

ARISTA

Quick Start Guide

CloudVision Appliance

DCA-300-CV

Arista Networks

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Overview

This section contains the following topics:

- [Scope](#)
- [Supplemental Documentation](#)
- [Obtaining Technical Assistance](#)
- [Safety Information](#)
- [Specifications](#)

1.1 Scope

This guide is intended for properly trained service personnel and technicians who need to install the Arista CloudVision Appliance.



Note: Only qualified personnel should install, service, or replace this equipment.

1.2 Supplemental Documentation

Refer to the Arista EOS User manual or additional configuration requirements at <https://www.arista.com/en/support/product-documentation>.

1.3 Obtaining Technical Assistance

All customers, partners, resellers, or distributors holding a valid Arista Service Contract can obtain technical support in any of the following ways:

- **Email:** <mailto:support@arista.com>. This is the easiest way to create a new service request. Include a detailed description of the problem and the output of “show tech-support”.
- **Web:** <https://www.arista.com/en/support/customer-support>. A support case may be created through the support portal on our website. You may also download the most current software and documentation, as well as view FAQs, Knowledge Base articles, Security Advisories, and Field Notices.
- **Phone:** +1-866-476-0000 or +1-408-547-5502.

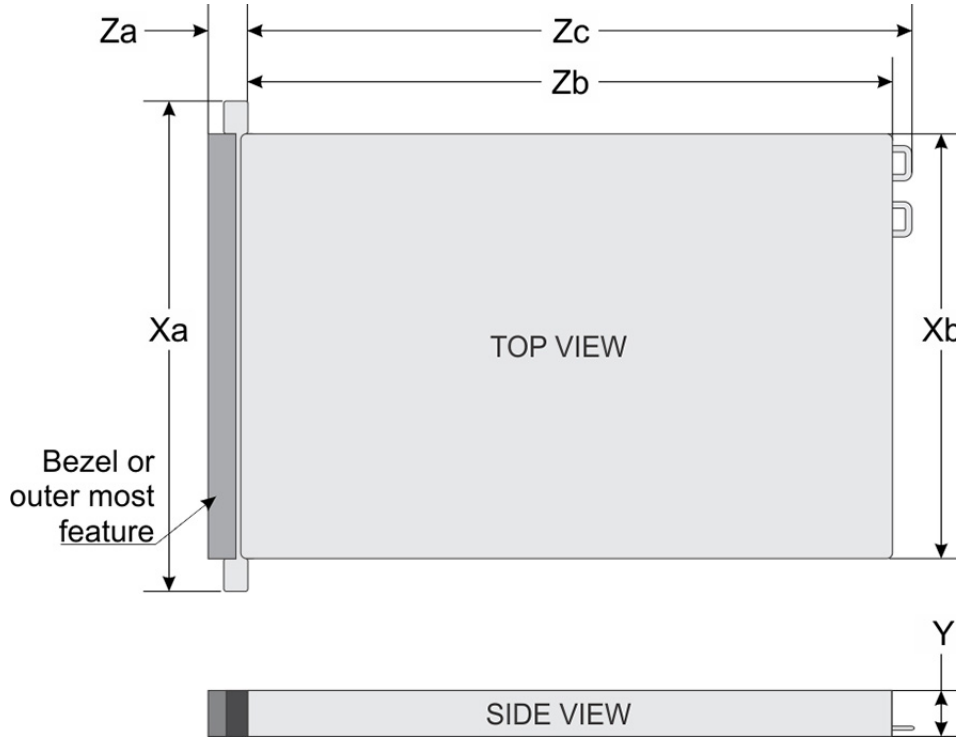
1.4 Safety Information

Refer to the Arista Networks document Safety Information and Translated Safety Warnings available at: <https://www.arista.com/en/support/product-documentation>.

1.5 Specifications

The following Appliance Specifications table lists the specifications of the Arista DCA-300-CV CloudVision Appliance.

Figure 1: System Dimensions



System	Dimensions
Xa	482.0 mm (18.97 inches)
Xb	434.0 mm (17.08 inches)
Y	42.8 mm (3.41 inches)
Za	35.84 mm (1.41 inches) (with bezel) 22 mm (0.87 inches) (without bezel)
Zb	x4 and x10 = 657.25 mm (25.87 inches) x8 = 606.47 (23.87 inches)
Zc	x4 and x10 = 692.62 (27.26 inches) x8 = 641.85 mm (25.26 inches)

Table 1: Weight Specifications

The table below shows the unit weight specifications with all drives/SSDs installed.

Weight	Maximum weight (with all drives/ SSDs)
4 x 3.5-inch drive system	17.64 Kg (38.90 lb)
8 x 2.5-inch drive system	16.04 Kg (35.36 lb)
10 x 2.5-inch drive system	16.81 Kg (37.07 lb)

Table 2: Power Specifications

The table below shows the power supply specifications.

Power Draw	Specifications
Power Draw (Typical) 550W AC	Platinum 50/60 Hz, 100 to 240V AC, auto-arranging
Power Draw (Typical) 450W AC	Bronze 50/60 Hz, 100 to 240V AC, auto-arranging

Table 3: Temperature Specifications

The table below shows the optimal working temperature specifications.

Temperature	Specifications
Storage	40°C to 65°C (40°F to 149°F)
Continuous operation (for altitude less than 950 m or 3117 ft)	10°C to 35°C (50°F to 95°F) with no direct sunlight on the equipment.
Fresh air	
Maximum temperature gradient (operating and storage)	20°C/h (68°F/h)

Table 4: Relative Humidity Specifications

The table below shows the relative humidity specification during operations and storage.

Relative Humidity	Specifications
Storage	5% to 95% RH with 33°C (91°F) maximum dew point. Atmosphere must be non-condensing at all times.
Operating	10% to 80% relative humidity with 29°C (84.2°F) maximum dew point.

Table 5: Maximum Vibration Specifications

The table below shows the maximum vibration specifications during operations and storage.

Maximum Vibration	Specifications
Operating	0.26 G _{rms} at 5 to 350 Hz (all operation orientations).

Storage	1.88 G _{rms} at 10 to 500 Hz for 15 min (all six sides tested).
---------	--

Table 6: Maximum Shock Specifications

The table below shows the maximum shock specifications during operations and storage.

Maximum Shock	Specifications
Operating	Six consecutively executed shock pulses in the positive and negative x, y, and z axes of 6 G for up to 11 ms.
Storage	Six consecutively executed shock pulses in the positive and negative x, y, and z axes (one pulse on each side of the system) of 71 G for up to 2 ms.

Table 7: Maximum Altitude Specifications


The table below shows the maximum altitude specifications during operations and storage.


Maximum Altitude	Specifications
Operating	3048 m (10,000 ft)
Storage	12,000 m (39,370 ft)

Table 8: Standard Operating Temperature

Standard Operating Temperature	Specifications
Continuous operation (for altitude less than 950 m or 3117 ft).	10°C to 35°C (50°F to 95°F) with no direct sunlight on the equipment.

Table 9: Expanded Operating Temperature

Expanded Operating Temperature	Specifications
Continuous operation	<p>5°C to 40°C at 5% to 85% RH with 29°C dew point.</p> <p> Note: Outside the standard operating temperature (10°C to 40°C), the system can operate continuously in temperatures as low as 5°C and as high as 40°C.</p>

1% of annual operating hours	<p>-5°C to 45°C at 5% to 90% RH with 29°C dew point.</p> <p> Note: Outside the standard operating temperature (10°C to 40°C), the system can operate down to -5°C or up to 45°C for a maximum of 1% of its annual operating hours.</p> <p>For temperatures between 40°C and 45°C, de-rate maximum allowable temperature by 1°C per 125 m above 950 m (1°F per 228 ft).</p>
------------------------------	--

Expanded operating temperature restrictions

- Do not perform a cold startup below 5°C.
- The operating temperature specified is for a maximum altitude of 3048 m (10,000 ft).
- 105 W/4C, 115 W/6C, 130 W/8C, 140 W/14C or higher wattage processor (TDP>140 W) are not supported.
- Redundant power supply configuration is required.
- Non-Arista qualified peripheral cards and/or peripheral cards greater than 25 W are not supported.
- NVMe drives are not supported.
- Apache Pass DIMM and NVDIMM are not supported.

Table 10: Operating Temperature Derating Specifications

The table below shows the operating temperature derating specifications.

Operating Temperature Derating	Specifications
Up to 35°C (95°F)	Maximum temperature is reduced by 1°C/300 m (1°F/547 ft) above 950 m (3,117 ft).
35°C to 40°C (95°F to 104°F)	Maximum temperature is reduced by 1°C/175 m (1°F/319 ft) above 950 m (3,117 ft).
40°C to 45°C (104°F to 113°F)	Maximum temperature is reduced by 1°C/125 m (1°F/228 ft) above 950 m (3,117 ft).

