Lab: Protecting Endpoints with OpenEDR

Welcome to the Protecting Endpoints with Xcitium OpenEDR lab!

Introduction

Xcitium OpenEDR is a free, open-source endpoint protection and response (EDR) system that follows a client-server model. A centrally managed server hosts a security program, and an accompanying client program runs on each endpoint. The client sends information to the server, the server administrator uses a server EDR program to analyze this information, and defends endpoints from malware and additional threats.

In this lab, you will learn to manage and protect endpoints using Xcitium OpenEDR, manage endpoints and explore cloud manager.

Before you begin

This lab requires the download and installation of no-cost software. Before your begin this lab you need to be logged in as the administrator, or have administrative rights, to install the required software.

Objectives

After completing this lab, you will be able to:

- Set up the Xcitium Cloud Manager
- Add an endpoint device to the OpenEDR system
- Locate endpoint data in the Xcitium Cloud Manager

- Manage endpoint patches from the Xcitium Cloud Manager
- Scan an endpoint for malware and find the results in th Xcitium Cloud Manager

Let's begin!

Prerequisites

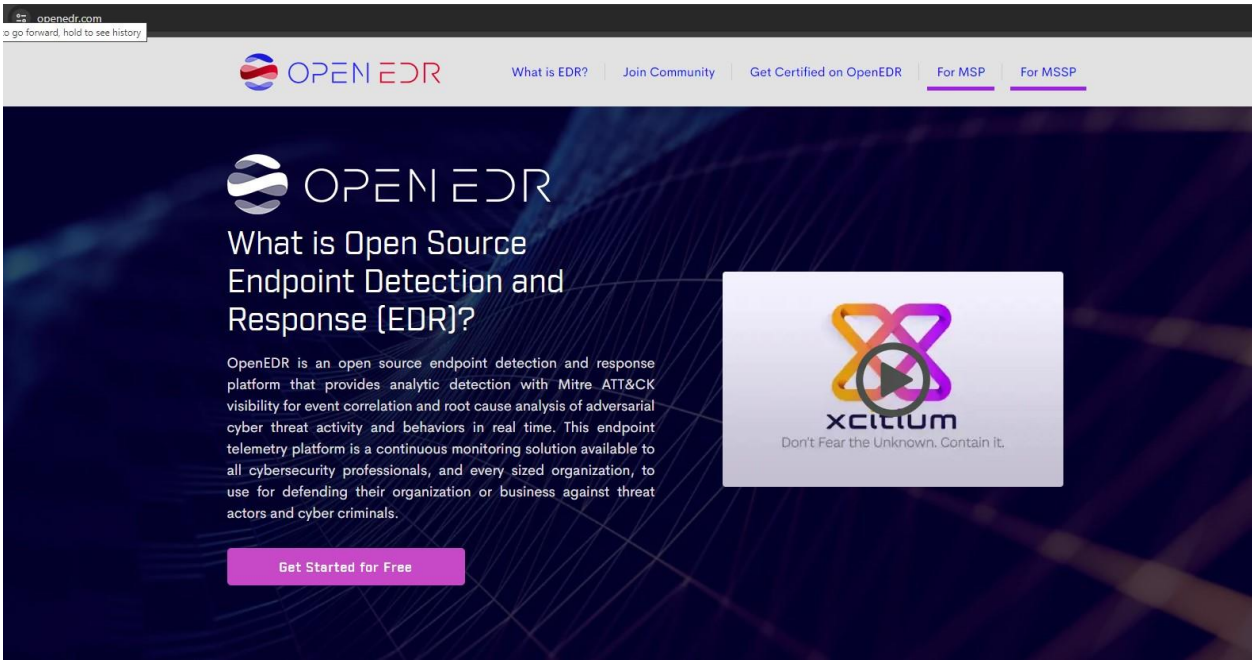
For this lab, you need to have

- A smartphone with an authenticator application installed. The common authenticator applications include:
    - Google Authenticator
    - Microsoft Authenticator
    - LastPass Authenticator
    - 2FAS
- One or more devices to use as endpoints. You can use internet-enabled computers, tablets, or smartphones with one of the following operating systems installed:
    - Windows
    - macOS
    - Linux
    - iOS
    - Android

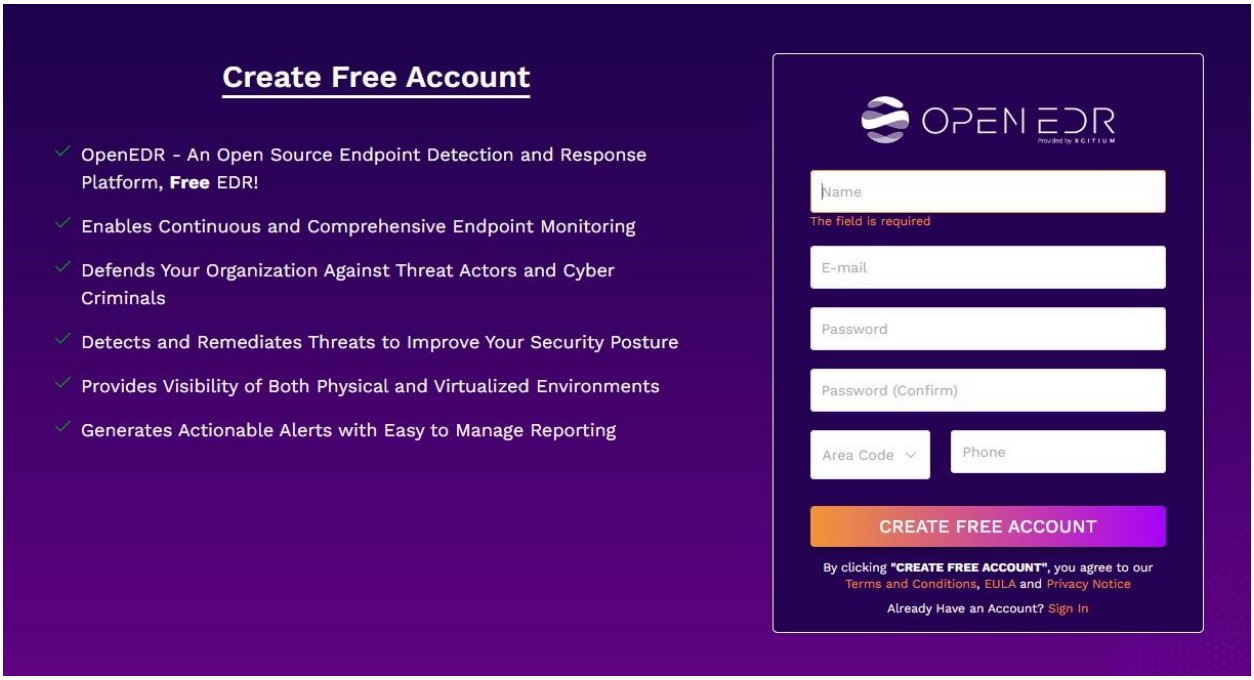
You can set up endpoint protection on the same device you're using to explore the cloud manager.

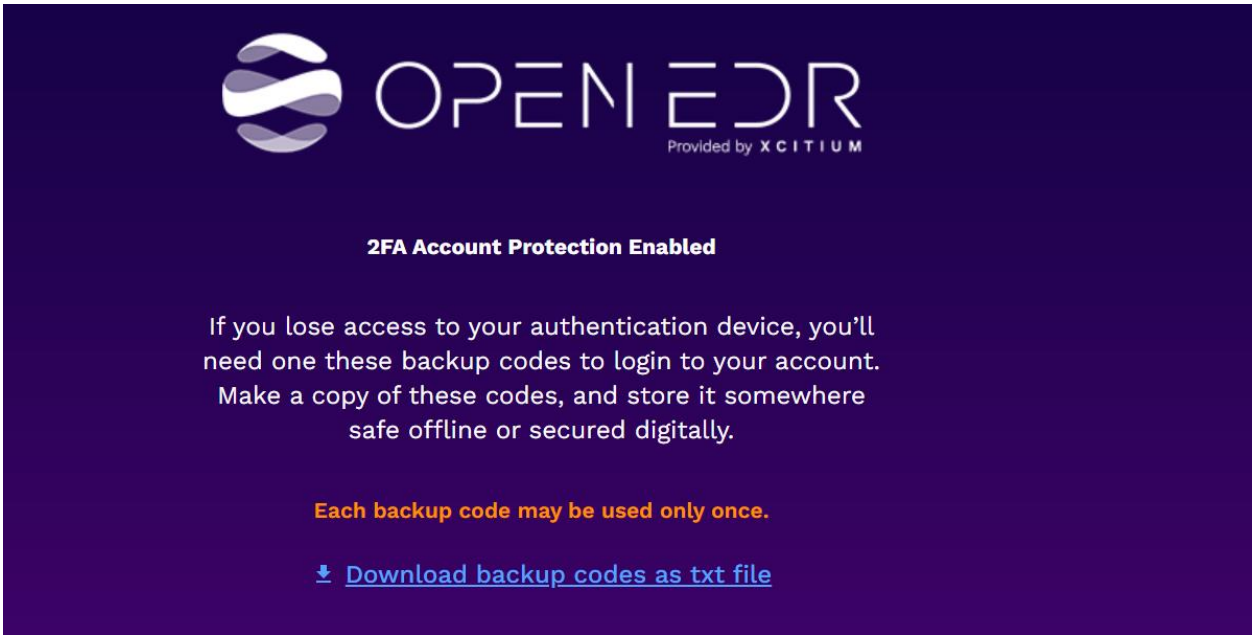
Task 1: Set up open source version of Xcitium Cloud Manager

1. Open your browser and enter https://openedr.com/.
2. Select **Get Started for Free**.

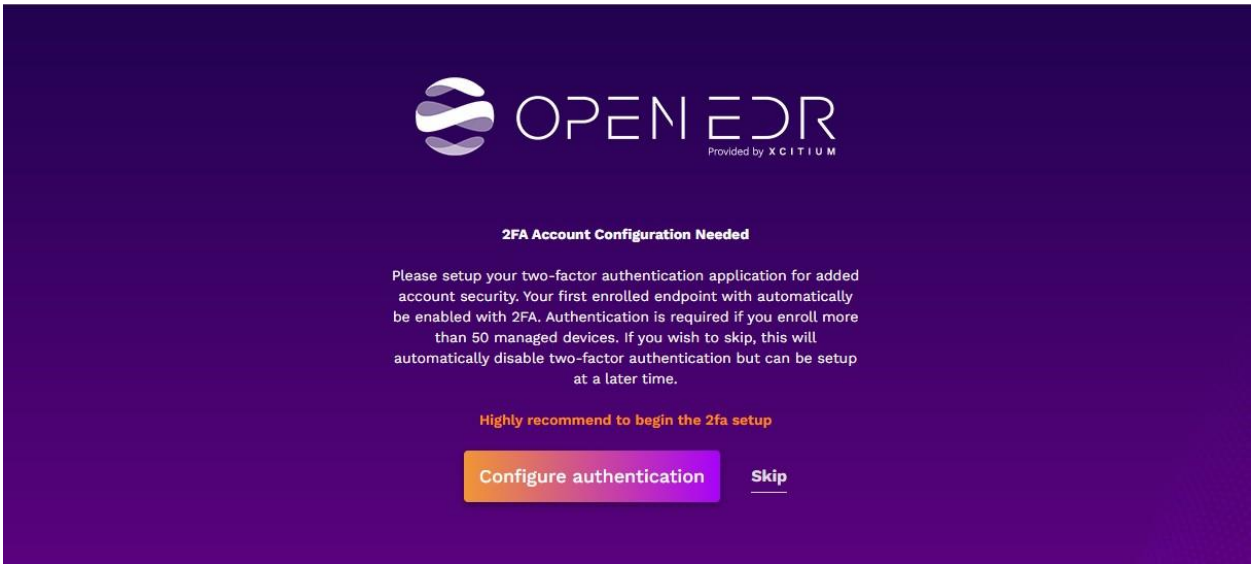


1. Enter your information to create a free account.



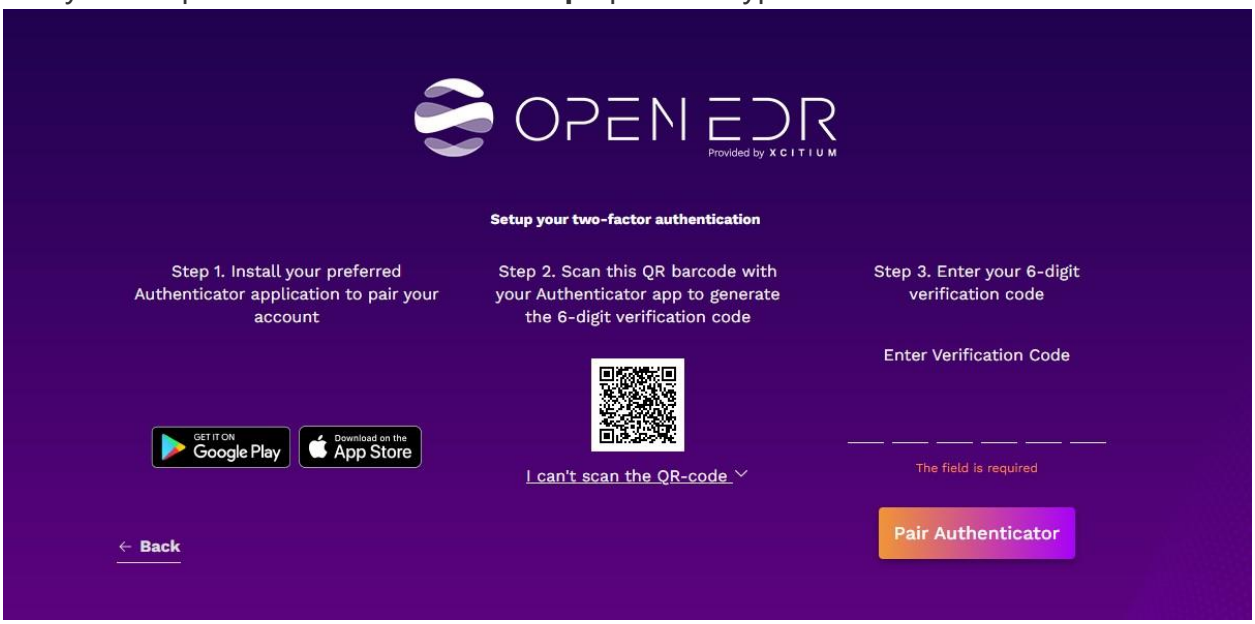


1. After creating your account, Xcitium will prompt you to set up multifactor authentication (MFA) using the authenticator app on your mobile device. If you don't have an authenticator app, you can download one from Google Play or the Apple Store.

