Deploy the ExtraHop Discover 9200 Appliance

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This guide explains how to install the rack-mounted EDA 9200 ExtraHop Discover appliance.

Installation prerequisites

To install the Discover appliance, your environment must meet the following requirements:

Appliance

2U of rack space and electrical connections for 2 x 750 W power supplies.

Management

One 10/100/1000 BASE-T network port or one 10G BASE-SR port for appliance management.

Monitoring (capture)

High performance interfaces: One to four network ports for connection to 25 GbE or 10 GbE sources of packet data.
Management + monitoring interfaces: One to three network ports for connection to 1 GbE sources of packet data.

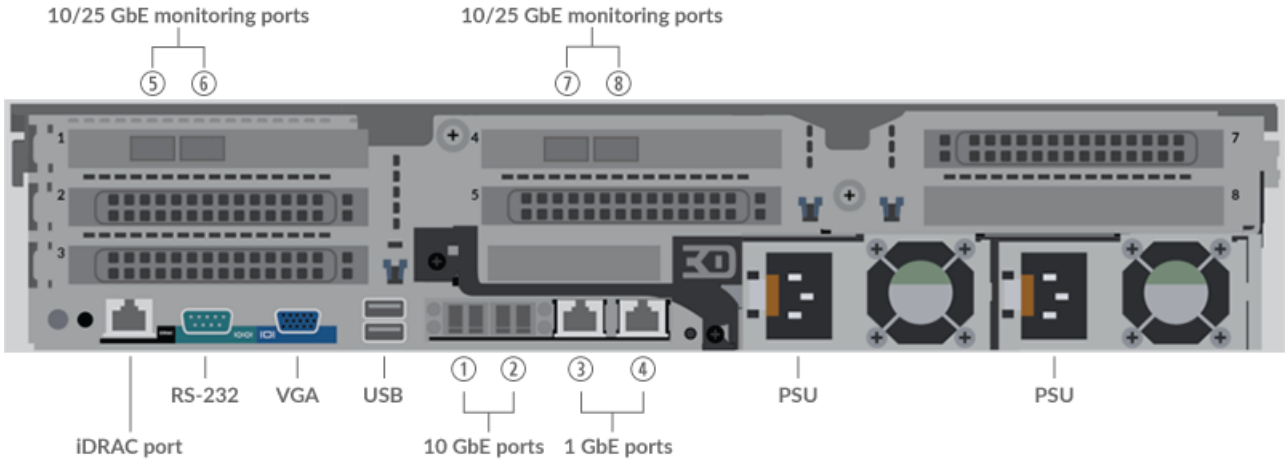
Network Access

Ensure that administrators can access the Administration settings on the Discover appliance over TCP port 443.

For more information about the interfaces on the ExtraHop appliance, see the Appliance Hardware FAQ.

Rear panel ports

EDA 9200



- One iDRAC interface port
- One RS-232 serial port to connect a console device
- One VGA port to connect an external display
- Two USB 3.0 ports to connect input devices such as a keyboard and mouse
- Two power ports to connect the appliance to an AC power source

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- Two 10 GbE ports. Ports 1 and 2 can be configured as a management port, management and flow target, or management and RPCAP/ERSPAN/VXLAN target.

  While 10 GbE management + capture interfaces on the EDA 10200, EDA 9200, and ETA 8250 can conduct management functions at 10 Gbps speeds, processing traffic such as ERSPAN is limited to 1 Gbps.

  Tip: In environments with asymmetric routing adjacent to the high-performance interfaces, ping replies might not get back to the sender.
- Two 10/100/1000 BASE-T network ports. Port 3 is the primary management port.
- Four 25 GbE-capable ports on two network adapters. Ports 5 - 8 are the high-performance monitoring (capture) interfaces.

Supported packet source connectivity

The Discover 9200 can accept packets through ports 1 - 8. The ports can be connected according to the table below.

