Tenable OT Security 4.7 Enterprise Manager User Guide

Last Revised: June 24, 2026

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Welcome to Tenable OT Security Enterprise Manager

Tenable OT Security Enterprise Manager (OT Security EM) (formerly Tenable.ot Enterprise Manager) provides an additional layer of enterprise-wide visibility and control on top of the standard functionality of OT Security. Each instance of OT Security offers full threat detection and asset management capabilities for the site at which it is deployed. The OT Security EM enables you to access the full functionality of all of your OT Security instances from a single application.

Tenable OT Security (OT Security) (formerly Tenable.ot) protects industrial networks from cyber threats, malicious insiders, and human error. From threat detection and mitigation to asset tracking, vulnerability management, configuration control and Active Query checks, OT Security's ICS security capabilities maximize your operational environment's visibility, security, and control.

OT Security offers comprehensive security tools and reports for IT security personnel and OT engineers. It provides visibility into converged IT/OT segments and ICS activity, and makes you aware of situations across all sites and their respective OT assets—from Windows Servers to PLC backplanes—in a single pane of glass.

OT Security has the following key features:

- 360-Degree Visibility — Attacks can easily propagate in an IT/OT infrastructure. With a single platform to manage and measure cyber risk across your OT and IT systems, you have complete visibility into your converged attack surface. OT Security also natively integrates with IT security and operational tools, such as your Security Information and Event Management (SIEM) solution, log management tools, next-generation firewalls, and ticketing systems. Together, this builds an ecosystem where all of your security products can work together as one to keep your environment secure.
- Threat Detection and Mitigation — OT Security leverages a multi-detection engine to find high-risk events and behaviors that can impact OT operations. These engines include policy, behavioral and signature-based detection.

- Asset Inventory and Active Detection – Leveraging patented technology, OT Security provides visibility into your infrastructure–not only at the network level, but down to the device level. It uses native communication protocols to query both IT and OT devices in your ICS environment in order to identify all of the activities and actions occurring across your network.
- Risk-Based Vulnerability Management – Drawing on comprehensive and detailed IT and OT asset tracking capabilities, OT Security generates vulnerability and risk levels using Predictive Prioritization for each asset in your Industrial Control Systems (ICS) network. These reports include risk-scoring and detailed insights, along with mitigation suggestions.
- Configuration Control – OT Security provides a full granular history of device configuration changes over time, including specific ladder logic segments, diagnostic buffers, tag tables and more. This enables administrators to establish a backup snapshot with the "last known good state" for faster recovery and compliance with industry regulations.

> Tip: The *Tenable OT Security User Guide* and user interface are available in English, Japanese, German, French, and Simplified Chinese. To change the user interface language, see Local Settings.

For additional information on Tenable OT Security, review the following customer education materials:

- Tenable OT Security Introduction (Tenable University)

OT Security Technologies

The OT Security comprehensive solution comprises two core collection technologies:

- Network Detection – OT Security network detection technology is a passive deep-packet inspection engine designed to address the unique characteristics and requirements of industrial control systems. Network Detection provides in depth, real-time visibility into all activities performed over the operational network, with a unique focus on engineering activities. This includes firmware downloads/uploads, code updates, and configuration

changes performed over proprietary, vendor-specific communication protocols. Network detection alerts in real time for suspicious/unauthorized activities and produces a comprehensive event log with forensic data. Network Detection generates three types of alerts:

- Policy Based – You can activate predefined policies or create custom policies which allow list and/or block list specific granular activities indicative of cyber threats or operational mistakes to trigger alerts. Policies can also be set to trigger Active Query checks for predefined situations.
- Behavioral Anomalies – The system detects deviations from a network traffic baseline, which was established based on traffic patterns during a specified time range. It also detects suspicious scans that are indicative of malware and reconnaissance behaviors.
- Signature Detection Policies – These policies use signature-based OT and IT threat detection to identify network traffic that is indicative of intrusion threats. The detection is based on rules that have been cataloged in Suricata's Threats engine.

- Active Query – OT Security's patented querying technology monitors devices that are on the network by periodically surveying the metadata of control devices in the ICS network. This capability enhances OT Security's ability to automatically discover and classify all the ICS assets, including lower-level devices such as PLCs and RTUs, even when they aren't active in the network. It also identifies locally implemented changes in the device's metadata (for example firmware version, configuration details, and state) as well as changes in each code/function block of the device's logic. Since it uses read-only queries in the native controller communication protocols, it is safe and has no impact on the devices. Queries can be run periodically based on a predefined schedule or on-demand by the user.

Solution Architecture

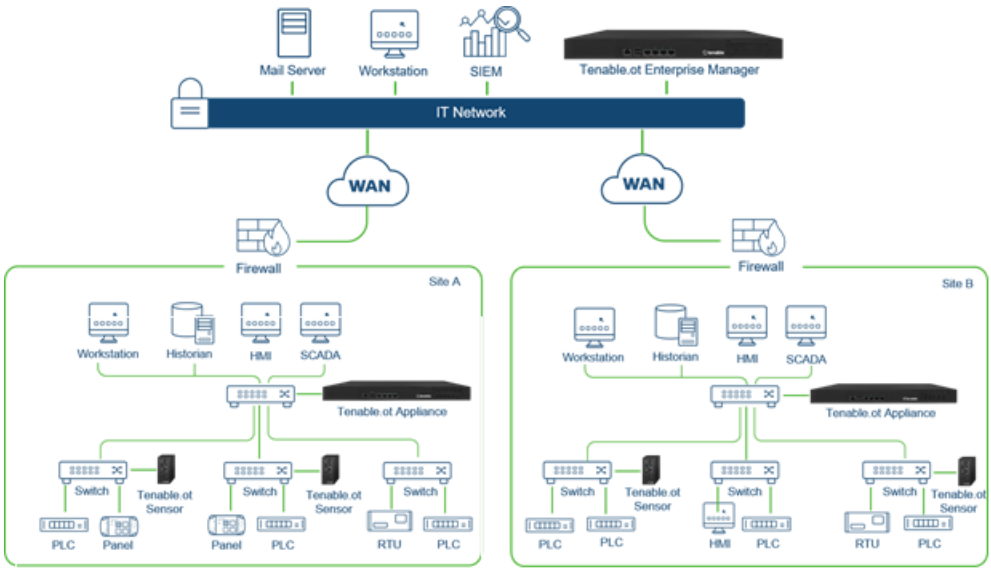
OT Security Components

Note: In this document, the OT Security Appliance is referred to as ICP (Industrial Core Platform).

The OT Security solution is composed of these components:

- **Tenable OT Security Enterprise Manager** (**OT Security EM**) – This component collects data from OT Security at multiple sites, enabling you to configure, manage, control, and report on everything that happens across your OT enterprise. The OT Security EM can be deployed on premises as part of your NOC/SOC on a dedicated appliance (same model as the on-site OT Security appliance), or it can be deployed on a private or public cloud such as a virtual machine or AWS cloud service.
- ICP (**OT Security** Appliance)– This component collects and analyzes the network traffic directly from the network (via a span port or network tap) and/or using a data feed from the Tenable OT Security Sensor (OT Security Sensor). The ICP appliance executes both the Network Detection and Active Query functions.
- **OT Security** Sensors – These are small devices deployed on network segments that are of interest, up to one sensor per managed switch. OT Security sensors provide full visibility into these network segments by capturing all the traffic, compressing the data and then communicating the information to the OT Security appliance. You can configure Sensors version 3.14 and later to send out active queries to the network segments on which they are

deployed.



Network Components

OT Security supports interaction with the following network components:

- OT Security user (management) – You can create user accounts to control access to the OT Security Management Console. You can access the Management Console through a browser (Google Chrome) via a secure socket-layer authentication (HTTPS).

Note: You can only access OT Security user interface from the latest version of Chrome.

- SIEM– Send OT Security Event logs to a SIEM using Syslog protocol.
- SMTP Server – OT Security sends event notifications by email to specific groups of employees via an SMTP server.
- DNS Server – Integrate DNS servers into OT Security to help in resolving asset names.
- Third-party applications – External applications can interact with OT Security using its REST API or access data using other specific integrations[1].

[1]For example, OT Security supports integration with Palo Alto Networks Next Generation Firewall (NGFW) and Aruba ClearPass, enabling OT Security to share asset inventory info with these systems. OT Security can also integrate with other Tenable platforms such as Tenable Vulnerability Management and Tenable Security Center. Integrations are configured under Local Settings > Integrations, see Integrations.

System Elements

Assets

Assets are the hardware components in your network such as controllers, engineering stations, and servers. OT Security's automated asset discovery, classification, and management provides an accurate asset inventory by continuously tracking all changes to devices. This simplifies sustaining of operational continuity, reliability, and safety. It also plays a key role in planning maintenance projects, prioritizing upgrades, patch deployments, incident response, and mitigation efforts.

Risk Assessment

OT Security applies sophisticated algorithms to assess the degree of risk posed to each asset on the network. A Risk Score (from 0 to 100) is given for each Asset in the network. The Risk score is based on the following factors:

- Events – Events in the network that affected the device (weighted based on Event severity and how recently the Event occurred).

  > Note: Events are weighted according to currency, so that more recent Events have a greater impact on the Risk score than older Events.

- Vulnerabilities – CVEs that affect assets in your network, as well as other threats identified in your network (for example, obsolete operating systems, usage of vulnerable protocols and vulnerable open ports). In the OT Security, these are detected as plugin hits on your assets.
- Asset Criticality – A measure of the importance of the device to the proper functioning of the system.

> Note: For PLCs that are connected to a backplane, the Risk score of other modules that share the backplane affect the PLC's Risk score.

Policies and Events

Policies define specific types of events that are suspicious, unauthorized, anomalous, or otherwise noteworthy that take place in the network. When an event occurs that meets all the Policy Definition conditions for a particular Policy, OT Security generates an Event. OT Security logs the Event and sends notifications in accordance with the Policy Actions configured for the policy.

