# Create a recordstore cluster

Published: 2024-08-17

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 2.

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.
- 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 Recordstore 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.

#### EXTRAHOP

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	Secure https://10.20.227.219/admin/exa/join/2			
ExtraH	<b>OP</b> Welco			
Admin > Join Cluster				
Host:	10.20.227.177			
Fingerprint:	0C:CF:FA:2D:93:D2:66:20:87:08:79:07:AE:A6:8E:26:61:82:29:0C:BC:7E:29:55:24:17:0			
Version:	7.4.0.1357			
Setup Password:				

- 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.

• 10.20.227.178 -	Cluster Membe ×			
C A Not Secure	https://10.20.227	178/admin/exa/nodes/		
				Weld
Admin - Cluster Members				
Admin + Cluster Members	bers Host	Firmware Version	License Status	Co
Cluster Mem		Firmware Version 7.4.0.1357	License Status Nominal	Ca

10. In the Status and Diagnostics section, click Explore Cluster Status.

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

11. 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.

12. 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.

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← → C ▲ Not Secure   https://10.20.227.219/admin	ı/exa/nodes/	:
Explore	Welcome, setup. Change default password Log Out Help	
Admin > Cluster Members	Hostname: 10.20.227.219 SID: EXTR-EXTR Version: 7.4.0.135	57

### Cluster Members

Nickname	Host	Firmware Version	License Status	Connection Status	Actions
10.20.227.177	10.20.227.177	7.4.0.1357	Nominal	Connected	Remove Node
10.20.227.178	10.20.227.178	7.4.0.1357	Nominal	Connected	Remove Node
10.20.227.179 (this node)	10.20.227.179	7.4.0.1357	Nominal	Connected	Leave Explore Cluster

13. 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**.

## **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