

# Increase the capacity of your ExtraHop recordstore cluster in VMware


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The ExtraHop virtual recordstore for VMware is available in four configurations, each with maximum memory and datastore sizes. If your infrastructure outgrows your current recordstore cluster capacity, there are three ways to increase the capacity. You can add more nodes to an existing cluster, you can create a new cluster with all new higher-capacity nodes (data is not preserved), or you can replace your existing nodes with virtual appliances that have larger capacity than your existing virtual appliances and preserve your existing data.

This guide shows you how to replace existing nodes with larger-capacity nodes, preserving your existing data. You must complete the following workflows described in this guide for each node you are replacing:

- Deploy the new larger-capacity recordstores
- Disconnect the existing recordstore cluster from any connected ExtraHop packet sensors and consoles
- Add one newly-deployed recordstore to the existing recordstore cluster
- Wait for your data to be reallocated throughout the new recordstore cluster
- Remove the older, smaller-capacity recordstore node
- Repeat this process for additional new nodes
- Connect the new recordstore cluster to the sensors and consoles

If you simply want to add more nodes that have the same specifications as the existing nodes in your recordstore cluster, see our [Deploy the ExtraHop recordstore with VMware](#) guide.

 **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](#).

To replace an existing cluster with larger-capacity nodes where you do not need to preserve the existing stored records, you similarly deploy new nodes and create a new cluster. You disconnect the existing cluster from any sensors or consoles, and then connect the new cluster to your sensors or consoles.

## Before you begin

- Ensure that all appliances in the recordstore cluster have the same appliance specifications. Disparate node types are allowed only during a migration procedure.
- You must [register](#) every new recordstore with a product key before you can add the appliance to the recordstore cluster.
- Depending on the number of nodes and the amount of data stored in the recordstore cluster, it can take up to a week after you change the replication level or remove an recordstore node from the cluster for all indices to display a **Green** status.

## Deploy the new recordstores in VMware

Deploy each new higher-capacity node according to the instructions in the [Deploy the ExtraHop recordstore with VMware](#) guide. Do not create a cluster at this point. When all new nodes are deployed, move on to the next step.

## Disconnect all recordstore nodes

This procedure stops any new data from being sent and stored on the recordstore cluster that will be replaced.

### Before you begin

If the recordstore connections are managed from a console, you must perform this procedure from the console instead of from each sensor.

1. Log in to the Administration settings on the ExtraHop system that is connected to the recordstore cluster.
2. In the Recordstore Settings section, click **Connect Recordstores**.
3. Click the delete icon (X) next to each recordstore node.

The screenshot shows a web interface for managing recordstore nodes. It contains three sections, each for a node:

- Node 1:** The 'Hostname or IP address' field contains 'exa-1.example.com'. A red 'X' icon is circled in red to the right of the field.
- Node 2:** The 'Hostname or IP address' field contains 'exa-2.example.com'. A red 'X' icon is to the right of the field.
- Node 3:** The 'Hostname or IP address' field contains 'exa-3.example.com'. A red 'X' icon is to the right of the field.

At the bottom of the interface are three buttons: 'Add New', 'Save', and 'Cancel'.

4. Click **Save**.
5. If you have multiple sensors connected to the same recordstore cluster, repeat the steps above until all sensors are disconnected.

## Change the replication level on the recordstore cluster

This procedure ensures that data is replicated across the new nodes correctly and quickly.

1. Log in to the Administration settings on one of the nodes in the recordstore cluster.
2. In the Recordstore Cluster Settings section, click **Cluster Data Management**.
3. In the Replication section, from the Replication Level drop-down list, select **1**, and then click **Update Replication Level**.
4. If Shard Reallocation is **OFF**, click **Enable Shard Reallocation**.
5. Return to the Status and Diagnostics section and click **Cluster Status**.
6. Wait for all of the Status fields in the Indices table to display **Green** before continuing to the next procedure.

## Join the new recordstore node to the existing cluster

In this procedure, you will join one of the new recordstore nodes to the existing cluster. Do not join multiple new nodes at this stage.

1. Log in to the Administration settings on one of the new recordstore nodes.
2. In the Cluster Settings section, click **Join Cluster**.
3. In the **Host** field, type the hostname or IP address of any node in the existing recordstore cluster and then click **Continue**.
4. Note the information listed for Fingerprint.  
Verify that the fingerprint that appears matches the fingerprint of the recordstore you are joining.

5. In the **Setup Password** field, enter the password for the setup user.
6. Click **Join**.
7. Return to the **Status and Diagnostics** section and click **Cluster Status**.
8. Wait for all of the Status fields in the Indices table to display “**Green**” before continuing to the next procedure.

## Remove the old recordstore node from the existing cluster

In this procedure, you will remove the recordstore node you are replacing. Do not remove multiple nodes at once.

1. Log in to the Administration settings on the recordstore that you want to remove from the recordstore cluster.
2. In the **Recordstore Cluster Settings** section, click **Cluster Members**.
3. In the Actions column, click **Leave Cluster**.  
Leaving an recordstore cluster deletes all saved data on the recordstore node.
4. Click **OK**.
5. Log in to the Administration settings on an recordstore node in the recordstore cluster.
6. In the Status and Diagnostics section and click **Cluster Status**.
7. Wait for all of the Status fields in the Indices table to display “**Green**” before continuing to the next procedure.

## Replace the remaining nodes in the cluster

For each additional recordstore node that you are replacing, complete the steps in [Join the new recordstore node to the existing cluster](#) and [Remove the old recordstore node from the existing cluster](#) in sequence. When all nodes have been replaced, move on to the final step below.

## Connect the sensors and consoles to the new recordstore cluster

Your new recordstore cluster is ready! You can now [connect any sensors and consoles](#)  and you can query your former records.