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January 09, 2025 FortiAnalyzer-BigData 7.2.5 4500G Getting Started Guide 58-725-1004753-20250109

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Introduction

The set up process in this guide consists of setting up the FortiAnalyzer-BigData unit and the Chassis Management Module (CMM).

To set up the FortiAnalyzer-BigData unit, you must perform the following steps:

- 1. Initial set up on page 5
- 2. Set up the FortiAnalyzer-BigData network on page 7
- 3. Set up Administrator accounts on page 10

Once the unit and network is set up and connected, you can connect to the Main CLI or Security Event Manager Controller. See Connect to the FortiAnalyzer-BigData CLI on page 26.

In addition to setting up FortiAnalyzer-BigData, you also need to set up the CMM. The CMM is used to remotely manage and monitor server hosts, power supplies, cooling fans, and networking switches for the FortiAnalyzer-BigData unit. The CMM comes with a web management utility that consolidates and simplifies system management for the FortiAnalyzer-BigData chassis.

Prerequisites

You must have the following before beginning to set up your FortiAnalyzer-BigData:

- Ethernet cable
- SPF RJ45 transceiver module
- · Management computer

Initial set up

To connect to the FortiAnalyzer-BigData GUI:

- 1. Install the SFP RJ45 transceiver module into one of the SFP interfaces on the FortiAnalyzer-BigData Switch Module #2.
- 2. Connect the RJ45 port on the transceiver module to the management computer using the supplied Ethernet cable.
- 3. Enable DHCP or set the management computer's IP address to be on the same subnet as FortiAnalyzer-BigData.

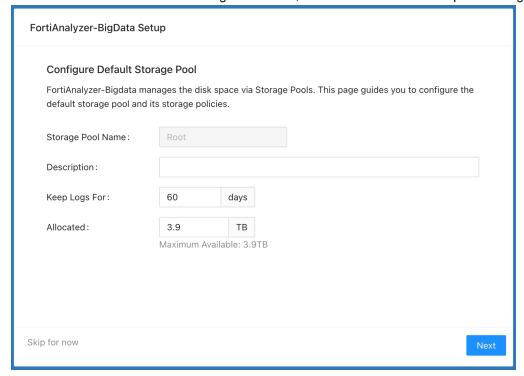
For example:

IP address: 192.168.1.10Netmask: 255.255.255.0

- 4. On the management computer, open a supported web browser and visit https://192.168.1.98.
- **5.** Log in with the username admin and no password. The FortiAnalyzer-BigData GUI loads.

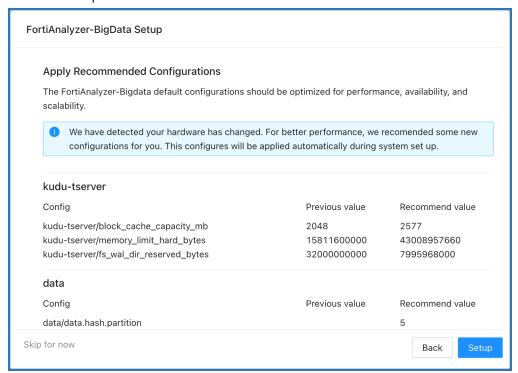
To set up the system via the FortiAnalyzer-BigData Setup wizard:

- 1. Configure the default (Root) Storage Pool.
 - Modify the Keep Logs For days, or use the default value.
 - Modify the Allocated space, or use the default value to use the entire disk space.
 - You are able to create more Storage Pools later, if needed. You can create up to 5 Storage Pools.

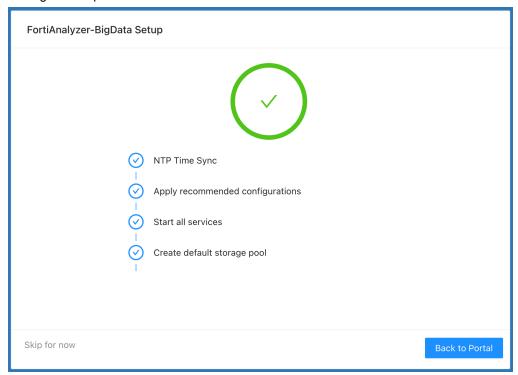


- 2. Click Next.
- 3. Apply the recommended configurations.

