



**Hewlett Packard**  
Enterprise

# HPE Network Optimizer SDN Application - 1.4.6 Release Notes

## **Abstract**

This document contains supplemental information for the HPE Network Optimizer SDN Application.

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# 1 HPE Network Optimizer SDN Application Software Release 1.4.6

## Description

HPE Network Optimizer SDN Application is an innovative SDN application enabling automatic QoS deployment on a dynamic basis for Skype for Business calls. It lets you define DSCP values for various Skype for Business services, including voice calls, video calls, and application sharing. Once a Skype for Business call is initiated, Network Optimizer automatically applies the predefined DSCP values to the corresponding flows on edge switches using OpenFlow to deliver a better user experience and reduce operational costs.

This document lists the compatibility, brief overview of new features and the known issues in the current release.

## Supersede information

None.

## Version history

Hewlett Packard Enterprise fully supports all released versions unless noted in the following table:

Version	Based on	Release date	Remarks

## Products supported

For the list of supported products, see the HPE VAN SDN Controller and Applications Support Matrix on the HPE SDN information library: <http://www.hpe.com/info/sdn/infolib>.

## Compatibility/interoperability

This release is compatible with:

- VAN SDN Controller version 2.7.10
- HPE OpenFlow enabled switches set to version 1.3
- Skype for Business Interface versions 2.1.1 and 2.2 (schema C)
- Configuration Snapshot:
  - Backup can be taken from Network Optimizer 1.3.41 release.
  - Install Network Optimizer 1.4.6 release with VAN SDN Controller version 2.7.10.
  - Restore the configuration on Network Optimizer 1.4.6 release.
- Upgrade scenarios: Does not support the upgrading from Network Optimizer 1.3.41 to Network Optimizer 1.4.6 release, because of changes of system libraries such as Java 8. Additionally, some database schema changes are introduced which require the administrator to uninstall Network Optimizer 1.3.41 before installing Network Optimizer 1.4.6.

# Enhancements | Features

## Version 1.3

The following enhancements are included in this release:

- Call Admission Control (CAC) WAN Bandwidth Management—Enables the Network Optimizer to prioritize Skype for Business traffic on WAN links. You can allocate a percent of WAN bandwidth for various media types supported by Skype for Business application.
- Granular QoS—The Network Optimizer can prioritize voice, video, and data traffic for applications other than Skype for Business. For example, Network Optimizer can prioritize Vocera calls, Google Voice, or Facetime based on port range.
- QoE Alarm—You can trigger an alarm on a location when call quality degrades. You can view the alarm in Event Logs and the Location Overview page. By default, this feature is disabled.

For more information on the features, see the *HPE Network Optimizer SDN Application – Administrator Guide*.

## Version 1.3.41

The following enhancements are included in this release:

- Failover Backtracking (FBT)—Network Optimizer supports high availability for Skype for Business call programming. The Network Optimizer will retry deployment of DSCP and L2 priority values for failed flows. The deployment can fail for the flows when:
  - Switch is busy
  - Controller node is not available.

The Network Optimizer retries once after 100ms when the switch is busy.

In HA mode, when controller node is not available failover occurs, and FBT program flows for active sessions that are missed by the controller. FBT also tries to reprogram failed flows for the active sessions upon failover.

- High Availability (HA)—The Network Optimizer can be deployed in the HA environment. Configuring team of controllers provides a distributed platform enabling HA network with failover capability, resulting in a continuously managed network in the event that a controller in the team goes down. For enabling the feature, see the *HPE VAN SDN Controller Administrator guide*.
- Health Monitoring—Network Optimizer uses the controller Health Manager services for alerting failures of critical components or services in the application.

For more information on the features, see the *HPE Network Optimizer SDN Application – Administrator Guide*.

## Version 1.4.6

The following enhancements are included in this release:

- Improved TCAM Usage – Removed RTCP Flows—The HPE Network Optimizer configures the RTCP FlowMods (forward/reverse) irrespective of the Lync/Skype for Business client version which requires it. Starting version 1.4.6 Network Optimizer does not program RTCP flow rules on the network.
- Best effort enhancements—The HPE Network Optimizer does not configure default best effort (DSCP:0, 802.1p Prio:0) flow rules on all the datapaths. It is turned off by default. The user must turn it On/Off by selecting the Best Effort drop down under Configuration tab.
- HPE Rebranding—Network Optimizer application UI is rebranded with HPE look and feel.

