

Deploy the EXA 5200 recordstore

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This guide explains how to install the rack-mounted EXA 5200 recordstore.

Installation prerequisites

To install the recordstore, your environment must meet the following requirements:

Recordstore

2U of rack space and 2x750W of power

Management

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

Network Access

TCP port 443 must be open between:

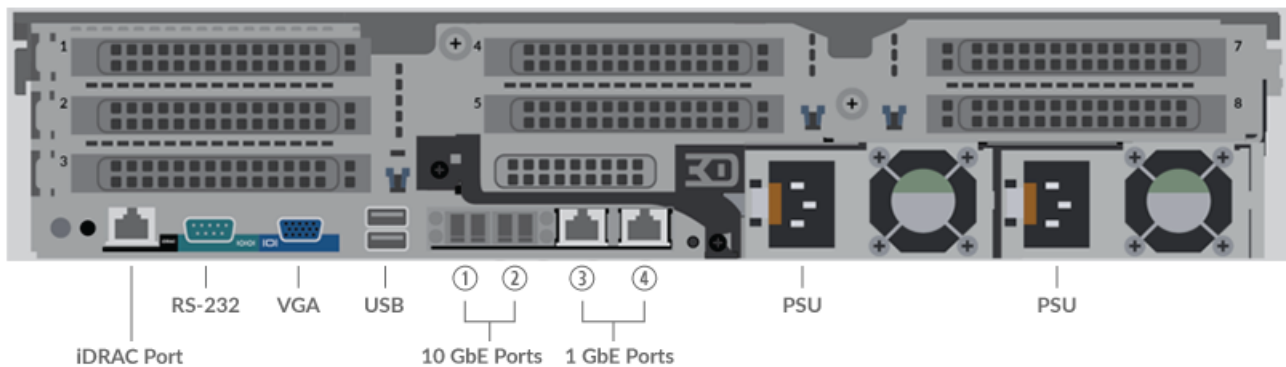
- the recordstore and any connected sensors and consoles
- data nodes and manager nodes
- any system that connects to the recordstore for administration

TCP port 9443 must be open to enable recordstore nodes to communicate within the same cluster.

For more information about the interfaces on the ExtraHop system, see the [ExtraHop Hardware FAQ](#).

Rear panel ports

EXA 5200



- One iDRAC 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 10 GbE ports. Ports 1 and 2 can be configured as a management port.
- Two 10/100/1000 BASE-T network ports. Port 3 is the primary management port.
- Two power ports to connect the recordstore to an AC power source


Set up the recordstore

1. Rack mount the recordstore.

Install the recordstore 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 recordstore.


2. Connect port 3 to your management network.
The EXA 5200 recordstore has two 10/100/1000 BASE-T network ports. With a network patch cable, connect the management port on the EXA 5200 to your management network. Port 3 is the default management port on the EXA 5200.
3. Optional: Connect the iDRAC port.
To enable remote management of the recordstore, connect your management network to the iDRAC port with a network patch cable.
4. Optional: Connect a 10 GbE port.
Connect one of the 10 GbE ports on the recordstore with a 10 GbE cable to your network to manage the EXA 5200.
5. Install the front bezel.
You must install the front bezel if you want to configure the recordstore through the LCD display.

Insert the USB connector on the right side of the bezel into the USB port on the front of the recordstore. Press and hold the release button on the left end of the bezel and push the bezel flush with the recordstore 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 recordstore, and then plug the cords into a power outlet. If the recordstore does not power on automatically, press the power button  on the front-right of the recordstore.

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:** We strongly recommend [configuring a unique hostname](#). If the system IP address changes, the ExtraHop console can re-establish connection easily to the system 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 primary 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 select `Set static IP`, and then press the select button.
5. 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.

6. 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.
7. 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.
8. 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).
9. Press the down arrow and scroll to `Set DNS servers`, and then press the select button.
10. 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.
11. Configure a second DNS server.
12. Confirm the DNS settings on the `Settings saved` screen, and then press any button to return to the `Network Menu`.
13. Press the down arrow twice until `← Back` appears, and then press the select button.
14. Press the down arrow twice to select `iDRAC`.
15. Configure the `iDRAC` DHCP, IP, mask, gateway, and DNS in the same manner as the IP address.
16. Press the `x` button to return to the main menu.

Configure an IP address through the CLI

Before you begin

You can access the CLI by connecting a USB keyboard and SVGA monitor to the appliance or through an RS-232 serial (null modem) cable and a terminal emulator program. Set the terminal emulator to 115200 baud with 8 data bits, no parity, 1 stop bit (8N1), and hardware flow control disabled.

Complete the following steps to manually configure an IP address from the CLI.