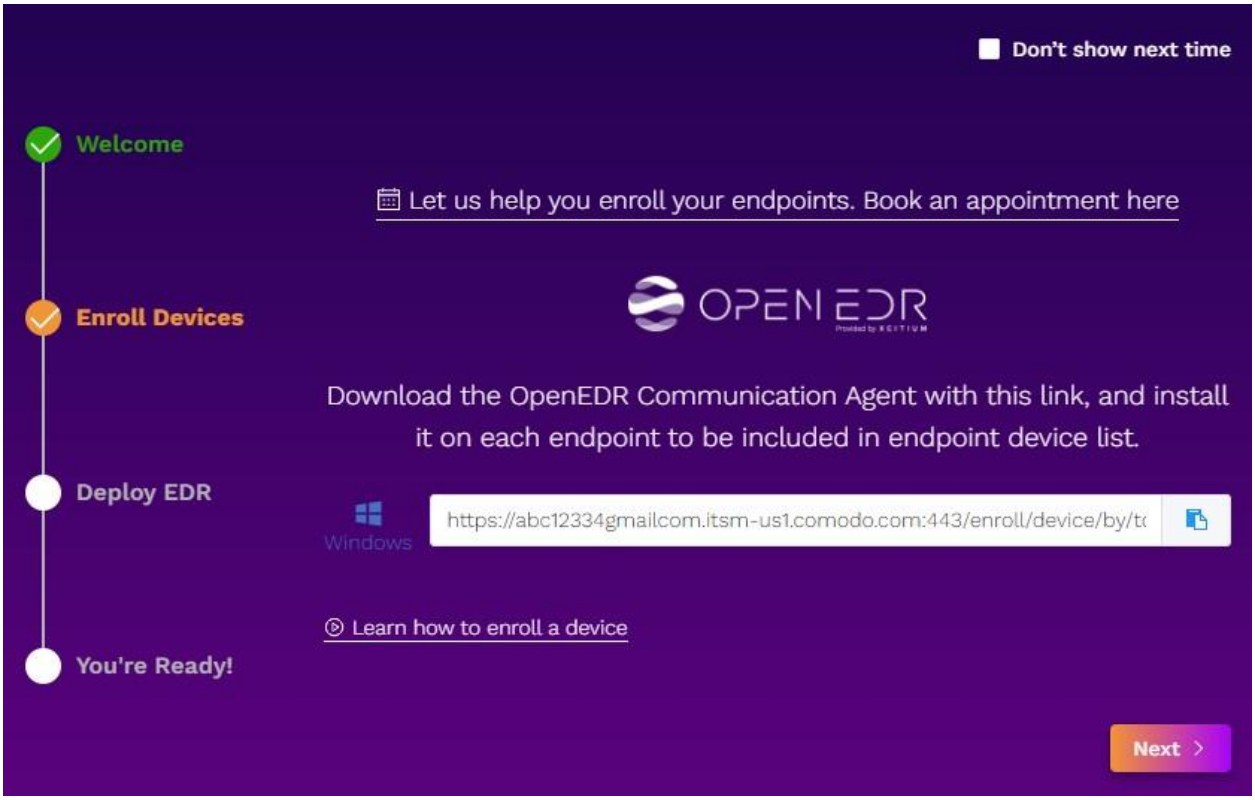


1. Use the authenticator app to scan the onscreen QR barcode to generate a six-digit verification code. Type or enter this code in the **Enter Verification Code** field on your browser window, and then select **Pair Authenticator**.

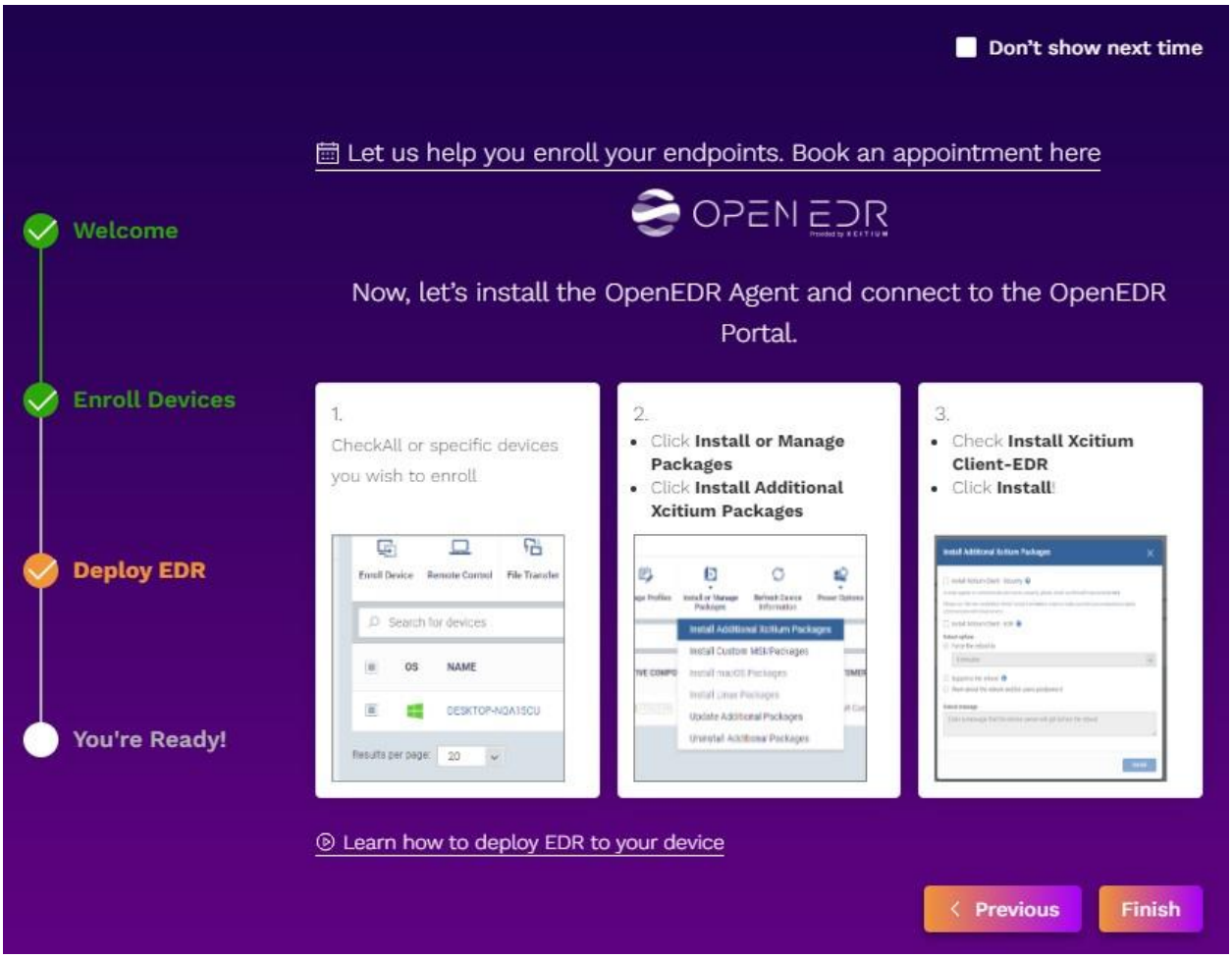
Note: You might see an optional, **Set Secret Questions** window. This lab does not require that you complete this task. Select the **Skip** option to bypass this task.



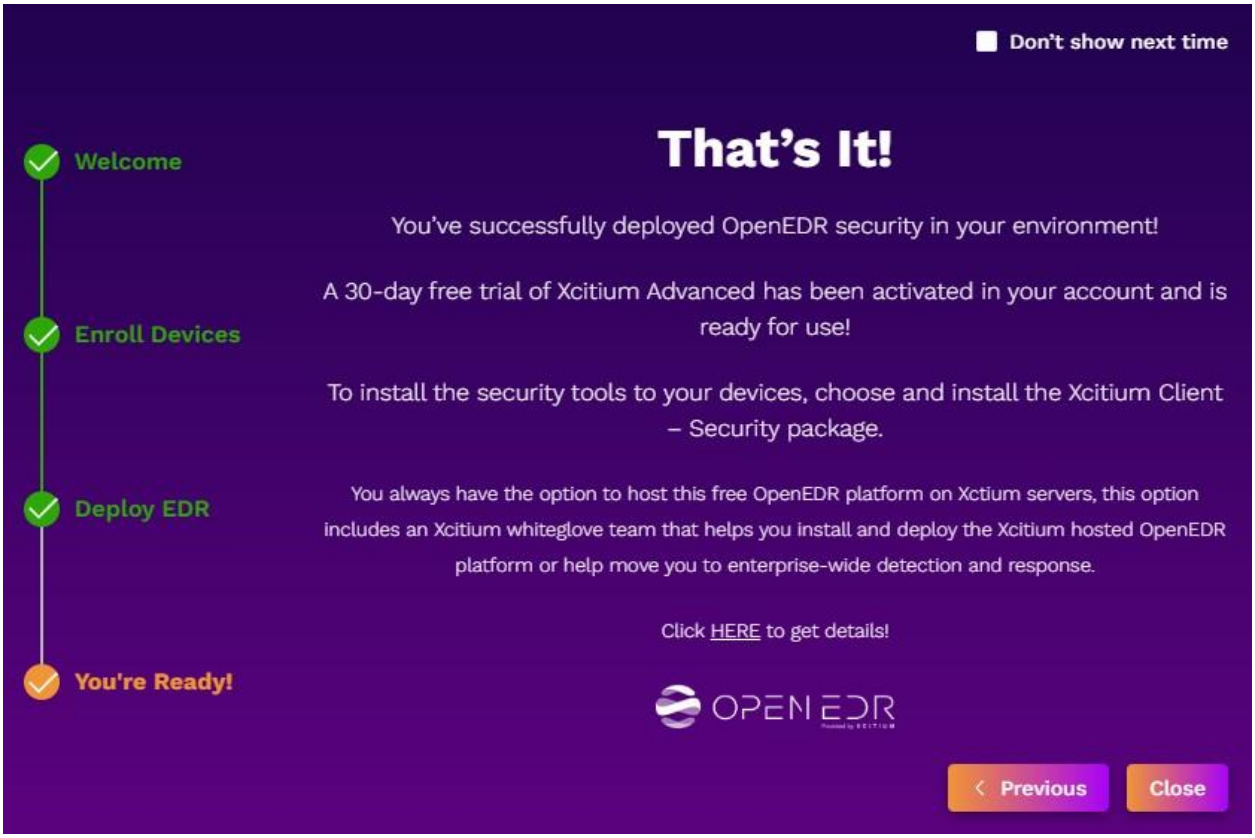
1. The **Welcome** screen opens. Select **Next**.



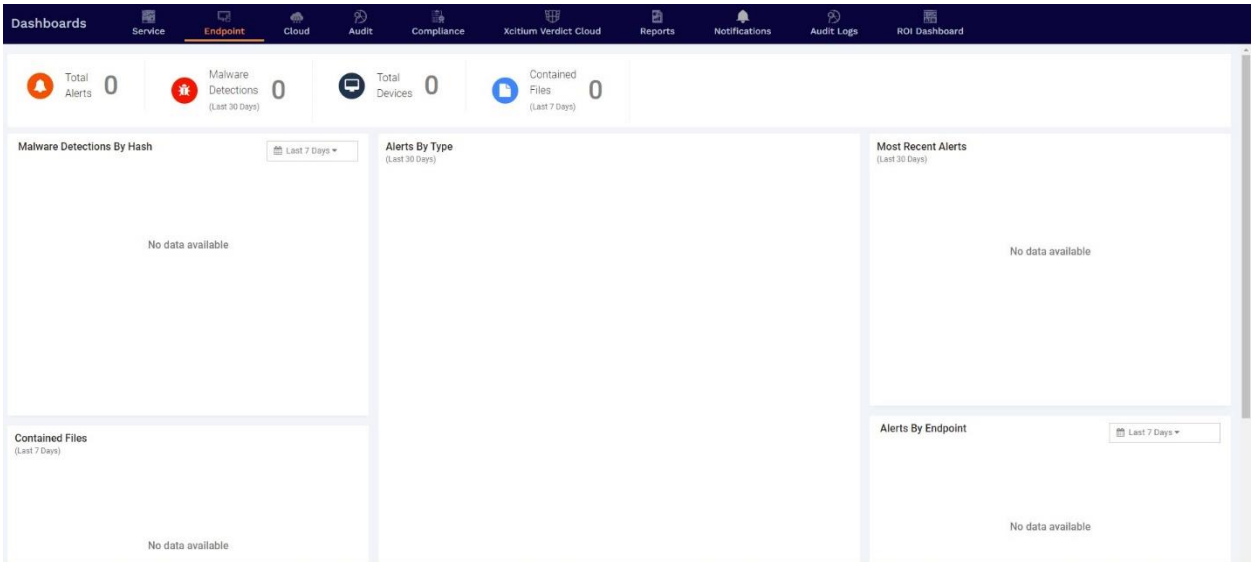
1. On the **Enroll Devices** screen, select **Finish**.