There are two types of policy events:

- Policy-based Detection – Triggers events when the precise conditions of the policy, as defined by a series of event descriptors, are met.
- Anomaly Detection – Triggers events when anomalous or suspicious activity is identified in the network.

The system features a set of predefined policies (out-of-the-box). In addition, the system offers the ability to edit the predefined policies or define new custom policies.

Policy-Based Detection

For Policy-based detection, you configure the specific conditions for what events in the system trigger Event notifications. Policy-based Events are triggered only when the precise conditions of the policy are met. This ensures zero false positives, as the system alerts for actual events that take

place in the ICS network, while providing meaningful detailed information about the ‘who’, ‘what’, ‘when’, ‘where’, and ‘how’. The policies can be based on various Event types and descriptors.

The following are some examples of possible policy configurations:

- Anomalous or unauthorized ICS control-plane activity (engineering) – An HMI should not query the firmware version of a controller (may indicate reconnaissance), and a controller should not be programmed during operational hours (may indicate unauthorized, potentially malicious activity).
- Change to controller’s code – A change to the controller logic was identified (“Snapshot mismatch”).
- Anomalous or unauthorized network communications– An un-allowed communication protocol was used between two network assets or a communication took place between two assets that never communicated before.
- Anomalous or unauthorized changes to the asset inventory – A new asset was discovered or an asset stopped communicating in the network.
- Anomalous or unauthorized changes in asset properties – The asset firmware or state has changed.
- Abnormal writes of set-points – Events are generated for changes made to specific parameters. The user can define the allowed ranges for a parameter and generate Events for deviations from that range.

Anomaly Detection

Anomaly Detection policies discover suspicious behavior in the network based on the system's built-in capabilities for detecting deviations from 'normal' activity. The following anomaly detection policies are available:

- Deviations from a network traffic baseline: the user defines a baseline of 'normal' network traffic based on the traffic map during a specified time range and generates alerts for deviations from the baseline. The baseline can be updated at any time.
- Spike in Network Traffic: a dramatic increase in the volume of network traffic or number of conversations is detected.
- Potential network reconnaissance/cyber-attack activity: Events are generated for activities indicative of reconnaissance or cyber-attack activity in the network, such as IP conflicts, TCP port scans, and ARP scans.

Policy Categories

The Policies are organized by the following categories:

- Configuration Event Policies – these Policies relate to the activities that take place in the network. There are two sub-categories of Configuration Event Policies:
    - Controller Validation - these Policies relate to changes that take place in the controllers in the network. This can involve changes in the state of a controller as well as changes to the firmware, asset properties, or code blocks. The Policies can be limited to specific schedules (for example firmware upgrade during a work day), and/or specific controller/s.
    - Controller Activities – these policies relate to specific engineering commands that impact controllers' state and configuration. It is possible to define specific activities that always generate Events or to designate a set of criteria for generating Events. For example, if certain activities are performed at certain times and/or on certain controllers. Both black listing and white listing of assets, activities and schedules are supported.
- Network Events Policies – these Policies relate to the assets in the network and the communication streams between assets. This includes assets that were added to or removed

from the network. It also includes traffic patterns that are anomalous for the network or that have been flagged as raising particular cause for concern. For example, if an engineering station communicates with a controller using a protocol that is not part of a pre-configured set of protocols (for example protocols that are used by controllers manufactured by a specific vendor), an Event is triggered. These policies can be limited to specific schedules and/or specific assets. Vendor-specific protocols are organized by vendor for convenience, while any protocol can be used in a policy definition.

- SCADA Event Policies – these Policies detect changes in set-point values which can harm the industrial process. These changes may result from a cyber-attack or human error.
- Network Threats Policies – these Policies use signature-based OT and IT threat detection to identify network traffic that is indicative of intrusion threats. The detection is based on rules that have been cataloged in Suricata's Threats engine.

Groups

An essential component in the definition of Policies in OT Security is the use of Groups. When configuring a Policy each of the parameters is designated by a Group as opposed to individual entities. This greatly streamlines the Policy configuration process.

Events

When an event occurs that matches the conditions of a Policy, an Event is generated in the system. All Events are displayed on the Events screen and can also be accessed through the relevant Inventory and Policy screens. Each Event is marked with a severity level, indicating the degree of risk posed by the Event. Notifications can be automatically sent out to email recipients and SIEMs as specified in the Policy Actions of the Policy that generated the Event.

An Event can be marked as resolved by an authorized user and a comment can be added.

Deployment Specifications

You can deploy the OT Security EM as an appliance installed on site or on a Public or Private cloud server.

The OT Security EM specifications are the same as that for a t3.xlarge instance:

- CPU: 4
- Memory: 16 GB
- Disk: 205 GB

Set Up OT Security EM

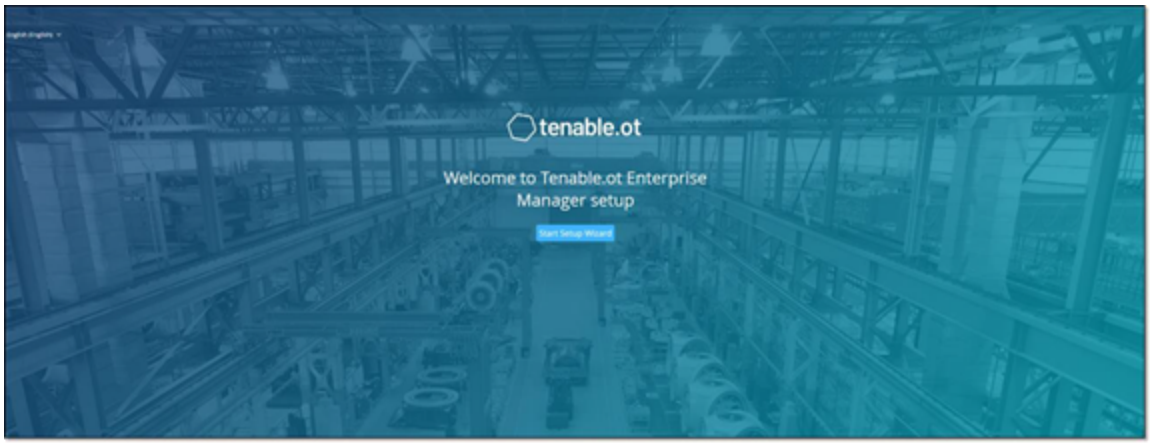
The Initial setup of OT Security EM involves two steps:

1. Run the Setup Wizard and provide relevant configuration information.
2. Pair ICP with OT Security EM.

To initiate the OT Security EM setup:

1. From your Chrome browser, navigate to https://192.168.1.5.

   The Welcome page of the OT Security EM setup wizard opens.



> Note: You can access the user interface from the latest Chrome browser version.

2. Click Start Setup Wizard.

   The setup wizard opens with the User Info page.

   The OT Security EM Setup Wizard takes you through the process of configuring the basic system settings.

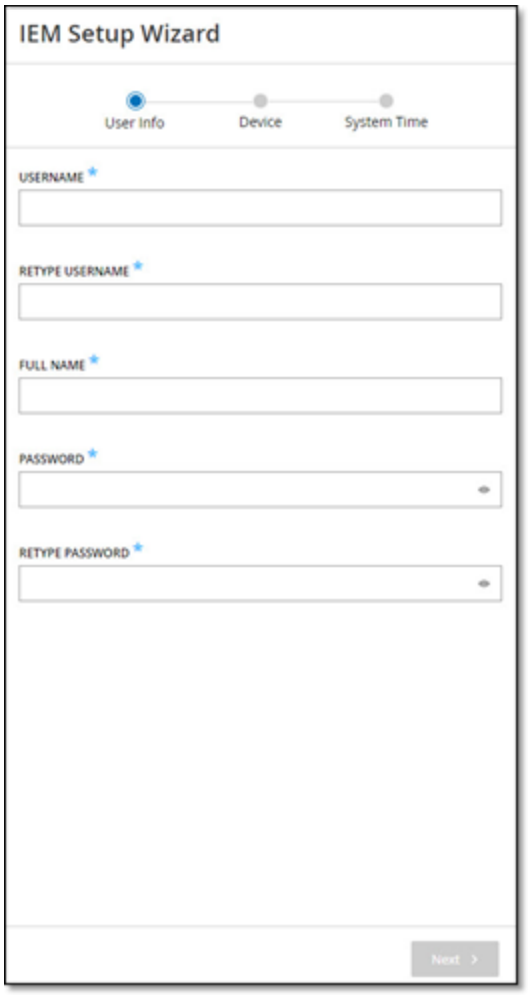
   > Note: To change the configuration later, you can do so from Local Settings in the Management Console (user interface).

Setup Wizard – User Information

On the User Info page, provide your user account information:

1. In the Username box, type a username for logging into the system.

   The username must include only lowercase letters and numbers.



2. In the Retype Username box, re-type the identical username.
3. In the Full Name box, type your complete first and last name.

   > Note: This is the name that appears in the header bar and on logs of your activity in the system.

4. In the Password box, type a password to be used for logging into the system.

   The password must contain at least:

   - 12 characters
   - One uppercase letter

- One lowercase letter
- One digit
- One special character

5. In the Retype Password box, re-type the identical password.
6. Click Next.

   The Device page appears.

Setup Wizard – Device

On the Device page, provide the information about the OT Security platform:

1. In the Device Name box, type a unique identifier for the OT Security EM.

2. In the IP box, type an IP address (within the network subnet) to apply to the OT Security EM.

   This becomes the OT Security EM IP address.

3. In the Subnet Mask box, type the subnet mask of the network.

4. To set up a Gateway (optional), type the gateway IP for the network in the Gateway box.

   > Note: If you do not provide this value, OT Security cannot communicate with external components outside of the subnet. For example, email servers and syslog servers.

5. Click Next.

The System Time page of the setup wizard appears.