- Lync to Skype for Business changes—Network Optimizer application UI has been updated with Skype for Business references in place of Lync from the previous releases.
- D3 Topology—This enables Topology to render faster & be more scalable. Following features are supported as part of the Network Optimizer Topology Viewer:
  - Window Session View
  - Windows QoE Metrics View
  - View – Ports, QoE Heat Map, Pin All, Collapse All, Autorefresh
  - Hot Keys – Keyboard, Mouse
  - Search (regex)
  - Manual Refresh
  - Filter – Location, Active/Inactive Call, Media Type of call, Call quality working on Topology Heat Map, Session and QoE Metric views

For more information on the features, see the *HPE Network Optimizer SDN Application – Administrator Guide*

## Issues and workarounds

### Version 1.3

The following issues exist in this release:

- **Issue** (161313): Clicking a User Group from the Available User Group list in the User Group Priority Configuration page might not select the user group sometimes. **Workaround:** Click the next user group in the list, and then click the required user group again.
- **Issue** (166288): You may see the Status as Unknown Device in the Flow Entries table in the Sessions page. The switches return this error for the following conditions:
  - Burst of calls in short time intervals (for example, 50 calls per second in 5 second interval for 40 seconds).
  - Switch is busy processing many new flows and also deleting a few flows in parallel.
- **Issue** (170409): You can get the information about sessions in the Sessions page and the Location Overview page. The Location Overview page displays data for the last 5 days and the Sessions page displays the last 1000 session records.
- **Issue** (170899): The modified DSCP and L2 priority values are not applied to the current active sessions when you disable and enable Network Optimizer, add a location, reassign subnets to this location, and modify DSCP and L2 priority values.

## Version 1.3.41

The following issues exist in this release:

- **Issue (182008):** In HA environment, the failover and failback time might increase depending on the switch deployment scale. If there are multiple switches managed by one controller in a team, and if that controller fails-over, a delay occurs before the another controller on the team takes ownership, and on switch-by-switch basis refreshes the policies. There might be a period of datapath disruption during this process.

## Version 1.4.6

The following issues exist in this release:

- **Issue (194123):** Apportioning of audio and video bandwidth usage might be incorrect sometimes. For example; first an audio is running which consumes the audio bandwidth. Now, if this call is upgraded to video call, the audio bandwidth should be released and video bandwidth (audio + video) should be consumed. In the current issue, the video bandwidth is getting consumed but the audio bandwidth is not released in few cases. This can happen in cases when the video part of the call is processed first and then the audio is processed. Due to this the video bandwidth would have been consumed and following audio will also be consumed. The issue is intermittent and starts affecting any calls only if the entire audio bandwidth is occupied by such calls (which is unlikely under normal circumstances).
- **Issue (196998):** Bandwidth utilization is unaccounted when upgraded from audio call to video call. **Workaround:** End the audio call and then start video call. When an audio call is upgraded to video call, the bandwidth consumed by the audio call is released and is not updated against the video bandwidth consumed. Hence the bandwidth consumed for the session is indicated as zero against both audio and video. The issue will not be seen when the user starts video call directly instead of upgrading a ready existing audio call.
- **Issue (197218):** When Network Protector and Network Optimizer applications are installed on SDN Controller, disabling or uninstalling of Network Protector leads Network Optimizer application going down. **Workaround:** Disable and then Enable Network Optimizer after Network Protector is disabled/uninstalled.

## 2 Support and other resources

### Accessing Hewlett Packard Enterprise Support

- For live assistance, go to the Contact Hewlett Packard Enterprise Worldwide website:  
[www.hpe.com/assistance](http://www.hpe.com/assistance)
- To access documentation and support services, go to the Hewlett Packard Enterprise Support Center website:  
[www.hpe.com/support/hpesc](http://www.hpe.com/support/hpesc)

#### Information to collect

- Technical support registration number (if applicable)
- Product name, model or version, and serial number
- Operating system name and version
- Firmware version
- Error messages
- Product-specific reports and logs
- Add-on products or components
- Third-party products or components

### Accessing updates

- Some software products provide a mechanism for accessing software updates through the product interface. Review your product documentation to identify the recommended software update method.
- To download product updates, go to either of the following:
  - Hewlett Packard Enterprise Support Center **Get connected with updates** page:  
[www.hpe.com/support/e-updates](http://www.hpe.com/support/e-updates)
  - Software Depot website:  
[www.hpe.com/support/softwaredepot](http://www.hpe.com/support/softwaredepot)
- To view and update your entitlements, and to link your contracts and warranties with your profile, go to the Hewlett Packard Enterprise Support Center **More Information on Access to Support Materials** page:  
[www.hpe.com/support/AccessToSupportMaterials](http://www.hpe.com/support/AccessToSupportMaterials)

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① **IMPORTANT:** Access to some updates might require product entitlement when accessed through the Hewlett Packard Enterprise Support Center. You must have an HP Passport set up with relevant entitlements.

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# Hewlett Packard Enterprise security policy

A Security Bulletin is the first published notification of security vulnerabilities and is the only communication vehicle for security vulnerabilities.

- Fixes for security vulnerabilities are not documented in manuals, release notes, or other forms of product documentation.
- A Security Bulletin is released when all vulnerable products still in support life have publicly available images that contain the fix for the security vulnerability.

To find security bulletins:

1. Go to the Hewlett Packard Enterprise Support Center website at <http://www.hpe.com/support/hpesc>.
2. Enter your product name or number and click **Go**.
3. Select your product from the list of results.
4. Click the **Top issues & solutions** tab.
5. Click the **Advisories, bulletins & notices** link.