Setup Preparation

This chapter contains the following topics:

- [Site Selection](#)
- [Receiving and Inspecting the Equipment](#)
- [Electrostatic Discharge \(ESD\) Precautions](#)
- [Setting up Your System](#)
- [CloudVision Physical Appliance Setup](#)
- [CloudVision Appliance IP Configuration](#)

2.1 Site Selection

Read the safety instructions in your Safety, Environmental, and Regulatory Information booklet before you begin.

The following criteria should be considered when selecting a site to install the appliance:

- Before you begin, review the safety instructions located at <https://www.arista.com/en/support/product-documentation>.
- Begin installing the rails in the allotted space that is closest to the bottom of the rack enclosure.
- Other Requirements: Select a site where liquids or objects cannot fall onto the equipment and foreign objects are not drawn into the ventilation holes. Verify these guidelines are met:
 - Clearance areas to the front and rear panels allow for unrestricted cabling.
 - All front and rear panel indicators can be easily read.
 - Power cords can reach from the power outlet to the connector on the rear panel.



Note: All power connections must be removed to de-energize the unit.



Note: This unit is intended for installation in restricted access areas.

2.2 Receiving and Inspecting the Equipment

Upon receiving the appliance, inspect the shipping boxes and record any external damage. Retain packing materials if you suspect that part of the shipment is damaged; the carrier may need to inspect them.

If the boxes were not damaged in transit, unpack them carefully. Ensure that you do not discard any accessories that may be packaged in the same box as the main unit.

Inspect the packing list and confirm that you received all listed items. Compare the packing list with your purchase order. The Appendix provides a list of components included with the appliance.

2.3 Electrostatic Discharge (ESD) Precautions

Observe these guidelines to avoid ESD damage when installing or servicing the appliance.

-
- Assemble or disassemble equipment only in a static-free work area.
 - Use a conductive work surface (such as an anti-static mat) to dissipate static charge.
 - Wear a conductive wrist strap to dissipate static charge accumulation.
 - Minimize handling of assemblies and components.
 - Keep replacement parts in their original static-free packaging.
 - Remove all plastic, foam, vinyl, paper, and other static-generating materials from the work area.
 - Use tools that do not create ESD.

2.4 Setting up Your System

Complete the following steps to set up your system:

1. Unpack the system.
2. Remove the I/O connector cover from the system connectors.



Note: While installing the system, ensure that it is properly aligned with the slot on the enclosure to prevent damage to the system connectors.

3. Install the system in the enclosure.
4. Turn on the enclosure.



Note: Wait for the chassis to initialize before you press the power button.

5. Press the power button on the system.

Alternatively, you can also turn on the system by using:

- The system iDRAC. For more information, see [Web Access into iDRAC \(System IPMI\)](#).
- The enclosure Chassis Management Controller (CMC), after the system iDRAC (IPMI) is configured on the CMC.

2.5 CloudVision Physical Appliance Setup

You may need the following items to perform the procedures in this section:

- Key to the system key-lock.
- #1 and #2 Phillips screwdriver.
- Wrist grounding strap connected to ground.
- Rack mount kit instructions located in the shipping box.

Before Working Inside your System

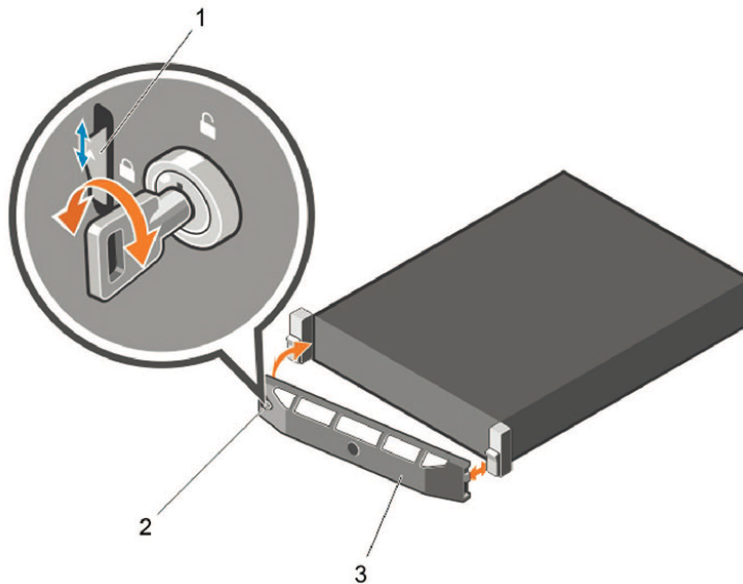
Follow these safety guidelines: [Safety Information](#).

1. Turn off the system, including all attached peripherals.
2. Disconnect the system from the electrical outlet and disconnect the peripherals.
3. Remove the system cover.

2.5.1 Front Bezel

Complete the following tasks to remove the front bezel.

Figure 2: Front Bezel

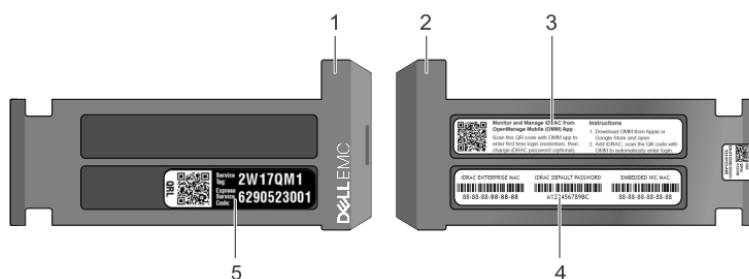


1. Unlock the key-lock at the left end of the bezel.
2. Lift the release latch next to the keylock.
3. Rotate the left end of the bezel away from the front panel.
4. Unhook the right end of the bezel and pull the bezel away from the system.

2.5.2 Locate the MAC Addresses for the CloudVision Appliance

The information tag is a slide-out label which contains system information such as Service Tag, NIC, MAC address for your reference. Record the MAC addresses in the CloudVision Worksheet.

Figure 3: Locating MAC Address of your System



1 - Information tag (front view)	2 - Information tag (back view)
3 - OpenManage Mobile (OMM) label	4 - iDRAC MAC address and iDRAC secure password label
5 - Service Tag	

2.5.3 Rear Panel Ethernet Connections

On the back panel of the CloudVision appliance, locate the Ethernet Integrated 10/100/1000 Mbps NIC connectors.

Figure 4: Rear Panel

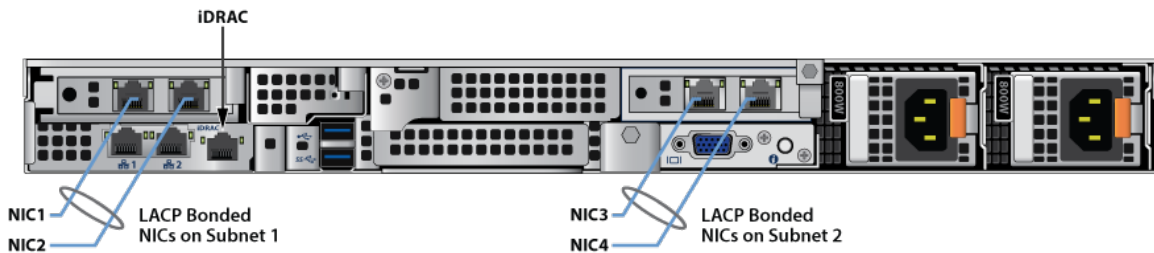
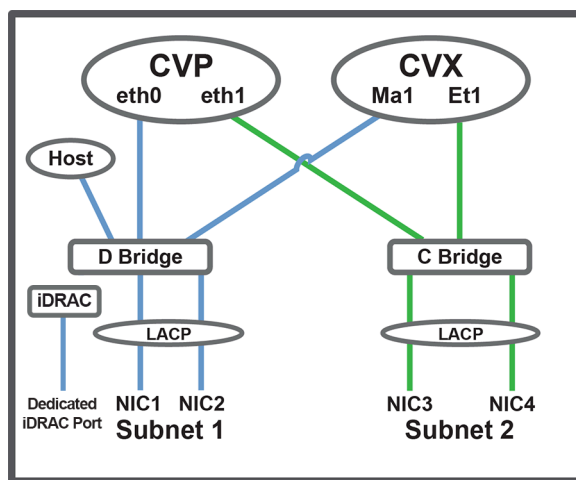


Figure 5: Subnet 1 and Subnet 2 Configuration



iDRAC is an Intelligent Platform Management Interface (IPMI) that provides a GUI-based out-of-band interface for monitoring the hardware appliance.

