3 iSLC SSD. Dell platforms S5232F-ON and S5248F-ON have 64GB SSD drives model number M.2 (S42) 3IE4.

## Supported Platforms (cont'd)

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### Dell Networking Firmware Updates

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**Warning:** Netvisor support for S5232F-ON and S5248F-ON platforms require a minimum firmware level in order to install the software. Please ensure that Dell Firmware updater v3.40.5.1-13 or higher has been installed prior to performing the `onie-nos-install`.

Refer to: <https://www.dell.com/support/home/us/en/04/product-support/product/networking-s5248f-on/drivers>

Refer to: <https://www.dell.com/support/home/us/en/19/product-support/product/networking-s5232f-on/drivers>

Click on the download link under Firmware category for the appropriate Dell Networking Firmware Updater for the S5248F-ON or S5232F-ON Switch"[PR28566]

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**Warning:** Pluribus Networks recommends you to use the Dell Firmware Updater V3.33.5.1-23 when upgrading the firmware for the Dell S4xxxx series switches listed below. Note that Netvisor ONE software is not compatible with Dell Firmware Updater V3.33.5.1- 22 for these switches. Please do not upgrade to this firmware when running Netvisor ONE software on any of the below platforms:

S4148F-ON  
S4148T-ON  
S4128F-ON  
S4128T-ON  
S4112F-ON  
S4112T-ON

For details, refer the Dell website (each link covers two platforms, for example, the first link covers both S4148F and S4148T) at:

- <https://www.dell.com/support/home/en-us/product-support/product/networking-s4148f-on/drivers>
- <https://www.dell.com/support/home/en-us/product-support/product/networking-s4128f-on/drivers>
- <https://www.dell.com/support/home/en-us/product-support/product/networking-s4112f-on/drivers>

## Supported Platforms (cont'd)

### Pluribus Freedom and Edgecore Platforms

| Edgecore Platforms | Pluribus Freedom 9000 Series |
|--------------------|------------------------------|
| • AS5712-54X       | • F9272-X                    |
| • AS5812-54T       | • F9372-T                    |
| • AS5812-54X       | • F9372-X                    |
| • AS6712-32X       | • F9232-Q                    |
| • AS7312-54XS      | • F9572-V, F9572L-V          |
| • AS7316-54XS      | • F9532-C, F9532L-C          |
| • AS7716-32X       | • F9532C-XL-R                |
| • AS7712-32X       |                              |

**Warning:** AS5712-54X, AS6712-32X, AS5812-54T, and AS5812-54X switches manufactured with eUSB as primary storage devices may exhibit instability in performance. The recommended storage disk type is mSATA SSD.

To check the disk type on your switch, use the following command:

```
root@aquarius-ext-leaf2:~# lsusb -v | grep eUSB
iProduct                2 ATP IG eUSB
```

If you attempt to install Netvisor ONE on a switch with eUSB disks, Netvisor ONE aborts the installation with the warning message, ERR: Upgrade failed: eUSB platform is not supported!. [PR21590]



## Obtaining a Platform License

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To obtain your activation keys and activate your hardware, you must first register at <https://www.pluribusnetworks.com/get-started>.

## Installation and Configuration of Netvisor ONE

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The installation and configuration documentation for Netvisor® ONE are located on the Pluribus Networks Web site:

<https://www.pluribusnetworks.com/support/technical-documentation/>

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**Note:** Pluribus Networks strongly recommends executing the `running-config-show` command and saving the output in a text file before upgrading to the most recent version of Netvisor ONE.

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## Installing Netvisor ONE Version 5.2.1

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**Caution:** When performing the ONIE upgrade, you should isolate Netvisor ONE switches from the rest of the network. [PR16446]

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### Fresh Install or Reloading the ONIE Image

1. Locate the ONIE image for Netvisor ONE Version 5.2.1. This can be found on [cloud-web.pluribusnetworks.com](http://cloud-web.pluribusnetworks.com) and then used in one of two ways:
  - a. Download onie-installer image from [cloud-web.pluribusnetworks.com](http://cloud-web.pluribusnetworks.com) and copy it to the top level of a USB thumb drive and attach it to the Netvisor ONE switch. In this case, the switch automatically finds the onie-installer image and installs it. The image must be named onie-installer.
  - b. Download the onie-installer image from [cloud-web.pluribusnetworks.com](http://cloud-web.pluribusnetworks.com) and copy to a local Web server.
2. Connect to the serial console and reboot the switch.
3. While the switch boots up, select the onie option from the grub menu.
4. If you want to re-image the switch, select onie-uninstall.
5. After uninstalling the onie-image, the switch reboots to the onie-install option.
6. If you use an ONIE installer on a USB stick and you copied the file to the top level directory, the switch automatically locates it and begins the installation.
7. Or if you want to use an ONIE installer kept on a local Web server in your network, you can start ONIE install using the command: `onie-nos-install <http-location-of-installer>`.
8. Wait for the ONIE installer to finish the installation and the switch automatically reboots.

**Warning:** Edgecore models AS5712-54X, AS6712-32X, AS5812-54T, AS5812-54X, and Pluribus models F9232-Q, F9272-X, F9372-T, and F9372-X switches ship without a battery for the clock. When you install software for the first time or re-ONIE a switch, the software displays the incorrect time. To correct this issue, configure NTP on the switch using the `switch-setup-modify` command to add NTP server information or be sure to set up NTP during the initial installation of the software. [PR14965]

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**Note:** Upgrading from Version 3.1.1 to Version 5.1.0 and later versions may take longer than 30 minutes to complete on the switch.

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## Dell S6000-ON Platform BIOS Upgrade Information

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On some occasions, the BIOS on the Dell S6000-ON platform may become unresponsive and require a power cycle to recover it. Upgrading the BIOS to the latest image prevents this from reoccurring.

BIOS (Dell Inc) Boot Selector  
S6000-ON (SI) 3.20.0.1 (32-port TE/FG)

### POST Configuration

CPU Signature 30669  
CPU FamilyID=6, Model=36, SteppingId=9, Processor=0  
Microcode Revision 10b  
POST Control=0xea000303, Status=0xe6009f00

### MSRs:

Platform ID: f09885f04b  
PMG\_CST\_CFG\_CTL: 263006  
BBL\_CR\_CTL3: 7e00010f  
Perf Ctrl & status: 63d, 63d104b06000648

Perf cnt (curr/fixed): 20f409f6/57e030c0  
Clk Flex Max: 0  
Misc EN: 60840080  
Therm Status: 883f0000 (offset=0x0)  
MC0 Ctl: 0  
MC0 Status: 0

BIOS initializations...