To initiate a subscription to receive future Hewlett Packard Enterprise Security Bulletin alerts via email, sign up at:

<http://www.hpe.com/info/subscriberschoice>

## Related information

### Documents

To find related documents, see the Hewlett Packard Enterprise Support Center website:

<http://www.hpe.com/support/manuals>

- Enter your product name or number and click **Go**. If necessary, select your product from the resulting list.
- For a complete list of acronyms and their definitions, see HPE FlexNetwork Technology Acronyms.

### Websites

Website	Link
<b>SDN websites</b>	
HPE SDN information library	<a href="http://www.hpe.com/info/sdn/infolib">http://www.hpe.com/info/sdn/infolib</a>
Hewlett Packard Enterprise Software-Defined Networking website	<a href="http://www.hpe.com/info/sdn">www.hpe.com/info/sdn</a>
Hewlett Packard Enterprise SDN community discussion forum	<a href="http://www.hpe.com/networking/sdnforum">www.hpe.com/networking/sdnforum</a>
Hewlett Packard Enterprise SDN App Store	<a href="http://www.hpe.com/networking/sdnappstore">www.hpe.com/networking/sdnappstore</a>
Hewlett Packard Enterprise SDN Dev Center website	<a href="http://sdndevcenter.hp.com">http://sdndevcenter.hp.com</a>
Hewlett Packard Enterprise Open Source download website	<a href="http://www.hpe.com/software/opensource">www.hpe.com/software/opensource</a>
<b>Networking websites</b>	
Hewlett Packard Enterprise Information Library for Networking	<a href="http://www.hpe.com/networking/resourcefinder">www.hpe.com/networking/resourcefinder</a>
Hewlett Packard Enterprise Networking website	<a href="http://www.hpe.com/info/networking">www.hpe.com/info/networking</a>

Website	Link
Hewlett Packard Enterprise My Networking website	<a href="http://www.hpe.com/networking/support">www.hpe.com/networking/support</a>
Hewlett Packard Enterprise My Networking Portal	<a href="http://www.hpe.com/networking/mynetworking">www.hpe.com/networking/mynetworking</a>
Hewlett Packard Enterprise Networking Warranty	<a href="http://www.hpe.com/networking/warranty">www.hpe.com/networking/warranty</a>
<b>General websites</b>	
Hewlett Packard Enterprise Information Library	<a href="http://www.hpe.com/info/enterprise/docs">www.hpe.com/info/enterprise/docs</a>
Hewlett Packard Enterprise Support Center	<a href="http://www.hpe.com/support/hpesc">www.hpe.com/support/hpesc</a>
Hewlett Packard Enterprise Support Services Central	<a href="http://ssc.hpe.com/portal/site/ssc/">ssc.hpe.com/portal/site/ssc/</a>
Contact Hewlett Packard Enterprise Worldwide	<a href="http://www.hpe.com/assistance">www.hpe.com/assistance</a>
Subscription Service/Support Alerts	<a href="http://www.hpe.com/support/e-updates">www.hpe.com/support/e-updates</a>
Software Depot	<a href="http://www.hpe.com/support/softwaredepot">www.hpe.com/support/softwaredepot</a>
Customer Self Repair (not applicable to all devices)	<a href="http://www.hpe.com/support/selfrepair">www.hpe.com/support/selfrepair</a>
Insight Remote Support (not applicable to all devices)	<a href="http://www.hpe.com/info/insightremotesupport/docs">www.hpe.com/info/insightremotesupport/docs</a>

## Customer self repair

Hewlett Packard Enterprise customer self repair (CSR) programs allow you to repair your product. If a CSR part needs to be replaced, it will be shipped directly to you so that you can install it at your convenience. Some parts do not qualify for CSR. Your Hewlett Packard Enterprise authorized service provider will determine whether a repair can be accomplished by CSR.

For more information about CSR, contact your local service provider or go to the CSR website:

[www.hpe.com/support/selfrepair](http://www.hpe.com/support/selfrepair)

## Remote support

Remote support is available with supported devices as part of your warranty or contractual support agreement. It provides intelligent event diagnosis, and automatic, secure submission of hardware event notifications to Hewlett Packard Enterprise, which will initiate a fast and accurate resolution based on your product's service level. Hewlett Packard Enterprise strongly recommends that you register your device for remote support.

For more information and device support details, go to the following website:

[www.hpe.com/info/insightremotesupport/docs](http://www.hpe.com/info/insightremotesupport/docs)

## Documentation feedback

Hewlett Packard Enterprise is committed to providing documentation that meets your needs. To help us improve the documentation, send any errors, suggestions, or comments to Documentation Feedback ([docsfeedback@hpe.com](mailto:docsfeedback@hpe.com)). When submitting your feedback, include the document title, part number, edition, and publication date located on the front cover of the document. For online help content, include the product name, product version, help edition, and publication date located on the legal notices page.