Record the IP address and Hostname information in CloudVision Worksheet.



Note: iDRAC may also be referred to as Lifecycle Controller.

2.5.4 DNS Entries

In order to manage your CloudVision cluster, it is often easier to connect to them by hostname as opposed to IP address. Fully qualified domain names (FQDNs) should be allocated to:

- Each of the CloudVision Appliance host machines.
- Each of the CloudVision Appliance iDRAC interfaces.
- Each of the CloudVision Portal (CVP) nodes.
- Each of the CloudVision Server (CVX) nodes.

Contact your DNS zone administrator for assistance.

2.6 CloudVision Appliance IP Configuration

The CloudVision Appliance Host and iDRAC IP addresses can be allocated in either of two ways:

Option 1: Using an available DHCP server

- DHCP Based IP Address Setup [DHCP Based IP Address Setup](#).
- Web Access into Host via iDRAC [Web Access into iDRAC \(System IPMI\)](#).

Option 2: Manual configuration (Requires terminal connected to VGA port)

- Manual IP Address Setup [Manual IP Address Setup](#).
- Web Access into Host via iDRAC [Web Access into iDRAC \(System IPMI\)](#).

2.6.1 DHCP Based IP Address Setup**iDRAC IP Address**

Using the iDRAC MAC from [Locate the MAC Addresses for the CloudVision Appliance](#), input an entry into the DHCP Server for the corresponding iDRAC IP address mapping to that MAC.

Host IP Address

Using the HOST NIC1 MAC from [Locate the MAC Addresses for the CloudVision Appliance](#), input an entry into the DHCP Server for the corresponding HOST IP address mapping to that MAC.

Turn the system on by pressing the power button located on the front of the system.

2.6.2 Manual IP Address Setup

Note: Direct IP Address Setup requires a terminal connected to the VGA port of the appliance. This section can be skipped if the Host and iDRAC IP addresses have been configured with a DHCP server.

2.6.3 iDRAC IP Address

The iDRAC IP address can be manually configured via the host's bash shell using the `racadm` tool.

The `racadm` commands below are sequence dependent and must be entered in the following order.

1. Using the attached terminal and keyboard, log in as user “**root**” and with default password “**arista**”.
2. Disable all iDRAC related DHCP configuration.

```
racadm set iDRAC.IPv4.DHCPEnable 0
racadm set iDRAC.IPv4.DNSFromDHCP 0
racadm set iDRAC.NIC.DNSDomainFromDHCP 0
```

3. Configure the IP network settings for the iDRAC interface.

```
racadm set iDRAC.NIC.Enable 1
racadm set iDRAC.IPv4.Address <iDRAC-IP>
racadm set iDRAC.IPv4.Netmask <iDRAC-MASK>
racadm set iDRAC.IPv4.Gateway <iDRAC-GW>
```

4. Configure the DNS settings for the iDRAC interface.

```
racadm set iDRAC.IPv4.DNS1 <iDRAC-DNS1>
racadm set iDRAC.IPv4.DNS2 <iDRAC-DNS2>
racadm set iDRAC.NIC.DNSRacName <iDRAC-NAME>
racadm set iDRAC.NIC.DNSDomainName <iDRAC-DOMAIN.NAME>
```

5. Verify the configuration by running the following command.

```
racadm getSysInfo
```

2.6.4 Host IP Address

The host IP address can be manually configured by using the host's bash shell. In order for the settings to be persistent, the following configuration must be completed.

1. Configure the network settings by editing the `/etc/sysconfig/network-scripts/ifcfg-devicebr` file.

```
DEVICE=devicebr
NAME=devicebr
TYPE=Bridge
ONBOOT=yes
BOOTPROTO=none
IPADDR=<ip address here>
NETMASK=<subnet mask here>
GATEWAY=<gateway ip address here>
DELAY=0
USERCTL=yes
NM_CONTROLLED=no
```

2. Configure the DNS settings by editing the `/etc/resolv.conf` file.

```
nameserver <dnsServerIP-1>
nameserver <dnsServerIP-2>
search <domain1> <domain2>
```

3. Restart the networking service for the changes to take effect.

```
service network restart
```


CloudVision Appliance Access

This section contains the following topics:

- [iDRAC](#)

3.1 iDRAC

iDRAC is a GUI based IPMI running on a separate out of band CPU used for monitoring the hardware appliance.

- [Web Access into iDRAC \(System IPMI\)](#)
- [Updating the Host Password](#)
- [Changing the iDRAC Password](#)
- [Web Access into CVX and CVP Consoles via WOK](#)
- [Web Access into Host via WOK](#)
- [Using the CLI to Access the Appliance](#)

3.1.1 Web Access into iDRAC (System IPMI)

iDRAC is supported on the following browsers:

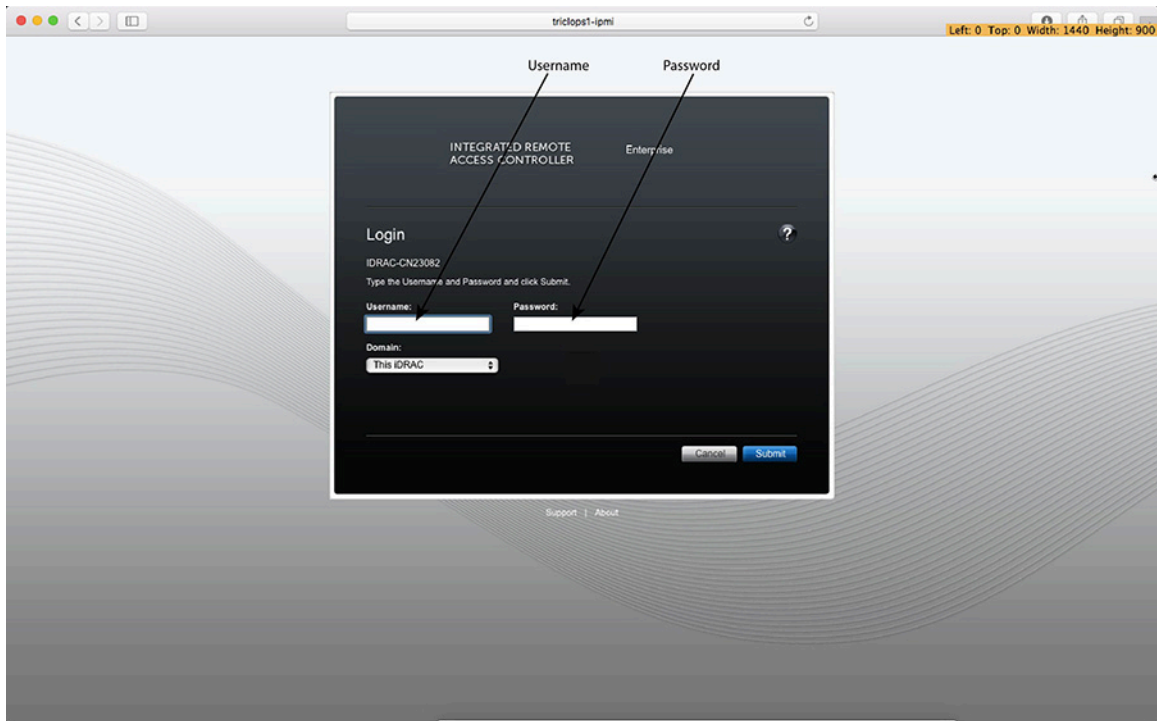
- **Mozilla Firefox**
- **Google Chrome**

On the management station, open the Web browser and connect to the iDRAC7 using: `https://<hostname or IP of iDRAC>`.

For example: `https://192.168.0.120`.

The Login page appears.

Figure 6: iDRAC Login Page



Login using the default username and password, which are:

- Username: **root**
- Password: **arista**



Note: Both the username and password are case sensitive.

3.1.2 Updating the Host Password

You can directly update or change a password using the following method.

1. Enter your login credentials.

Default Username: **root**

Default Password: **arista**

2. Running `passwd` with no options will change the password of the account running the command. You will first be prompted to enter the account's current password:

```
[root@cv ~]# passwd
```

3. You will be asked to enter a new password.
4. Enter the same password again, to verify it.
5. If the passwords match, the password will be changed.

```
passwd: all authentication tokens updated successfully.  
[root@cv ~]#
```

3.1.3 Changing the iDRAC Password

Two options are available to change the iDRAC password:

- Changing the Password through the iDRAC Web Interface. See [Changing the Password through the iDRAC Web Interface](#).
- Changing the Password through the CLI. See [Changing the Password through the CLI](#).

3.1.3.1 Changing the Password through the iDRAC Web Interface

To change the password through the iDRAC web interface, complete the following steps.