• In this step, the system automatically adjusts the optimized configurations to adapt to the underlying hardware spec.



- 4. Click Setup to begin the initial setup process.
 - The system will perform the necessary setup steps and start all services. After it is complete, you can log into the portal. See below.



Set up the FortiAnalyzer-BigData network

To set up the network for FortiAnalyzer-BigData 4500G, connect a 10GE link with SFP, a 40GE link with QSFP, or a 100GE link with QSFP28 from Switch Module #2 to your public access switch, and then set up the external IP address via the FortiAnalyzer-BigData GUI or CLI. This setup requires two IPs from the same subnet for logging (Main Host) and management (Security Event Manager) access.

If *Dedicated* Main Host or Blade External IP is not enabled (by default), connect the QSFP28 link to one of the CX1 - CX3 ports on Switch Module #2 (highlighted in red below) for all external traffic.



Enable *Dedicated* on Main Host or Blade External to bind the IP to a separate subnet from the Management IP, segregating the log traffic from the Management. See How to segregate the log traffic from the management traffic on page 8.

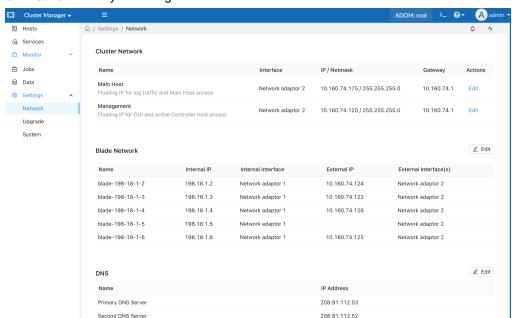
If Dedicated Main Host or Blade External IP is enabled,

- For management traffic network, connect the QSFP28 link to one of the CX1 CX3 ports on Switch Module #2 (see red highlight in the image below).
- For log traffic network, connect the QSFP28 link to one of the CX4 CX6 on Switch Module #2 (see blue highlight in the image below).



To set up the network via the GUI for FortiAnalyzer-BigData 4500G:

- 1. From the FortiAnalyzer-BigData web GUI, go to System Settings > Network.
- 2. In *Cluster Network* section, edit the Main Host IP Address/Netmask and Gateway fields to your internal network.
 - This is the address of the FortiAnalyzer-BigData Main host, which is responsible for collecting the log and serving the services for FortiView, LogView, Reports, and so on.
- 3. In *Cluster Network* section, edit the Management IP Address/Netmask and Gateway fields to your internal network.
 - This is the address of the FortiAnalyzer-BigData Security Event Manager, which is responsible for serving the web GUI and performs various data processing and management workload.



4. Click Save to save your changes.

To set up the network via the CLI for FortiAnalyzer-BigData 4500G:

- 1. Access the Controller. See Connect to the FortiAnalyzer-BigData CLI on page 26.
- 2. To configure the Management IP Address, use the following command:

```
fazbdctl set addr {ip/mask} {gateway} --management

For example, enter fazbdctl set addr 10.160.74.175/24 10.160.74.1 --management
```

This is the address of the FortiAnalyzer-BigData Security Event Manager, which is responsible for serving the web GUI and performs various data processing and management workload.

3. To configure the main host IP address, use the following command:

```
fazbdctl set addr {ip/mask} {gateway} --mainhost
For example, enter fazbdctl set addr 10.160.74.174/24 10.160.74.1 --mainhost
```

This is the address of the FortiAnalyzer-BigData Main host, which is responsible for collecting the log and serving the services for FortiView, LogView, Reports, and so on.

How to segregate the log traffic from the management traffic

Enable *Dedicated* on Main Host or Blade External to bind the IP to a separate subnet from the Management IP, segregating the log traffic from the Management. The Switch and OS reserve a VLAN with ID 999 and have the ports pre-configured with the VLAN to allow *Dedicated* to be enabled for network segregation purposes. By default, *Dedicated* is disabled on Main Host and Blade External IPs.