The following information is available from the Dell Web site:

### Resolved S6000-ON Caveats

The following caveat has been resolved:

#### PR# 150414

#### Severity: Sev 2

**Synopsis:** In rare instances, system may become unresponsive during boot-up and require a power cycle to recover.

**Release Notes:** In rare instances, system may become unresponsive during boot-up and require a power cycle to recover. This condition may occur when system is operating at higher temperature and is intermittent in nature. The solution is implemented in BIOS version 3.1.0.3 for S6000 platform and BIOS version 3.20.0.3 for S6000-ON platform.

**Workaround:** Power cycle the switch.

To upgrade the BIOS on these Dell platforms, use the link to download a new BIOS image:

<http://www.dell.com/support/home/us/en/19/Drivers/DriversDetails?driverId=H8TWD&fileId=3477666073&osCode=NAA&productCode=force10-s6000-on&languageCode=EN&categoryId=SM>

## Dell Notifications

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Dell EMC Networking switches S4048-ON, S4048T-ON, S6010-ON, and Z9100-ON might fail after 18 months or longer due to component failure. Please read the related [Knowledge Base](#) article.

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**Note:** You may see a message, "error: sparse file not allowed" after the ONIE install. The message is the result of GRUB implementation for BTRFS file system and is harmless. Please ignore the message. For more details on this issue, please visit:

<https://askubuntu.com/questions/100329/message-sparse-file-not-allowed-after-installing-on-a-btrfs-filesystem> [PR23501]

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## What's New in Version 5.2.1

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No new features are introduced in Version 5.2.1. However, this release is an enhancement to Netvisor ONE 5.2.0 release.

For more information on the existing features, please refer to the [Pluribus Networks Configuration Guide](#) and [Command Reference documents](#).

The Netvisor ONE version 5.2.0 and later versions also provide support for Pluribus OpenStack ML2 Plugin. For details, refer to the Pluribus [OpenStack ML2 Plugin Deployment Guide](#)

For information on Layer 1 VirtualWire™, refer to the [VirtualWire Configuration Guide](#).

## Known Hardware Issues

| PR Number | Release Notes  | Affected Platform   |
|-----------|--|---|
| PR24136   | For S41XX-ON switches, Netvisor requires that you reboot the switch after adding or removing Flex port configuration for ports on the switch<br><b>Workaround</b> — None.  | Dell:<br>S4112T-ON<br>S4112F-ON<br>S4148F-ON<br>S4148T-ON<br>S4128F-ON<br>S4128T-ON                               |
| PR21497   | You cannot modify the traffic speed on individual 25G ports.<br><b>Workaround</b> — If you want to modify the port speed on any ports 1-72, the same speed must be set on bundles of 4: 1-4, 5-8,...69-72.   | Dell:<br>S5048F-ON<br>S5248F-ON<br><br>Edgecore:/Freedom<br>AS7312-54XS /<br>F9572L-V<br>AS7316-54XS /<br>F9572-V |
| PR13099   | On S6010-ON platforms, using a 4 x 10G port for VXLAN trunk configurations is not supported. You must use a single 40G port.<br><b>Workaround</b> — None at this time.   | Dell: S6010-ON  |
| PR30110   | The F9372-X platform supports programming of forced mode on Bel-Fuse SFP-1GBT-05 adapter to configure the speed of the interface to 10Mbps or 100Mbps. However, if the adapter is physical removed and then re-inserted, the device does not reprogram.<br><b>Workaround</b> — To enforce the programming of the device, remove and then re-add the port configuration. For example, change the speed to 1G with <code>autoneg</code> option and then change it back to 10M with <code>no-autoneg</code> option. | Pluribus:<br>F9372-X  |

## Known Software Issues in Version 5.2.1 HF4

| PR Number | Release Note   | Affected Platform   |
|-----------|--|---|
| PR37883   | <p>When management NIC's IP assign mode is set to DHCP and DHCP server is not reachable/not responding for any reason, then nvOSd would retry attaining the NIC IP address for 10s. If the management NIC does not get the IP address even after 10s, then it would bring up nvOSd with default management IP (static) address, 169.254.1.1/24.</p> <p><b>Workaround</b> — None.</p>   | All   |
| PR37741   | <p>It was observed that when the <code>vrouter-bgp-neighbor-detail-show</code> command timed out, then all other following show commands also timed out. This issue was observed intermittently on versions prior to Netvisor ONE 6.1.0.</p> <p><b>Workaround</b> — Restart the Netvisor daemon (nvOSd).</p>   | All   |
| PR31121   | <p>Fabric wide bridge domain (BD) <code>port show</code> can take longer time to display with scaled BD configuration (for example, 3 minutes with 770 BDs)</p> <p><b>Workaround</b> — Use switch-local mode for faster retrieval of the output.</p>   | All   |
| PR31091   | <p>L1VirtualWire: After changing the port speed, RUNT packets are dropped on ingress ports.</p> <p><b>Workaround</b> — Reboot the switch after changing the port speed so that RUNT packets are forwarded.</p>   | Dell Trident3 platforms<br>S5232F-ON<br>S5248F-ON                                   |
| PR31006   | <p>The minimum sFlow sample rate supported on Dell S41xx platforms is 4. The recommended sample rate 4096 pps.</p> <p><b>Workaround</b> — Do not set sample rate below 4.</p>  | Dell:<br>S4148F-ON<br>S4148T-ON<br>S4128F-ON<br>S4128T-ON<br>S4112F-ON<br>S4112T-ON |
| PR30963   | <p>IGMP queries originated by the 'local switch' uses MAC address of local management (mgmt) interface as the source MAC address on any VLAN where snooping is enabled. One such VLAN is used as a mgmt network by connecting all mgmt interfaces including local switch mgmt interface to an adjacent switch.</p> <p>If the local switch also acts as a gateway for the mgmt network and hence has another connection to the adjacent switch, you can experience connectivity issues to and from the local switch management IP, because the mgmt interface MAC address moves between the two ports connecting the adjacent switch and the local switch. This is due to IGMP and mgmt interface sending packets with the same source MAC address.</p> <p><b>Workaround</b> — Disable IGMP snooping on the VLAN used for management network.</p> | All   |

## Known Software Issues in Version 5.2.1 HF4 (cont'd)

| PR Number | Release Note   | Affected Platforms |
|-----------|--|--------------------|
| PR30936   | The <code>bgp-delayed-startup</code> timer parameter is ignored with BGP Unnumbered interface.<br><b>Workaround</b> — None   | All                |
| PR30887   | On a cluster node, for the <code>l2-table-show</code> command the <code>vlan</code> field is empty for Bridge Domain MACs learnt over VXLAN tunnel. See the <i>sample configuration</i> below the table.<br><b>Workaround</b> — None | All                |