1. Next, select **Close** on the **That's It!** page.

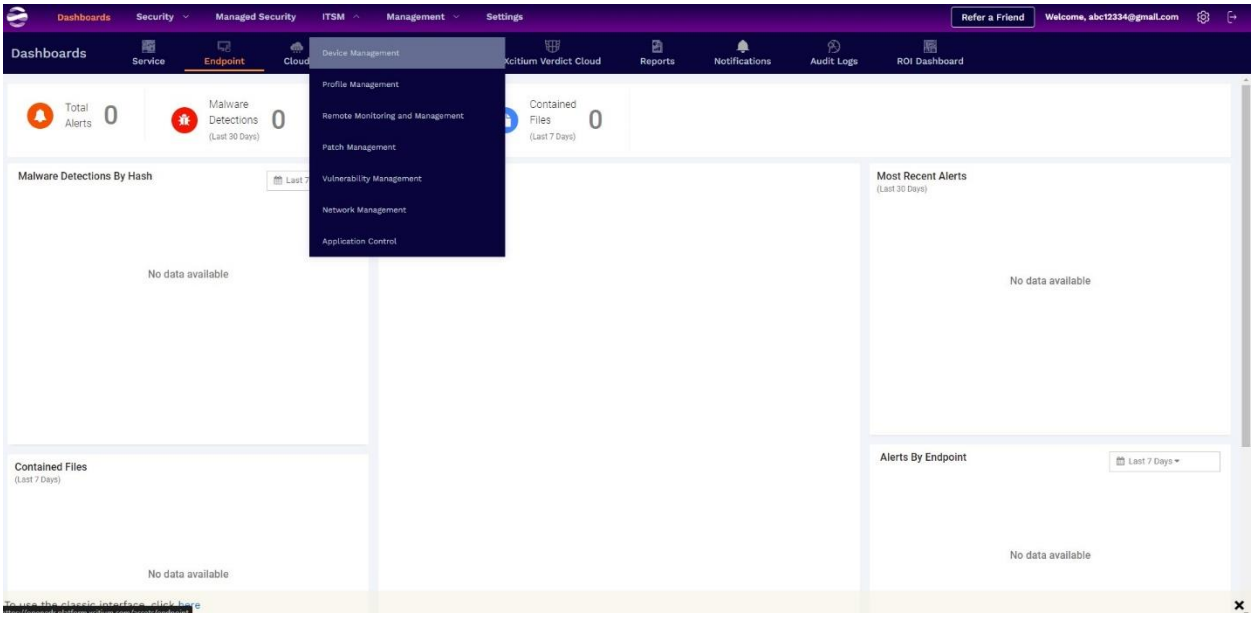


1. The **Dashboard** screen appears.

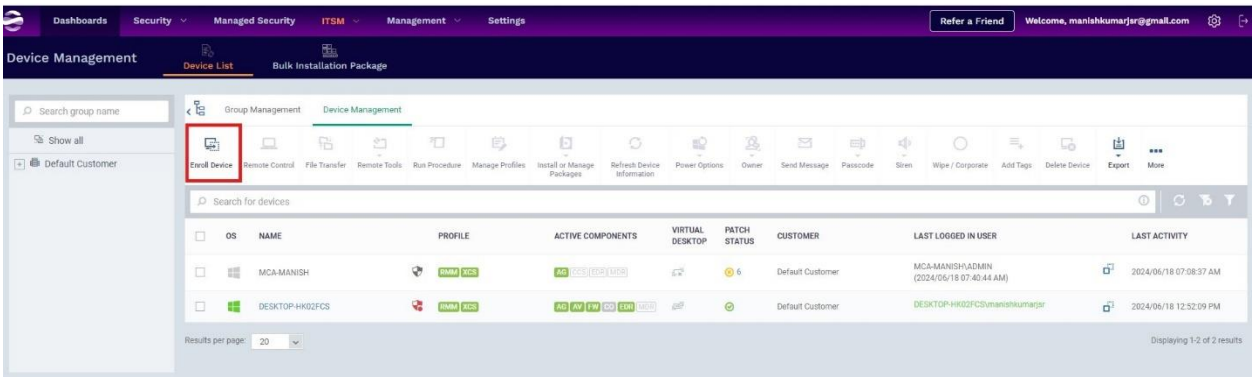


Task 2: Add an endpoint device to the OpenEDR system

Now you've set up the OpenEDR Cloud Manager. In this task, you'll add endpoints to the Cloud Manager.

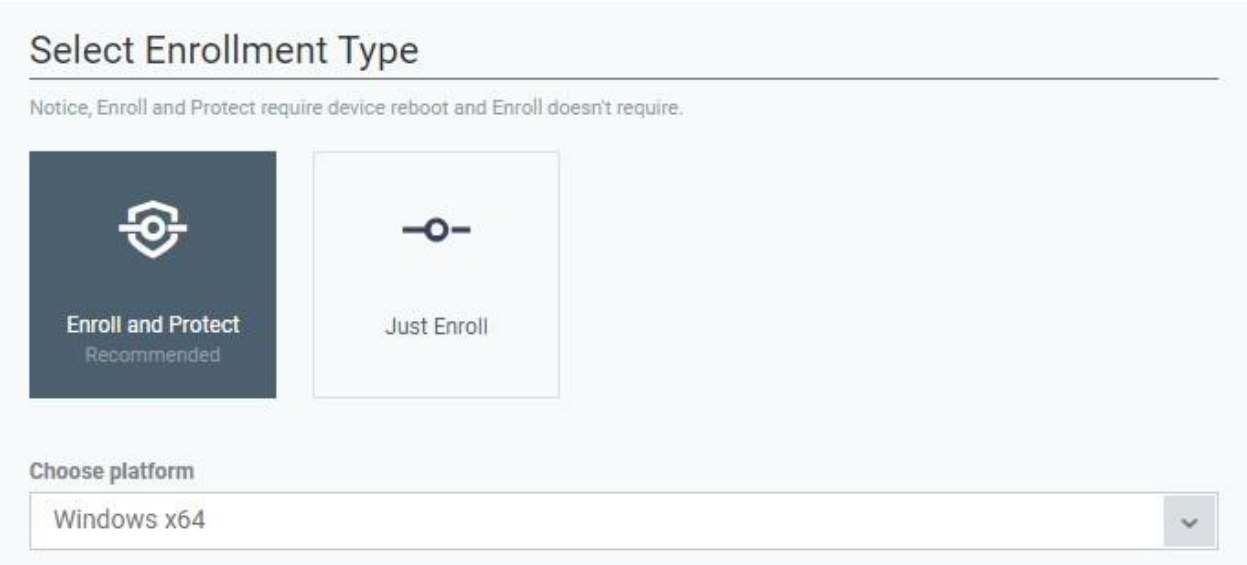


1. On the **ITSM** menu, select **Device Management** to open the **Enrollment Wizard** page. Next, select **Enroll Device**.

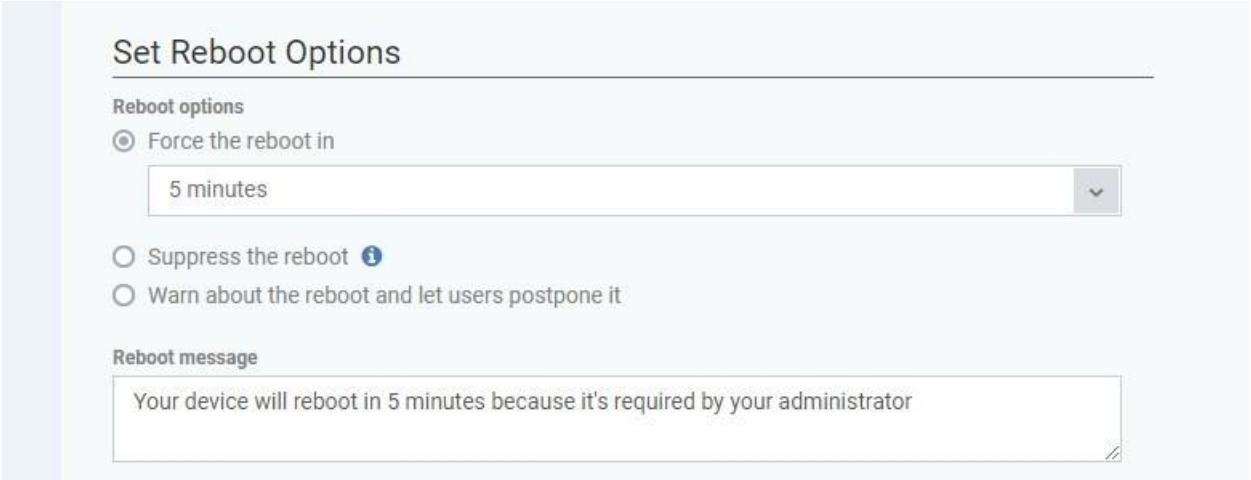


1. Select the operating system for your device.

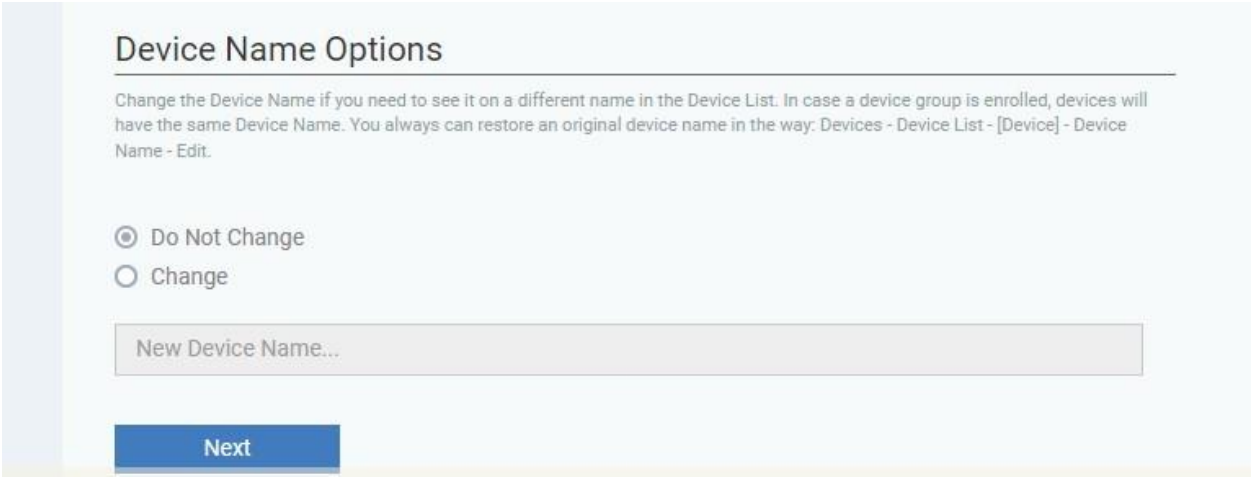
1. From the **Select Enrollment Type list**, select **Enroll and Protect**.



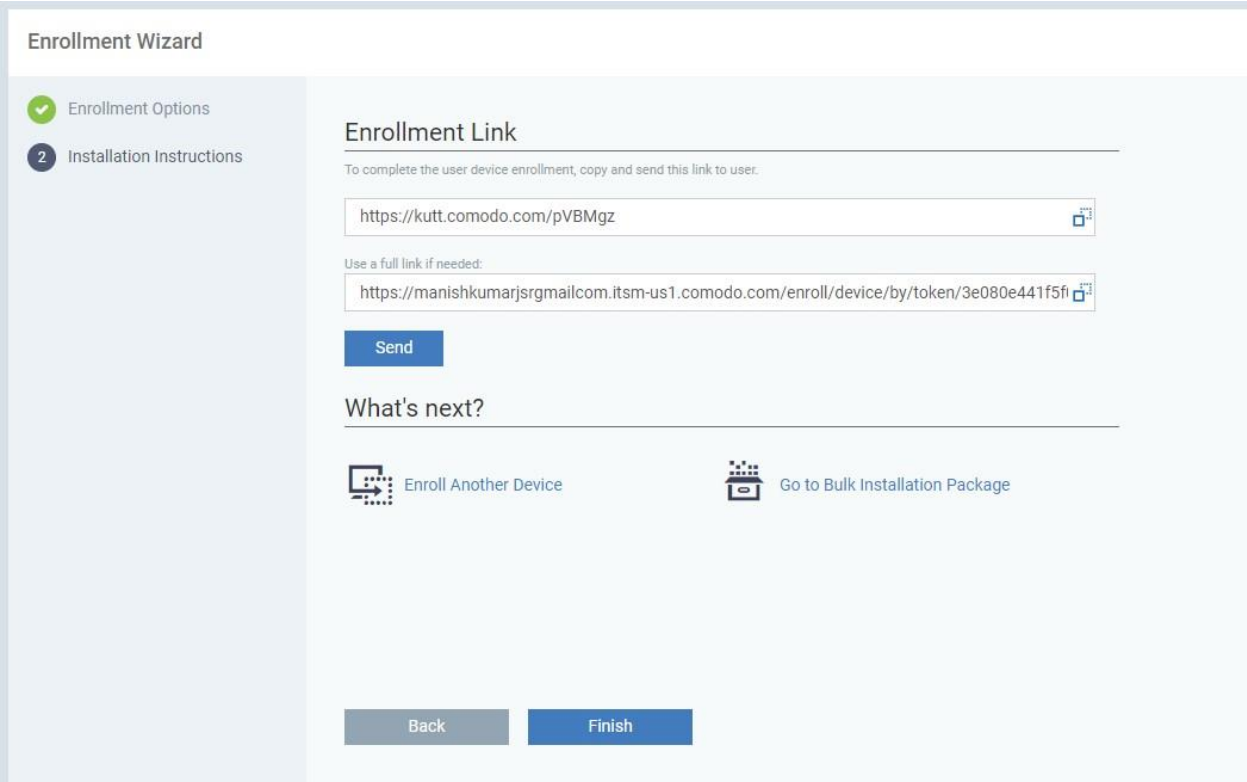
1. Now, select your preferences from the **Set Reboot Options** list.



1. Keep the default values unchanged, scroll to the end of the page and select **Next**.



1. Enter the enrollment link into your browser's address bar or access the link on the device.



1. Select **Finish**.
2. The Open EDR Cloud Manager is now active on your device. Next, install the client program, or agent, on the device.
3. Open the enrollment link to get the **Enrollment Wizard**.
4. Follow the installment instructions on the Enrollment Wizard page. Depending on your device, you will be prompted to download either an installer or an app.

Note: The agent name will vary depending on the device.