To enable Dedicated on Main Host for log traffic via the GUI:

1. Make sure the QSFP28 link from the log traffic source to one of the CX4 - CX6 on Switch Module #2 is connected.

- 2. Go to System Settings > Network, click Edit "Main Host" in Cluster Network.
- 3. Enable Dedicated and update the network settings for log traffic in your segregated subnet.
- 4. Click Save to apply the settings.

To enable *Dedicated* on Main Host for log traffic via the CLI:

- 1. Make sure the QSFP28 link from the log traffic source to one of the CX4 CX6 on Switch Module #2 is connected.
- 2. Access the Controller. See Connect to the FortiAnalyzer-BigData CLI on page 26.
- 3. To configure the main host IP address through dedicated interface, use the following command:

```
fazbdctl set addr {ip/mask} {gateway} --mainhost -v
```

To enable Dedicated on Main Host for Hyperscale log traffic via the GUI:

- 1. Make sure the QSFP28 link from the log traffic source to one of the CX4 CX6 on Switch Module #2 is connected.
- **2.** Go to System Settings > Network, click Edit "Blade Network" in Cluster Network.
- 3. Enable Dedicated and update the network settings for Hyperscale log traffic in your segregated subnet.
- Click Save to apply the settings.
 For the Management traffic, CX1 CX3 ports on Switch Module #2 should remain connected.

To enable Dedicated on Main Host for Hyperscale log traffic via the CLI:

- 1. Make sure the QSFP28 link from the log traffic source to one of the CX4 CX6 on Switch Module #2 is connected.
- 2. Access the Controller. See Connect to the FortiAnalyzer-BigData CLI on page 26.
- **3.** To configure the blade IP address through dedicated interface, use the following command:

```
fazbdctl set addr {ip/mask} {gateway} -v
```

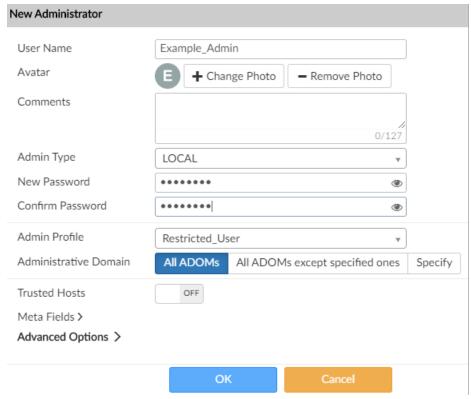
For the Management traffic, CX1 - CX3 ports on Switch Module #2 should remain connected.

Set up Administrator accounts

Set up an administrator account so you can configure your FortiAnalyzer-BigData.

To set up an Administrator account:

- 1. Go to System Settings > Admin > Administrators, and click Create New in the toolbar.
- 2. In the *User Name* field, enter a new name for your administrator.
- 3. In the New Password and Confirm Password fields, enter the password for the administrator account.



4. Click OK to save.

Connect to the Chassis Management Module

The Chassis Management Module (CMM) is used to remotely manage and monitor server hosts, power supplies, cooling fans, and networking switches. The CMM comes with a web management utility that consolidates and simplifies system management for the FortiAnalyzer-BigData chassis. This setup requires 15 IPs from the same subnet: 1 CMM IP and 14 Blade IPMI IPs, and addition two IPs for two switch modules' management GUI if needed.



The CMM is the module in the middle of the back panel for both the 4500F and 4500G unit; however, there are some differences in the CMM GUI between the two appliances. Proceed with instructions according to your appliance. See the appropriate FortiAnalyzer-BigData Getting Started Guide on the Fortinet Document Library.