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 sensor. The serial number can also be found on the LCD display on the front of the sensor 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 interface configuration mode:

```
interface
```

8. 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 configuration mode:

```
exit
```

10. Save the running configuration:

```
running_config save
```

11. Type `y` and then press ENTER.



Note: The system updates the running configuration file and applies the new settings when a link is detected on the interface.

(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 sensor. The serial number can also be found on the LCD display on the front of the sensor 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 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.

Create a recordstore cluster

For the best performance, data redundancy, and stability, you must configure at least three ExtraHop recordstores in a cluster.


When you create a recordstore cluster, be sure to deploy all nodes, including manager nodes, in the same location or data center. For more information on supported recordstore cluster configurations, see [Recordstore cluster guidelines](#).

-  **Important:** If you are creating a recordstore cluster with six to nine nodes, you must configure the cluster with at least three manager-only nodes. For more information, see [Deploying manager-only nodes](#).

In the following example, the recordstores have the following IP addresses:

- Node 1: 10.20.227.177
- Node 2: 10.20.227.178
- Node 3: 10.20.227.179

You will join nodes 2 and 3 to node 1 to create the recordstore cluster. All three nodes are data nodes. You cannot join a data node to a manager node or join a manager node to a data node to create a cluster.

-  **Important:** Each node that you join must have the same configuration (physical or virtual) and the same ExtraHop firmware version.

Before you begin

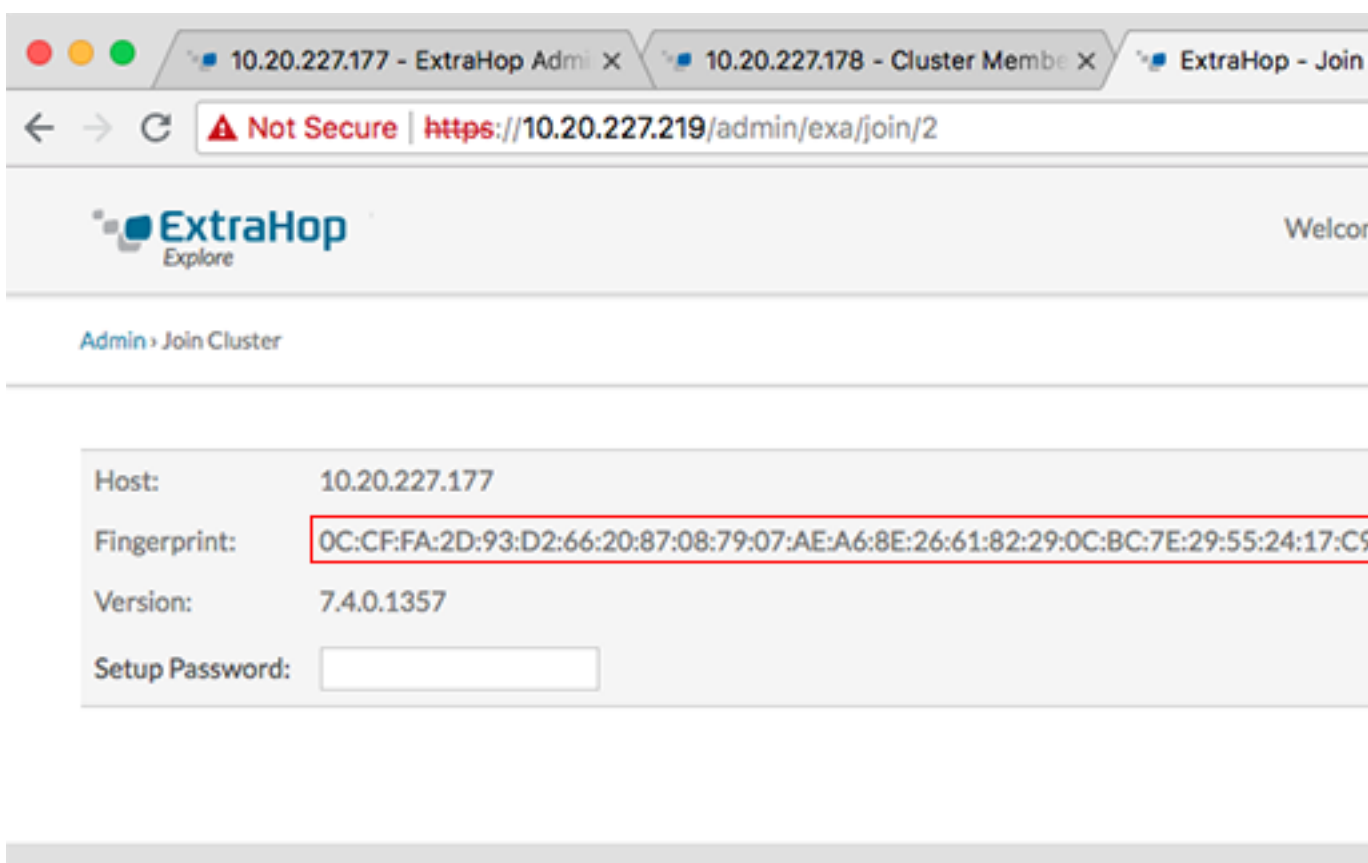
You must have already installed or provisioned the recordstores in your environment before proceeding.