1. Under "**iDRAC Settings**", go to **User Authentication**. The User Authentication page appears.

Figure 7: User Authentication Page

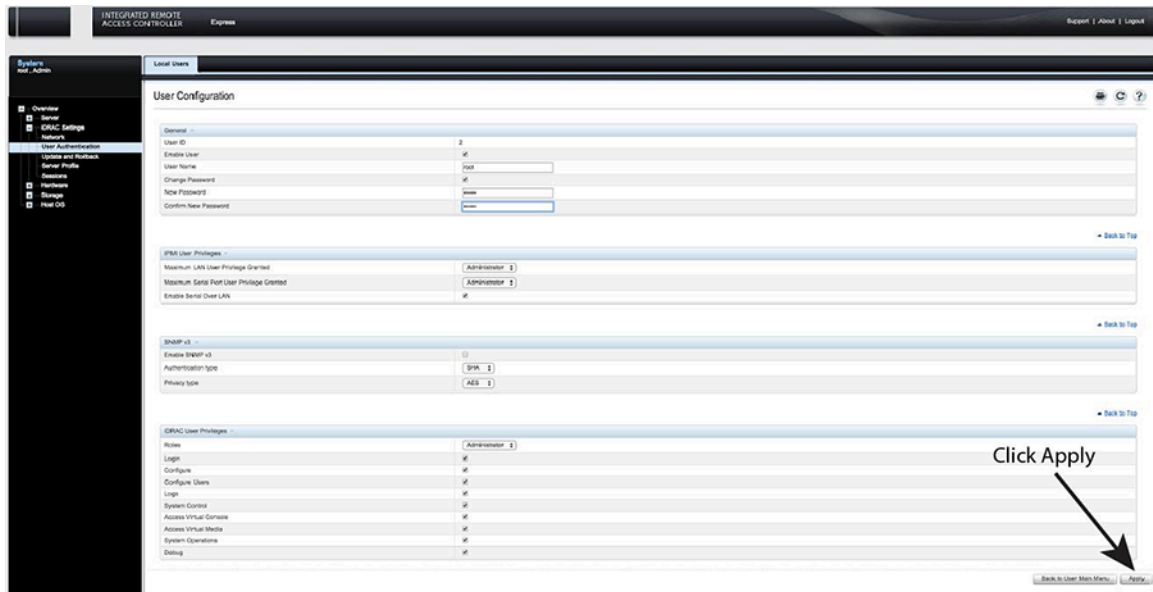
2. Click the **User ID** number of the root account. The Configure User radio button should already be checked.
3. Click **Next**. The page appears, showing options for changing passwords.

Figure 8: Changing the Password

4. Select the **Change Password** checkbox.
5. Enter the new password in the **New Password** and **Confirm New Password** boxes.

- Click **Apply** to apply the password change.

Figure 9: Apply the Password Change



- Logout, and then login through the iDRAC GUI to verify the change.

3.1.3.2 Changing the Password through the CLI

Complete the following steps to reset the iDRAC password using the `racadm` command line tool.

- Telnet or SSH into the Host IP.
- Execute the following commands to change the iDRAC password.

```
[root@triclops1 ~]# racadm set iDRAC.Users.2.Password arista1234
[Key=iDRAC.Embedded.1#Users.2]
Object value modified successfully

[root@triclops1 ~]# racadm get iDRAC.Users.2.Password
[Key=iDRAC.Embedded.1#Users.2]
Password=***** (Write-Only)

[root@triclops1 ~]# racadm set iDRAC.Users.2.Password arista
[Key=iDRAC.Embedded.1#Users.2]
Object value modified successfully

[root@triclops1 ~]# racadm get iDRAC.Users.2.Password
[Key=iDRAC.Embedded.1#Users.2]
Password=***** (Write-Only)
```

3.1.4 Web Access into CVX and CVP Consoles via WOK

Figure 10: Accessing the CVX and CVP Consoles



Note: If your web browser's popup blocker is turned on, it may prevent you from being able to view the page.

To access the console ports for your CVP and/or CVX applications:

1. Open your browser to `https://<CVA hostname or IP address>:8001`.
2. Enter in your login credentials.

Default Username: **root**

Default Password: **arista**

3. Select the **Guests** tab in the GUI menu.

Figure 11: Accessing the CVX and CVP Consoles via WOK

Guest Name	ID	OS Type	VNC	Processors Utilization	Memory Utilization	Storage I/O	Network I/O	Actions
cvp		VM Unknown	View Console	13%	1%	92KB/s	0KB/s	Actions
cvx		VM Unknown	View Console	1%	20%	0KB/s	0KB/s	Actions

4. Click on **View Console** to open the console for the respective CVP or CVX application.

3.1.5 Web Access into Host via WOK

On the management station, open your Web browser and connect to URL: `https://<CVA hostname or IP address>:8001`. Login through the Wok Login Page.

iDRAC is supported on the following browsers:

- **Mozilla Firefox**
- **Google Chrome**

Default username and password:

- Username: **root**
- Password: **arista**



Note: Both the username and password are case sensitive.

Figure 12: WOK Login Page

Web Access into CVX and CVP consoles via WOK.

Figure 13: Accessing the CVX and CVP Consoles via WOK

Guest Name	ID	OS Type	VNC	Processors Utilization	Memory Utilization	Storage I/O	Network I/O	Actions
cvp		VM Unknown	View Console	13%	1%	92KB/s	0KB/s	Actions
cvx		VM Unknown	View Console	1%	20%	0KB/s	0KB/s	Actions

3.1.6 Using the CLI to Access the Appliance

To copy and paste a configuration, complete the following steps.

1. Login to the appliance using `ssh` or `console` as `root`.
2. Use the following commands.

```
virsh console cvp --force
virsh console cvx --force
```

Operating System Installation and Application Setup

This chapter contains the following topics:

- [Setting Up CVP](#)

4.1 Setting Up CVP



Note: Single-Node is not supported for production deployments but can be used for training or feature evaluation.

Pre-installation Checklist

- Ensure that you have console access to the CVP virtual machine on each appliance, via WOK web access. See [Web Access into CVX and CVP Consoles via WOK](#).
- Enter the CVP Console.
- Ensure all configurations are done via console and not via SSH.



Note: This configuration will change the IPs and will drop connectivity if done over SSH.

4.1.1 Setup Steps for Single Node CVP

To set up single node CVP, complete the following steps.

1. Access the primary CVP VM via WOK.
2. Refer to the *CloudVision Configuration Guide* for the Shell-Based Configuration of a Single-Node.

4.1.2 Setup Steps for Multi-node CVP Cluster

Assign to each of the three CVP VMs a role (primary, secondary or tertiary).

- The roles may be assigned in any way, but the roles must be kept consistent throughout the installation. No two nodes may share the same role.
- Maintain the installation order starting with primary, then secondary, and finally tertiary.

To assign the roles, complete the following steps.

1. Print the CloudVision Worksheet. Circle the role of each appliance: one primary (P), one secondary (S), and one tertiary (T).
2. Access the primary, secondary, and tertiary CVP VMs on the respective appliance via WOK.
3. Refer to the *CloudVision Configuration Guide* for the Shell-Based Configuration of Multi-Node.

4.1.3 Log into the CVP Web Interface

After CVP is running on the multi-node appliance cluster, enter the CVP Web Interface of the primary node via its CVP IP/Hostname with default username/password of `cvpadmin/cvpadmin` to set the password.

For Multi-node clusters, setting the password only has to be done on one node, and is synced to other nodes so subsequently any node can be accessed via its web interface. Refer to the *CloudVision Configuration Guide* for instructions on using CVP.

Series Status Indicators

This section contains the following topics:

- [LCD Panel Features](#)
- [Status LED Indicators](#)
- [NIC Indicator Codes](#)
- [Power Supply Unit Indicator Codes](#)

A.1 LCD Panel Features

The system's LCD panel provides system information and status and error messages to indicate if the system is operating correctly or if the system needs attention.

The LCD back-light lights blue during normal operating conditions.

When the system needs attention, the LCD lights amber and displays an error code followed by descriptive text.



Note: If the system is connected to a power source and an error is detected, the LCD lights amber regardless of whether the system is turned on or off.

The LCD back-light turns OFF when the system is in standby mode and can be turned on by pressing either the Select, Left, or Right button on the LCD panel.

The LCD back-light remains OFF if LCD messaging is turned off through the iDRAC utility, the LCD panel, or other tools.