Set up the CMM network

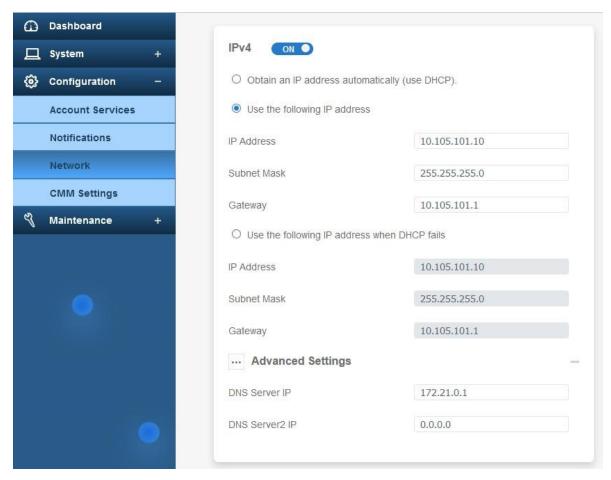
To set up CMM network via 4500G CMM GUI:

- 1. Connect a 10GE link from the CMM module (the module in the middle of the back panel) to your public access switch, and set up the external IP address via the CMM web management utility.
- 2. Connect the port on the CMM Module to a management computer using the supplied Ethernet cable
- **3.** Set the management computer's IP and subnet to be on the same subnet as FortiAnalyzer-BigData: For example:
 - Static IP Address: 192.168.100.101
 - Subnet Mask: 255.255.255.0
- **4.** On the management computer, open a supported web browser and visit https://192.168.100.100 (the default CMM IP).
- 5. Log in with the default username and password on the Fortinet Product Credentials card.

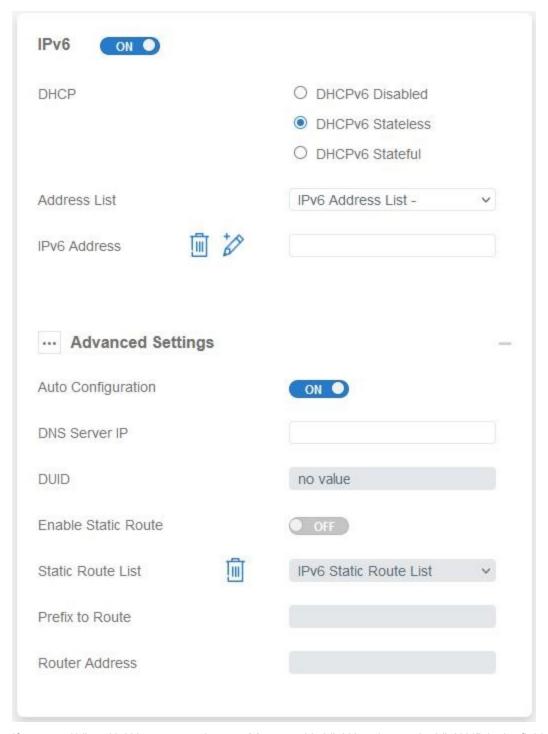


Changing the default password is strongly recommended. See Configure the CMM password on page 15.

- **6.** Go to *Configuration > CMM Network* to configure the CMM network.
- 7. Select a radio button option for how you want to obtain at IPv4 address.
 - Obtain an IP address automatically: Uses DHCP to automatically obtain the IP address.
 - Use the following IP address: Set up the IP address by manually entering the IP information into the fields below.
 - Use the following IP address when DHCP fails: If CMM is unable to obtain the dynamic IP from the DHCP server, it will use the static IP instead. This is the default setting.
 - DNS Server IP: If DNS server is available, set its IP.

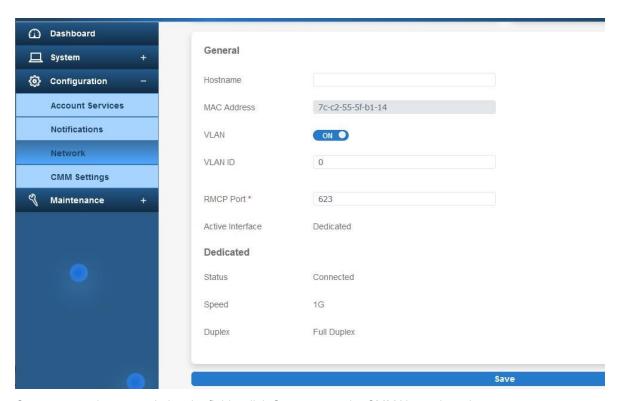


8. You can also enter your IPv6 information when IPv6 is preferable and available.



- 9. If you need Virtual LAN support, select **enable** to enable VLAN and enter the VLAN ID in the field.
- **10.** In the RMCP Port field, enter the desired Remote Mail Checking Protocol (RMCP) port based on your configuration.