Discover 9200 Appliance Connector	Peer Connector for Packet Source	Customer-Supplied Cabling	Supported Operating Speeds
Transceiver-based Connectivity			
25 GbE SFP28 SR transceiver	25 GbE SFP28 SR transceiver	Multi-mode fiber LC connectors	25 Gbps, 10 Gbps
	10 GbE SFP+ SR transceiver	Multi-mode fiber LC connectors	10 Gbps
Direct Attach Connectivity			
Customer-supplied SFP28 DAC cable, such as the Mellanox MCP2M00-Axxx series			25 Gpbs
Customer-supplied RJ45 Ethernet cable			1 Gpbs

Traffic distribution guidelines

- Packets from the same flow should be received on the same interface, or on interfaces of the same network interface card (NIC).
- The ingest on each NIC should not exceed 75% of the rated analysis throughput for the appliance to ensure that traffic is balanced across system resources.
- If your data feed does not require both interfaces on the NIC, disable the unconfigured interfaces in the Administration settings. For example, configure the EDA 10200 with a single interface to ingest 50 Gbps on each NIC port. Disable the extraneous ports on each NIC. This configuration optimizes performance for 100 Gbps.
- A single high-performance ERSPAN target is expected to process 20 to 30 Gbps. On larger appliances, distribute ERSPAN traffic to more interfaces to scale traffic ingest.

Set up the appliance

1. Rack mount the Discover appliance.

   Install the Discover appliance in your data center with the included rack-mounting kit. The mounting kit supports most four-post racks with either round or square holes.

Orient the hardware to ensure proper airflow. The cold air intake is through the front of the appliance.

2. Connect port 3 to your management network.

   The EDA 9200 appliance has two 10/100/1000 BASE-T network ports. With a network patch cable, connect the management port on the Discover appliance to your management network. Port 3 is the default management port on the EDA 9200.

3. Connect the monitoring port.

   Important: If your deployment includes a Command appliance or Reveal(x) 360, the following workflow ensures the best performance for initial device synchronization. First, connect all sensors to the Command appliance or Reveal(x) 360, then configure network traffic forwarding to the sensors.

   With the appropriate network cable, connect a monitoring port on the Discover appliance to a network tap or mirror port on the switch. When configuring multiple high-performance monitoring ports, make sure that the transceivers are balanced across adapters. For example, with two transceivers, connect the cable to the transceivers on port 5 and port 7.

   Note: The link lights on the monitoring interface ports do not illuminate until you register the appliance with your product key.

4. Optional: Connect the iDRAC port.

   To enable remote management of the Discover appliance, connect your management network to the iDRAC port with a network patch cable.

5. Install the front bezel.

   You must install the front bezel if you want to configure the appliance through the LCD display.

   Insert the USB connector on the right side of the bezel into the USB port on the front of the appliance. Press and hold the release button on the left end of the bezel and push the bezel flush with the appliance until it snaps into place.

6. Connect the power cords.

   Connect the two supplied power cords to the power supplies on the back of the appliance, and then plug the cords into a power outlet. If the appliance does not power on automatically, press the power button on the front-right of the appliance.

Configure the management IP address

DHCP is enabled by default on the ExtraHop system. When you power on the system, interface 3 attempts to acquire an IP address through DHCP. If successful, the IP address appears on the home screen of the LCD.

If your network does not support DHCP, you can configure a static IP address through the LCD menu on the front panel or through the command-line interface (CLI).

Important: For deployments that include a Discover appliance that is connected to a Command appliance, we strongly recommend configuring a unique hostname. If the IP address on the sensor is changed, the Command appliance can re-establish connection easily to the sensor by hostname.

Configure a static IP address through the LCD

Complete the following steps to manually configure an IP address through the front panel LCD controls.

1. Make sure that the default management interface is connected to the network and the link status is active.
2. Press the select button (#) to begin.
3. Press the down arrow button to select `Network`, and then press the select button.