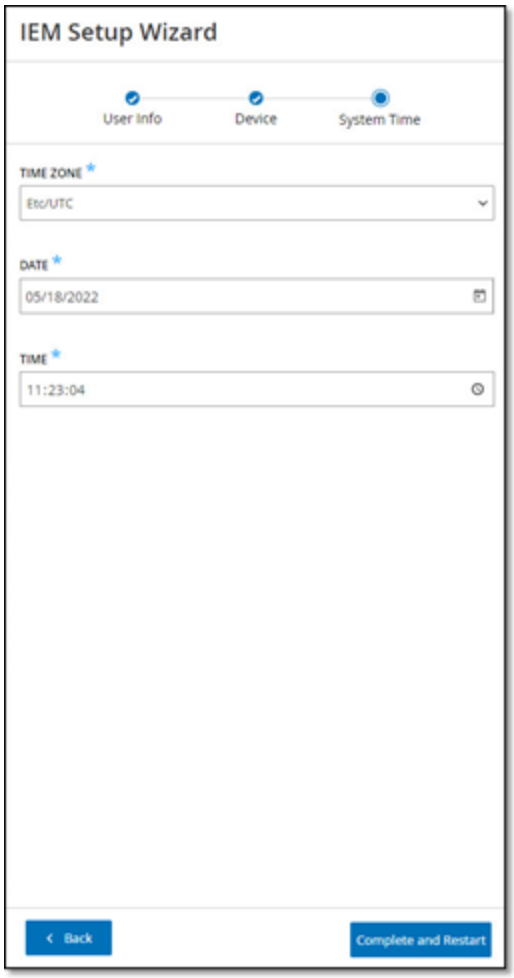
Setup Wizard – System Time

On the System Time page, the correct time and date are set automatically. If the correct date and time are not set, do as follows:

> Note: Setting the correct date and time is essential for accurate recording of logs and alerts.

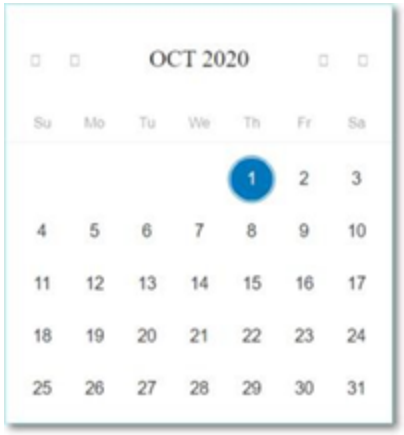
To set the date and time:

1. In the Time Zone drop-down box, select the local time zone at the site location.



2. In the Date box, click the calendar icon .

   A pop-up calendar appears.



3. Select the current date.
4. In the Time box, select hours, minutes, and seconds AM/PM respectively and type the values using either the keyboard or the up and down arrows.

   > Note: To edit any of the previous pages of the setup wizard, click Back. After you click Complete and Restart, you cannot return to the setup wizard. However, you can change the configuration settings on the Settings page of the user interface.

5. To complete the setup procedure, click Complete and Restart.
6. Once the restart is complete, OT Security EM redirects you to the Login page.

   After completing the setup wizard, contact Tenable Support to add your sites to OT Security EM.

OT Security EM License Workflow

Licenses for Tenable accounts are calculated based on the number of unique IPs in the system. Each IP requires a separate license. For example, even if more than one device shares the same IP

address, multiple devices connected to the same backplane that share the same three IPs, the licenses can still be based on the number of IPs. In this case, you need three licenses, regardless of the number of devices.

After you install OT Security EM, the next step is to activate your license.

> Note: To update or reinitialize your OT Security license, reach out to your Tenable Account Manager. Once your Tenable account manager updates your license, you can update or reinitialize your license.

Before you Begin

- Install the OT Security EM Appliance.
- Make sure that you have the license code (20 characters letter/numbers), which you received from Tenable when you ordered your device.
- Make sure you have access to the internet. If your OT Security EM device is not connected to the Internet, you can register the license from any PC.
- Make sure you have access to the Tenable Account Management portal. For access, contact your Tenable Customer Success Manager.

Activate your OT Security license

You can activate your OT Security EM license and facilitate the Tenable provisioning portal for creating new sites to manage your assets.

To activate your OT Security EM license:

1. Log in to the Tenable Account Management portal using your community account.

   The Provisioning page appears with the products for which you have licenses.

2. In the left pane, select **Tenable OT Security**.

The OT Security licenses appear with details such as the purchase date, expiration date, and number of licensed IPs and sites.

3. From the Code column, copy the 20-digit OT Security license code.
4. Generate activation certificate in OT Security EM:
    a. Go to the OT Security EM License Activation page.
    b. In step 1, click Enter new license code.

        The Enter new license code panel appears on the right.
    c. In the License code box, paste the code that you copied from the provisioning portal.
    d. Click Verify.

        OT Security EM enables the Generate activation certificate section.
    e. Click Generate Certificate.

        The Generate Certificate panel appears on the right.
    f. Click Copy text to clipboard, then click Done.

        OT Security EM generates the certificate, which you must provide in the Tenable Provisioning Portal to add your sites.
5. In step 3 Enter activation code, click the Self-service link to open the Tenable Provisioning portal.

    > Note: To activate your evaluation period, click the Click here link.
6. Navigate to the Tenable OT Security Provisioning page and click ⊕Add Site.

    The Add New Tenable OT Security Site window appears.

a. (Optional) In the Label box, type a name for the site.

b. In the Activation Certificate box, paste the certificate that you copied from OT Security EM. See step f.

c. Click Create.

   A dialog box appears with an activation code. This is a one-time generated code that you must copy to the OT Security instance.

d. Click the button, then click Confirm.

7. Navigate back to the OT Security EM instance and in the step 3 Enter activation code section, click Enter Activation Code.

   The Enter Activation Code panel appears on the right.

8. In the Activation Code box, paste the one-time generated code that you copied from the Tenable OT Security Provisioning page. See step e.

9. Click Activate.

   OT Security EM shows a confirmation message that the system activated successfully and the OT Security EM interface appears.

10. Click Enable.

    OT Security EM is now enabled and ready to use.

11. Navigate back to the Tenable Provisioning portal and in the one-time generated activation code dialog box, click the I have saved this certificate information or copied it to Tenable.ot for activation checkbox.

12. Click Confirm.

    The newly added site appears in the Provisioning page for OT Security EM.

Update your license

When you want to increase your asset limit, extend your license period, or change your license type, you can update your license.

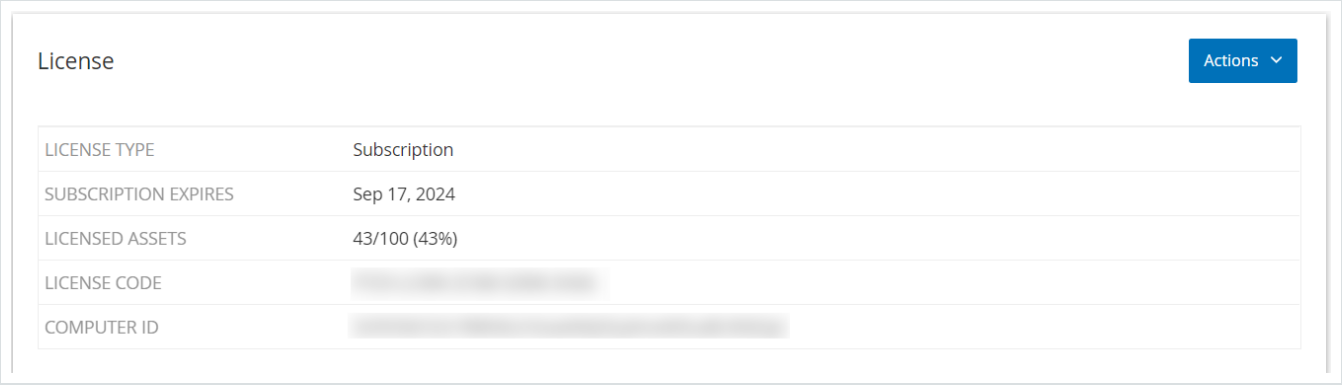
Before you Begin

- Your Tenable Account Manager must have already updated your license information in their system before you can update the new license.
- You need access to the internet. If your OT Security EM device is not connected to the Internet, you can register the license from any PC.

To update your license:

