AVAYA

Release Notes for VEGA 3.0 - Open Networking Adapter 1101GT, HyperSec Gateway and Bristol Release 3.0.0.0

1. Release Summary

Release Date: April 2017
Purpose: GA Software release of VEGA, being part of the Surge2.0 release for customers.

2. Important Notes before Upgrading to This Release

This section provides important information for this release.

File names

This section describes the ONA software files.

Software files

The following table provides the details of the ONA software files.

File name	Description	File size (bytes)
VEGA1101_GA.v2.0.1.2_oss-notice.txt	Optional: Master Copyright file.	1,187,278
VEGA1101_GA.v2.0.1.2.tgz	System software image for the ONA 1101GT.	47,410,839
VEGA1101_GA.v2.0.1.2.sha512	SHA512 Checksum file for ONA.	497
VEGA1101_GA.v2.0.1.2.sha512.sig	SHA512 Checksum file Digital Signature for ONA.	821
VEGA1101_GA.v2.0.1.2.md5	D5 hash information.	209
VEGA1101_GA.v2.0.1.2.md5.sig	MD5 Digital Signature for ONA.	128

Supported operational modes

The ONA has two operational modes:
- SDN Controller Mode (Mode 0, the default mode)
- Fabric Extend Mode (Mode 1)

During reboot, the ONA retains the configured mode.

For information about switching the configured mode, see *Avaya Open Networking Adapter 1101GT Installation Job Aid* (NN48800-300).

Note: To restore the factory default mode and parameters, depress the reset button for at least 5 seconds.

Operational considerations

The ONA 1101GT packet forwarding performance can vary based on several factors, including which mode the ONA is running and which features are enabled.

In SDN Controller Mode (Mode 0) the ONA has a 100 MB rate limiter enabled on the device port ingress. The rate limiter cannot be disabled in this release.

In Fabric Extend Mode (Mode 1) the operational considerations are available in VSP 4000 documentation, see the sections on Fabric Extend considerations and ONA considerations in ***Configuring Avaya Fabric Connect on VSP Operating System Software*** (NN47227-510).

Technical specifications

The following tables provide the technical specifications for the ONA 1101GT.

Table 1 Physical specifications

Specifications	ONA 1101GT
Height	1.496 in. (38 mm)
Width	2.716 in. (69 mm)
Depth	3.622 in. (92 mm)

Table 2 Electrical specifications

Specifications	ONA 1101GT
Maximum power consumption	9.6 W
Normal operation power	~7.5 W
Input rating when using PoE power from the VSP 4000	PoE 54V @ 200 mA
Thermal rating	Thermal rating 32.76 BTU/hr @35° C 25.59 BTU/hr @25° C
MTBF rating	@35° C 1,611,922 hours @25° C 2,240,389 hours

The following table lists the specifications for the 10 W 100-240 AC power adapter. This adapter is sold separately and comes with four snap-in plug adapters: Type A (U.S. and Japan), Type B (EU), Type G (UK), and Type I (AUS and China). The part number is EC1105E11-E6.

Table 3 Optional: AC power adapter specifications

Specifications	ONA 1101GT
Input	110-240 VAC, 50-60 Hz, 0.4 A Max
Output	5 VDC, 2 A

Table 4 Environmental specifications

Specifications	ONA 1101GT
Operating Temperature	0° C to 35° C (32° F to 95° F)
Storage Temperature	–40° C to 85°C (-40° F to 185° F)
Operating Humidity	0 to 95 percent noncondensing
Storage Humidity	0 to 95 percent noncondensing
Maximum Operating Altitude	3,048m (10 000 feet) above sea level
Acoustic Noise	None

3. Platforms Supported

Open Networking Adapter 1101GT

4. Notes for Upgrade

ONA software upgrade methods

See the following methods to upgrade software on an ONA. Choose the method best suited for your deployment state and ONA operating mode:

- Upgrading a deployed ONA in Mode 0: This method uses the SDN Controller connected to an ONA to perform the upgrade (Mode 0 only).
  Note: You can use this upgrade method to avoid physically disconnecting the ONA from the SDN Fx Healthcare Fabric Attach network when an ONA is deployed in Mode 0.
- Upgrading a deployed ONA in Mode 1: This method uses the VSP 4000 switch connected to an ONA to perform the upgrade (Mode 1 only).
  Note: You can use this upgrade method to avoid physically disconnecting the ONA from the VSP 4000 Fabric Extend network when an ONA is deployed in Mode 1.
- Upgrading a standalone ONA using the Manual Configuration menu: This method uses a PC and a web browser to access the ONA Manual Configuration menu to perform the upgrade (any mode).
  Note: You can use this upgrade method before an ONA deployment, such as when you first receive your ONA.