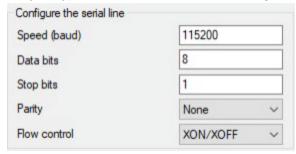
The default port is 623.



11. Once you are done completing the fields, click Save to save the CMM Network settings.

To set up CMM network via CLI:

- 1. Using a USB-to-RJ45 serial adapter, connect a management computer to the serial port on the CMM module.
- **2.** Establish a serial connection to the CMM from the management computer using a serial terminal such as Putty or Hyper Terminal, and enter the following configuration.



3. Using the CMM CLI commands, set up IP addresses on the management port. Example settings:

```
SET IP 10.100.100.099
SET NETMASK 255.255.255.0
SET GATEWAY 10.100.100.1
SET DHCP DISABLE
APPLY SETTING
```

CMM CLI Commands	Description
HELP	Print help.
RESET	Reset CMM.
DEFAULTRESET	Reset CMM to default.
VER	Show CMM FW VER.
PASSWORDRESET	Reset password.
GET LAN INFO	Get network info.
SET IP xxx.xxx.xxx	Set IP address.
SET NETMASK xxx.xxx.xxx	Set netmask address.
SET GATEWAY xxx.xxx.xxx	Set gateway address.
SET MAC xx:xx:xx:xx:xx	Set MAC address.
SET DHCP ENABLE	Set DHCP enable.
SET DHCP DISABLE	Set DHCP disable.
SET DHCP FAILOVER	Set DHCP fails, then use manual configuration.
APPLY SETTING	Apply network setting.

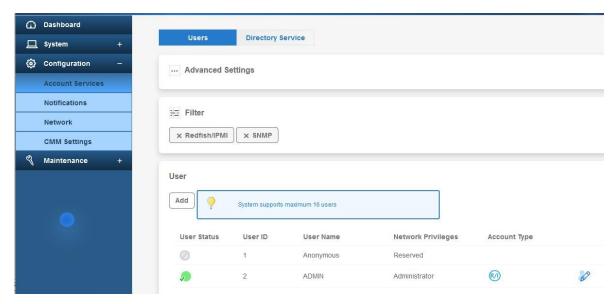
- **4.** Verify the network setup with the GET LAN INFO command.
- **5.** Verify that the web management utility can be accessed from a web browser.

Configure the CMM password

You can configure the CMM password via the GUI or CLI.

To change the CMM password via GUI:

- 1. From a web browser, access the web management utility using the CMM IP address.
- 2. Log in with the admin username and password.
- **3.** Go to Configuration > Account Services.
- 4. Select the ADMIN row and click Modify User.



5. In the Modify User dialog, click Select icon to change password to change the password.



6. Click Save when done.

To reset the CMM password via CLI:

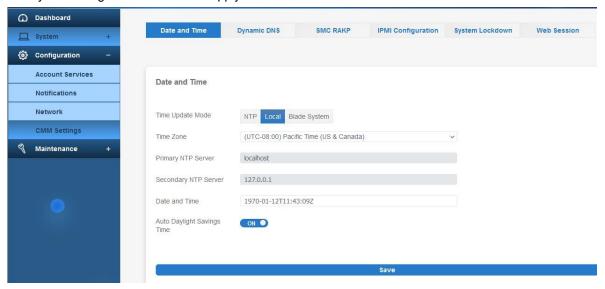
- 1. Using a USB-to-RJ45 serial adapter, connect a management computer to the serial port on the CMM module.
- 2. Establish a serial connection to the CMM from the management computer using a serial terminal such as Putty or Hyper Terminal.
- 3. Use the PASSWORDRESET command to reset the password to the default password.