### Example Configuration for PR30887:

```
CLI (network-admin@sw-leaf1) > l2-table-show bd bdl format all
```

| switch                | mac               | bd  | vlan | vxlan  | intf | ports | state                            | peer-state | peer-owner-state | tunnel       |
|-----------------------|-------------------|-----|------|--------|------|-------|----------------------------------|------------|------------------|--------------|
| sw-leaf3              | 00:12:c0:80:30:cf | bd1 | 100  | 101001 |      |       | tunnel,local-tunnel,invalid-vlan |            |                  | auto-tunnel- |
| 10.30.30.1_10.40.40.1 |                   |     |      |        |      |       |                                  |            |                  |              |
| sw-leaf4              | 00:12:c0:80:30:cf | bd1 | 100  | 101001 |      |       | tunnel,local-tunnel,invalid-vlan |            |                  | auto-tunnel- |
| 10.30.40.1_10.40.40.1 |                   |     |      |        |      |       |                                  |            |                  |              |
| swe-leaf1             | 00:12:c0:80:40:52 | bd1 |      | 101001 |      |       | tunnel                           | tunnel     | active           | auto-tunnel- |
| 10.40.40.1_10.30.40.1 |                   |     |      |        |      |       |                                  |            |                  |              |
| swe-leaf2             | 00:12:c0:80:40:52 | bd1 |      | 101001 |      |       | tunnel                           | tunnel     | active           | auto-tunnel- |
| 10.40.40.1_10.30.40.1 |                   |     |      |        |      |       |                                  |            |                  |              |
| sw-leaf4              | 00:12:c0:80:40:52 | bd1 | 100  | 101001 | 81   | 81    | active                           |            |                  |              |

In this example - the MAC is learnt on port behind leaf4. On leaf1- leaf2 cluster, the bridge domain MACs are learnt over the VXLAN tunnel and hence the `vlan` field is empty.

## Known Software Issues in Version 5.2.1 HF4 (cont'd)

| PR Number | Release Note  | Affected Platform               |
|-----------|---|---------------------------------|
| PR30444   | <p>Bridge Domains with untagged ports must be interconnected with other untagged ports only for intra-cloud connectivity. For bridge domains with a mix of tagged and untagged ports, the communication between untagged and tagged ports is not supported.</p> <p><b>Workaround</b> — None</p>   | All                             |
| PR30050   | <p>SFlow for Multicast packets is not supported with egress filter.</p> <p><b>Workaround</b> — None</p>   | All                             |
| PR29539   | <p>Under extreme stress conditions, BFD protocol flaps can occur in the network.</p> <p><b>Workaround</b> — Increase BFD protocol timers and multiplier value.</p>  | Dell:<br>S5248F-ON              |
| PR29318   | <p>When setting "qsfp28-port-mode" to 6x40G mode from 4x100G, ports 57 and 61 are disabled by default.</p> <p><b>Workaround</b> — Ports 57 and 61 must be administratively enabled in order to bring them into service after changing qsfp-28-port-mode to 6x40G.</p>   | Dell:<br>S4148T-ON<br>S4148F-ON |
| PR29217   | <p>When "poweroff" command is issued on S5232F-ON or S5248F-ON in Linux shell as user root, system does not stay powered off. Instead, it boots in ONIE install mode.</p> <p><b>Workaround</b> — Follow ONIE install prompts and reboot the switch. Switch will revert to Netvisor. Note that use of the "poweroff" command is not recommended.</p> | Dell:<br>S5232F-ON<br>S5248F-ON |



## Known Software Issues in Version 5.2.1 HF4 (cont'd)

| PR Number | Release Note  | Affected Platforms  |
|-----------|---|---|
| PR28329   | <p>When power to the PSU (power supply unit) is gone either due to removal of PSU or the power cable from the PSU has been disconnected, two sensor SNMP traps sent to the SNMP trap receiver. PhySensorOperStatus.10 and PhySensorOperStatus.52</p> <p>When power to the PSU has been restored, only one of the sensor traps are sent back to the SNMP trap receiver, PhySensorOperStatus.52.</p> <p><b>Workaround</b> — None.</p>   | All   |
| PR28297   | <p>When adding ports to a VLAN using the <code>ports all</code> parameter, Netvisor incorrectly adds the rear-facing ports to the VLAN.</p> <p><b>Workaround</b> — Remove the rear-facing ports from the configuration after adding ports.</p>  | Edgecore:<br>AS7716-32X, AS7316-54XS, AS7712-32X, AS7312-54XS<br>Pluribus:<br>F9532-C<br>F9572-V<br>F9572L-V<br>F9532C-XL-R |
| PR28274   | <p>On certain platforms 1G ports take approximately 9 seconds to become active (PHY UP) after enabling the ports.</p> <p>If you configure VLE over this 1G ports, then VLE does not become active because the VLE configuration expects the port up indication within 5S from the hardware.</p> <p><b>Workaround</b> — You can enable the <code>optimize-rxlos</code> parameter for the <code>system-settings-modify</code> to minimize the PHY UP delay. This resolves the VLE issue.</p> <p style="text-align: center;"><b>OR</b></p> <p>You can increase the VLE timer <code>linkup-timeout</code> value to 10 seconds since PHY UP process takes around 8 seconds. Increasing this timer lets the VLE wait for 10s for the port to come up.</p> | Pluribus:<br>F9272-X<br>F9372-X<br>Edgecore:<br>AS5712-54X<br>AS5812-54X  |

## Known Software Issues in Version 5.2.1 HF4 (cont'd)

| PR Number | Release Note  | Affected Platform   |
|-----------|---|---|
| PR28250   | <p>Enabling the Web admin service in Netvisor on devices operating with 4GB of memory may lead to system instability on the device due to memory depletion. It is not recommended to enable the service on these devices.</p> <p><b>Workaround</b> — Pluribus recommends to enable Web admin service only on vNV and/or devices with a minimum of 8GB of memory.</p>  | Dell:<br>S4048-ON, S4112F-ON<br>S4112T-ON, S4128F-ON<br>S4128T-ON, S4148F-ON<br>S4148T-ON |
| PR27887   | <p>VLEs are always configured with fabric scope and are not configured as part of a local switch. Hence, REST API fails to fetch them using the usual query parameter api.switch.</p> <p>Node-1 is used in the query parameter to fetch the VLEs which originates from the switch while Node-2 is used for the VLEs which terminates on the switch.</p> <p>To fetch all VLEs which either originate or terminate on the switch at switch, we use two REST API calls with two different filters "node-1" and "node-2".</p> <p>For example: ./vRest/vles?node-1=S and ./vRest/vles?node-2=S to obtain the data. These filters cannot be combined in one REST API call.</p> <p><b>Workaround</b> — None.</p> | All   |
| PR27611   | <p>Netvisor does not support the following for the VXLAN feature: Configuring the VXLAN as untagged and the VLAN as tagged on the same port.</p> <p><b>Workaround</b> — None.</p>   | All   |