1. Log in to the Administration settings on all three recordstores with the `setup` user account in three separate browser windows or tabs.
2. Select the browser window of node 1.
3. In the Status and Diagnostics section, click **Fingerprint** and note the fingerprint value.
You will later confirm that the fingerprint for node 1 matches when you join the remaining two nodes.
4. Select the browser window of node 2.
5. In the Explore Cluster Settings section, click **Join Cluster**.
6. In the **Host** field, type the hostname or IP address of data node 1 and then click **Continue**.

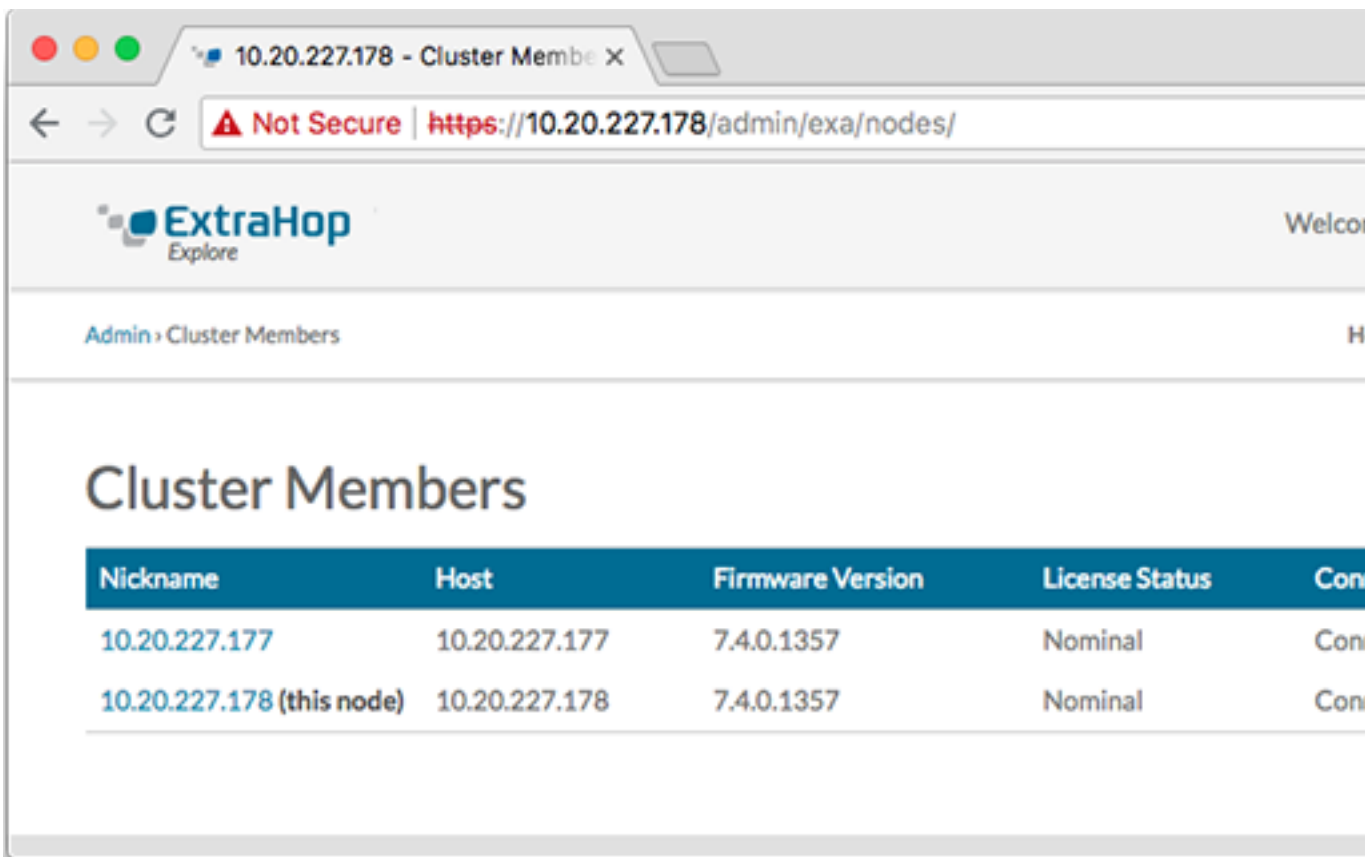


Note: For cloud-based deployments, be sure to type the IP address listed in the Interfaces table on the Connectivity page.