Figure 14: LCD Panel Features

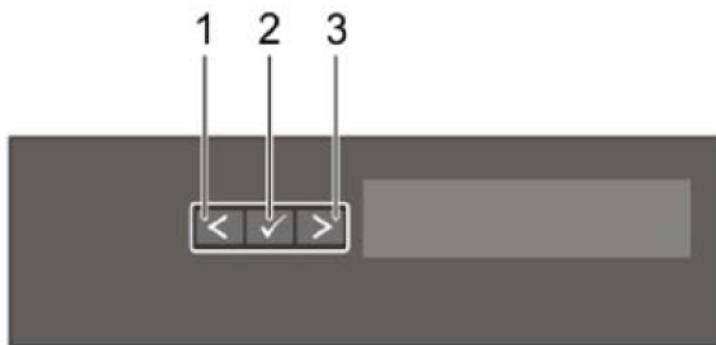


Table 11: LCD Panel Features Description

Item	Button	Description
1	Left	Moves the cursor back in one-step increments.
2	Select	Selects the menu item highlighted by the cursor.

Item	Button	Description
3	Right	Moves the cursor forward in one-step increments. During message scrolling: <ul style="list-style-type: none"> • Press once to increase scrolling speed. • Press again to return to the default scrolling speed. • Press again to repeat the cycle. • Press again to stop.

A.2 Status LED Indicators



Note: The indicators display solid amber if any error occurs.

Table 12: Status LED Indicators and Descriptions

Item 1 is the health indicator that indicates the health status of the system. The indicator turns solid blue if the system is turned on and in good health. The indicator flashes amber if the system is turned on or in standby, and if any issue occurs (for example, a failed fan or drive).


Item 2 is the drive indicator that flashes amber if an error occurs related to drive.





Item 3 is the electrical indicator that flashes amber if an electrical error occurs (for example, voltage out of range, or a failed power supply unit or voltage regulator).

Item 4 is the temperature indicator that flashes amber if a thermal error occurs (for example, temperature out of range or fan failure).

Item 5 is the memory indicator that flashes amber if a memory error occurs.

Item 6 is the PCIe indicator that flashes amber if an error occurs related to PCIe card.

Icon	Description	Condition	Corrective Action
	Drive Indicator	The indicator turns solid amber if there is a drive error.	<ul style="list-style-type: none"> • Check the System Event Log to determine if the drive has an error. • Run the appropriate Online Diagnostics test. Restart the system and run embedded diagnostics (ePSA). • If the drives are configured in a RAID array, restart the system, and enter the host adapter configuration utility program.

	Temperature Indicator	The indicator turns solid amber if the system experiences a thermal error (for example, the ambient temperature is out of range, or there is a fan failure).	Ensure that none of the following conditions exist: <ul style="list-style-type: none"> • A cooling fan has been removed or has failed. • System cover, air shroud, memory module blank, or back filler bracket is removed. • Ambient temperature is too high. • External airflow is obstructed.
	Electrical Indicator	The indicator turns solid amber if the system experiences an electrical error (for example, voltage out of range, or a failed power supply unit (PSU) or voltage regulator).	Check the System Event Log or system messages for the specific issue. If it is due to a problem with the PSU, check the LED on the PSU. Reseat the PSU.
	Memory Indicator	The indicator turns solid amber if a memory error occurs.	Check the System Event Log or system messages for the location of the failed memory. Reseat the memory module.
	PCIe Indicator	The indicator turns solid amber if a PCIe card experiences an error.	Restart the system. Update any required drivers for the PCIe card. Reinstall the card.

A.2.1 iDRAC Direct LED Indicator Codes

The iDRAC Direct LED indicator lights up to indicate that the port is connected and is being used as a part of the iDRAC subsystem.

You can configure iDRAC Direct by using a USB to micro USB (type AB) cable, which you can connect to your laptop or tablet. The following table describes iDRAC Direct activity when the iDRAC Direct port is active:

Table 13: iDRAC Direct LED Indicator Codes

The iDRAC Direct LED indicator codes table describes the iDRAC status when it is solid green, flashing green, and when it is turned off.

iDRAC Direct LED Indicator Code	Condition
Solid green for two seconds.	Indicates that the laptop or tablet is connected.
Flashing green (on for two seconds and off for two seconds).	Indicates that the laptop or tablet connected is recognized.
Turns off.	Indicates that the laptop or tablet is unplugged.

A.2.1.1 iDRAC Quick Sync 2 Indicator Codes

iDRAC Quick Sync 2 module (optional) is located on the left control panel of your system.

Figure 15: iDRAC Quick Sync 2 Indicators



Table 14: iDRAC Quick Sync 2 Indicators and Descriptions

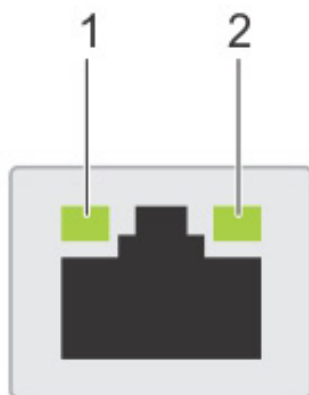
This table describes the Quick Sync status indicators. The indicator statuses are Off, which is the default state, Solid white, blinks white rapidly, blinks white slowly, blinks white five times rapidly and then turns off, solid amber, and blinking amber.

iDRAC Quick Sync 2 indicator code	Condition	Corrective action
Off (default state)	Indicates that the iDRAC Quick Sync 2 feature is turned off. Press the iDRAC Quick Sync 2 button to turn on the iDRAC Quick Sync 2 feature.	If the LED fails to turn on, reseal the left control panel flex cable and check.
Solid white	Indicates that iDRAC Quick Sync 2 is ready to communicate. Press the iDRAC Quick Sync 2 button to turn off.	If the LED fails to turn off, restart the system.
Blinks white rapidly	Indicates data transfer activity.	
Blinks white slowly	Indicates that firmware update is in progress.	
Blinks white five times rapidly and then turns off	Indicates that the iDRAC Quick Sync 2 feature is disabled.	Check if iDRAC Quick Sync 2 feature is configured to be disabled by iDRAC.
Solid amber	Indicates that the system is in fail-safe mode.	Restart the system.
Blinking amber	Indicates that the iDRAC Quick Sync 2 hardware is not responding properly.	Restart the system.

A.3 NIC Indicator Codes

Each NIC on the back of the system has indicators that provide information about the activity and link status. The activity LED indicator indicates if data is flowing through the NIC, and the link LED indicator indicates the speed of the connected network.

Figure 16:



1. Link LED indicator
2. Activity LED indicator

Table 15: NIC Indicator Codes

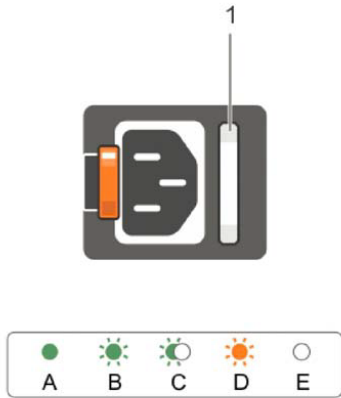
The NIC indicators table describes different NIC indicator codes and condition of the connectivity.

Status	Condition
Link and activity indicators are off.	The NIC is not connected to the network.
Link indicator is green, and activity indicator is blinking green.	The NIC is connected to a valid network at its maximum port speed and data is being sent or received.
Link indicator is amber and activity indicator is blinking green.	The NIC is connected to a valid network at less than its maximum port speed and data is being sent or received.
Link indicator is green, and activity indicator is off.	The NIC is connected to a valid network at its maximum port speed and data is not being sent or received.
Link indicator is amber and activity indicator is off.	The NIC is connected to a valid network at less than its maximum port speed and data is not being sent or received.
Link indicator is blinking green and activity is off.	NIC identify is enabled through the NIC configuration utility.

A.4 Power Supply Unit Indicator Codes

AC power supply units (PSUs) have an illuminated translucent handle that serves as an indicator. The indicator shows whether power is present or if a power fault has occurred.


Figure 17: Power Supply unit Indicators







1. AC PSU status indicator/handle.

Table 16: AC PSU Status Indicator Codes

This table describes the AC PSU status indicators and what condition is the PSU when the power indicator light is green, blinking green, blinking amber, and when it is not illuminated.