## Known Software Issues in Version 5.2.1 HF4 (cont'd)

| PR Number | Release Note  | Affected Platforms |
|-----------|---|--------------------|
| PR27312   | <p>The command, <code>switch-vnic-create</code>, works as expected from the CLI. However, the REST API creates a virtual NIC and restarts the Tomcat server in order to capture the new IP address assigned to the virtual NIC. Therefore, the client is disconnected and does not receive any HTTP response packets. You should issue a GET API for <code>switch-vnic</code>, after waiting for few minutes to ensure the virtual NIC is indeed created successfully.</p> <p><b>Workaround</b> — Wait for a few seconds for the virtual NIC to get created and then issue the GET command.</p> | All                |
| PR26126   | <p>When removing a PIM configuration from a vRouter using the command, <code>vrouter-modify</code>, and PIM remains active on the vRouter. Furthermore, the results of PIM routing can be unpredictable. Also, re-enabling <code>router-modify</code> causes unpredictable results for PIM sparse mode and PIM SSM operations.</p> <p><b>Workaround</b> — Remove each interface from PIM operation by using the command, <code>vrouter-interface-modify vrouter-name &lt;name of router&gt; &lt;name of interface&gt; no-pim</code></p>   | All                |
| PR25916   | <p>If multiple paths exist on platforms with no rear-facing NIC and with fabric over Layer3 configured, Netvisor does not reprogram static routes in a fast forwarding table when a neighbor node reboots. Fabric status displays as offline in such cases.</p> <p><b>Workaround</b> — Add Static BFD entries for interfaces with static routes, so Netvisor removes the static routes when the NextHop is not reachable.</p>   | All                |
| PR25901   | <p>If you configure an IPv6 default route for OSPF on the switch, but do not configure an IPv4 default route, the Netvisor command <code>vrouter-create ospf-default-information originate</code> parameter sometimes advertises the default IPv4 route. You may see this when the switch is rebooted.</p> <p><b>Workaround</b> — Delete the IPv6 default route and add it again.</p>   | All                |

## Known Software Issues in Version 5.2.1 HF4 (cont'd)

| PR Number | Release Note   | Affected Platforms |
|-----------|--|--------------------|
| PR25696   | <p>When you execute the port-show command, you can only specify one bezel port string for the parameter, bezel-port.</p> <p><b>Workaround</b> — Use the bezel-portmap-show command to display a list of all logical ports and the corresponding chassis bezel port ID. You can then display the desired bezel ports using the port parameter and the desired ranges.</p>   | All                |
| PR25626   | <p>After importing a configuration to a pair of clusters running RIOT traffic and then you reload a peer of the cluster, Netvisor may experience traffic loss from the remote peer.</p> <p><b>Workaround</b> — You can enable and then disable the primary NIC or reboot the switch.</p>   | All                |
| PR25575   | <p>Accessing the shell access with username 'pluribus' or 'network-admin' causes a lot of auditing messages to occur in the log file. These appear to be due to shell auditing happening for these users and resulting from various processes executed at the shell level due to commands entered.</p> <p>Netvisor does not log extra audit events if you do not access the shell.</p> <p><b>Workaround</b> — None. Ignore the extra log messages.</p> | All                |
| PR25561   | <p>When network up-links are flapping, due to network conditions, Netvisor can queue-up BGP route updates depending on the number of routes present on the network.</p> <p><b>Workaround</b> — Shutting down BGP neighbors until a stable BFD session is established can help reduce CPU spike, and clean convergence of routes occurs on the network.</p>   | All                |

## Known Software Issues in Version 5.2.1 HF4 (cont'd)

| PR Number | Release Note   | Affected Platforms |
|-----------|--|--------------------|
| PR25442   | <p>The parameter, advertisement-interval, for the command, vrouter-bgp-modify, does not work as expected. Netvisor sends Route Advertisements instantly when a change is detected in the route table requiring a BGP update to inform the BGP neighbors.</p> <p><b>Workaround</b> — None</p>   | All                |
| PR24953   | <p>You cannot create a vNIC if you use the following pattern in the vNIC name string:<br/>         If the name string starts with a '0' after the 'eth' string and you add either a '8' or '9' in the string before the '.vlanid'. vNIC creation fails.</p> <p><b>Workaround</b> — None.</p>   | All                |
| PR24655   | <p>When you disable the Netvisor Web interface, the shutdown process may take some time to clean up and Tomcat errors may be present in the log file. Eventually the service stops. Wait a few minutes between shutting down the Web interface and then re-enabling the Web interface.</p> <p><b>Workaround</b> — None.</p>  | All                |
| PR23797   | <p>As per current implementation, the VXLAN to VTEP must be added explicitly for cluster pairs and spine. While adding VXLAN to the VTEP, Netvisor displays the following warning message :<br/>         "tunnel &lt;tunnel-name&gt; already has VXLAN &lt;vni&gt;"</p> <p>The above warning message can be ignored as the command succeeds even with this warning message and VXLAN is getting added properly.</p> <p><b>Workaround</b> — None.</p> | All                |
| PR23472   | <p>If multiple vRouter interfaces are configured, after unit upgrade some of the vRouter interfaces may not come up. This is highly intermittent issue and the workaround is nic-disable/nic-enable on the vRouter interface.</p> <p><b>Workaround</b> — None.</p>   | All                |
| PR23113   | <p>If you initially configure a vRouter interface with a single IP address, you cannot modify it to add a second IP address.</p> <p><b>Workaround</b> — Delete the vRouter interface and add a new one with two IP addresses.</p>  | All                |

## Known Software Issues in Version 5.2.1 HF4 (cont'd)

| PR Number | Release Note  | Affected Platforms   |
|-----------|---|--|
| PR23102   | When adding a static route to a secondary IP address as the gateway, traceroute doesn't resolve the next-hop as the secondary IP address.<br><b>Workaround</b> — None.  | All  |
| PR22602   | If you do not configure the VXLAN VLAN on cluster ports, vPort updates go into an endless loop and this loop does not mitigate.<br><b>Workaround</b> — Add the VXLAN VLANs on cluster ports.  | All  |
| PR21907   | Using the command, vrouter-traceroute, does not work as expected for IPv6 interfaces. The ping fails to connect and returns no results.<br><b>Workaround</b> — Use the parameter, icmp-probe, to see results from the ping.   | All  |
| PR21751   | For CoS queues 0 through 2, when you configure a lower a CoS queue rate limit, at a particular threshold below the port rate limit, the proportion of bandwidth assigned by the scheduler to the CoS queue is lower than what the weight is expected to allow. For example, experimental evidence shows if total port rate limit is 5000pps, and the CoS queue rate limit is lowered to below 3000pps and receives half the assigned rate. Unless you want precise weight proportions at lower rate limits, this behavior is not noticeable.<br><b>Workaround</b> — None. | Dell: Z9100-ON   |
| PR21723   | If you configure loopback ports on certain platforms and enable auto-negotiation, the port speed may be set to 100 Mbps.<br><b>Workaround</b> — Disable auto-negotiation before configuring loopback ports.   | Dell:<br>S4048T-ON<br>S4112T - ON<br>S4128T - ON<br>S6010-ON |
| PR21696   | When a cluster port goes down and then up, this may cause all local LACP ports to flap.<br><b>Workaround</b> — None   | All  |