1. Now open the installer and restart your device to finish the agent setup process.

Welcome to Enrollment Wizard

In order to complete the connection of your device, follow the instruction below

Installer

Download Windows Installer

Installation Instruction

Step 1

Run installer of Communication Client after download complete. After that, your device will be enrolled and appears in Device List

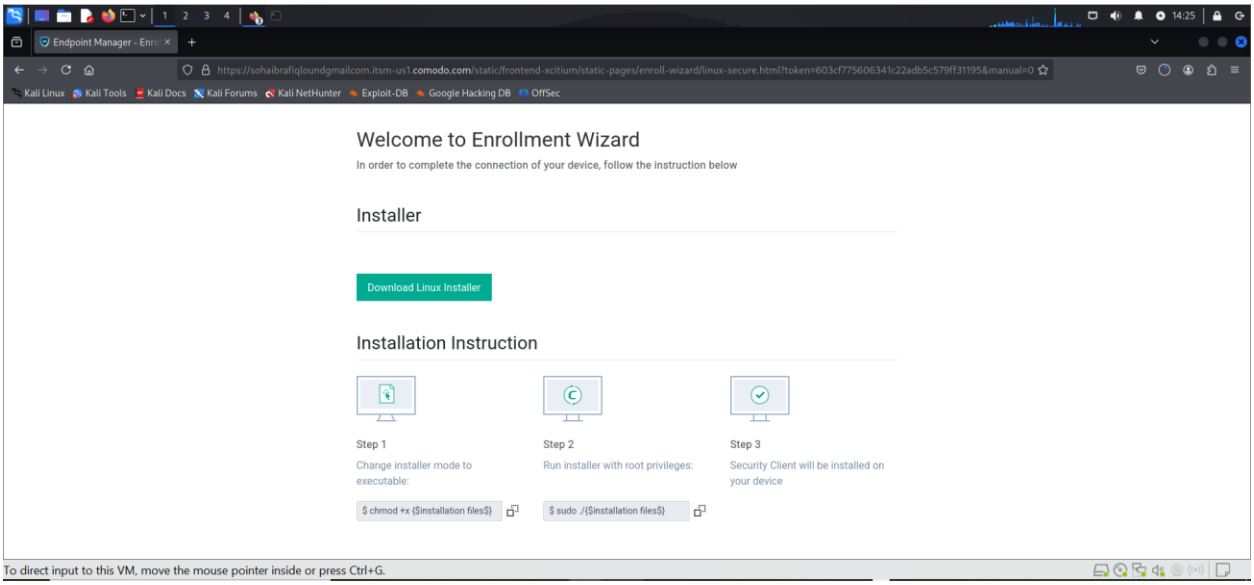
Step 2

After Communication Client is installed, Security Client will be installed on your device automatically

Step 3

Your device will be rebooted after installation of Security Client is completed

For linux:



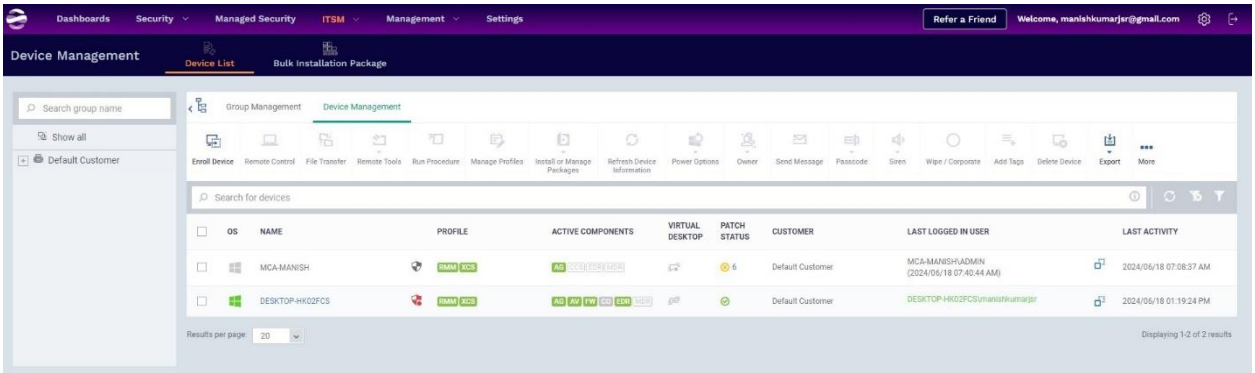
```
┌──(windows㉿windows)-[~/Downloads]
└─$ chmod +x itsm_13LSSNf3_ccsl_installer.run

┌──(windows㉿windows)-[~/Downloads]
└─$
```

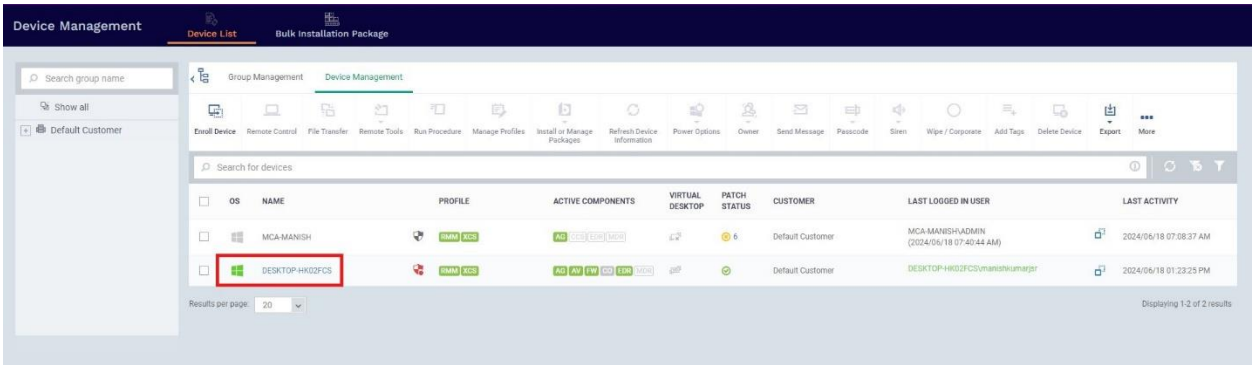
```
┌──(windows㉿windows)-[~/Downloads]
└─$ sudo ./itsm_13LSSNf3_ccsl_installer.run
[sudo] password for windows:
Creating directory /tmp/installer_1747160873/agent
Verifying archive integrity... All good.
Uncompressing Linux ITSM Agent/10.1.50439.25030  100%
systemd system
https://mdmsupport.comodo.com/enroll/resolve/token/13LSSNf3
INI = [General]
host=sohaibrafiqloundgmailcom.itsm-us1.comodo.com
port=443
token=603cf775606341c22adb5c579ff31195
suite=4
remove_third_party=0
PORT = 443
HOST = sohaibrafiqloundgmailcom.itsm-us1.comodo.com
MDM = 603cf775606341c22adb5c579ff31195
https://sohaibrafiqloundgmailcom.itsm-us1.comodo.com:443/enroll/linux/index/token/603cf775606341c22adb5c57
9ff31195
Created symlink '/etc/systemd/system/multi-user.target.wants/itsm.service' → '/etc/systemd/system/itsm.ser
vice'.
before install ces ls
ITSM
Note, selecting 'ccs-linux' instead of '/tmp/installer_1747160873/linux-security.deb'
The following packages were automatically installed and are no longer required:
  libbfio1          libglapi-mesa  libglvnd-core-dev  openjdk-23-jre          python3-ntlm-auth
```

1. After completion of the agent installation, you will verify that the agent can communicate with the Cloud Manager.

2. Visit https://openedr.com/ and log into the OpenEDR Cloud Manager. Select **Get Started**.



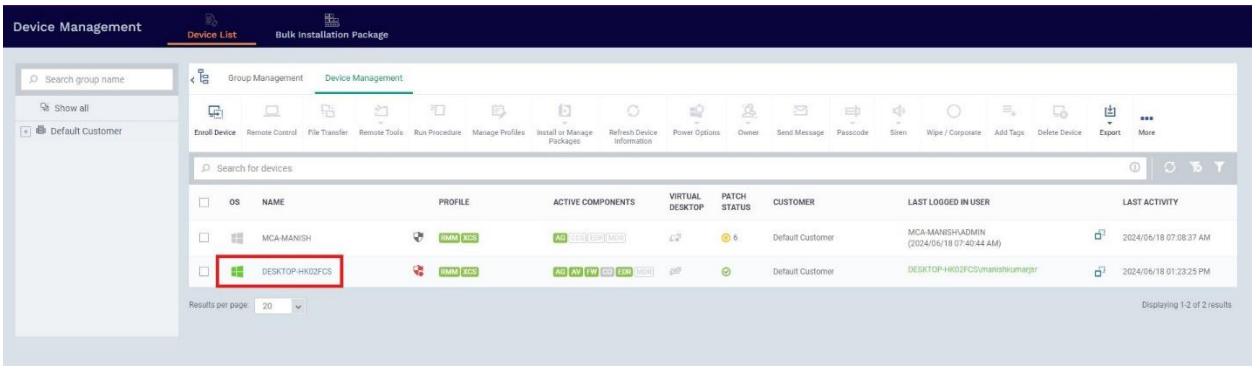
1. Select **ITSM** and then **Device Management** to view the connected devices. Check for your listed device.



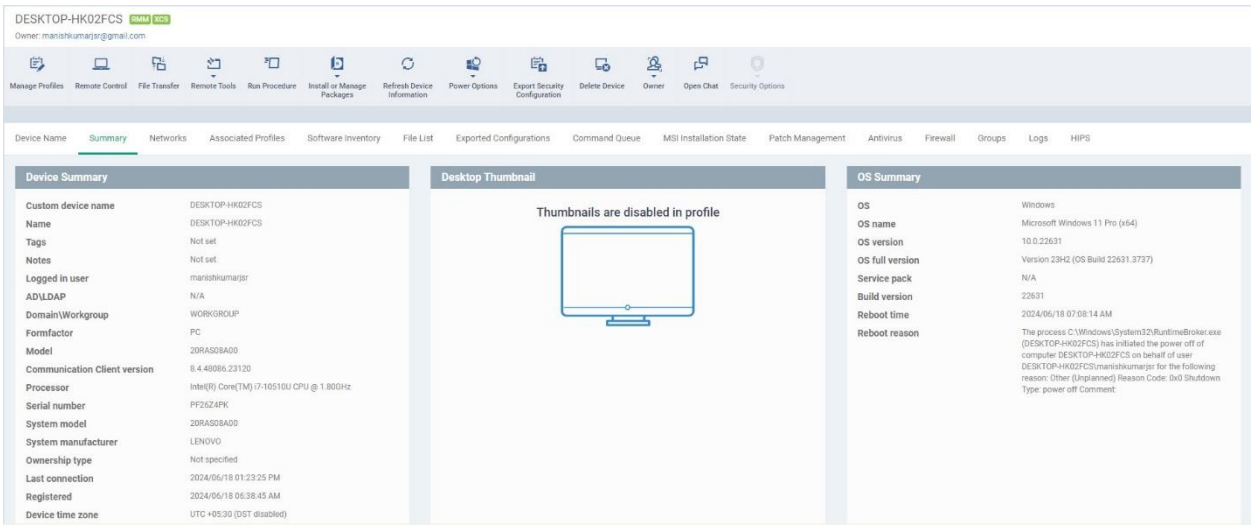
Task 3: Locate endpoint data in the Cloud Manager

Now that agent and the cloud manager are communicating well, let's look at the steps to analyze the data collected by the Cloud manager to manage endpoint protection.

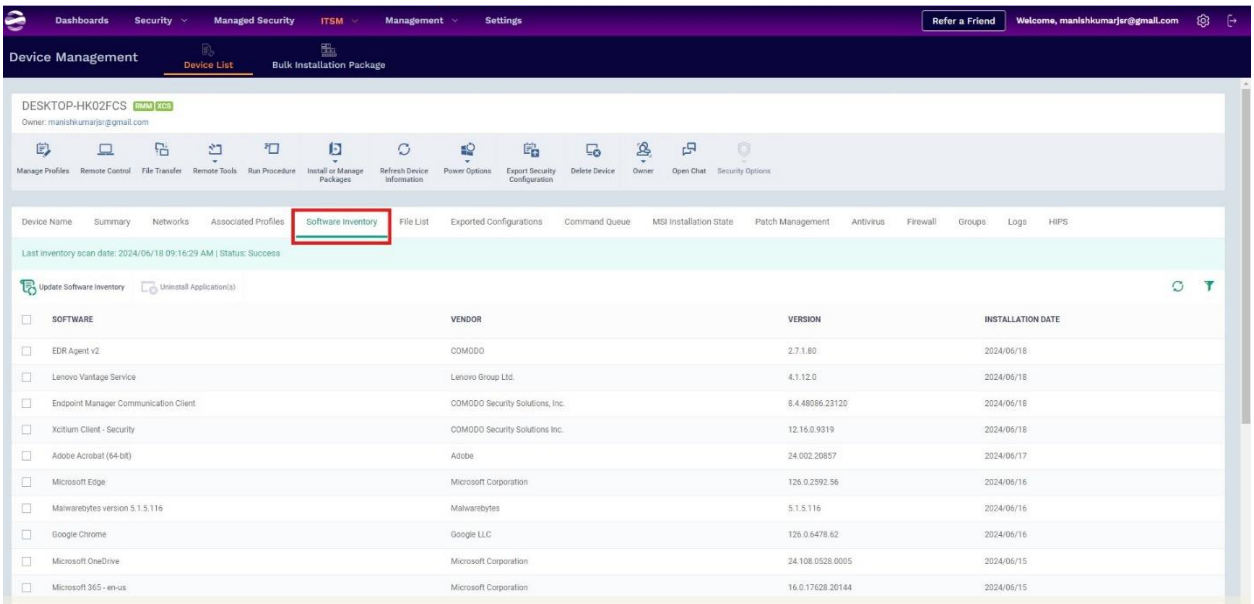
1. Select your device on the **Device Management** pane.



1. Review the detailed information on the **Summary** page for device's hardware, operating system, security software, and performance metrics, including CPU, RAM, and network usage.