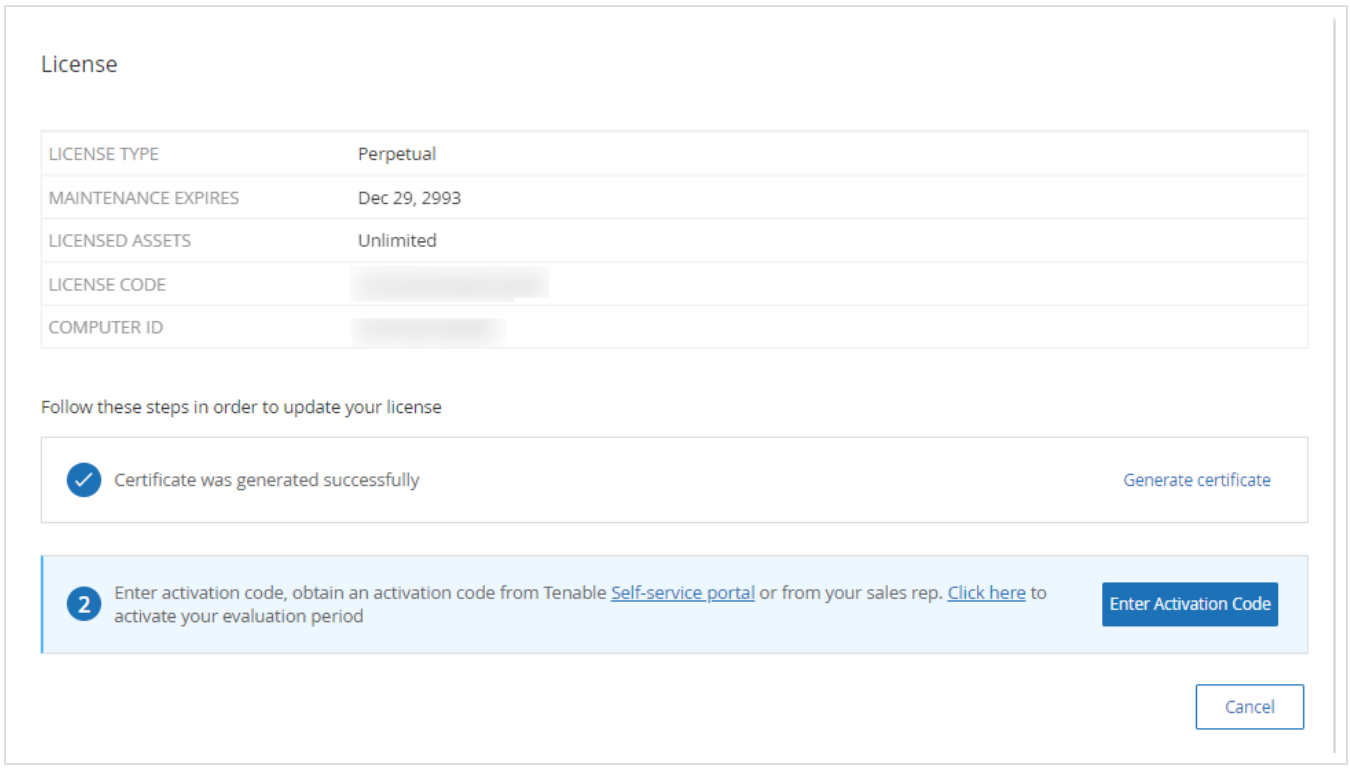
1. Go to Local Settings > System Configuration > License.

   The License window appears.



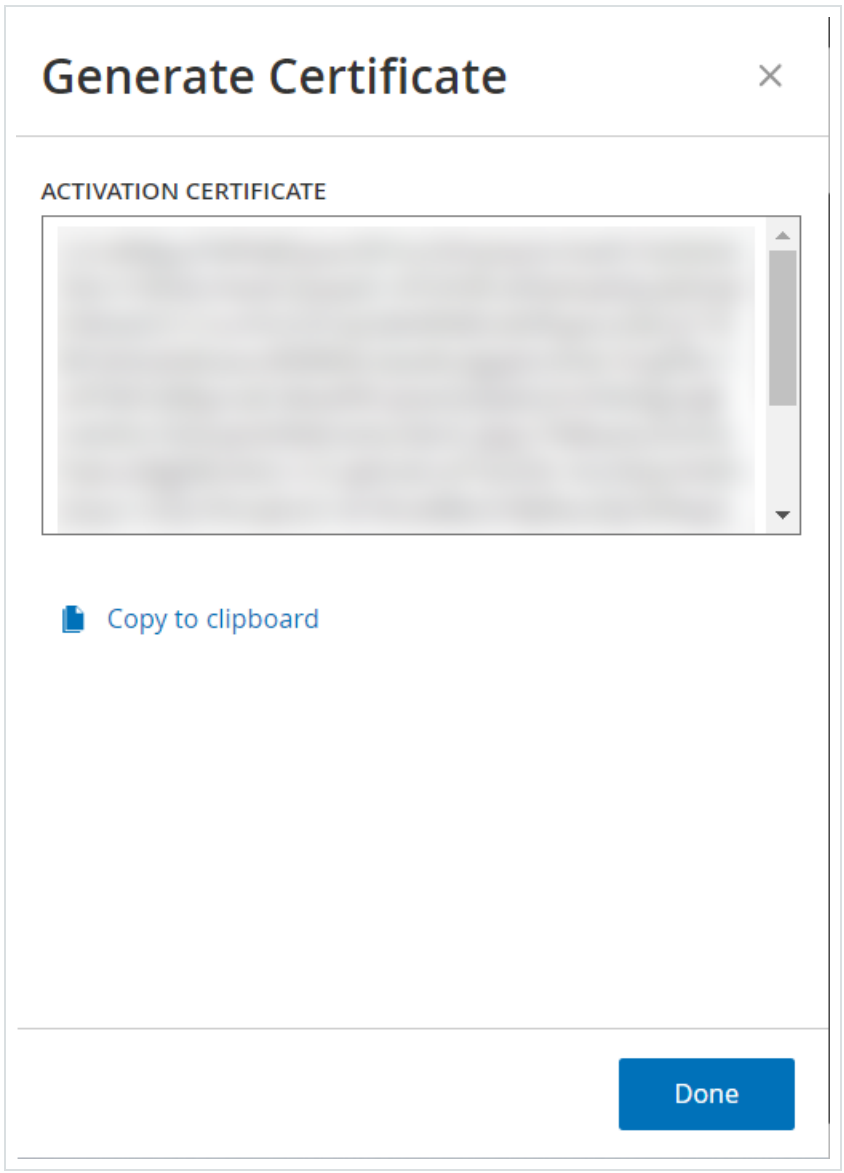
2. From the Actions menu, select Update license.

   The Generate Certificate and Enter Activation Code steps appear.



3. In the (1) Generate activation certificate box, click Generate Certificate.

   The Generate Certificate panel appears with the Activation Certificate.



4. Click Copy text to clipboard, then click Done.

   The side panel closes.

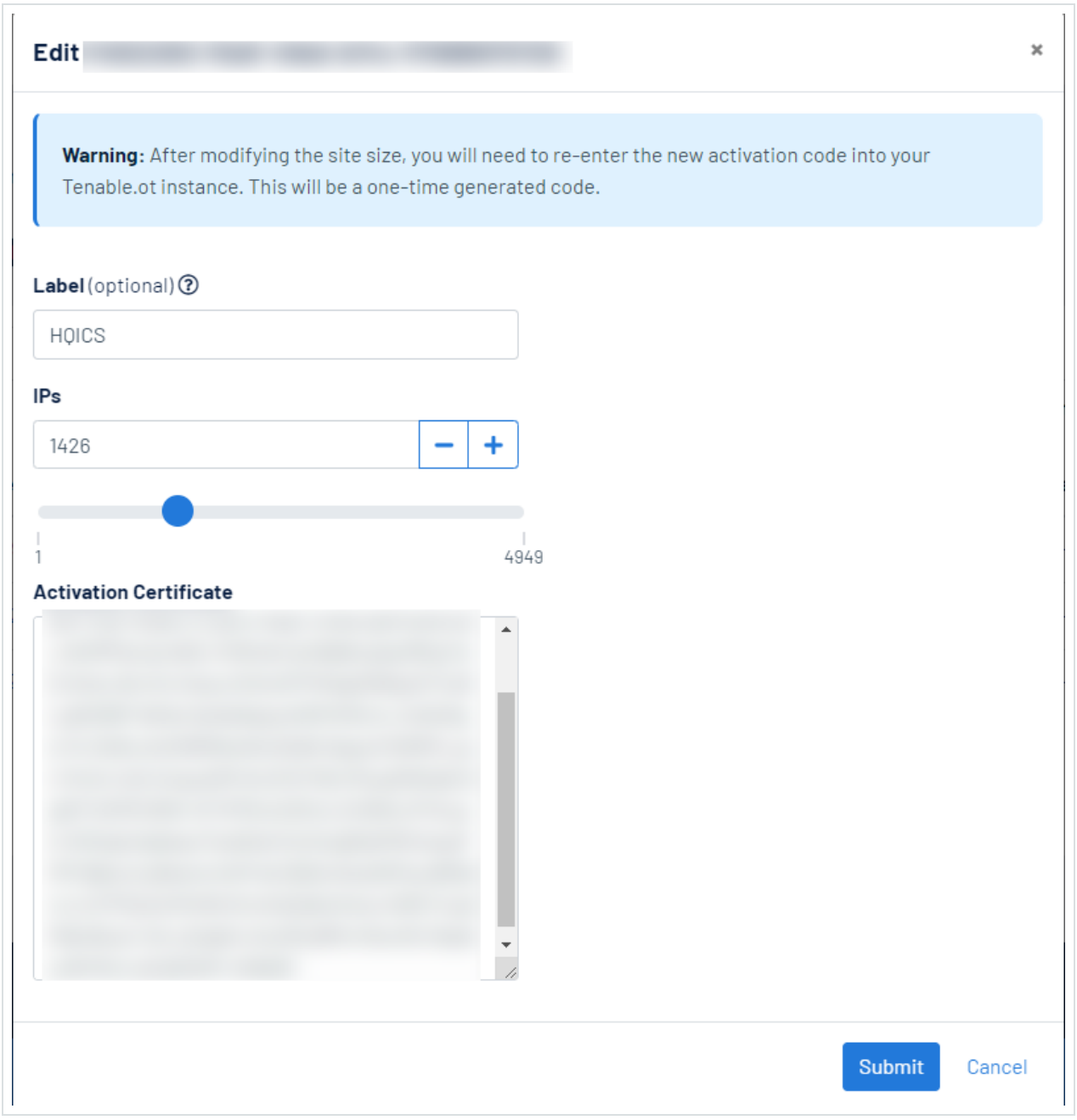
5. Edit the site details in the Tenable Provisioning portal:

   a. In the Tenable Provisioning portal, navigate to the Tenable OT Security Provisioning page and in the row of the site that you want to update, click the ⋯ button.

      A menu appears.

b. Click Edit Site.

The edit window for the site appears.



c. Adjust the details as needed.

d. In the Activation Certificate box, paste the certificate that you copied from the Generate Certificate window in OT Security EM.

e. Click Submit.