## Known Software Issues in Version 5.2.1 HF4 (cont'd)

| PR Number | Release Note   | Affected Platforms   |
|-----------|--|--|
| PR21344   | <p>Netvisor ONE does not form auto-tunnels if you configure VTEPs before you create the cluster configuration. VXLANs added to the VTEPs are not functional.</p> <p><b>Workaround</b> — Create the cluster configuration before the VTEP configuration.</p>  | All  |
| PR21339   | <p>If you set a QSFP port with the AUTONEG flag and add it the VXLAN loopback trunk, Netvisor ONE sets the port speed to zero.</p> <p><b>Workaround</b> — Remove the AUTONEG setting and set desired port speed before adding the port to the trunk:</p> <pre>CLI network-admin@switch &gt; port-config-modify port port_number speed 40g no-autoneg CLI network-admin@switch &gt; trunk-modify name vxlan- loopback-trunk ports port_number</pre> | Dell:<br>S4048T-ON<br>S6010-ON<br>Edgecore:<br>AS5812-54X<br>AS5812-54T<br>Pluribus:<br>F9372-T<br>F9372-X |
| PR20911   | <p>If cluster ports are switched on and off, there is a possibility that both the cluster trunk and one of the member ports of the cluster trunk becomes part of the receiver list for a group. The member port eventually times out.</p> <p><b>Workaround</b> — None</p>  | Edgecore: AS5712-54X<br>Pluribus: F9272-X  |
| PR20886   | <p>If you change a port speed from 40G to 10G, the eth-mode does not change to 40Gbase-sr4.</p> <p>This is only a cosmetic/display issue without forwarding impact on the port.</p> <p><b>Workaround</b> — Under investigation.</p>  | All  |
| PR20567   | <p>When you configure a switch to use DHCP to obtain a management IP address, the switch sends out the DHCP request using an incorrect MAC address for the management NIC. This may change the management IP address.</p> <p><b>Workaround</b> — Use a static IP address for the management NIC.</p>   | All  |



## Known Software Issues in Version 5.2.1 HF4 (cont'd)

| PR Number | Release Note  | Affected Platforms |
|-----------|---|--------------------|
| PR20538   | <p>If you downgrade a switch to an earlier release of Netvisor ONE and use the apply-current config parameter for the command, bootenv-activate-and-reboot, CPU class settings are not retained.</p> <p><b>Workaround</b> — After you downgrade, reboot the switch to enable the CPU class feature. Configure the CPU class settings manually.</p>  | All                |
| PR20453   | <p>Port 0 is no longer included in the SNMP ifTable MIB.</p> <p>Workaround — Use the CLI to see port 0 statistics.</p> <pre>port-stats-show port 0</pre>  | All                |
| PR20380   | <p>Traceroute is not supported between inband interfaces on different fabric nodes using the default Netvisor ONE account. By default, Linux kernels uses UDP transport layer for traceroute,. These packets are filtered by Netvisor.</p> <p><b>Workaround</b> - In order to validate connectivity between inband interfaces on fabric nodes, you can use ping from the CLI or use traceroute from the Linux shell.</p> <p>Example of a traceroute with the default account and default privileges:</p> <pre>pluribus@switch:~\$ traceroute -I 10.0.37.1 You have no enough privileges to use this traceroute method. socket: Operation not permitted pluribus@switch:~\$</pre> <p>Using the shell as a sudo user, you can traceroute using the ICMP option (-I) and traceroute works provided routing is properly configured. An example is displayed below:</p> <pre>pluribus@switch:~\$ sudo traceroute -I 10.0.37.1 [sudo] password for pluribus: traceroute to 10.0.37.1 (10.0.37.1), 30 hops max, 60 byte packets  1  10.0.32.2 (10.0.32.2)  0.092 ms  0.035 ms 0.033 ms  2  10.29.32.1 (10.29.32.1)  2.778 ms  2.939 ms 2.784 ms  3  10.29.38.2 (10.29.38.2)  2.117 ms  2.079 ms 2.621 ms  4  10.37.38.1 (10.37.38.1)  3.374 ms  3.497 ms 3.583 ms  5  10.0.37.1 (10.0.37.1)  4.397 ms  4.996 ms 5.144 ms pluribus@switch:~\$</pre> | All                |

## Known Software Issues in Version 5.2.1 HF4 (cont'd)

| PR Number | Release Note  | Affected Platforms |
|-----------|---|--------------------|
| PR20314   | <p>If you configure an anycast gateway IP address for a subnet with the scope, cluster, the anycast gateway does not respond to ARP requests received over a VXLAN tunnel. The scope, cluster, is not a supported configuration.</p> <p><b>Workaround</b> — None.</p>   | All                |
| PR20096   | <p>If you remove and re-add the global IPv6 address, Netvisor ONE does not display the Link-Local IPv6 address. If you configure a static Link-Local, Netvisor ONE removes the configuration.</p> <p><b>Workaround</b> — Under investigation.</p>   | All                |
| PR20029   | <p>When a traffic stream from a Layer 2 Leaf contains fixed Layer 2, Layer 3, and Layer 4 headers, Netvisor ONE sends it to a single VLAG link towards a slave VRRP router in the Spine, and this may cause traffic loss during failover scenarios. When the traffic stream contains variety of Layer 4 headers and TCP ports, Netvisor ONE sends the traffic to both sides of the VRRP routers with minimal traffic loss during failover scenarios.</p> <p><b>Workaround</b> — Under investigation.</p>  | All                |
| PR19795   | <p>When Netvisor ONE creates a new trunk using trunk-create, the trunk inherits the VLAN membership of the first port. After that, you can modify the trunk VLAN membership by adding or removing the trunk-id or a member port to or from a VLAN. But when all ports are removed from the trunk, the trunk retains the last VLAN membership before you move the last port. When you add a new port to the same existing trunk using the command, trunk-modify, Netvisor ONE changes the new port VLAN membership to match the trunk VLAN membership. This is the intended behavior.</p> <p><b>Workaround</b> — As a workaround, if you want the trunk to inherit a ports VLAN membership, you can do one of the following tasks:</p> <ol style="list-style-type: none"> <li>1. Delete the trunk and recreate a new one with the new port as the first member.</li> <li>2. Modify the VLAN membership on the trunk to match that of the new port before adding the new port.</li> </ol> | All                |