7. Confirm that the fingerprint on this page matches the fingerprint you noted in step 3.



8. In the **Setup Password** field, type the password for the node 1 `setup` user account and then click **Join**. When the join is complete, the Explore Cluster Settings section has two new entries: **Cluster Members** and **Cluster Data Management**.
9. Click **Cluster Members**.
You should see node 1 and node 2 in the list.



- In the Status and Diagnostics section, click **Explore Cluster Status**.

Wait for the Status field to change to Green before adding the next node.

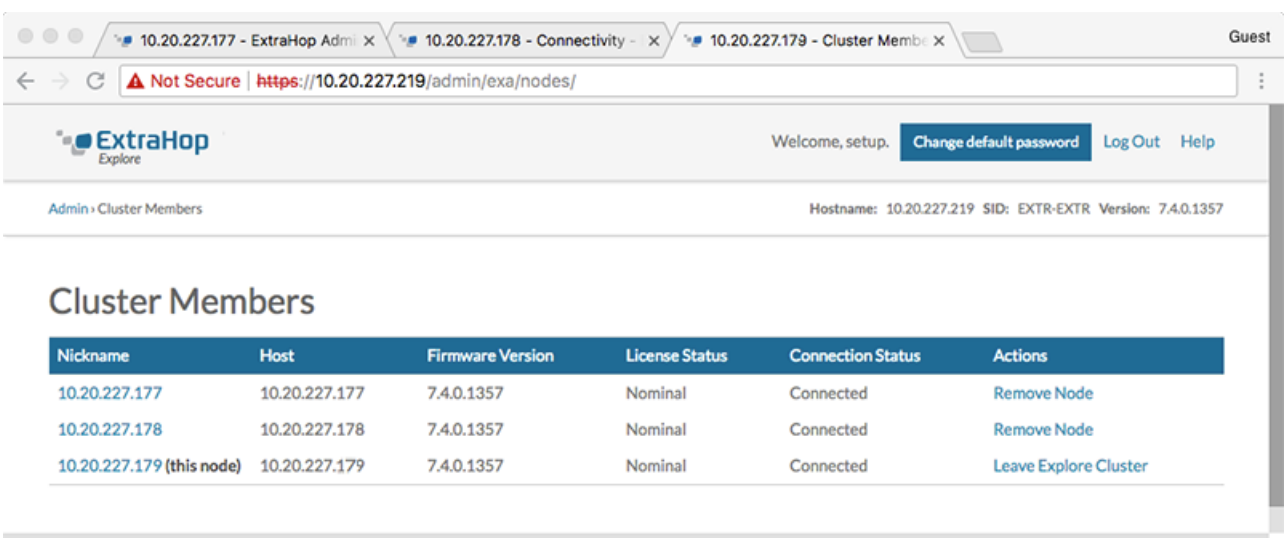
- Repeat steps 5 through 10 to join each additional node to the new cluster.



Note: To avoid creating multiple clusters, always join a new node to an existing cluster and not to another single appliance.

- When you have added all of your recordstores to the cluster, click **Cluster Members** in the Explore Cluster Settings section.

You should see all of the joined nodes in the list, similar to the following figure.



- In the Explore Cluster Settings section, click **Cluster Data Management** and make sure that **Replication Level** is set to **1** and **Shard Reallocation** is **ON**.

Next steps

[Connect the console and sensors to ExtraHop recordstores](#)

Recordstore cluster guidelines

The following table shows recommended guidelines for recordstore cluster configuration.

| Number of Data Nodes | Supported Cluster Composition |
|----------------------|--|
| 1 or 2 | Not supported |
| 3 | 3 Mixed (Traditional Data + Manager) Nodes |
| 4 | 4 Mixed (Traditional Data + Manager) Nodes |
| 5 | 5 Mixed (Traditional Data + Manager) Nodes |
| 6 | 6 Dedicated Data Nodes + 3 Dedicated Manager Nodes |
| 7 | 7 Dedicated Data Nodes + 3 Dedicated Manager Nodes |
| 8 | 8 Dedicated Data Nodes + 3 Dedicated Manager Nodes |
| 9 | 9 Dedicated Data Nodes + 3 Dedicated Manager Nodes |
| 10 or more | Not supported |

Configure the recordstore

After you configure an IP address for the recordstore, log in to the Administration settings on the ExtraHop system through `https://<extrahop-hostname-or-IP-address>/admin`, and complete the following recommended procedures.



Note: The default login username is `setup`, and the password is the system serial number, which can be found on a sticker on the rear of the chassis. Alternatively, the serial number appears in the Info section of the LCD display.

- [Register your ExtraHop system](#)
- [Connect the console and sensors to ExtraHop recordstores](#)
- [Send record data to the recordstore](#)
- Review the [Recordstore Post-deployment Checklist](#) and configure additional recordstore settings.