# Deploy the ExtraHop Command Appliance with VMware

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The ExtraHop Command appliance (ECA) is a virtual appliance that provides centralized management and reporting across multiple ExtraHop appliances distributed across datacenters, branch offices, and the public cloud. For most large ExtraHop deployments, a dedicated ECA is the most efficient way to manage and report across the remote nodes.

The following procedures explain how to deploy an ExtraHop Command appliance with the vSphere client running on a Windows machine. You must have experience administering your VMware ESX and ESXi environments to complete these procedures.

## Virtual machine requirements

You must have an existing installation of VMware ESX/ESXi server version 5.5 or later capable of hosting the Command virtual appliance. In addition, you need a vSphere client to deploy the OVF file and to manage the virtual machine.

The ECA is distributed as an OVA package that includes a preconfigured virtual machine (VM) with a 64-bit, Linux-based OS that is optimized to work with VMware ESX and ESXi version 5.5 and later.

The preconfigured virtual appliance has the following default settings:

- 2 CPUs
- 4 GB RAM
- One 4 GB disk
- One 40 GB disk
- One bridged network interface

> **Note:** You might need to adjust the preconfigured virtual appliance to scale to your environment. For more information, see the Performance guidelines section.

The following ESX/ESXi server hardware is required:

**Processor**

One Intel processing core with hyper-threading support, VT-x technology, and a processing speed of 2.5 GHz or higher

**Memory**

4 GB or higher

**Disk**

44 GB or higher

**Network**

One 1 Gbps Ethernet network port

**Place in network**

Near one of the managed ExtraHop appliances, but accessible on port 443 to all managed ExtraHop appliances

## Performance guidelines

The following table provides guidelines that can help you optimize the performance of the Command appliance. These guidelines are minimum requirements that you might need to adjust based on the size and needs of your environment.

| Scalability | Discover Appliances | 1-4 | 5-16 | 17-64 | 65 or more |
|---|---|---|---|---|---|
| Provisioning Requirements | CPU Cores | 2 | 4 | 8 | 16 |
| | RAM | 4 GB | 8 GB | 16 GB | 24 GB |
| | Boot Disk | 4 GB | | | |
| | Datastore Disk | 32 GB + (Size of RAM x 2)<br><br>For example, if you provision the appliance with 16 GB of RAM, the disk requirement is 64 GB. | | | |
| | Disk Total | 36 GB + (Size of RAM x 2) | | | |

## Deploy the Command appliance

1. If you have not already done so, download the ExtraHop Command appliance firmware file for VMware from the ExtraHop Customer Portal ⬏.
2. Start the VMware vSphere client and connect to your ESX server.
3. Go to the File menu and select **Deploy OVF Template**.
4. Follow the Virtual Machine wizard prompts to deploy the virtual machine. For most deployments, the default settings are sufficient.
   a) Browse to the location of the downloaded OVA file, select the file, and then click **Next**.
   b) Review and verify the OVF template details and click **Next**.
   c) Type the VM name and location. Give the VM a unique and specific name for the ESX Inventory and then click **Next**.
   d) For Disk Format, select **Thick Provision Lazy Zeroed** and then click **Next**.
   e) Map the OVF-configured network interface labels with the correct ESX-configured interface labels and then click **Next**.
   f) Verify the configuration, select the Power on after deployment checkbox, and then click **Finish** to begin the deployment.
   When the deployment is complete, you can see the unique name you assigned to the ExtraHop VM instance in the inventory tree for the ESX server to which it was deployed.
5. The Command appliance contains a preconfigured bridged virtual interface with the network label, VM Network. If your ESX has a different interface label, you must reconfigure the network adapter on the Command virtual appliance before starting the appliance.
   a) Select the **Summary** tab.
   b) Click **Edit Settings**, select **Network adapter 1**, select the correct network label from the **Network label** drop-down list, and then click **OK**.
6. Click the Command virtual appliance in the ESX Inventory and then select the **Console** tab.
7. Click the console window and then press ENTER to display the login prompt.
8. Log in with the `shell` user account and the password `default`.
9. Run the `show ipaddr` command to display the IP address of the ECA.

   > **Note:** If you need to manually configure an IP address, see the Configure a static IP address section.

10. Press CTRL+ALT+DELETE to exit the window.

### (Optional) Configure a static IP address through the CLI

The ExtraHop appliance is delivered with DHCP enabled. If your network does not support DHCP, no IP address is acquired, and you must configure a static address manually. To configure a static IP address, complete the following steps.

1. Establish a console connection to the ExtraHop appliance.
2. At the login prompt, type `shell` and then press ENTER.
3. At the password prompt, type `default`, and then press ENTER.
4. To configure the static IP address, run the following commands:
    a) Enable privileged commands:

    ```
    enable
    ```

    b) At the password prompt, type `default`, and then press ENTER.
    c) Enter configuration mode:

    ```
    configure
    ```

    d) Enter the interface configuration mode:

    ```
    interface
    ```

    e) 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
    ```

    f) Leave the interface configuration section:

    ```
    exit
    ```

    g) Save the running config file:

    ```
    running_config save
    ```

    h) Type `y` and then press ENTER.

## Register the ExtraHop appliance

Complete the following steps to apply a product key supplied by ExtraHop Support.

If you do not have a product key, contact support@extrahop.com.

> **Tip:** To verify that your environment can resolve DNS entries for the ExtraHop licensing server, open a terminal application on your Windows, Linux, or Mac OS client and run the following command:
>
> ```
> nslookup -type=NS d.extrahop.com
> ```
>
> If the name resolution is successful, output similar to the following appears:
>
> ```
> Non-authoritative answer:
> d.extrahop.com nameserver = ns0.use.d.extrahop.com.
> d.extrahop.com nameserver = ns0.usw.d.extrahop.com.
> ```

1. In your browser, type the URL of the ExtraHop Admin UI, `https://<extrahop_ip_address>/admin`.
2. Review the license agreement, select **I Agree**, and then click **Submit**.
3. On the login screen, type `setup` for the username.
4. For the password, select from the following options:

- For 1U and 2U appliances, type the service tag number found on the pullout tab on the front of the appliance.
- For the EDA 1100, type the serial number displayed in the `Appliance info` section of the LCD menu. The serial number is also printed on the bottom of the appliance.
- For a virtual appliance, type `default`.

5. Click **Log In**.
6. In the System Settings section, click **License**.
7. Click **Manage License**.
8. Click **Register**.
9. Enter the product key and then click **Register**.
10. Click **Done**.

## Post-deployment actions

After you deploy the Command appliance, do the following:

- Add your Discover nodes. See the ExtraHop Command settings ⧉ section in the ExtraHop Admin UI Guide ⧉.
- Pair your Explore appliances. See the Configure an Explore cluster ⧉ section in the ExtraHop Admin UI Guide ⧉.
- Review the Discover and Command Post-deployment Checklist ⧉ and configure additional Command settings.