## Known Software Issues in Version 5.2.1 HF4 (cont'd)

| PR Number | Release Note   | Affected Platforms |
|-----------|--|--------------------|
| PR19721   | <p>When updating BGP source peers, Netvisor ONE may advertise routes even though configured for the parameter, community-attribute no-advertise.</p> <p><b>Workaround</b> — Avoid using the parameters, update-source bgp-peer and no-advertise-community string in the same configuration.</p>  | All                |
| PR19598   | <p>Once you create a Route Advertisement (RA) policy, you cannot remove the assigned access list or prefix list.</p> <p><b>Workaround</b> — Delete the RA policy and create a new one with the preferred access list and prefix list.</p>  | All                |
| PR19592   | <p>The ability to reach a VRF gateway IP address is not updated on Leaf switches. This occurs when the VRF gateway is behind the tunnel. When a VLAG connecting to a VRF gateway goes down, Layer 2 and Layer 3 entries for VRF gateway are being reactivated behind the tunnel, due to SMAC learning on tunneled packets. Due to this the VRF default gateway points to VRF gateway and causes traffic loss.</p> <p><b>Workaround</b> — None.</p>   | All                |
| PR19463   | <p>You can add ports to VLANs configured with RA guard policies.</p> <p><b>Workaround</b> — Avoid adding ports to VLANs configured with RA guard policies.</p>   | All                |
| PR19244   | <p>An equal-cost multipath (ECMP) set is formed when the routing table contains multiple next-hop addresses for the same destination with equal cost. (Routes of equal cost have the same preference and metric values.) However, Netvisor ignores External Type-1 OSPFv3 routes for ECMP routes.</p> <p><b>Workaround</b> — Instead of configuring the OSPFv3 routes with the parameter, <code>redistribute connected</code>, configure static route redistribution.</p> <p>OR</p> <p>Add the interfaces to OSPFv3 routers as passive interfaces.</p> | All                |

## Known Software Issues in Version 5.2.1 HF4 (cont'd)

| PR Number | Release Note  | Affected Platforms |
|-----------|---|--------------------|
| PR19198   | <p>In Netvisor, using the all value for the port option commands does not include CPU port, therefore Netvisor only clears the front-panel or link port stats when port all is specified to port-stats-clear and port-cos-stats-clear commands.</p> <p><b>Workaround</b> — Use the commands without specifying the port, or specifically provide the port number as 0 to clear CPU port stats.</p>  | All                |
| PR18807   | <p>Many Netvisor show commands accept the show-diff-interval option, allowing observation of statistics per unit of time. For example, for port-stats and port-cos-stats, the show-diff-interval 1 shows bits and other counters every second. It should be noted the output may be slightly inaccurate because the interval processing is done entirely in Netvisor software based on collecting byte counters from hardware. This causes some variance due to software processing delays. The counters per second are slightly inaccurate compared to the actual traffic rate, with the variance depending on the rate.</p> | All                |
| PR18774   | <p>If you configure VirtualWire or Virtual Link Extension on a switch, Netvisor does not send flow control frames on the network.</p> <p><b>Workaround</b> — None.</p>  | All                |
| PR18362   | <p>The command, l2-table-show, is not supported on vNV.</p> <p><b>Workaround</b> — None.</p>  | All                |
| PR18351   | <p>Configuring an vNV connection with the same interface for the control network and management network causes the configuration to fail.</p> <p>This is an unsupported configuration for vNV. The same interface for control network and management network are not supported on the same port group.</p> <p><b>Workaround</b> — If you want to use the same network for both interfaces, configure them on separate VLANs.</p>  | All                |

## Known Software Issues in Version 5.2.1 HF4 (cont'd)

| PR Number | Release Note   | Affected Platforms |
|-----------|--|--------------------|
| PR18321   | Currently port-association-*, inline-service-*, and service-heartbeat-* commands are not supported on Dell platforms.<br><b>Workaround</b> — None.   | All                |
| PR17182   | When a DSCP map is enabled, DSCP markings not mapped to a priority in the DCSCP map are marked as 0. This is hardware behavior on Pluribus platforms to enforce an end to end QoS.<br><b>Workaround</b> — Use the command, dscp-map-pri-modify, to update DSCP mappings. | All                |
| PR11316   | When GREP is executed at the command prompt, output from more than Netvisor ONE switch is displayed.<br><b>Workaround</b> — Use the command, switch-local, before executing grep from the CLI to restrict the output to the local switch.                                | All                |

## Known Issues for VirtualWire

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### VirtualWire

Netvisor ONE 5.2.1 supports VirtualWire mode with the appropriate license.

Before you enable VirtualWire mode, you must reset the switch using the `switch-config-reset` command.

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**Warning:** Attempting to add Layer 2 and Layer 3 configurations may adversely affect your VirtualWire mode configuration.

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## Issues Resolved in Version 5.2.1 HF4 (5.2.1-15732)

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- In earlier versions of Netvisor ONE, the `vrrp-preempt-mode disable` option was enabled only when VRRP was enabled between two switches and this functionality was unavailable for use cases where VRRP is enabled on more than two switches. This issue is now resolved. [PR33254]
- During upgrades from Netvisor ONE 3.1.1 to 5.2.1 HF2, SNMP user configurations were not preserved. Any SNMP traps created for users caused the `snmp-v3-trap-sink-show` command to fail as traps existed for users that are not present after the upgrade. This issue is now resolved. [PR38935, PN case# 28725]
- Netvisor ONE restarted during a Nessus scan when `net-api` was enabled. This issue is now resolved as `net-api` is disabled by default in 5.2.1 HF4. [PR39020, PN case# 28764]
- It was noticed that Netvisor OS 3.x and later always returned maximal values for the SNMP OID `IF-MIB::ifHighSpeed` instead of current ones, which violated RFC2863. This issue is now resolved. [PR39565, PN case# 28954]
- The CVE issue: <https://ubuntu.com/security/CVE-2021-33909> is addressed in Netvisor ONE version 5.2.1 HF4. [PR39567, PN case# 28994]
- It was observed that when specific user defined vFlows that matched internal keep-alive packets were configured, Netvisor ONE failed to come up after a reboot. This issue is now resolved. [PR39626, PN case# 28734]
- While using static tunnels with bridge domain interface, the Q-in-Q (dual tag) traffic forwarding did not work if configured in the following sequence.
  - Configure the BD.
  - Extend the VXLAN over the Static Tunnel.
  - Add the Q-in-Q Edge portThis issue is now resolved. [PR39010]
- For sFlow sample rates below 4096 pps, packet drops were observed. This issue is now resolved. [PR15759]