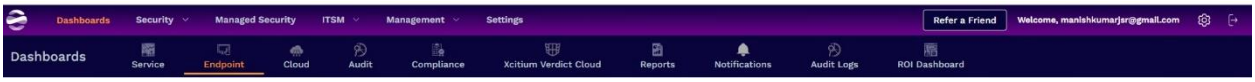


1. Navigate to the **Software Inventory** tab to access a detailed list of all applications installed on the device.

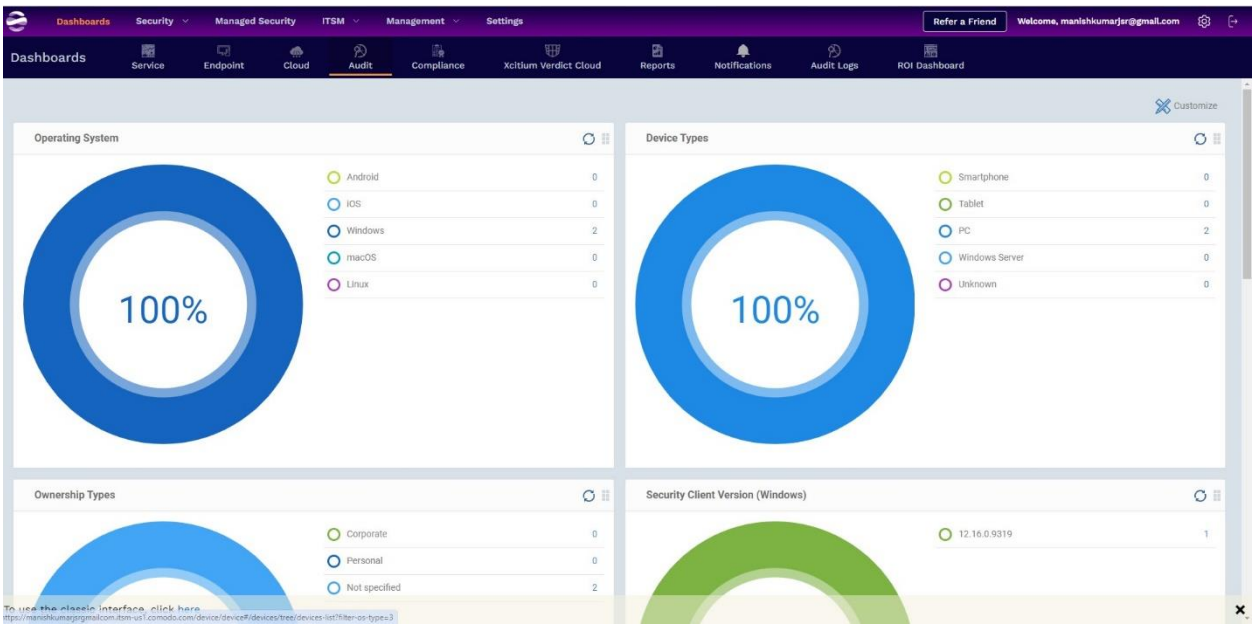


1. Navigate away from the **Device List** to explore additional information captured from endpoints. Explore the **Audit** pane.

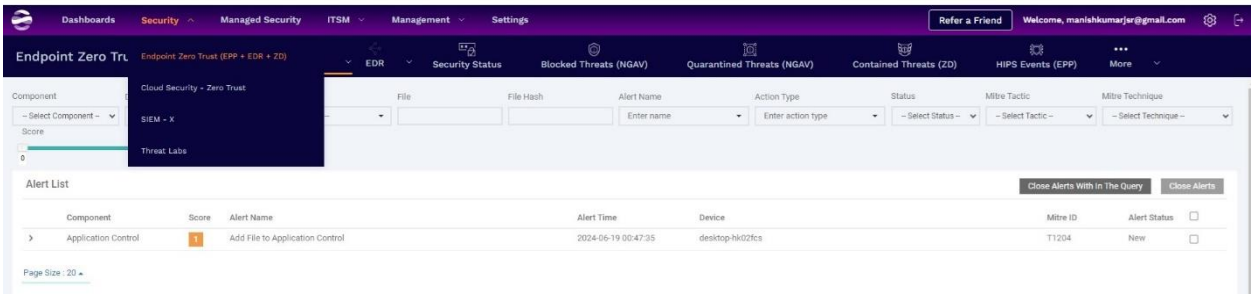
- Select the **Dashboard** tab.



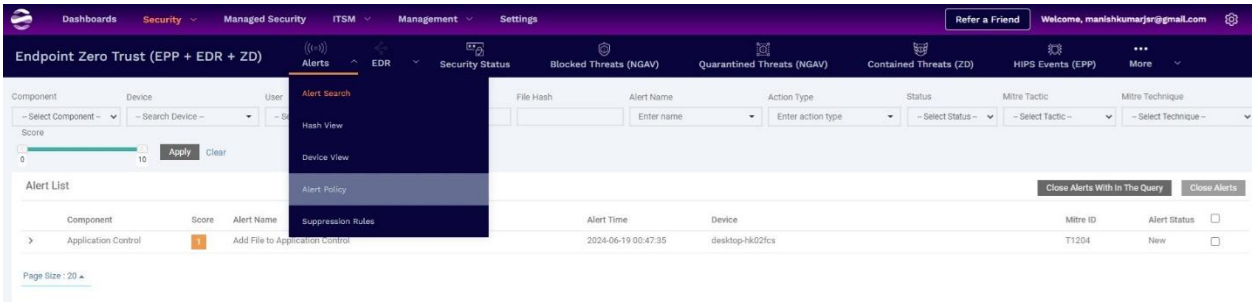
- Select the **Audit** tab to get an overview of the endpoints managed by OpenEDR.



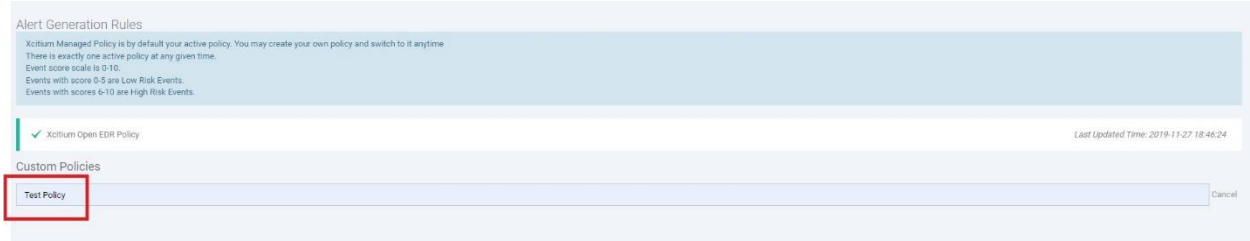
1. Select **Security** tab to view endpoint threat alerts. Next, select **Endpoint Zero Trust (EPP + EDR + ZD)** from the drop-down list.



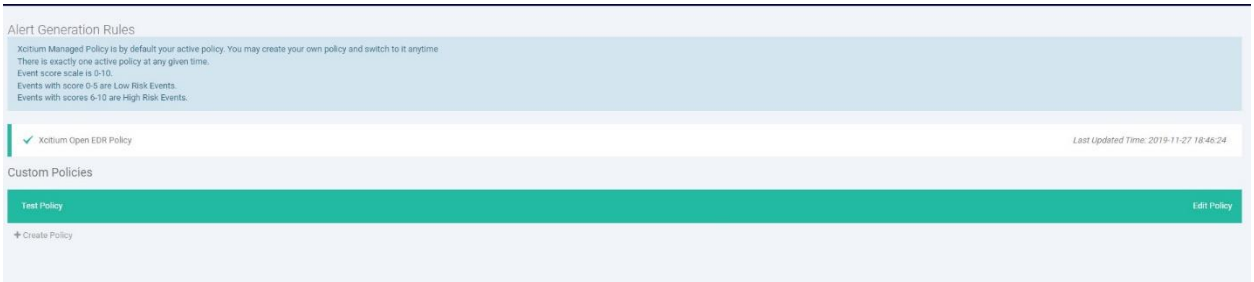
The **Endpoint Security** pane displays all EDR alerts based on severity levels. Events with a score from 0 to 5 are at the low risk, and those with a score from 6 to 10 are at the high risk.



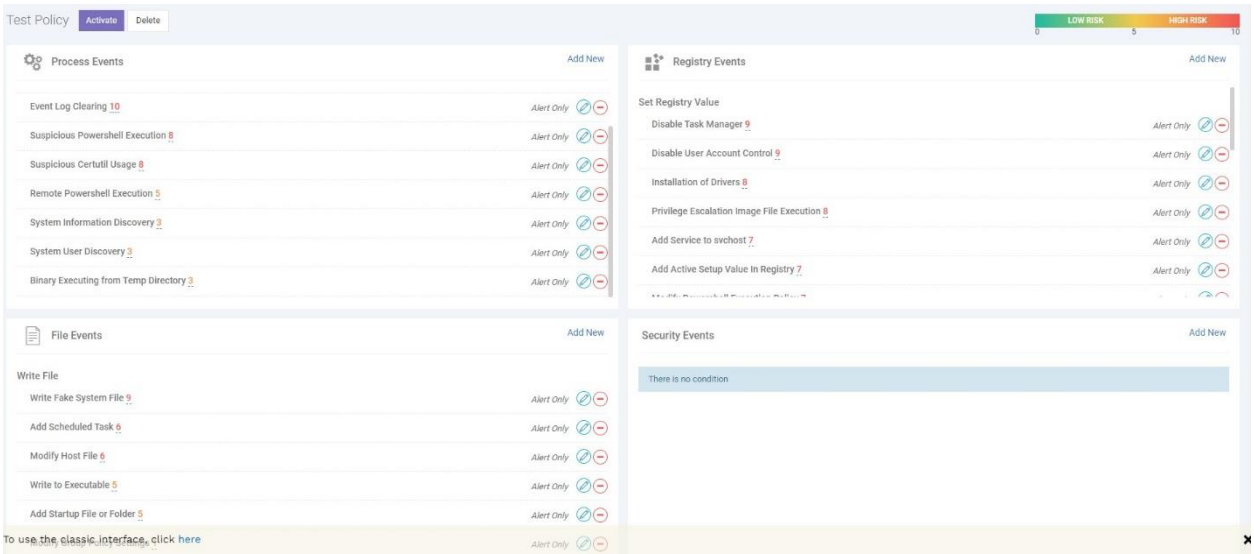
1. Next, establish new rules for monitoring potentially harmful executable downloads into the user's devices. For this, you should create a custom policy. Return to the **Alert Policy** page and select **Create Policy** to begin.



1. Type **Test Policy** in the **Custom Policies** field, and press **Enter** in your keyboard.

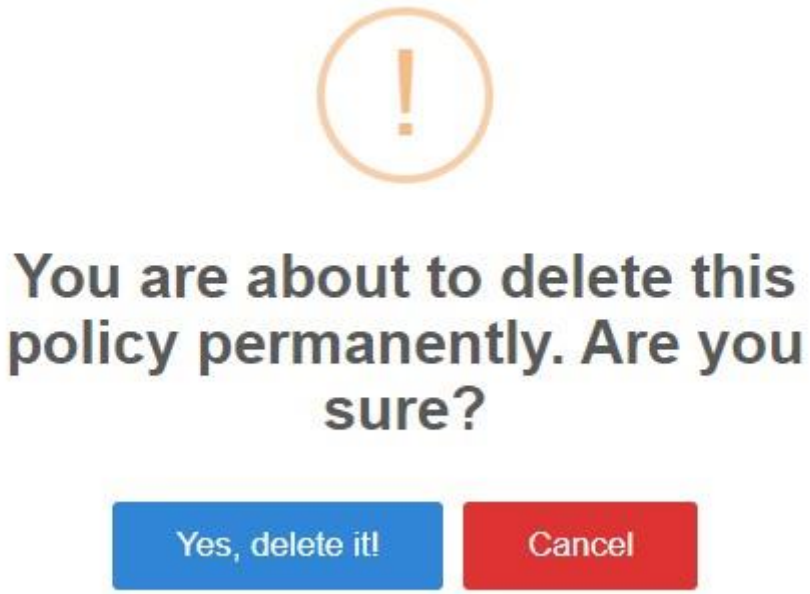


1. Click on custom policy named **Test Policy**, to view the various policy details.



***Note**: Your custom policy begins with the same rules as the Xcitium Predefined Policy. However, you have the option to add, edit, or delete rules based on custom policies.*

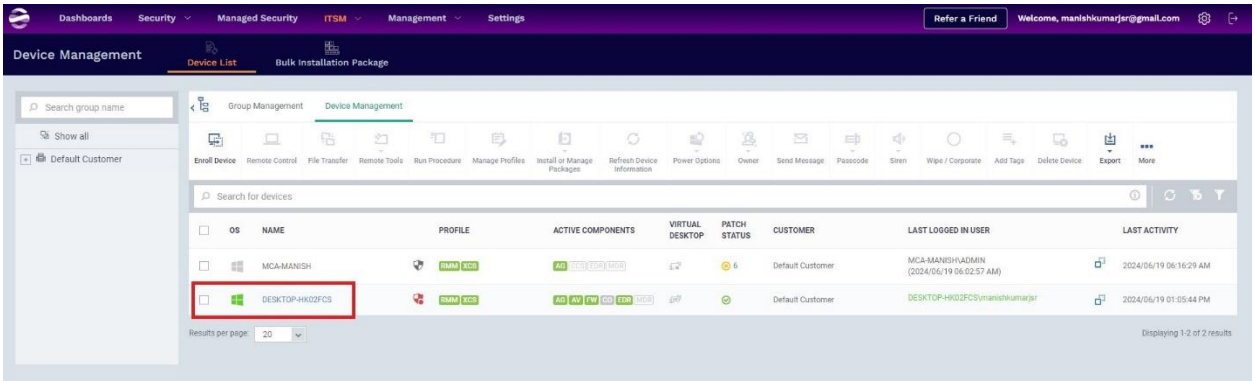
1. For this lab, let's retain Xcitium's default rules. Select **Delete**.
2. Next, select **Yes, delete it** to confirm.



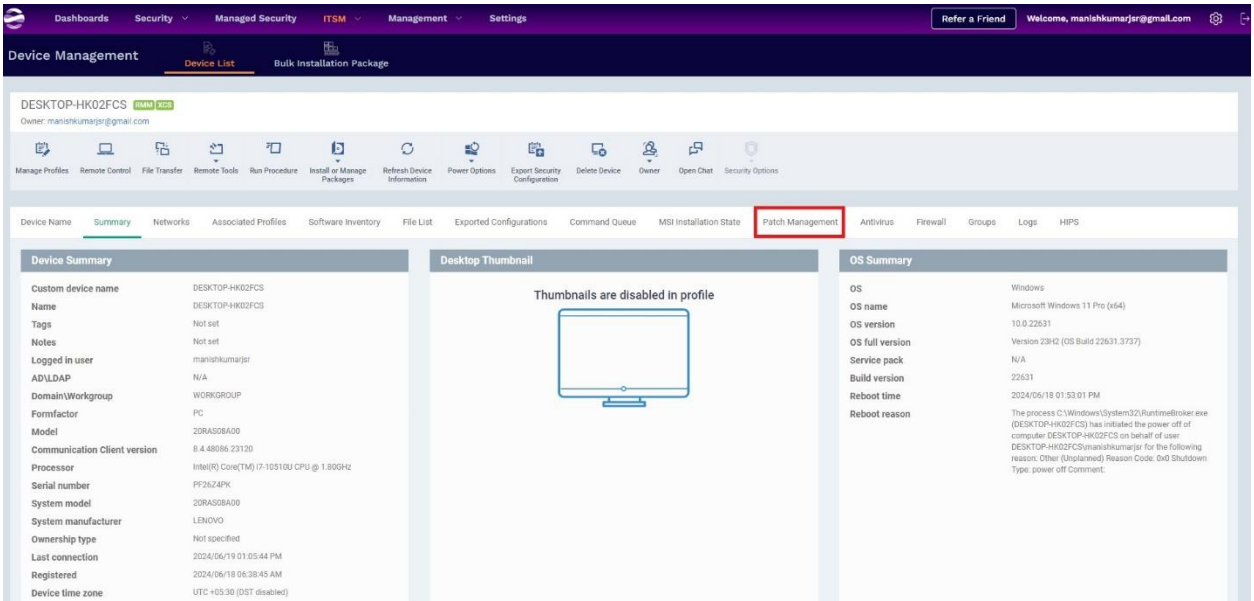
Task 4: Manage endpoint patches from the cloud manager

Patch management stands as a critical measure for organizations to prevent malicious attacks and ensure that each endpoint has their patches consistently updated. Let's explore how to manage patches on your endpoint devices.