Power Indicator Codes	Condition
Green	A valid power source is connected to the PSU, and the PSU is operational.
Blinking amber	Indicates a problem with the PSU.
Not illuminated	Power is not connected to the PSU.
Blinking green	When the firmware of the PSU is being updated, the PSU handle blinks green. <div style="display: flex; align-items: flex-start;"> <div style="margin-right: 10px;">  </div> <div> <p>CAUTION: Do not disconnect the power cord or unplug the PSU when updating the firmware. If the firmware update is interrupted; the PSUs do not function.</p> </div> </div>

Blinking green and turns off	<p>When hot-plugging a PSU, the PSU handle blinks green five times at a rate of 4 Hz and turns off. This indicates a PSU mismatch concerning efficiency, feature set, health status, or supported voltage.</p> <p> CAUTION: If two PSUs are installed, both the PSUs must have the same type of label; for example, Extended Power Performance (EPP) label. Mixing PSUs from previous generations of PowerEdge servers is not supported, even if the PSUs have the same power rating. This results in a PSU mismatch condition or failure to turn the system on.</p> <p> CAUTION: When correcting a PSU mismatch, replace only the PSU with the blinking indicator. Swapping the PSU to make a matched pair can result in an error condition and unexpected system shutdown. To change from a high output configuration to a low output configuration or vice versa, you must turn off the system.</p> <p> CAUTION: AC PSUs support both 240 V and 120 V input voltages except for Titanium PSUs, which support only 240 V. When two identical PSUs receive different input voltages, they can output different wattage, and trigger a mismatch.</p> <p> CAUTION: If two PSUs are used, they must be of the same type and have the same maximum output power.</p>
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Rack Installation

This section includes the following topics:

- [Rack Installation](#)
- [Two-Post Rack Mount Parts](#)

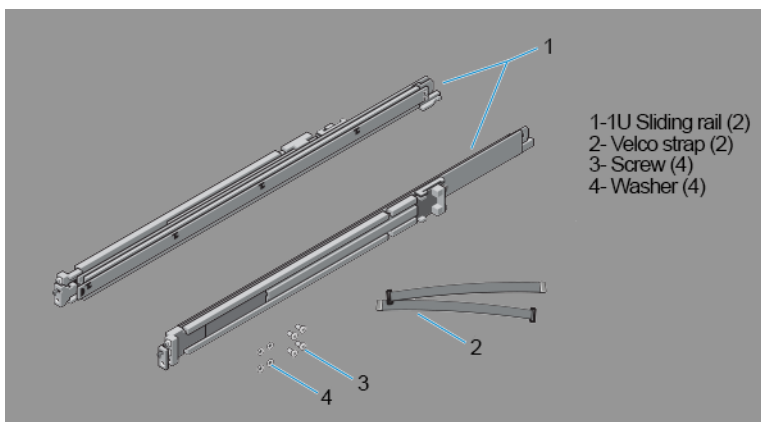
B.1 Rack Installation

Use the following steps to assemble the racking rails and attaching the components to the system.

1. Identifying the Rail Kit Contents.

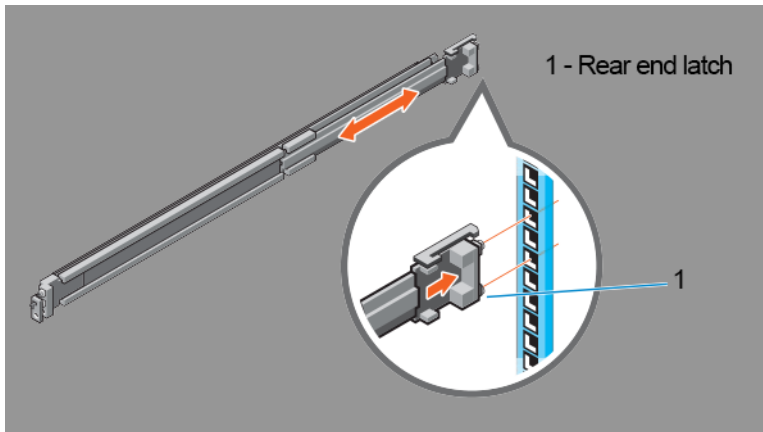
Locate the components for installing the rail kit assembly:

- Two sliding rail assemblies (1).
- Two hook and loop straps (2).



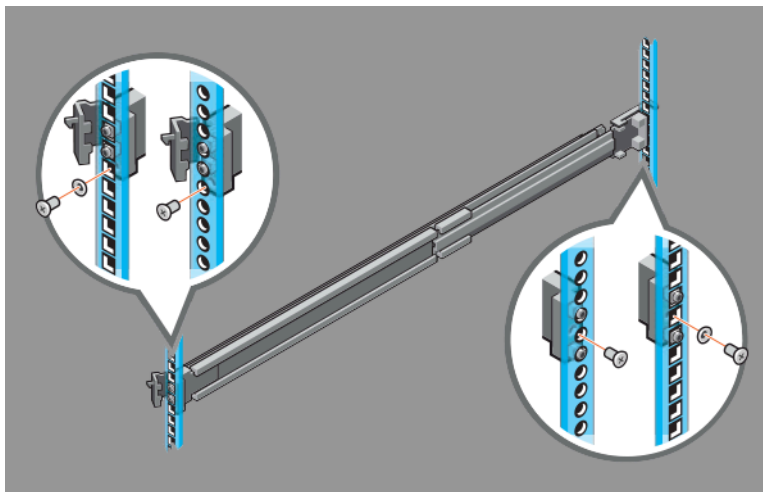
2. Installing and Removing Tool-less Rails (Square Hole or Round Hole Racks).

- a. Position the left and right rail end pieces labeled FRONT facing inward and orient each end piece to seat in the holes on the front side of the vertical rack flanges (1).
- b. Align each end piece in the bottom and top holes of the desired U spaces (2).
- c. Engage the back end of the rail until it fully seats on the vertical rack flange and the latch clicks into place. Repeat these steps to position and seat the front end piece on the vertical rack flange (3).
- d. To remove the rails, pull the latch release button on the end piece midpoint and unseat each rail (4).



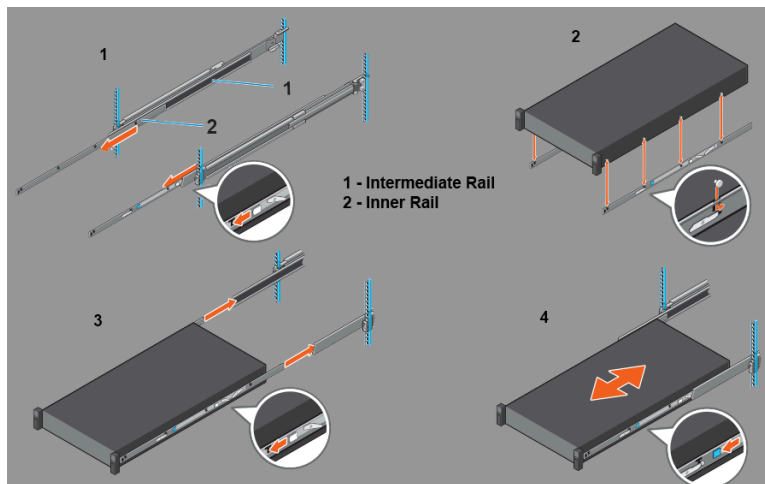
3. Installing and Removing Tooled Rails (Threaded Hole Racks).

- a. Remove the pins from the front and rear mounting brackets using a flat-tipped screwdriver (1).
- b. Pull and rotate the rail latch sub-assemblies to remove them from the mounting brackets (2).
- c. Attach the left and right mounting rails to the front vertical rack flanges using two pairs of screws (3).
- d. Slide the left and right back brackets forward against the rear vertical rack flanges and attach them using two pairs of screws (4).



4. Installing the System in a Rack.

- a. Pull the inner slide rails out of the rack until they lock into place (1).
- b. Locate the rear rail standoff on each side of the system and lower them into the rear J-slots on the slide assemblies (2).
- c. Rotate the system downward until all the rail standoffs are seated in the J-slots (3).
- d. Push the system inward until the lock levers click into place. Press the slide-release lock buttons on both rails and slide the system into the rack (4).



5. Removing the System From the Rack.

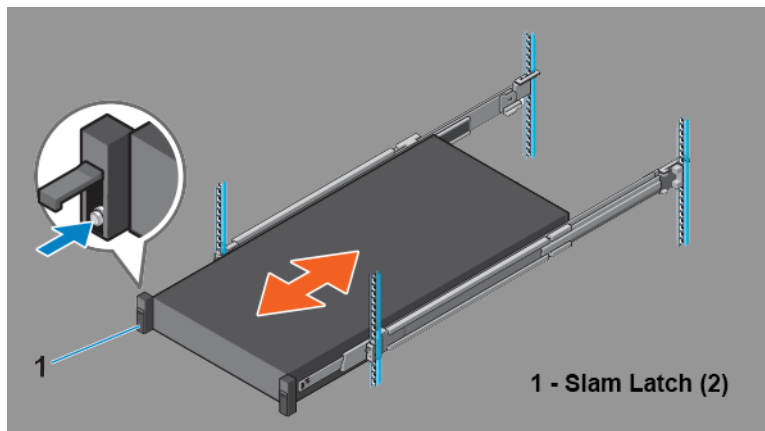
- a. Locate the lock levers on the sides of the inner rails (1).
- b. Unlock each lever by rotating it up to its release position (2).
- c. Grasp the sides of the system firmly and pull it forward until the rail standoffs are at the front of the J-slots. Lift the system up and away from the rack and place it on a level surface (3).