Upgrading a deployed ONA in Mode 0

If the ONA is deployed in an Avaya SDN Fx Healthcare solution, Avaya recommends using the SDN Controller to upgrade the ONA. See ***Maintaining Avaya SDN Fx Healthcare*** (NN48200-500).

You can use the SDN Controller to perform a software upgrade on an ONA device deployed in Fabric Attach Mode 0.

Upgrading a deployed ONA in Mode 1

Use this procedure to upgrade the software on an ONA that has already been deployed.

Perform the steps in this procedure on the VSP 4000 connected to the ONA that you want to upgrade.

Important: The following upgrade procedure is applicable for Fabric Extend Mode 1 only.

Procedure

1. Enter Global Configuration mode:

    enable

    configure terminal

2. Configure the boot flag to enable the SSH daemon:

    boot config flags sshd

3. Enable SSH globally on the switch:

    ssh

4. Verify that SSH is globally enabled:

    show ssh global

    Important: You must enable both the SSH boot flag daemon and SSH globally.

5. Verify that the SSH daemon and server are enabled:

    show logging file

6. Go to the Avaya Support website, http://support.avaya.com and download the ONA software image that you want to use.

7. Verify that the ONA has an IP address, and is up and running. This includes the Network and Device ports:

    show khi fe-ona detail

    Note:

    Before the ONA can get an IP tunnel source address from the VSP 4000, the following steps must be taken:

    a. Connect the Device and Network ports on the ONA to the VSP 4000.

    b. Make sure that the ONA is connected to a DHCP server. If a DHCP server is unavailable, statically configure an IP tunnel source address on the ONA.

    c. Create a Management VLAN on the ONA that includes the Network port.

    d. Designate the Device port for the IP tunnel source address in the configuration file.

        The syntax for the IP tunnel source address is:

        ip-tunnel-source-address <A.B.C.D> port <slot/port> [mtu <750–1950>] [vrf WORD<1–16>].

8. Upgrade the ONA:

    fe-ona image-upgrade <ONAReleaseFile> [Username] [Password]

    Note: The username and password are required. This is only optional if you did not change the defaults from rwa/rwa.

9. Check the status of the upgrade:

    show khi fe-ona status

    Note: When the upgrade finishes, the ONA automatically reboots.

Example

```
Switch(config)# boot config flags sshd
Switch(config)# show ssh global
Total Active Sessions : 0
Version             : v2only
Port                : 22
max-sessions        : 4
timeout             : 60
action rsa-host key : rsa-hostkeysize 2048
action dsa-host key : dsa-hostkeysize 1024
rsa-auth            : true
dsa-auth            : true
pass-auth           : true
sftp enable         : true
enable              : false

Switch(config)# ssh
CP1 [10/27/15 13:40:05.882:UTC] 0x000d861c 00000000 GlobalRouter SSH INFO SSH Server Enabled

Switch(config)# show ssh global
Total Active Sessions : 0
version             : v2only
port                : 22
max-sessions        : 4
timeout             : 60
action rsa-host key : rsa-hostkeysize 2048
action dsa-host key : dsa-hostkeysize 1024
rsa-auth            : true
dsa-auth            : true
pass-auth           : true
sftp enable         : true
enable              : true

Switch(config)# show logging file
CP1 [10/27/15 13:40:05.882:UTC] 0x000d861c 00000000 GlobalRouter SSH INFO SSH Server Enabled
CP1 [10/27/15 13:40:05.882:UTC] 0x0000461f 00000000 GlobalRouter SNMP INFO SSH server enabled

Switch(config)# show khi fe-ona detail
============================================================
                   ONA RUNTIME INFORMATION
============================================================
ONA Port Number : 1/8

ONA Management Address : 11.1.1.100
Tunnel Source IP Address : 40.1.1.4
ONA LLDP Port Status : Enabled
ONA Device Port Status : UP
ONA Device Status : UP
MTU : 1950
ONA Network Port Number : 1/6
ONA Mac(ARP) Address : 10:cd:ae:69:c6:d0
ONA Source VlanId : 11
ONA Source Vlan IP : 11.1.1.1
ONA Gateway IP: 11.1.1.1
ONA Management IP Mask : 255.255.255.0
ONA Bootmode : 1
```