## Issues Resolved in Version 5.2.1 HF3 (5.2.1-15721)

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- It was observed that APT timers continued to run during first boot-up after an upgrade from Netvisor version 3.x to version 5.1.0 or later. [PR38543, PR38541, PN case# 27171]
- Request to show CPU historical values at a granularity of minute, hour, day is now available. [PR38374]
- It was observed that there was a 100% CPU and fabric node state changes due to ARP congestion in software queues. [PR36885, PN case# 27132]
- It was observed that HW mon log is continually dumping I2C error messaging every few seconds, generating large log files. [PR35950, PN case# 26457]
- During an upgrade from version 3.1.1 to version 5.2.1 HF2, it was observed that the configured time backed-up by eight hours. [PR 35668, PN case# 26645]
- A shell error: nvOSd not running implementing vFlow, was observed. [PR34700, PN case# 26885]

## Issues Resolved in Version 5.2.1 HF2 (5.2.1-15700)

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- The Netvisor (nvOSd) failed to start after upgrading to 5.2.1 HF1 and failed to add the vFlow actions due to invalid identifier. This issue is resolved now. [PR34301]

## Issues Resolved in Version 5.2.1 HF1 (5.2.1-15699)

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- During longevity test, observed an increase in memory usage in nvOSd\_hwmon process. [PR33584]

## Issues Resolved in Version 5.2.1 - 15698

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- A 2 second intermittent traffic loss was observed on spine switches during reboot after a fabric upgrade. This issue is observed in certain specific topologies where some ports are connected between spine and core switches, which are not configured as Layer 3 or vLAG ports. Currently, these ports are considered as 'orphan ports' and these ports go down first during a reboot. To mitigate this issue and to defer the *bring-down* of these 'orphan ports' after bringing down the vLAG and Layer 3 ports, use the command:  
CLI (network-admin@switch) > cluster-bringdown-modify defer-node-1-ports <list-of-ports> defer-node-2-ports <list-of-ports>, where node-1-ports and node-2-ports correspond to the ports, which need to be deferred on the respective nodes. The node-1 and node-2 refer to the switches in the cluster and can be viewed using the cluster-show command. [PR32457]
- It was observed that the packets data rolled over after certain bytes and the issue is resolved now. [PR31811]
- Traffic loss during Fabric upgrade from version 5.0.0 to versions 5.2.1 or later is optimized by adding a CLI parameter start-port-enable-delay 0..240 to the cluster-bringup-modify command, where the configuration of a non-zero value adds a time delay (in seconds) to start enabling the ports (including cluster ports) on slave switch. [PR31763]
- Bridged domain with untagged ports is not supported on Trident-3 (Dell 52xx) platforms. Use dot1q tagged ports. [PR30940]

## Issues Resolved in Version 5.2.0

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- The SNMP LinkDown traps are not seen for cluster ports. This is an expected behavior, the number of LinkUp traps can be higher than the number of LinkDown traps. The LINK down traps for cluster ports are not received because the link scan events are disabled while bringing down the last ports (such as the cluster ports and internal ports). [PR 31026, PR28352]
- BGP sessions running on Netvisor ONE with *analytics* enabled flapped under heavy TCP traffic. [PR 30849]
- For switches that are based on Broadcom Trident3 ASIC, OSPF/IGMP protocol packets could not be transparently sent and received via the VLE tunnel. [PR 29443]

## Issues Resolved in Version 5.1.2

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- The vLE is not supported on Trident3 platforms (S5232F-ON and S5248F-ON) configured as cluster pairs. [PR29558]
- If there is virtual link extension configured on the switch, then the following command could not be executed: `fabric-local-modify vlan vlan_id`. [PR29503]
- When enabling the RIB history, Netvisor ONE shows RIB history as enabled, but functionality does not work until next reboot. [PR29410]
- If the virtual wire nodes are connected linearly, and port-association is created in parallel in multiple nodes with one port in ADMIN-DOWN state then all the ports may not be in down state. [PR29277]
- The LinkDown alarm remained active after rebooting the switch or after restarting nvOSd; also the LinkUp traps were not received for some of the ports such as cluster ports, vLAG ports, L3 ports. This issue is now resolved. [PR28352]

## Issues Resolved in Version 5.1.1

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- When a cluster peer switch goes down, any orphaned managed and shared ports belonging to that switch are removed from ovsdb table, causing the port-vlan bindings also to be removed. The ports get added back when the peer comes back up again, but there could be traffic loss during the period between port linkup and the time Netvisor configures the port vlan. [PR28959]
- Issue: speed change from 25g to 100g - port does not come up Issue is seen with 'port-config-modify' and 'trunk-config-modify' Steps to reproduce: 1. change port speed from 100g to 25g : port comes up. 2. change port speed back to 100g from 25g: port does not come up. Issue exists in 5.0 and higher release (not seen in 2.6.1 Hfx releases) Work-around: After step 2, port is explicitly disabled/enabled at the two ends and port comes UP. [PR28802]
- When enabling a switch port with a 1G adapter, a link flap may occur shortly after the link initially moves to UP status. [PR28268]
- LACP mode of MGMT LAG can't be changed when MGMT LAG is already enabled. [PR28155]
- After enabling a port (connected to a host), the port comes up and then goes down and then again comes up. [PR27732]
- During initialization, Netvisor ONE fails to successfully configure base ports in flex port group when QSFP 6x40g mode is enabled and the base port is configured for 100g speed. [PR26849]
- The vFlow is rewriting the VLAN priority in the header. This works with VCAP vFlow - vFlow rewriting DSCP code point. This can only be done in ICAP and does not work. [PR26139]
- The output for the command, running-config-show, does not display the gateway IP address for a vSwitch configuration. [PR25363]
- The show output for the commands, vrouter-fib-routes-show and vrouter-rib-routes-show, does not identify the number of IPv4 routes or IPv6 routes. [PR23246]
- Using SSH to the loopback address fails when the System Analytics vFlow receives SSH TCP SYN packets and Netvisor ONE drops the packet after route lookup instead of forwarding it to the OVS. [PR22306]
- Fiberstore 1G SFP-T transceivers are not supported. [PR20366]
- If you configure MST with a bridge priority of 0, Netvisor does not display the bridge priority in the output for the running-config-show command. [PR17612]
- Creating a large number of VLANs using the command vlan-create with the parameter vlan-range in a cluster configuration may cause the command to time out. For example, CLI `network-admin@switch > vlan-create range 10-4009 scope fabric` vlan-create: fabric error: leaf4 unreachable [PR16982]