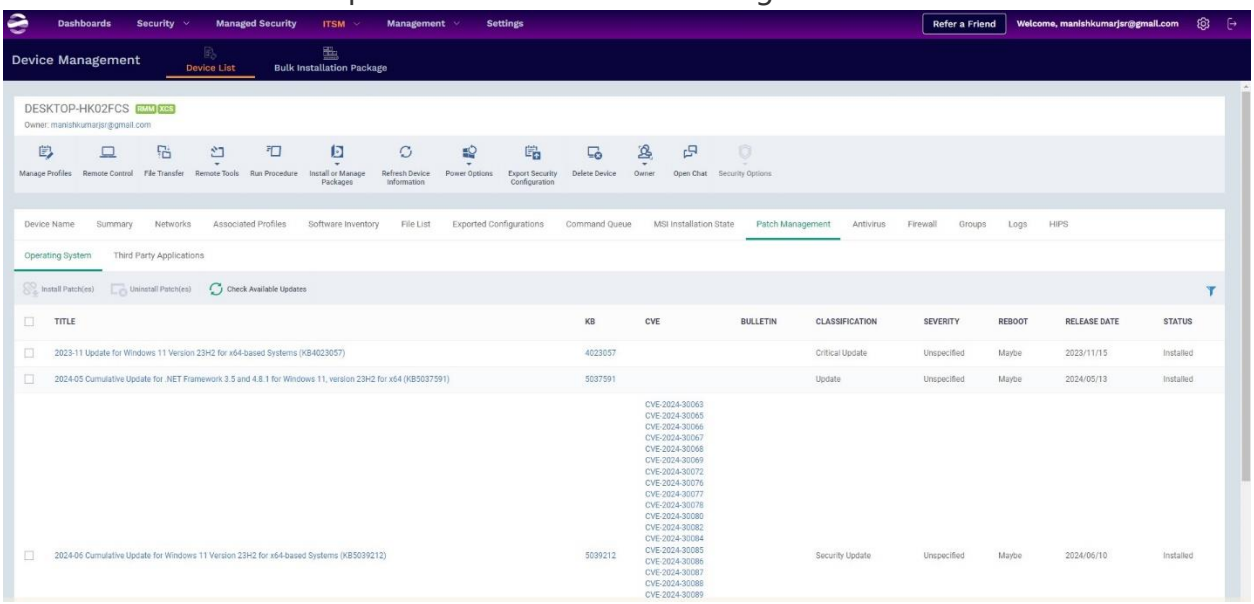
1. Navigate to **ITSM** –> **Device Management** –> Select your **Device**.



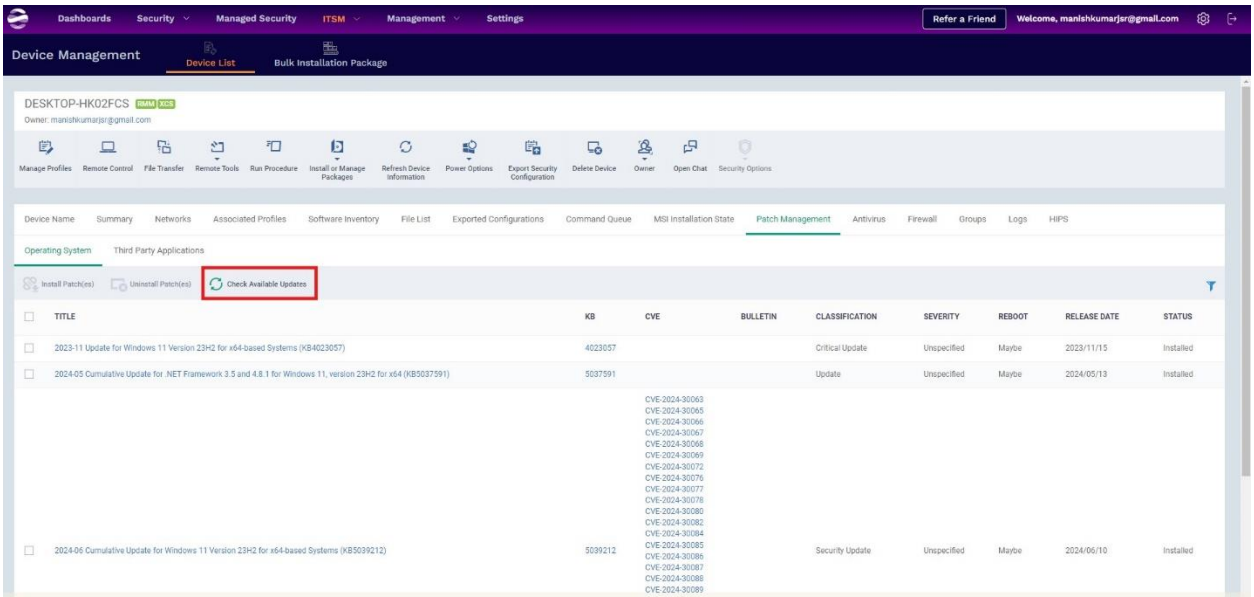
1. Your selected device page will appear. Select the **Patch Management** tab.



The **Patch Management** page displays a comprehensive list of installed software that has available patches or more recent versions. The **Operating System** pane displays each security update available for the endpoint's operating system, along with detailed information such as its importance and whether installing it necessitates a device reboot.

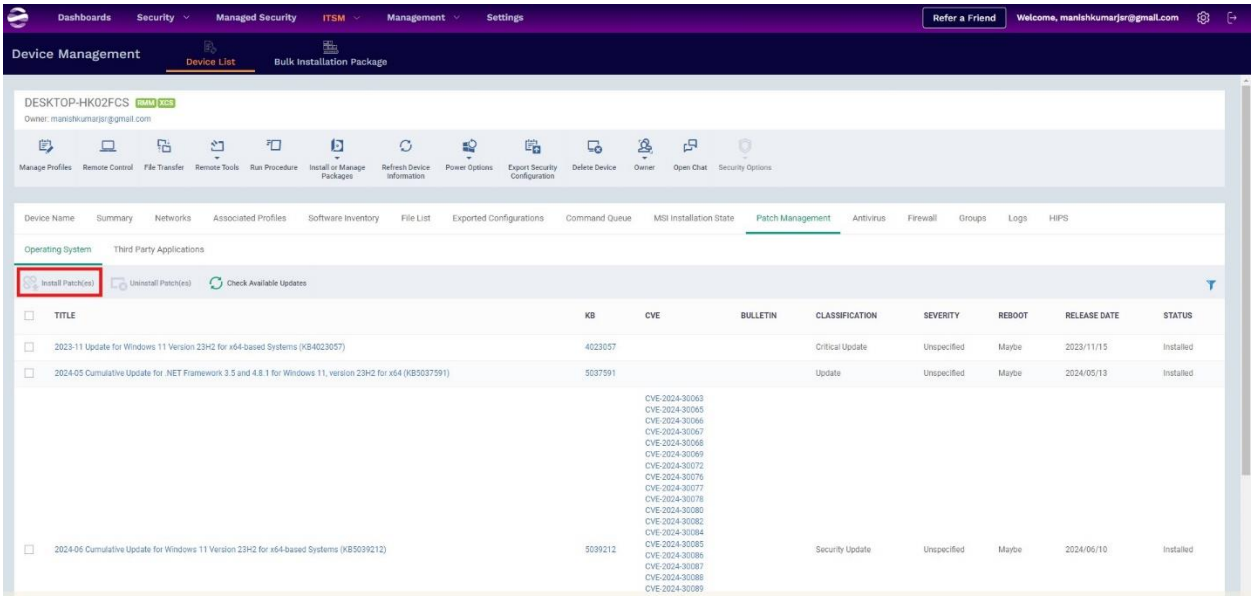


1. Ensure that all available updates for the endpoint are visible. To instruct your device to recheck for new updates, Select **Check Available Updates**.

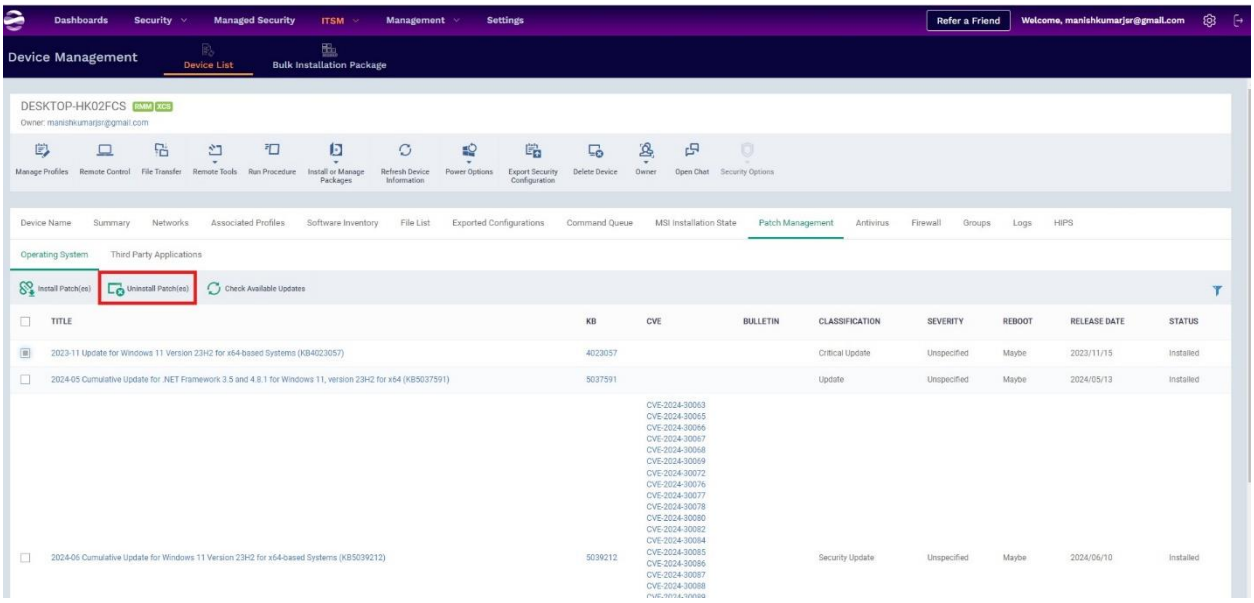


Note: Depending on the current update status of your device, you may not see any results initially. However, the additional entries will appear gradually as patches become available gradually.

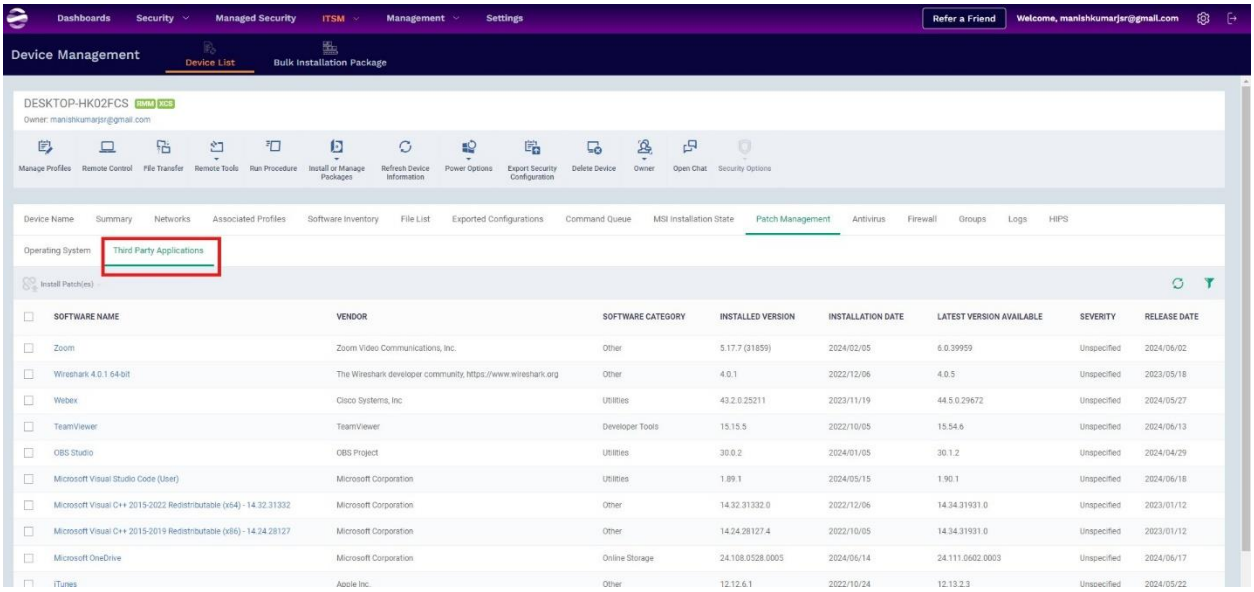
1. To install patches directly from the cloud manager, select the checkbox next to the patch you wish to install, and then select **Install Patch(es)**.



1. Uninstall the patch that impacts other applications. To do so, select the checkbox next to the patch you want to remove, and then select **Uninstall Patch(es)**.