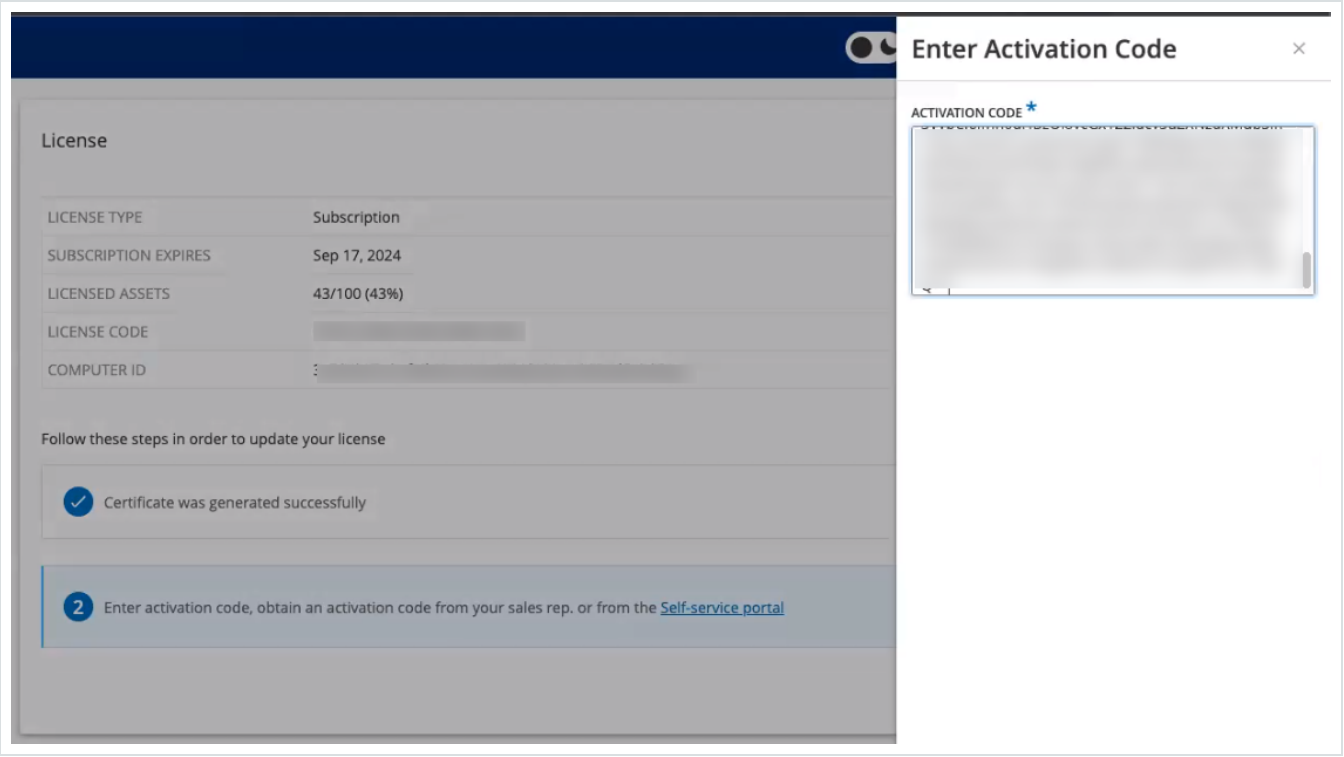
The portal displays a dialog box with an activation code. This is a one-time generated code that you must copy to the OT Security EM instance.

f. Click the button, then click Confirm.

6. Navigate back to the OT Security EM instance.

7. In the (2) Enter activation code box, click Enter Activation Code.

8. In the Activation Code box, paste the one-time generated code that you copied from the Tenable OT Security Provisioning page.

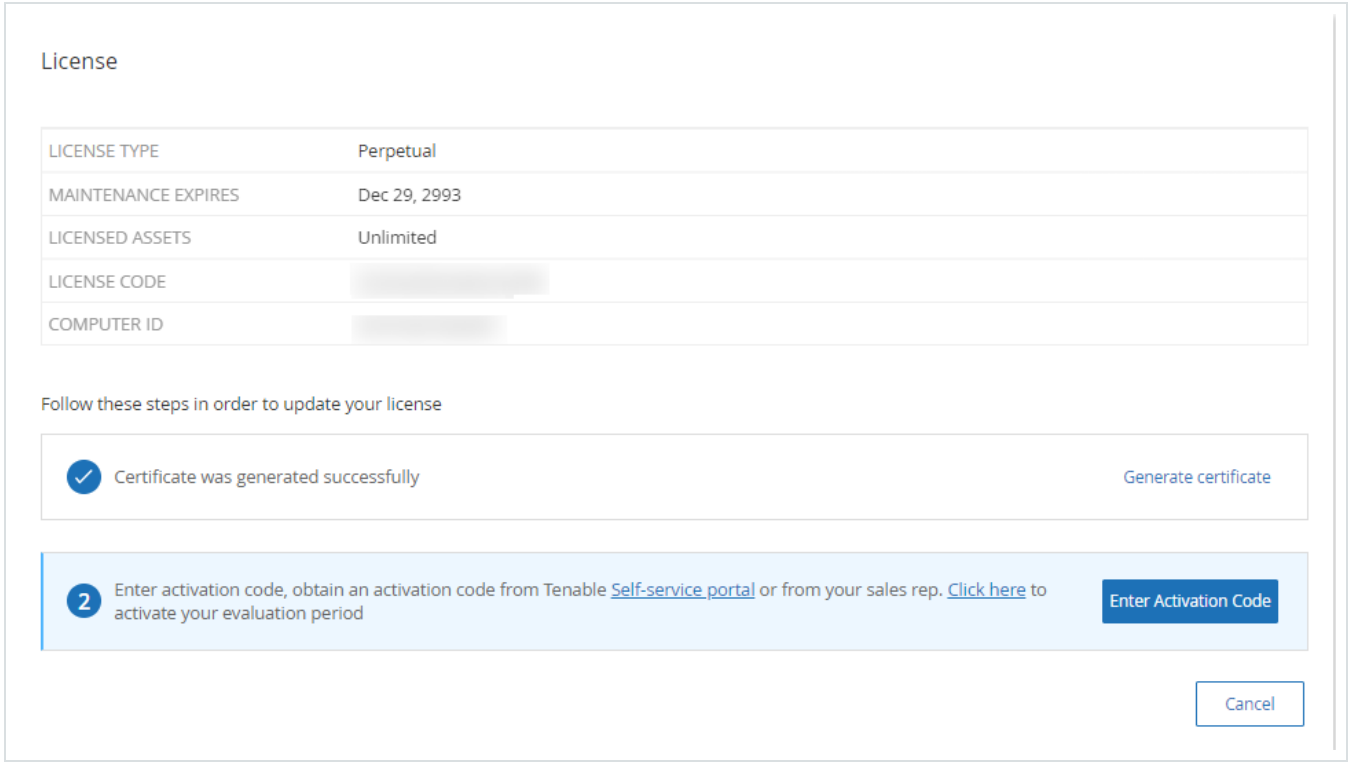


9. Click Activate.

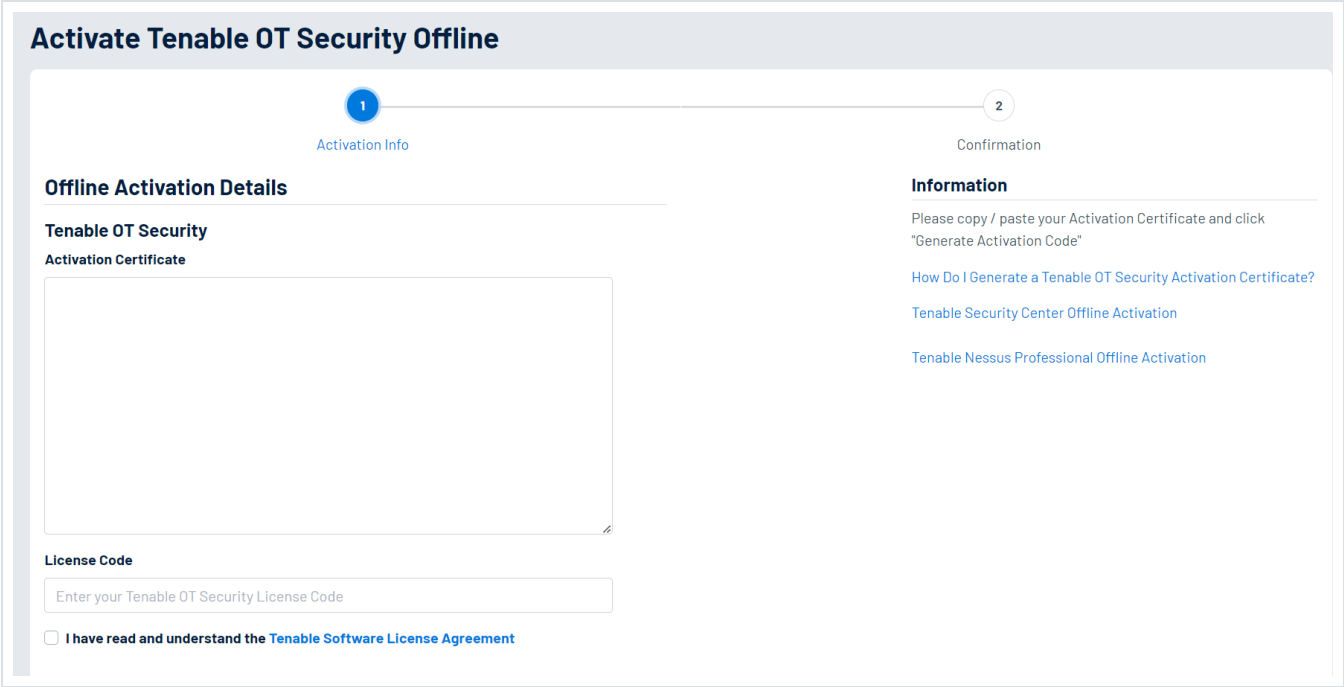
OT Security EM shows a confirmation message that the system was activated successfully and the License page shows the updated license details.