6. Engaging and Releasing the Slam Latch.



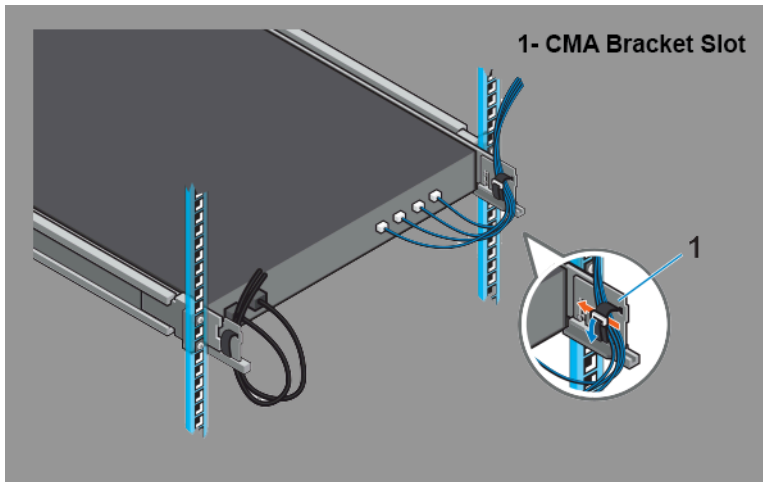
Note: For systems not equipped with slam latches, secure the system using screws, as described in Step C of this procedure.

- a. Facing the front, locate the slam latch on either side of the system (1).
- b. The latches engage automatically as the system is pushed into the rack and are released by pulling up on the latches (2).
- c. To secure the system for shipment in the rack or for other unstable environments, locate the hard-mount screw under each latch and tighten each screw with a #2 Phillips screwdriver (3).



7. Routing the Cables.

- a. Locate the outer brackets on the interior sides of both rack flanges (1).
- b. Bundle the cables gently, pulling them clear of the system connectors to the left and right sides (2).
- c. Thread the hook and loop straps through the tooled slots on the outer brackets on each side of the system to secure the cable bundles (3).

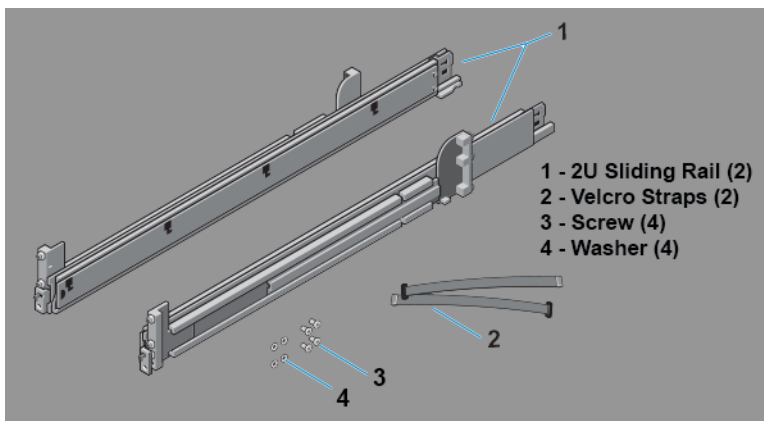


B.2 Two-Post Rack Mount Parts

The two-post rack mount kit includes:

- Two sliding rail assemblies.
- Two hook and loop straps.

Figure 18: Two-Post Rack Mount Parts



Front View of the System

This section contains the following topics:

- [Front View of the System](#)

C.1 Front View of the System

This front view displays the features available on the front panel of the CloudVision Appliance.

Figure 19: Front Panel

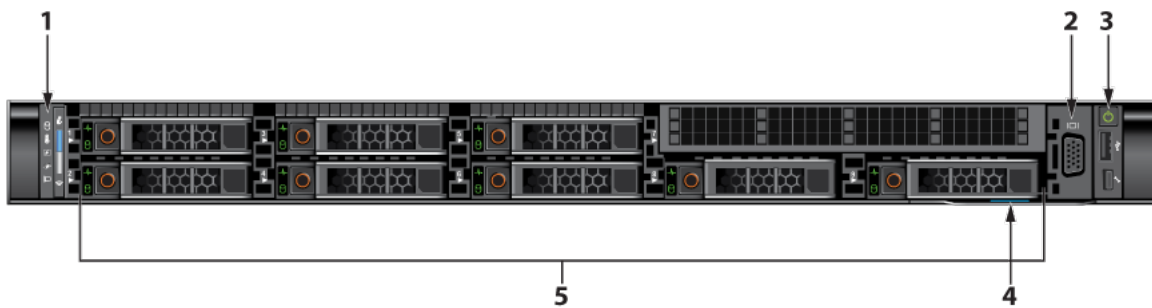



Table 17: Features Available on the Front Panel

Item	Ports, panels, and slots	Description
1	Left control panel	<p>Contains the system health and system ID, status LED, and the iDRAC Quick Sync 2 (wireless) indicator.</p> <p> Note: The iDRAC Quick Sync 2 indicator is available only on certain configurations.</p> <ul style="list-style-type: none"> • Status LED: Enables you to identify any failed hardware components. There are up to five status LEDs and an overall system health LED (Chassis health and system ID) bar. • Quick Sync 2 (wireless): Indicates a Quick Sync enabled system. The Quick Sync feature is optional. This feature allows management of the system by using mobile devices. This feature aggregates hardware or firmware inventory and various system level diagnostic and error information that can be used in troubleshooting the system.

2	VGA port	Allows you to connect a display to the system.
3	Right control panel	Contains the power button, USB port, iDRAC Direct micro port, and the iDRAC Direct status LED.
4	Information tag	A slide-out label panel which contains system information such as Service Tag, NIC, MAC address, and so on for your reference.
5	Hard drive slots	8x2.5" hard drive/SSD slots.

Rear Panel Features and Indicators

This section displays the rear panel of the CloudVision Appliance.

Figure 20: CloudVision Appliance (rear view)

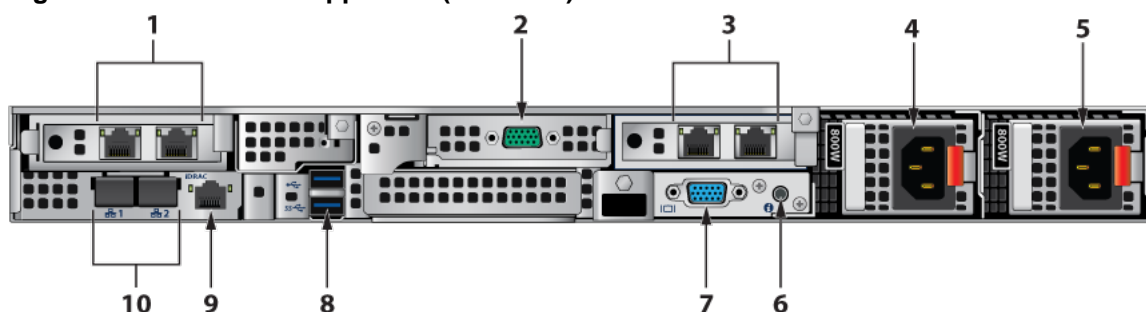


Table 18: Rear Panel Features and Indicators

Number	Indicator, Button, or Connector	Description
1	Ethernet connector 1	Integrated 1000/10000 Mbps NIC connector.
2	Serial connector	Allows you to connect a serial device to the system.
3	Ethernet connector 2	Integrated 1000/10000 Mbps NIC connector.
4	PSU1	Power supply 1
5	PSU2	Power supply 2
6	System identification button	<p>The identification buttons on the front and back panels can be used to locate a particular system within a rack. When one of these buttons is pressed, the system status indicator on the back flashes until one of the buttons is pressed again.</p> <p>Press to toggle the system ID on and off. If the system stops responding during POST, press and hold the system ID button for more than five seconds to enter BIOS progress mode.</p> <p>To reset the iDRAC (if not disabled in F2 iDRAC setup) press and hold the button for more than 15 seconds.</p>
7	Video connector	Allows you to connect a VGA display to the system.

8	USB connector	Allows you to connect USB devices to the system. The port is USB 2.0-compliant.
9	iDRAC port	Dedicated management port for the iDRAC port card.
10	Ethernet connector	Unused

Tools to Manage and Update Images for the Virtual Machine

A number of tools are available to help manage and update images and insert ISO to the Virtual Machine (VM).