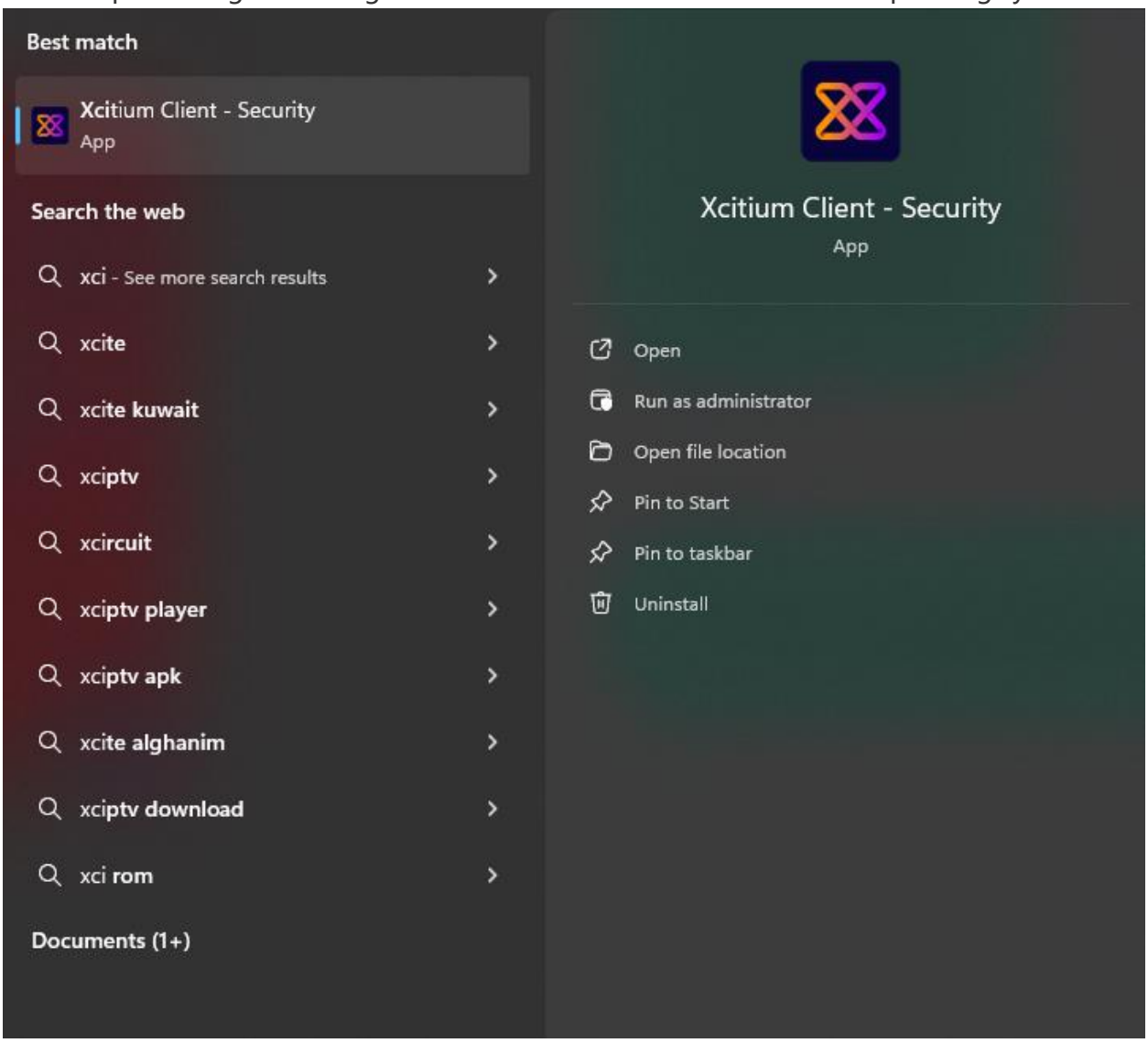
1. Navigate to the **Third Party Applications** tab next to the **Operating System** to review additional installed applications that have patches or available new versions.



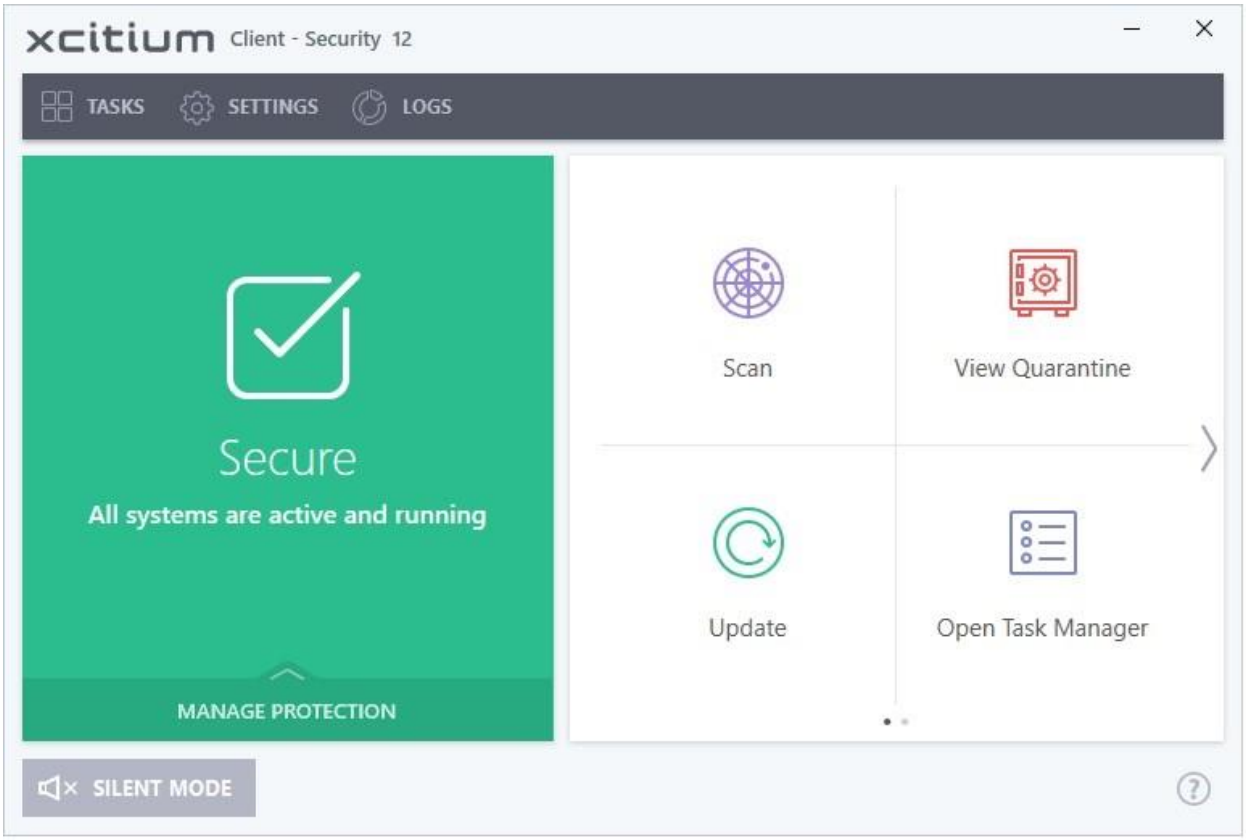
Task 5: Scan an endpoint for malware and find the results in the cloud manager

In this task, you'll use the agent to scan the endpoint for malware and then review the results reported to the cloud manager.

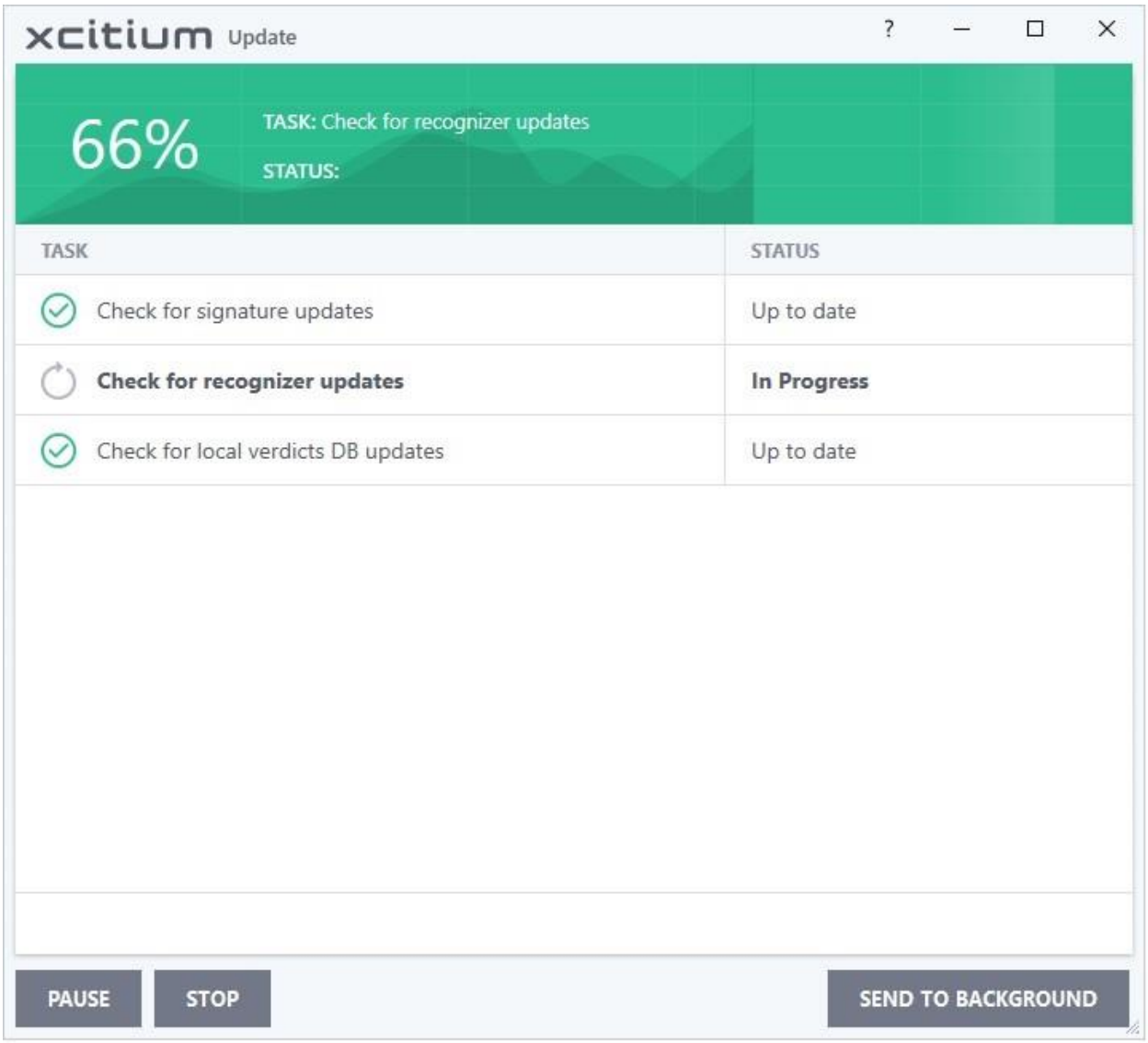
1. Open the agent. The agent's name varies based on the device's operating system.



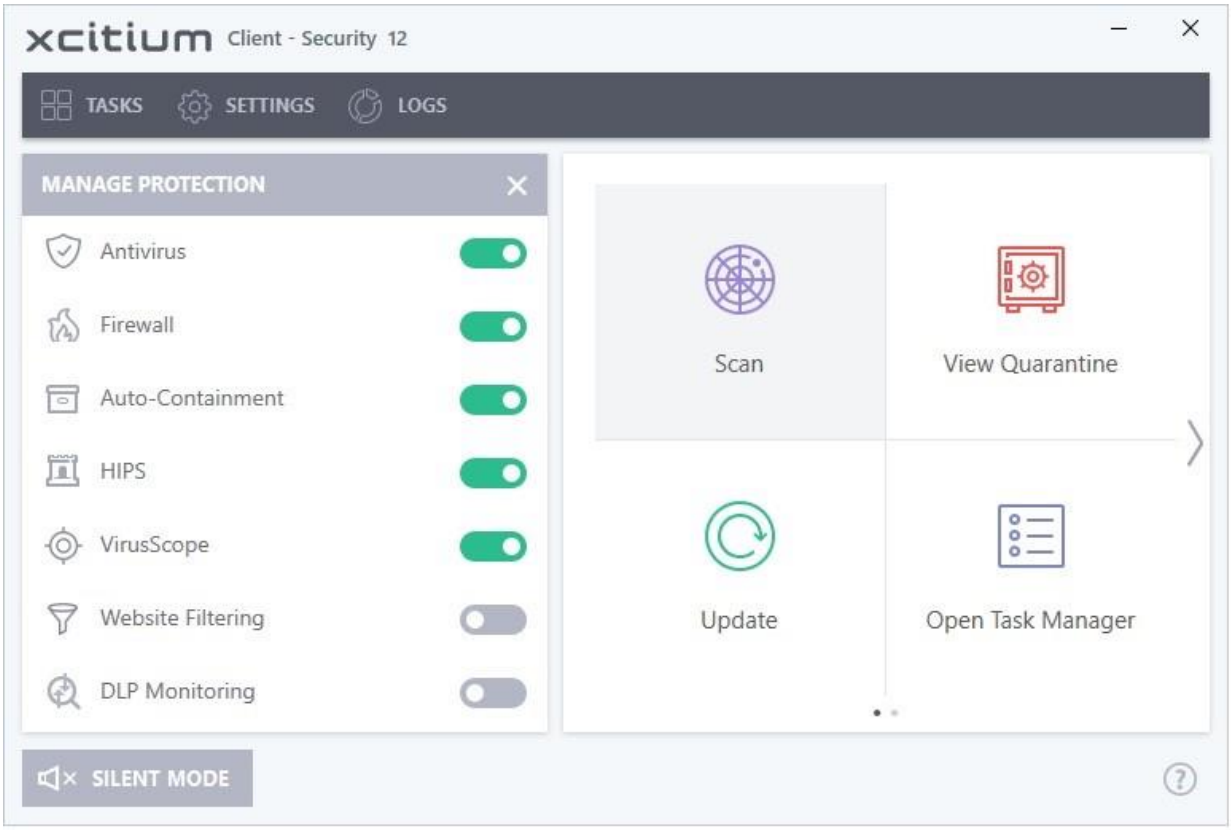
1. Select **Update** on the agent dashboard.