Update your license in offline mode

1. Perform steps 1 to 4 as mentioned in the Update your license section.
2. In the (2) Enter activation code box, click the Self-service portal link.



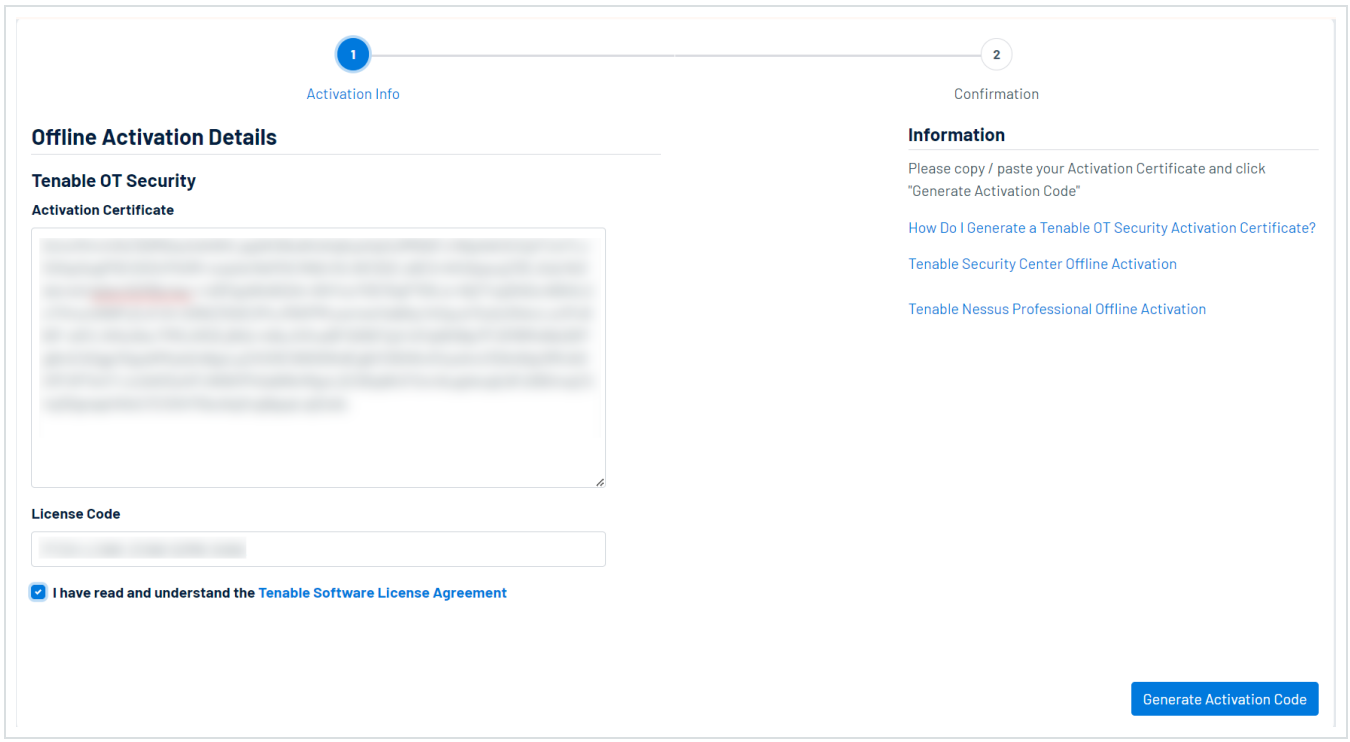
The Activate OT Security Offline window opens in a new tab.



> Note: You can access the Activate OT Security EM Offline screen from an Internet-connected device using the following URL: https://provisioning.tenable.com/activate/offline/tenable-ot.

> Note: If you are not logged in to tenable.com, you can log in using your email address and password. Use the email account where you received your License Code. If you do not have the login credentials, you can either click on Don't remember your password (and follow the prompts) or reach out to your Tenable account manager.

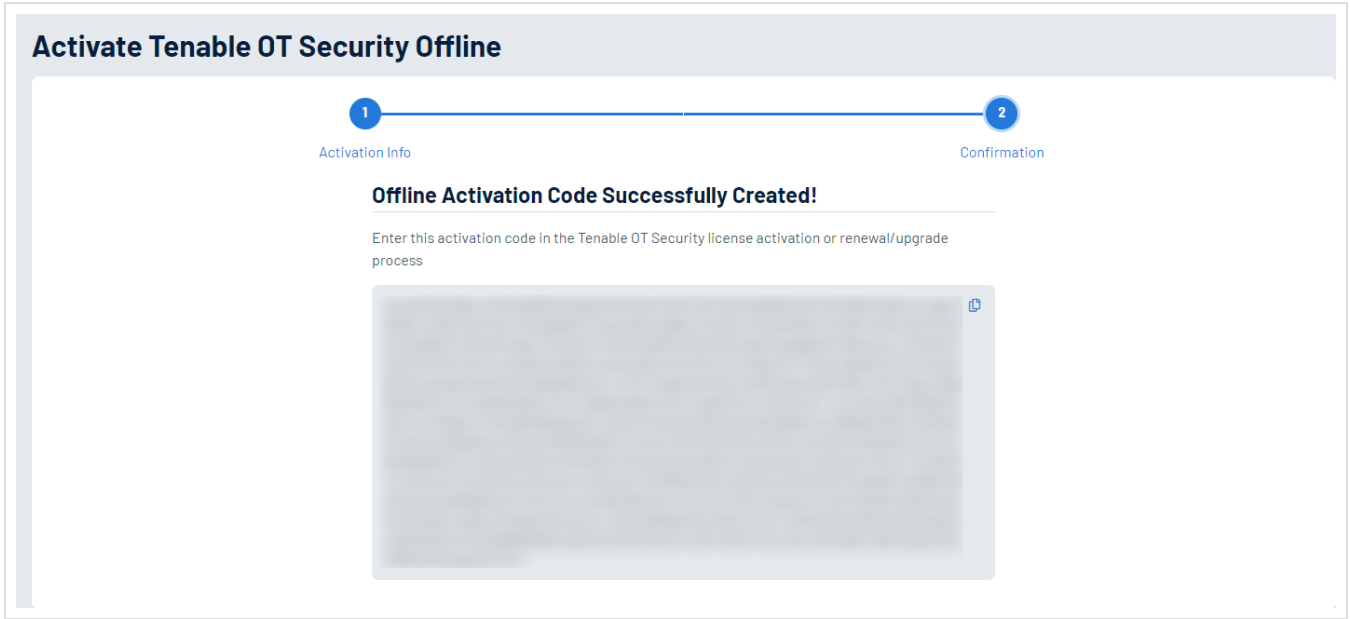
3. In the Activation Certificate box, paste the Activation Certificate.
4. In the License Code box, type your 20-character License Code (which you can copy and paste from the License screen).
5. Click the I have read and understand the Tenable Software License Agreement checkbox.



Note: To view the license agreement, click the Tenable Software License Agreement link.

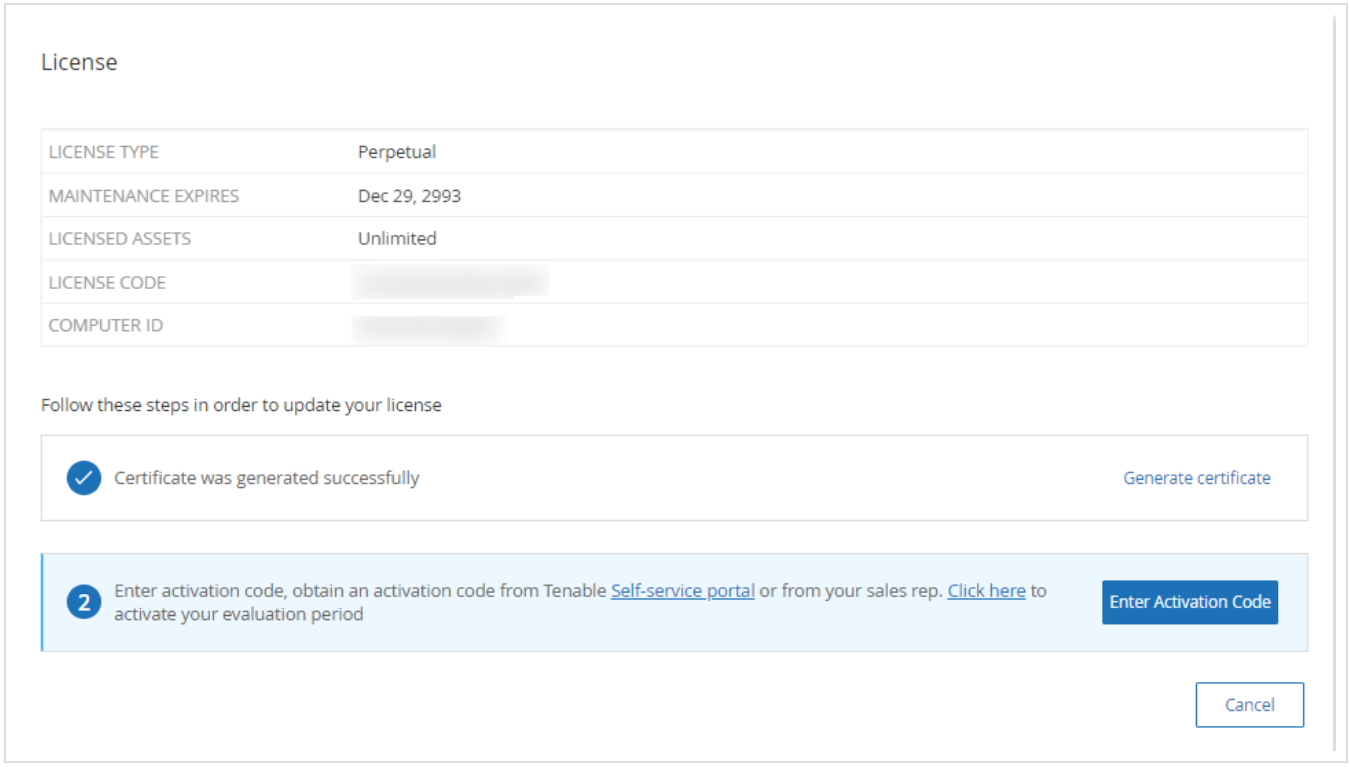
6. Click Generate Activation Code.