Configure the CMM date and time

You can configure the CMM date and time via the GUI.

To change the CMM date and time via GUI:

- 1. From a web browser, access the web management utility using the CMM IP address.
- 2. Log in with the admin username and password.
- **3.** Go to Configuration > CMM Setting > Date and Time.
- 4. Modify the settings and click Save to apply.



Configure the Blade Management Network

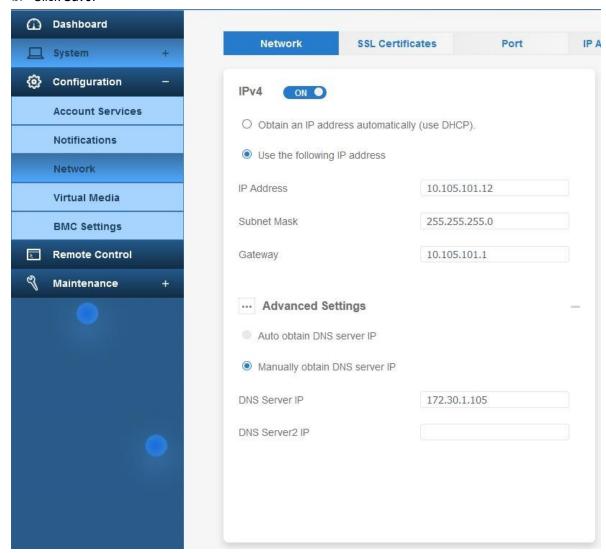


The Blade Management Network should be in the same subnet as Chassis Management Network. See Set up the CMM network on page 11.

To configure the Blade Management Network for a single blade:

- 1. From a web browser, access the web management utility using the CMM IP address.
- 2. Go to *Blade System > Blade Status*, and click any blade you would like to set up the Blade Management network.
- 3. In the Blade Configuration view, click Network.
- 4. Configure the IPv4 Setting:
 - a. Enter the IP Address, Subnet Mask, Gateway and DNS Service IP.

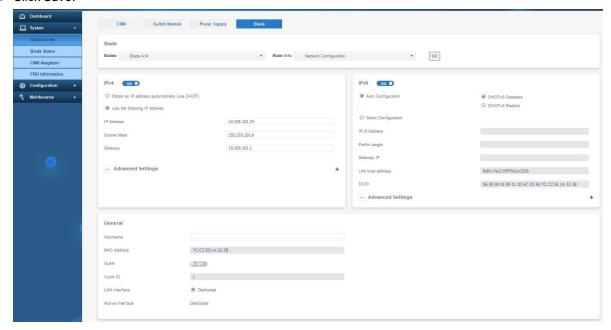
b. Click Save.



To configure the Blade Management Network for all blades at once:

- 1. From a web browser, access the web management utility using the CMM IP address.
- 2. Go to System > Chassis Info > Blade.
- 3. Select individual Blade and Network Configuration.
- 4. Click GO. This enables you to modify the Blade Management Controller (BMC) networks.

5. Click Save.



Remotely control blades via CMM

The CMM web management utility can perform various remote operations on the chassis, such as remote console and power control. This can be used for running diagnostic tasks on individual blades. It also allows the administrator to remotely control the FortiAnalyzer-BigData via CLIs if the management IP resets after a software hard reset. For more information, see the FortiAnalyzer-BigData Administration Guide on the Fortient Document Library.

To access the Security Event Manager Controller:

- 1. Go to Blade System > Summary and select Blade A2.
- 2. To enter the BMC for the Security Event Manager Controller, click the *BMC IPV4* link. The default login credentials are on the Fortinet Product Credentials card.
- 3. Go to Remote Control > Console Redirection or iKVM/HTML5.
- **4.** Log in with username root and password fortinet@123.

 You can now access the Security Event Manager Controller and use fazbdctl CLI commands to manage the cluster.



You can use the CMM web management utility to remotely access and control the other blades by following the general steps.