This section contains the following topics:

- [Upgrade the Host Image](#)
- [Steps to Upgrade the CVA](#)
- [Redeploy CVP VM Tool](#)
- [Disk Expansion and Conversion For CloudVision VM](#)

E.1 Upgrade the Host Image

Arista provides an executable that will update all packages in the CVA.



Note: This process re-boots the entire system.

E.1.1 Single Node CloudVision Appliance

To upgrade a single node CVA, perform all the steps listed in [Steps to Upgrade the CVA](#). After the CVA host comes up, and after rebooting the system from the last step of upgrade, allow 20 minutes for the CVP application to be accessible again.

E.1.2 Multi-Node CloudVision Appliance

Perform a rolling upgrade to update the CVA systems in multi-node configuration. Perform all the steps listed in section [Steps to Upgrade the CVA](#) from the start to finish on only one of the CVAs at a time. After the upgrade, wait for all the VMs, (CVP and CVX) to be fully up and running (CVP takes 20 minutes to be up from reboot). Verify that the CVP is accessible. After the verification, proceed to upgrade the second CVA host in a similar fashion and then the third CVA.



Note: Process only one CVA upgrade at a time in a multi-node system.

E.2 Steps to Upgrade the CVA

1. Download the upgrade executable (`upgradeCva-<version>`) from <http://www.arista.com>.
2. Run the upgrade executable.

```
./upgradeCva-<version> --force
```



Note: The version can be verified after upgrade using the "version" command.

```
# version
CVA Version: 2.1.3.1
```

E.3 Redeploy CVP VM Tool

This tool allows redeployment of the CVP VM in the event:

- Something goes wrong during deployment.
- If you want to do a destructive upgrade. Use to delete the virtual CVP disks.



Note: You should backup the CVP data using CVP tool before using this method.

Complete the following steps:

1. Locate the disks and tool package (`cvp-<version>-kvm.tgz`) in the CloudVision Portal folder for your version.
(You can download the package from <https://www.arista.com>.)
2. SSH into the CV appliance Host OS.
3. **Backup** CVP data using the CVP tool as documented in the *CloudVision Configuration Guide* under *Upgrading CVP* in the subsection titled *Backup and Restore* (recommended). (<https://www.arista.com/en/support/product-documentation>.)
4. Copy `wget cvp-<version>-kvm.tgz` package into the CVA host OS under a new directory.
5. `tar -zxvf cvp-*kvm.tgz disk1.qcow2`
6. Run it as follows: `/cva/scripts/redeployCvpKvmVm.py --disk1 disk1.qcow2 [--mem <mem gb>] [--cpu <vcpu count>] [--data-size </data disk size>] [--cdrom <cvp config iso>]`

usage: `redeployCvpKvmVm.py [-h] [-c CDROM] --disk1 DISK1 [--mem MEM] [--cpu CPU] [--data-size DATA_SIZE]`

This script helps redeploy a CVP VM. After the VM is deployed, follow Setup Steps for Single Node CVP, or Setup Steps for Multi-node CVP Cluster by logging into the CVP VM console shell as `cvpadmin`.



Note: Use caution before using `redeployCvpKvmVm.py` as this will stop and restart your VM and delete all your VM disks, i.e. data. **BACKUP** your VM data prior to running this, as suggested in step 3.

E.4 Disk Expansion and Conversion For CloudVision VM

CloudVision VMs virtual disks are shipped in qcow2 format with by default, a data disk size of 1TB. For better scale and performance, it is recommended that the virtual disks be converted to raw format, and data disk expanded to a size more appropriate to the expected scale. At max scale supported today we recommend a 4.5TB /data disk.

The tool can be run as `/cva/scripts/cvaDiskUtil.py`. It supports three commands:

- **status** - Display current CloudVision VMs virtual disk information and information about the partition where the VM is placed.

Example

```
/cva/scripts/cvaDiskUtil.py [status]
```

- **makeraw** - Convert qcow2 format virtual disks in CloudVision VM to raw format.

Example

```
/cva/scripts/cvaDiskUtil.py makeraw [--quiet]
```

- **expand** - Increase size of /data virtual disk in CloudVision VM.

```
/cva/scripts/cvaDiskUtil.py expand [--disk-size DISK_SIZE] DISK_SIZE can  
be in KB, MB, GB or TB
```



Note: `makeraw` and `expand` commands will stop and start cvp VM.

Host Console Access via iDRAC

If you have a problem accessing the host externally, SSH into iDRAC and access the host console.

The console redirect to serial over SSH, use an SSH client and complete the following steps.

1. SSH into the iDRAC and login with the root user and iDRAC password. You will get a login similar to `admin->`. This indicates you are in the iDRAC SSH console.
2. Execute the following commands:

```
racadm set BIOS.SerialCommSettings.SerialComm OnConRedirAuto
racadm set BIOS.SerialCommSettings.SerialPortAddress Serial1Com2Serial2Com1
racadm jobqueue create BIOS.Setup.1-1
racadm serveraction powercycle
```

The iDRAC should now be configured to access serial console.

3. From the iDRAC SSH interface run the command below to access the serial console:

```
console com2
```

4. To return to the iDRAC interface and disconnect from the console, the default escape sequence is `^\
(CTRL+\
)`, or simply close the SSH window.

SNMP Monitoring Support

To locate the SNMP support page, go to **iDRAC Settings > Network > Services**.

Figure 21: SNMP page

The screenshot shows the iDRAC Settings interface. The left sidebar contains a navigation menu with categories like Overview, Server, Network, and Storage. The main content area is titled 'Services' and contains three sections:

- Remote RACADM:** A table with columns 'Attribute' and 'Value'.

Attribute	Value
Enabled	<input type="checkbox"/>
Max Sessions	2
Active Sessions	0
Timeout	<input type="text" value="1800"/> seconds
Port Number	<input type="text" value="23"/>
- SNMP Agent:** A table with columns 'Attribute' and 'Value'.

Attribute	Value
Enabled	<input checked="" type="checkbox"/>
SNMP Community Name	<input type="text" value="MyOwnName"/>
SNMP Protocol	<input type="radio"/> All (SNMP v1/v2/v3) <input checked="" type="radio"/> SNMP v3
SNMP Discovery Port Number	<input type="text" value="161"/>
- Automated System Recovery Agent:** A table with columns 'Attribute' and 'Value'.

Attribute	Value
Enabled	<input type="checkbox"/>

An 'Apply' button is located at the bottom right of the page.

RoHS Declaration Statements

Figure 22: Chinese RoHS Statement

用户须知
Arista Networks
产品信息（适用于中华人民共和国）

按照中华人民共和国电子行业标准 SJ/T11264-2014 《电子电气产品有害物质限制使用标识》的要求，本文档提供相关产品信息。

表 1 列出了 Arista Networks 产品（包括部件）中超出 GB/T 26572 限制的有毒有害物质或元素。

部件名称	有毒有害物质和元素 Toxic or hazardous Substances and Elements					
	铅 (Pb)	汞 (Hg)	镉 (Cd)	六价铬 (Cr6+)	多溴联苯 (PBB)	多溴联苯醚 (PBDE)
金属外壳	0	0	0	0	0	0
印刷电路板组件	X	0	0	0	0	0
紧固件	X	0	0	0	0	0
电源	X	0	0	0	0	0
安装硬件	0	0	0	0	0	0
电缆	0	0	0	0	0	0

O: 表示该部件的所有均质材料中的有毒有害物质含量低于 GB/T 26572 的限值。
X: 表示该部件的所有均质材料中至少一种有毒有害物质含量高于 GB/T 26572 的限值。

按照 GB/T 26572 的要求，Arista Networks 于中华人民共和国境内销售的所有产品均标有电子电气产品有害物质限制使用标识，以下标识适用于 Arista Networks 产品。

该标识说明，产品的某些均质材料中的有毒有害物质或元素含量超出 GB/T 26572 的限值，已于表 1 列出这些物质。

某些产品由于尺寸或功能的限制，无法进行直接标记。这些产品也符合 SJ/T11264-2014 的要求，本文包含其标识信息。



上图所示的 20 指产品的环保使用年限 (EPUP)。环保使用年限是指从生产日期开始，产品中的有毒有害物质或元素，在按照产品用户文档所述的正常使用条件下，不会发生外溢或突变、对环境造成严重污染或对人身、财产造成严重损害的年限。

注：除中华人民共和国法律强制性规定中的明确要求外，Arista Networks 不对环保使用年限做任何明示或暗示的陈述或保证，并明确表示不对环保使用年限承担任何明示或暗示的陈述或保证。

For Taiwan BSMI RoHS Table, go to <https://www.arista.com/assets/data/pdf/AristaBSMIroHS.pdf>.