   The Offline Activation Code Successfully Created! window appears.



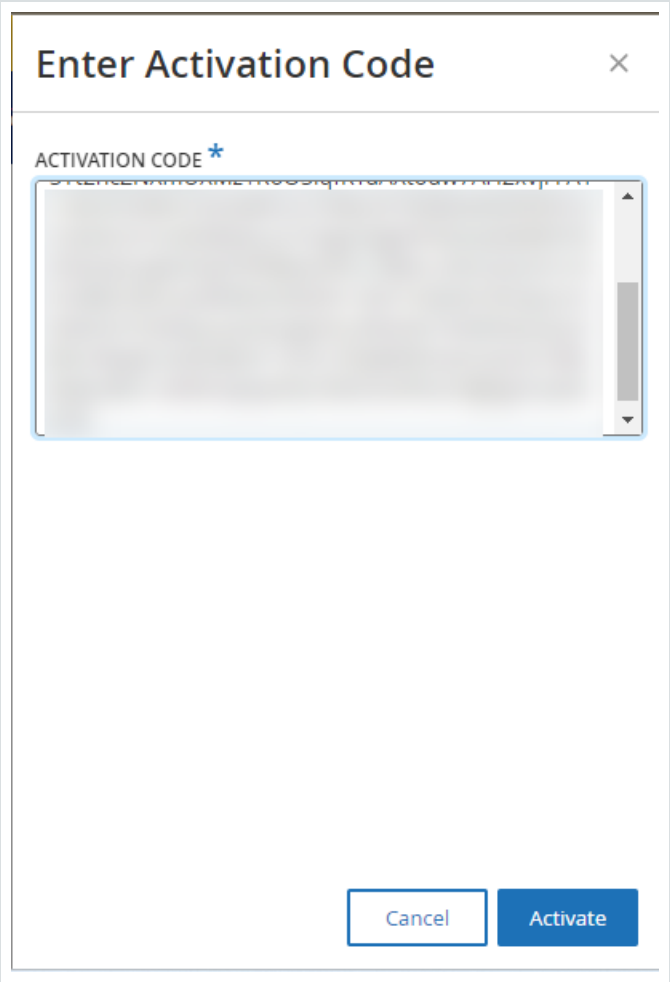
7. Click the button.

8. Navigate back to the License tab, and click Enter Activation Code.



The Enter Activation Code side panel appears.

9. In the Activation Code box, paste your activation code and click Activate.



The side panel closes, and OT Security updates the license.

Reinitialize your license

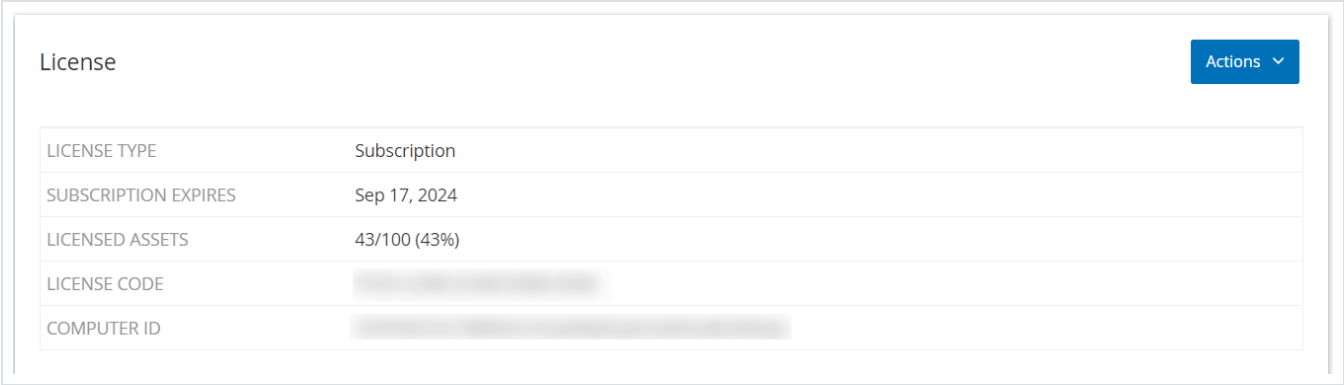
Reinitializing your license removes your current license from the system and activates a new license, similar to the license activation during your system startup. If you need to reinitialize your license (that is, if you are issued a new license), use the following procedure.

Before you Begin

- Your Tenable account manager must have already issued your new license in their system and provided you with a License Code (20 characters letter/numbers).
- You need access to the Internet. If your OT Security EM device is not connected to the Internet, you can register the license from any PC.

To reinitialize your license:

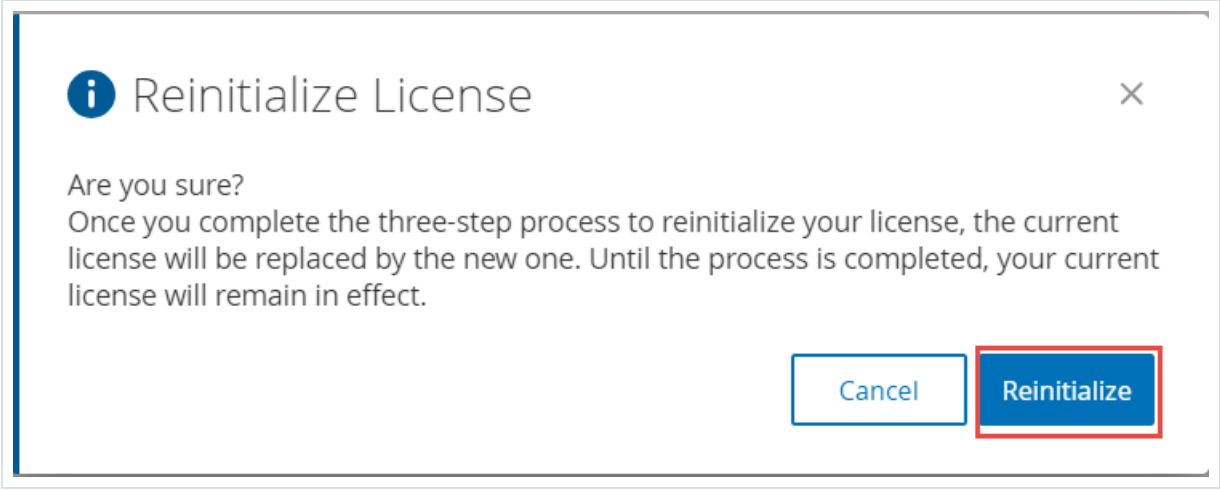
1. Go to Local Settings > System Configuration > License.



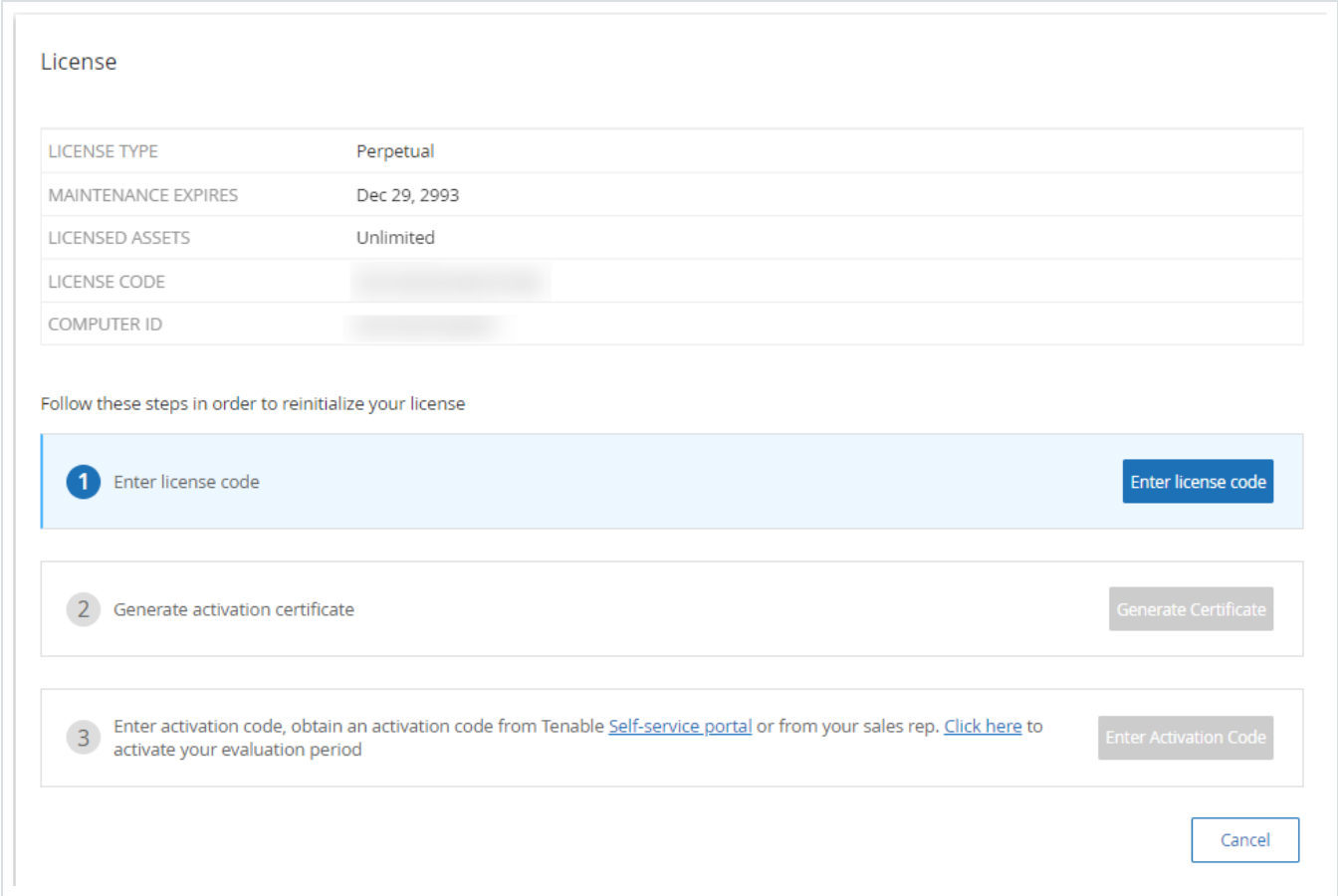
2. From the Actions menu, select Reinitialize license.