Example continued

```
Switch(config)# fe-ona image-upgrade VEGA1101_GA.2.0.0.0.tgz
CP1 [10/26/15 10:51:07.294:UTC] 0x00378603 00000000 GlobalRouter ONA INFO Periodic ONA
Image upgrade status :DOWNLOAD_IN_PROGRESS

Switch(config)# show khi fe-ona status
=========================================================
                        ONA STATUS
=========================================================
ONA Device Status : UP
Running Release Name : VEGA1101_beta.2.0.0.0int018
Image Upgrade Status : DOWNLOAD_IN_PROGRESS
Image File Is Being Used For Upgrade: VEGA1101_GA.2.0.0.0.tgz
-----------------------------------------------------
Switch(config)# show khi fe-ona status


=========================================================
                        ONA STATUS
=========================================================
ONA Device Status : UP
Running Release Name : VEGA1101_GA.2.0.0.0
Last Image Upgrade Status : UPGRADE_SUCCESS
Last Image File Used For Upgrade: VEGA1101_GA.2.0.0.0.tgz

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```

Upgrading a standalone ONA using the Manual Configuration menu

Use this procedure to upgrade the ONA when you first receive it. This method uses a PC to access the ONA Manual Configuration menu.

Procedure

1. From the PC that you are going to use for this upgrade procedure, go to the Avaya Support website, http://support.avaya.com, and download the ONA software image that you want to use.
2. Connect a PC to the RJ-45 port on the Device side of the ONA.ssh
   Note: Make sure the PC's network port is enabled with DHCP client.
3. Insert a paper clip into the reset switch. Press and hold the reset button before applying power to the ONA.
4. Connect the cable from the network switch to the Network side of the ONA for PoE power. If PoE power is unavailable, connect an external power adapter.
5. Continue pressing and holding the reset button until the Status LED cycles through a steady red/green/blue. Then release the reset button and the Status LED flashes a steady amber, which indicates that the Manual Configuration menu is running.
   Note: After this step, wait for a few seconds so that the PC gets an IP address for the ONA over DHCP.
6. On the PC, use a browser to connect to the ONA configuration menu with the address http://192.168.100.1.
   Note: You cannot go directly to this webpage. You must complete steps 1–5 first.
7. Click **Upgrade Software**.
8. Select the software upgrade package that you want to upload.
9. Click **Send** to upload the image to the ONA. This may take up to five minutes.
   Note: Do not refresh or close the webpage during the upgrade.
10. Click **Return to Configuration page**.
11. Click **Reboot into Operational Mode**.
12. Disconnect the PC.

6. Version of Previous Release

Software Version 1.0.0.0, 1.0.1.0, 2.0.0.0, 2.0.1.1

7. Compatibility

8. Changes in 2.0.1.2

New Features in This Release

Old Features Removed From This Release

Problems Resolved in This Release

Issue	Description	Workaround
VEGA-211	ONAs were reporting high temperature warnings at ambient temperature.	Alarm Threshold temperature has been raised from 65C to 73C. Operating efficiencies have been made by disabling unused hardware features to help further reduce power consumption.

9. Outstanding Issues

Please see "Release Notes and Product Information Guide for Open Networking Adapter 1101GT" for software release 2.0.0.0 (NN48800-400, 02.01) available at http://www.avaya.com/support for details regarding Known Issues.

In addition, the following issues have been identified:

Issue	Description	Workaround
-	-	-

10. Known Limitations

Please see "Release Notes and Product Information Guide for Open Networking Adapter 1101GT" for software release 2.0.0.0 (NN48800-400, 02.01) available at http://www.avaya.com/support for details regarding Known Limitations.

Issue	Description	Workaround
VEGA 158	The ONA software continuously monitors the operating temperature of the device. If the high temperature threshold value of 65 degrees Centigrade is exceeded, the operating CPU frequency of the ONA lowers to reduce heat and a notification is sent to the SDN controller. The controller then reads the current ONA operating temperature and adds a new entry to the list of notifications for that ONA device. The current temperature value read by the SDN controller and recorded in the notification could show as below the established threshold, since the ONA cools while running at reduced CPU	Ensure proper placement and operating environment. Check that the ONA is not within 6 inches of any additional heat source or obstruction that blocks air flow around the device and inhibits cooling.

frequency.	

11. Documentation Corrections

For other known issues, please refer to the product release notes and technical documentation available from the Avaya Technical Support web site at: http://www.avaya.com/support .