You can also use the utility to remotely access the FortiAnalyzer-BigData Bootloader. For more information, see the FortiAnalyzer-BigData Administration Guide on the Fortinet Document Library.

Configure the BMC password

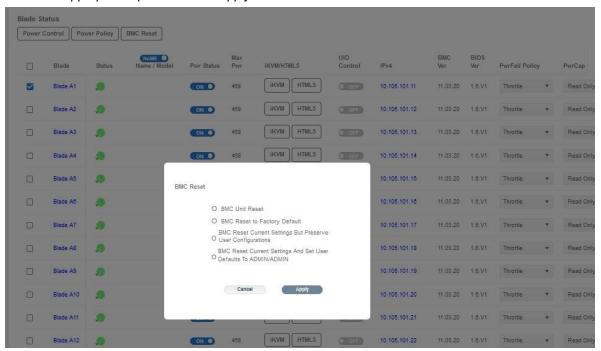
You can configure the BMC password via the CMM.

To change the BMC password via the CMM:

- 1. From a web browser, access the web management utility using the CMM IP address.
- 2. Log in with the admin username and password.
- 3. Go to System > Blade Status.
- 4. Select the blade you want to change, for example, Blade A1.
- **5.** To enter the BMC for the FortiAnalyzer-BigData main host, click the *BMC IPV4* link. The default login credentials are on the Fortinet Product Credentials card.
- 6. Go to Configuration > Account Services.
- 7. Select the ADMIN row and click Modify User.
- 8. Click the Change Password checkbox, change the password, and click Modify.

To reset the BMC password via CMM:

- 1. From a web browser, access the web management utility using the CMM IP address.
- 2. Log in with the admin username and password.
- 3. Go to Blade Status and select the blade you want to change, for example, Blade A1.
- 4. Click BMC Reset.
- **5.** Select the appropriate option and click *Apply*.



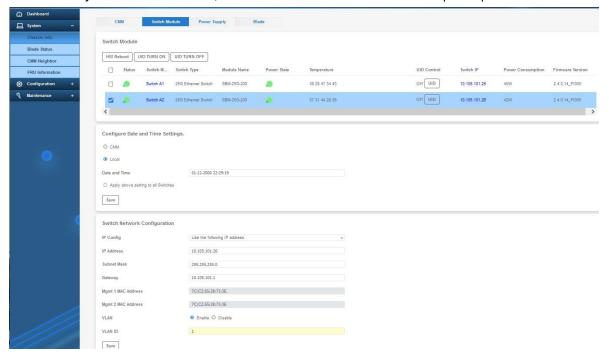
Turn off STP BPDU



The following configuration is optional.

To turn off STP BPDU:

- 1. Connect to the Chassis Management Module.
- 2. Go to Blade System > Switch Module, and click Switch A2. The Switch Module pane opens.



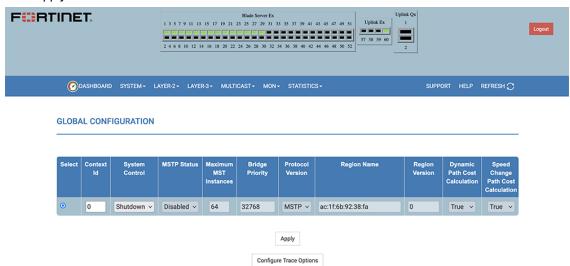


The default *Username* and *Password* are both ADMIN.

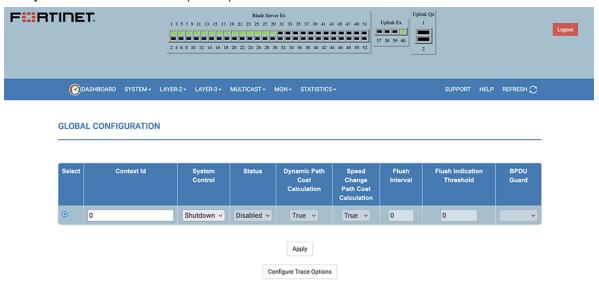
For security purposes, we recommend changing the *Username* and *Password*.