## Issues Resolved in Version 5.1.0-15027 (HF3)

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- On some non-rear facing NIC platforms, when STP is disabled, the STP state of vlag-blocked port may be in forwarding state instead of disabled state. This issue is now resolved. [PR29311]
- In Netvisor ONE versions 5.1.0, HF1, and HF2, intermittent BFD flaps occurred as a result of fstrim script running from global zone and within the containers of the root file system. This issue is now resolved. [PR29296]
- When a cluster peer switch goes down, all orphaned, managed, and shared ports belonging to that switch got removed from OVSDb table, causing the port-vlan bindings to be removed as well. The ports get added back when the peer switch is back up, but there could be traffic loss during the period between port linkup and the time Netvisor configures the port VLAN. This issue is now resolved. [PR28959]
- The VLAN bindings remained in the cluster configuration even after removing from OVSDb when the standby switch got rebooted while deleting the multi-segment networks from Openstack. This issue is now resolved. [PR28909]

## Issues Resolved in Version 5.1.0-15019 (HF1)

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- A vulnerability existed in Netvisor version 5.1.0 with SSL 3.0 and TLS 1.0 that could allow information disclosure if an attacker intercepts encrypted traffic served from an affected system. This issue is now resolved in TLS v1.2 with REST API. [PR28758]
- With scaled number of 1K VXLAN tunnels using software VTEPs (VXLAN Tunnel Endpoints), intermittently the next-hop of VXLAN tunnels fail to resolve while re-enabling the L3 links from Leaf to Spine. This issue is now resolved. [PR28727]
- In Netvisor ONE 5.0.0 and later releases, the fstrim cron job does not run in Ubuntu 16.0.4. This issue is now resolved. [PR28693]
- Traffic loss on many streams of up to 5 seconds after switch reboot is seen when orphaned port or trunk is missing the port-defer-bringup setting. This issue is now resolved. [PR28497]
- The infrequent issue of BFD flaps that occurred when a member of the cluster link was re-enabled (post disable) is now resolved. [PR28496]
- The STP sync failed and moved to discarding state on the Slave switch on 'STPEdge ports' when the Master switch went down in a cluster (issue occurs rarely). This issue is now resolved. [PR28477]
- Traffic downtime exceeded 1 second during spine reboot done for traffic failover tests. This issue is now resolved. [28356]
- When nvOSd restarted automatically on one switch in a cluster, the BGP sessions flapped on all switches in the Scale lab. The issue occurs rarely when the management network is connected to vLAG with LACP. This issue is now resolved. [PR28341]
- The no-enable option of IPv6 profile was failing for platforms with rear facing NIC. For example, while using the command, CLI (network-admin@Leaf1) > vflow-table-profile-modify profile ipv6 hw-tbl switch-main no-enable, displayed an error message: vflow-table-profile-modify: Remaining flows will not fit in the SYSTEM profile. Delete flow L2\_UUC-Egress-Flow and try again. This issue is now resolved. [PR28042]
- The IPv6 ping to VRRP virtual IP was taking more than ~70 seconds to get ping success. This issue is now resolved. [PR27927]

## Deprecated Netvisor ONE Commands

Some features may require reconfiguration if you upgrade Netvisor ONE to a release that deprecates the commands used to configure it.

| Netvisor ONE Version | Commands                         |
|----------------------|----------------------------------|
| Version 5.1.0        | span-trunk-modify auto-spantrunk |
| Version 5.0.0        | stack-hex-led-*                  |
| Version 3.1.1        | nvm-*                            |
| Version 3.0.2        | stg-state-show                   |
| Version 3.0.0        | netvisor-kvm-*                   |
| Version 2.6.2        | bootenv-backup-*                 |
|                      | nat-src-*                        |
|                      | netvisor-vm-*                    |
| Version 2.6.0        | hw-nat-*                         |
|                      | openflow-*                       |
|                      | openflow-connection-*            |
|                      | nat-* changed to nat-src-*       |
|                      | openstack-controller-*           |
| Version 2.5.4        | fabric-connection-clear          |
|                      | fabric-connection-clear-history  |
|                      | fabric-connection-show           |
|                      | snmp-v3-trap-sink-delete         |
|                      | tunnel-modify                    |
|                      | vlag-bringup-modify              |
|                      | vlag-bringup-show                |
|                      | tunnel-modify                    |

## Deprecated Netvisor ONE Commands (cont'd)

| Netvisor ONE Version | Commands            |
|----------------------|---------------------|
| Version 2.5.2        | firmware-upgrade    |
|                      | vport-move          |
| Version 2.4.2        | vxlan-create        |
|                      | vxlan-delete        |
|                      | vxlan-show          |
|                      | vxlan-port-add      |
|                      | vxlan-port-remove   |
|                      | vxlan-tunnel-add    |
|                      | vxlan-tunnel-remove |
|                      | vxlan-tunnel-show   |

## Unsupported Commands

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The following commands appear in the Command Line Interface (CLI), but are not yet supported:

- vnet-\*
- nvm-\*
- nvm-vcenter-\*
- subnet-modify
- cpu-mgmt-class-\*
- vrf-\* scope local|fabric|cluster
- vrouter-mfib-routes-show
- vrouter-mrib-routes-show
- vrouter-multicast-igmp-group-show
- vrouter-multicast-route-show
- vrouter-pim-\*
- vrouter-modify name <name> proto-multi pim-ssm/pim-sm
- port-show, is not supported on vNV.

## Notes and Observations

Please use this area for your notes and observations about your use of Pluribus Networks Release Notes Netvisor ONE Version 5.2.1 HF4.

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## About Pluribus Networks

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Pluribus Networks delivers an open, controllerless software-defined network fabric for modern data centers, multi-site data centers and distributed cloud edge environments.

The Linux-based Netvisor® ONE operating system and the Adaptive Cloud Fabric™ have been purpose-built to deliver radically simplified networking and comprehensive visibility along with white box economics by leveraging hardware from our partners Celestica, Dell EMC, and Edgecore, as well as Pluribus' own Freedom™ Series of switches.

The Adaptive Cloud Fabric provides a fully automated underlay and virtualized overlay with comprehensive visibility and brownfield interoperability and is optimized to deliver rich and highly secure per-tenant services across data center sites with simple operations having no single point of failure.

Further simplifying network operations is Pluribus UNUM™, an agile, multi-functional web management portal that provides a rich graphical user interface to manage the Adaptive Cloud Fabric. UNUM has two key modules - UNUM Fabric Manager for provisioning and management of the fabric and UNUM Insight Analytics to quickly examine billions of flows traversing the fabric to ensure quality and performance.

Pluribus is deployed in more than 275 customers worldwide, including the 4G and 5G mobile cores of more than 75 Tier 1 service providers delivering mission-critical traffic across the data center for hundreds of millions of connected devices. Pluribus is networking, simplified.

For additional information contact Pluribus Networks at [info@pluribusnetworks.com](mailto:info@pluribusnetworks.com), or visit [www.pluribusnetworks.com](http://www.pluribusnetworks.com).

Follow us on Twitter [@pluribusnet](https://twitter.com/pluribusnet) or on LinkedIn at <https://www.linkedin.com/company/pluribus-networks/>.

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