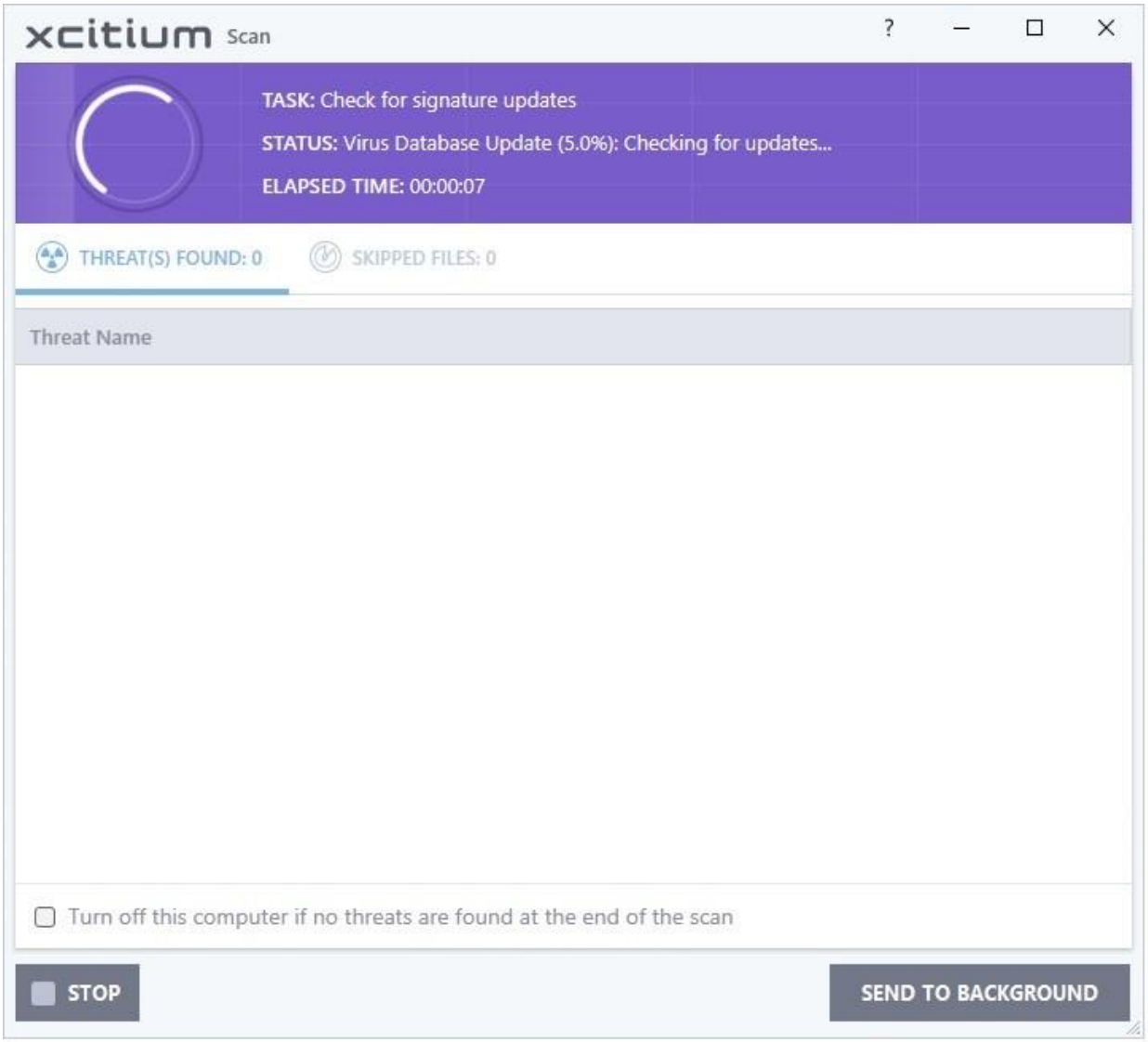
During the update process, the program reports the status of each update task to ensure that all the threat signatures are recent.



1. Once the update is complete, select **Scan** on the agent dashboard.

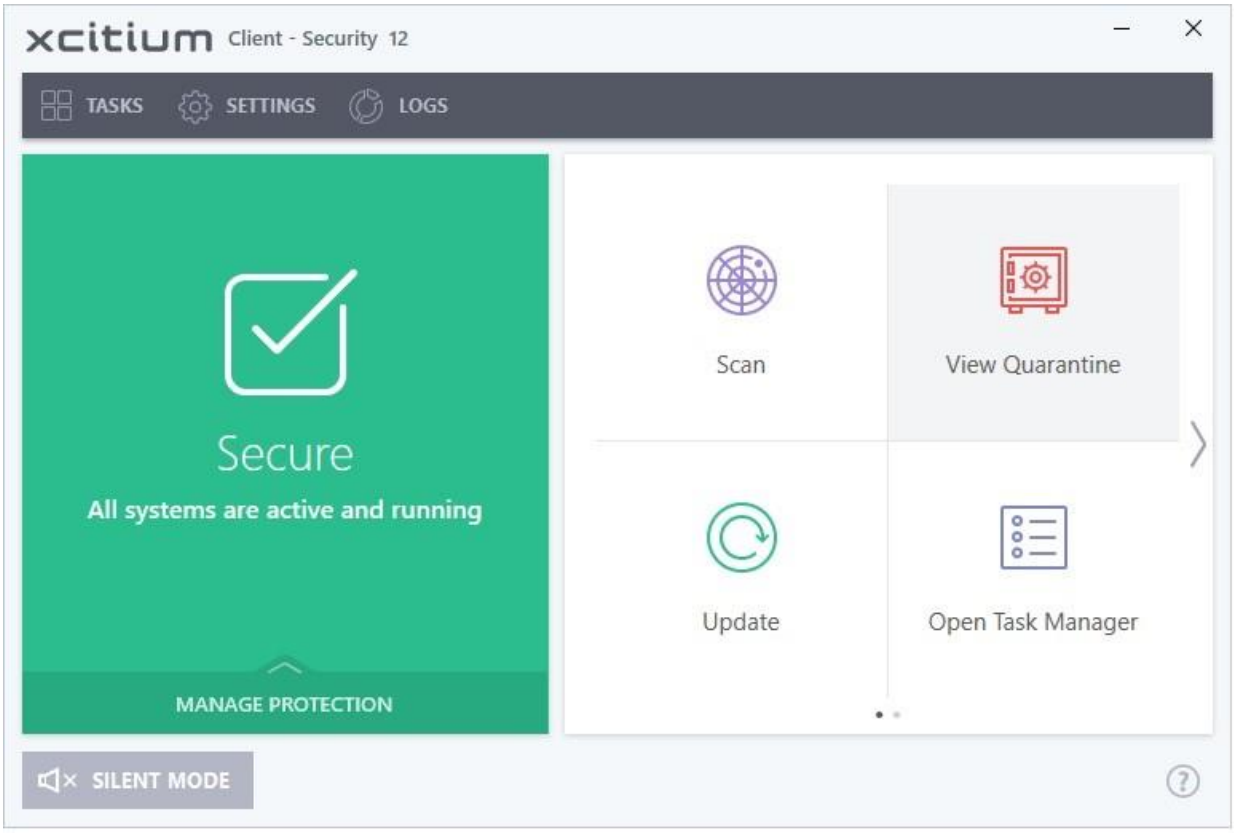


1. Next, select **Quick Scan** from the list of scans.

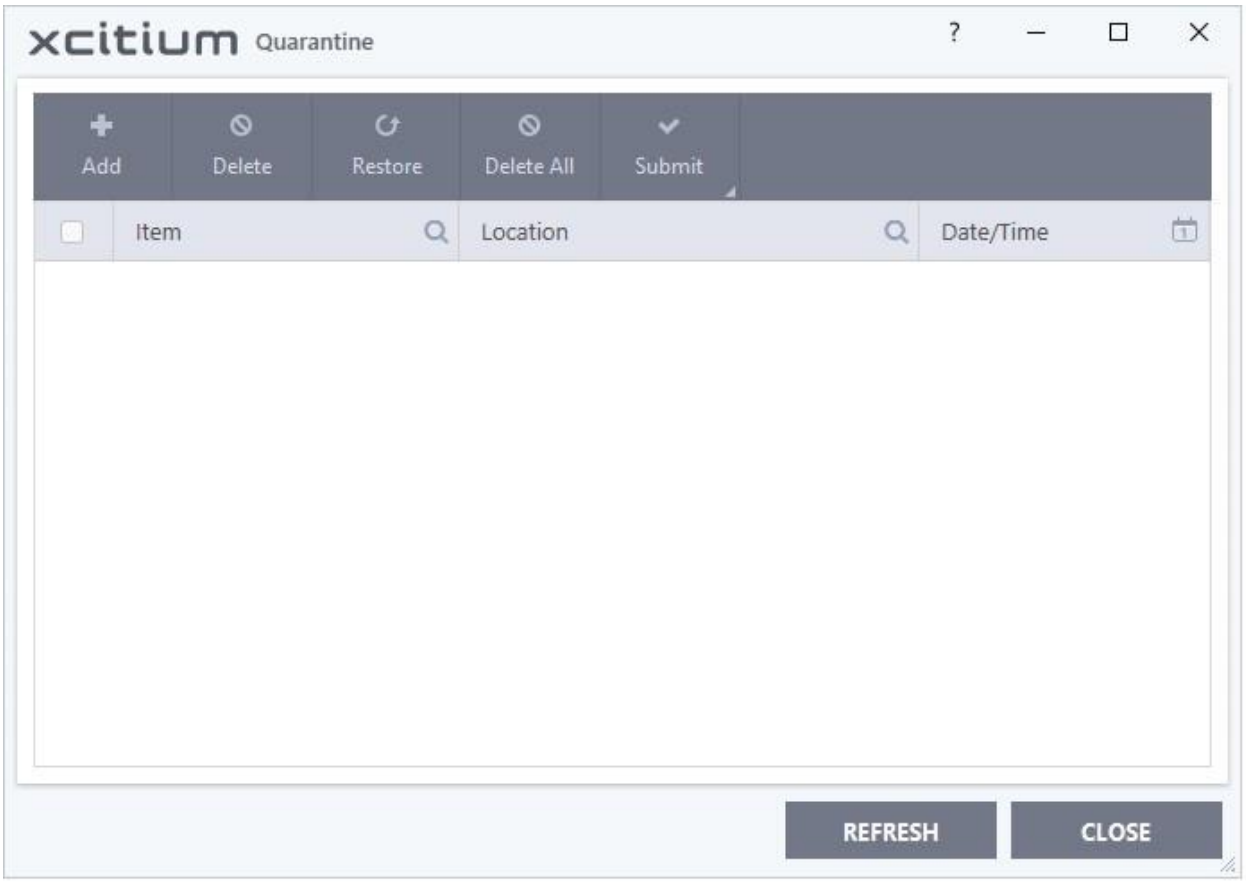


1. Post scanning the device, the system generates a report outlining each threat. To view each potential threat in quarantine, return to the agent dashboard, and then

select **View Quarantine**.



2. View the **Quaratine** dashboard to determine if any files remain in quarantine.



Practice exercises

Next, use these practice exercises to reinforce your learning.

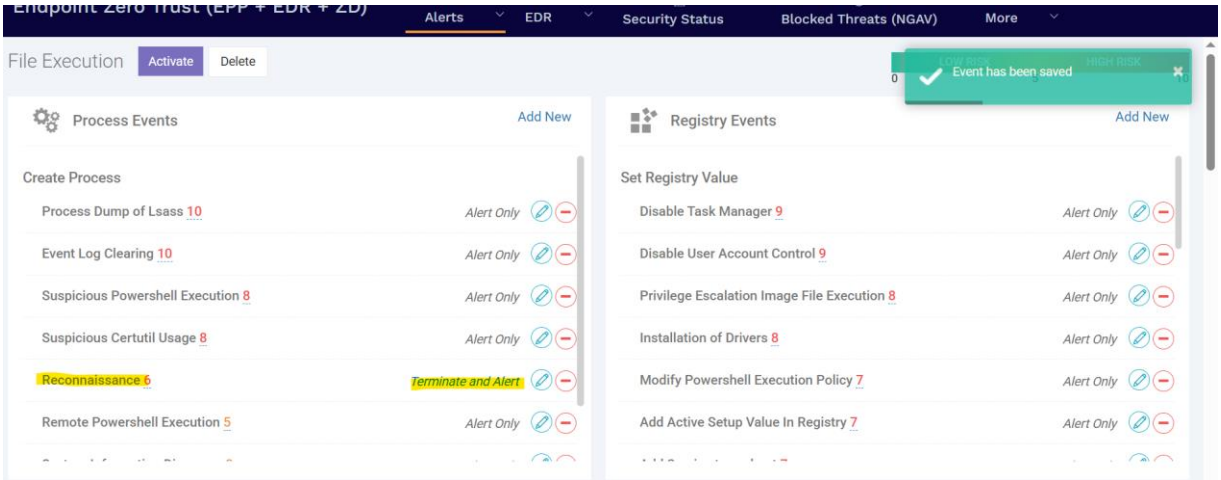
Exercise 1: Create a new security policy in OpenEDR

Objective: Create and apply a new security policy to protect against suspicious file execution.
Hint: The test file should be blocked or an alert should be generated according to the policy rules you set.

Solutions:

1. Open the OpenEDR console on your management server.

2. Navigate to the "Policies" section.
3. Click on "Create New Policy" and choose the type of policy you want to create (for example, "File Execution").
4. Set the policy conditions, such as blocking or alerting on executable files from unknown sources.
5. Save the policy and apply it to the desired endpoint group.
6. Test the policy by executing a test file that meets the policy conditions.



Exercise 2: Perform a system scan and remediation

Objective: Conduct a full system scan on an endpoint and take remediation actions based on the findings.
Hint: Ensure that the scan is comprehensive and covers all potential areas of concern including system files, installed applications, and user directories. After the scan, address detected threats, and a run a follow-up scan to confirm that the system no longer contains the identified issues.
Solution:
Steps:

1. Open the OpenEDR console and navigate to the "Scans" section.
2. Initiate a full system scan on the selected endpoint.

3. Review the scan results for any detected threats or vulnerabilities.
4. Apply remediation actions such as quarantining malicious files, applying patches, or removing unauthorized applications.
5. Rescan the endpoint to ensure that all threats have been addressed and the system is clean.