- 3. Under Switch Network Configuration, in the IP Addess field, enter the IP address, and click Save.
- **4.** Under *Switch Information*, click the *Management IP* column, and enter the management web GUI for *Switch A2*.
- **5.** Go to Layer-2 > MSTP > Basic Settings.
 - a. Set MSTP Status" to Disabled.
 - **b.** Set System Control to Shutdown.

c. Click Apply.



- **6.** Go to Layer-2 > RSTP > Global Settings, and confirm:
 - · Status is Disabled
 - System Control is Shutdown (default)



Configure LACP



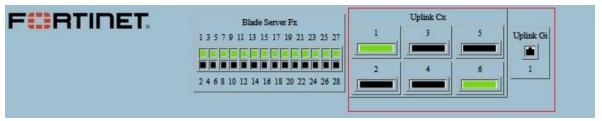
The following configuration is optional.

To configure port channel on the FortiAnalyzer-BigData switch module:

1. In CMM, go to *Switch Module* and click the Management IP of Switch A2 to log into the switch web-based management utility.



2. In the switch web-based management utility, the switch ports are displayed in home page. The switch external ports are Cx0/1 to Cx0/6, and Gi0/1. Mouse over the port to get the port name.



3. To complete the next steps, you will use the pages for port channel configurations under LAYER-2 > LA.



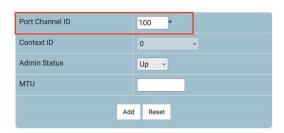
- **4.** In *LA Basic Settings*, verify the following:
 - System Control is Start
 - · LA Status is Enabled

LA BASIC SETTINGS



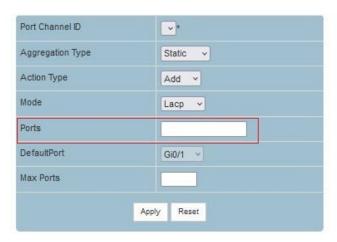
5. In LA Interface Settings, input Port Channel ID, and click Add.

PORTCHANNEL INTERFACE BASIC SETTINGS

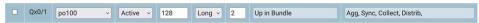


6. In LA Port Channel Settings, input member ports in Ports, and click Apply.

LA PORT CHANNEL SETTINGS



7. In *LA Port Settings*, verify that the member port is assigned to the port channel and the *Mode* is *Active*. *Port State* should be changed to *Up in Bundle* after the port link comes up.



8. In *LA Interface Settings*, the port channel *Oper State* will become *Up* after at least one member port link comes up.



9. Go to Dashboard, and then click Save Config to save the configuration.



Connect to the FortiAnalyzer-BigData CLI

After configuring the FortiAnalyzer-BigData network, you can use the IP addresses to access the FortiAnalyzer-BigData Main CLI or the Security Event Manager Controller and manage the system.

To connect to the FortiAnalyzer-BigData Main CLI:

- **1.** Establish an SSH connection to the *Main Host* IP you configured in the set up process. See Initial set up on page 5.
- 2. Log in using the administrator credentials you created in Set up Administrator accounts on page 10.

 If you did not create a new administrator credential, use the default credentials of username admin with no password.

To connect to the Security Event Manager Controller:

1. Establish an SSH connection to the Cluster Management IP you configured in Initial set up on page 5.



If the Cluster Management IP is not reachable, you can SSH to the Main CLI first (see To connect to the FortiAnalyzer-BigData Main CLI: on page 26) and then SSH to the Controller host or any of the cluster hosts using its internal IP. For example, to SSH to the Controller host, use exec ssh root@198.18.1.2.

The IP it is in can be determined by this format: 198.18. {chassis_id}. {blade id} where 198.18* is the default internal subnet.

- 2. Log in using the default username root and password fortinet@123.
- **3.** After establishing a connection, you can use the fazbdctl CLI commands to manage the cluster. For more information, see the FortiAnalyzer-BigData CLI Reference on the Fortinet Doc Library.



Fortinet strongly recommends that you update the password with the fazbdctl set password command.

Change Log

Date	Change Description
2024-03-06	Initial document release.



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