4. Press the down arrow to DHCP and then press the select button.
5. Press the down arrow to select No, and then press the select button to disable DHCP.
6. Press the down arrow to select Set static IP, and then press the select button.
7. Press the left or right arrows to select the first digit to change, and then press the up or down arrows to change the digit to the desired number. Repeat this step for each digit you need to change. After you configure the desired IP address, press the select button.
8. On the Network mask screen, press the left or right arrows to select the first digit to change, and then press the up or down arrows to change the digit to the desired number. Repeat this step for each digit you need to change. After you configure the desired network mask, press the select button.
9. On the Default gateway screen, press the left or right arrows to select the first digit to change, and then press the up or down arrows to change the digit to the desired number. Repeat this step for each digit you need to change. After you configure the desired default gateway, press the select button.
10. Confirm your modified network settings on the Settings saved screen, and then press any button to return to the Network Menu.

    Note: Each address is preceded by a letter that identifies whether it is the system IP address (I), the gateway address (G), or the netmask (N).

11. Press the down arrow and scroll to Set DNS servers, and then press the select button.
12. Press the left or right arrows on the DNS1 screen to select the first digit to change, and then press the up or down arrows to change the digit to the desired number. Repeat this step for each digit you need to change, and then press the select button to continue to the DNS2 screen.
13. Configure a second DNS server.
14. Confirm the DNS settings on the Settings saved screen, and then press any button to return to the Network Menu.
15. Press the down arrow twice until ← Back appears, and then press the select button.
16. Press the down arrow twice to select iDRAC. Configure the iDRAC DHCP, IP, mask, gateway, and DNS in the same manner as the IP address.
17. Press the X button to return to the main menu.

Configure an IP address through the CLI

You can access the CLI by connecting a USB keyboard and SVGA monitor to the system or through an RS-232 serial cable and a terminal-emulator program. The terminal emulator must be set to 115200 bps with 8 data bits, no parity, 1 stop bit (8N1), and hardware flow control should be disabled.

1. Establish a connection to the ExtraHop system.
2. At the login prompt, type `shell` and then press ENTER.
3. At the password prompt, type the system serial number and then press ENTER. The serial number is printed on a label on the back of the appliance. The serial number can also be found on the LCD display on the front of the appliance in the Info section.
4. Enable privileged commands:

```
enable
```

5. At the password prompt, type the serial number, and then press ENTER.
6. Enter configuration mode:

```
configure
```

7. Enter the interface configuration mode:

```
interface
```

8. Run the ip command and specify the IP address and DNS settings in the following format: `ip ipaddr <ip_address> <netmask> <gateway> <dns_server>`

For example:

```
ip ipaddr 10.10.2.14 255.255.0.0 10.10.1.253 10.10.1.254
```

9. Leave the interface configuration section:

```
exit
```

10. Save the running config file:

```
running_config save
```

11. Type y and then press ENTER.

(Optional) Configure the 10 GbE management interface

You can configure a 10 GbE port (port 1 or port 2) to manage the system. The commands below move the settings from port 3 to port 1 and then disables port 3. Alternatively, you can configure the 10 GbE management interface in the Administration settings.

1. Make sure that the port 1 is connected to the 10 GbE network.
2. Establish an SSH connection to the ExtraHop system.
3. At the login prompt, type `shell` and then press ENTER.
4. At the password prompt, type the system serial number and then press ENTER. The serial number is printed on a label on the back of the appliance. The serial number can also be found on the LCD display on the front of the appliance in the `Info` section.
5. Enable privileged commands:

```
enable
```

6. At the password prompt, type the serial number, and then press ENTER.
7. Enter configuration mode:

```
configure
```

8. Enter the interface configuration mode:

```
interface 1
```

9. Move the interface settings:

Warning: This command overwrites the settings for Interface 1 with the settings from Interface 3. The current settings for Interface 1 will be lost and Interface 3 will be disabled.

```
take_settings 3
```

10. Type Y to proceed and then press ENTER.

Configure the Discover appliance

After you configure an IP address for the Discover appliance, open a web browser and navigate to the ExtraHop system through the configured IP address. Accept the license agreement and then log in with the `setup` user account. The password is the system serial number that appears in the `Info` section of the LCD display and on the label on the back of the appliance. Enter the product key to license the system.

After the system is licensed, and you have verified that traffic is detected, complete the recommended procedures in the post-deployment checklist.