   A confirmation window appears.

3. Click Reinitialize.



The License window appears with the three reinitialization steps.



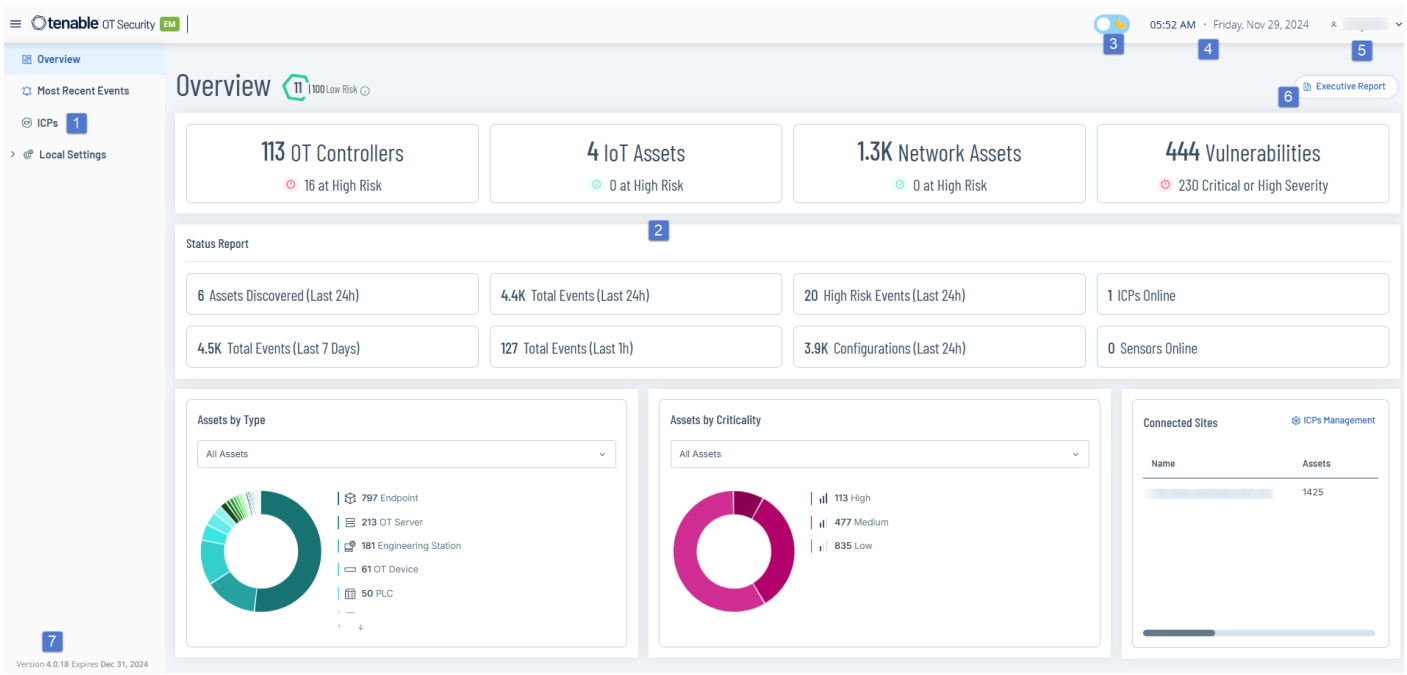
4. Follow the system start-up steps for activating your license. See Activate your License.

   After you provide your Activation Code, your new license replaces your current license.

OT Security EM Management Console Elements

The OT Security EM Management Console (user interface) provides easy access to enterprise-wide data that OT Security appliances discover at the various sites. This data relates to asset management, network activity, and security events. OT Security EM also enables you to configure and manage the OT Security appliance for each of your sites.

Main User Interface Elements



The following table describes the main user interface elements:

Sl.No	User interfaceElement	Description
1	Main Navigation	Main navigation menu. Click the ☰ button to show/hide the main navigation menu.
2	Current Date and Time	The current date and time as in the system.
3	Current User	The name of the user currently logged in. Click the down arrow for a selection menu. Options are: About (shows software information) and Logout.
4	Version Info	The version of OT Security EM.
5	Main Screen	The screen that you select in the main navigation.
6	Dark	Change the display color scheme to Dark mode or Daylight

	Mode/Daylight Mode	mode.
7	Executive Report	Generates a risk assessment report in PDF format.
	Resource Center	OT Security EM resource center where you can access product announcements and Tenable resources. To access Resource Center, enable the Enable Usage Statistics toggle on the Settings > System Configuration > Device page.

Enterprise Manager Navigation Pages

For Enterprise Manager (EM), the following navigation options are available:

- Overview – View widgets that give an at-a-glance view of your entire enterprise's inventory and security posture based on the aggregated data from your sites. See OT Security EM Overview
- Most Recent Events – Shows the list of events in your EM environment in the last 24 hours. See Most Recent Events.
- ICPs – Displays all ICP systems paired with the EM. See ICPs.
- Local Settings – View and configure the EM settings, and view and generate a certificate for secure HTTPS connections for the EM. See Settings.
- User Management – View and configure users for the OT Security EM. See Users Management.
- System – Displays system-level options. For example: Factory Reset, Download Diagnostics Data, Restart, and Shut Down. See Syslog Servers.

Other Actions

Enable or Disable Dark Mode

You can use the Dark Mode color scheme on all pages by toggling the Dark Mode switch.

To enable or disable Dark Mode:

1. In the upper-right corner of the page, click the  (Dark Mode) button to enable the Dark Mode.

   OT Security EM applies the setting to all pages.

2. To restore the Daylight Mode setting, click the  (Daylight Mode) button.

Customize Tables

OT Security displays the data in a table format with a record for each item. These tables have standardized customization features such as show / hide columns, filter, and sort results.

For more information about interacting with tables, see Customize Tables in the OT Security User Guide.

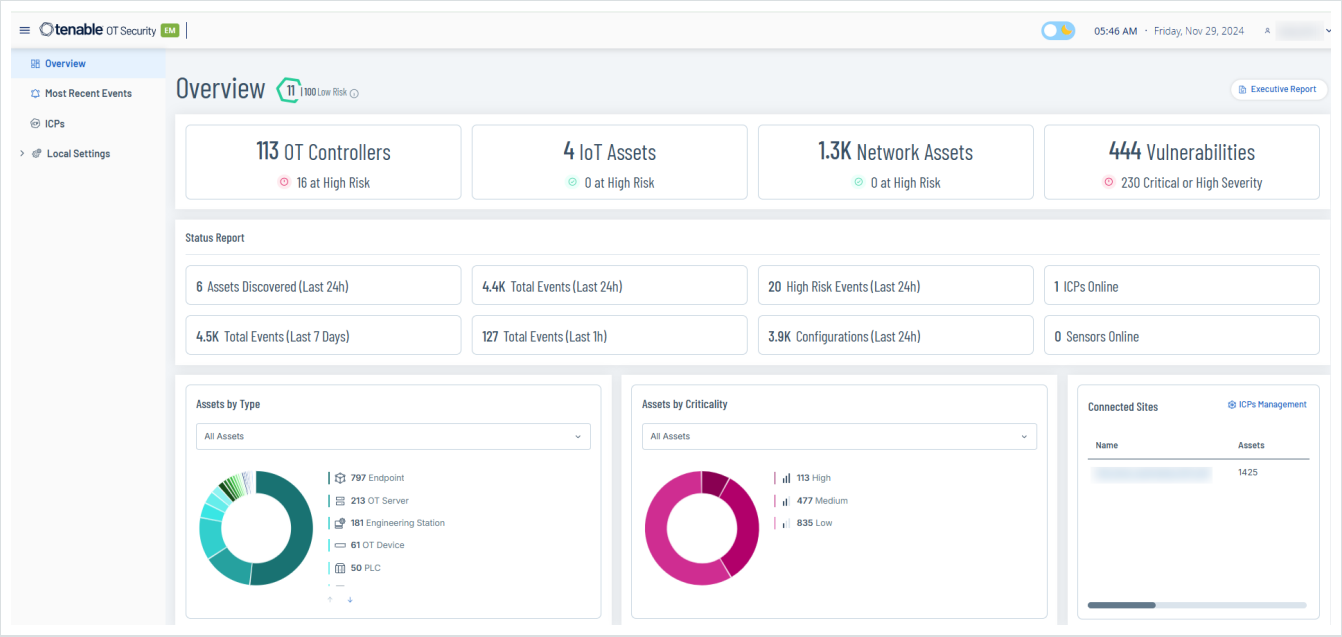
OT Security EM Overview

The Overview page features widgets that offer an at-a-glance view of your complete enterprise inventory and security posture. OT Security EM aggregates data from all sites and displays it in widgets. Along with the standard widgets for individual sites, the EM Overview page includes an ICP Status widget showing each site's the connectivity status.

To access the Overview page:

1. In the left hand navigation bar, click Overview.

   The OT Security EM Overview page appears.



The Overview page includes the following widgets:

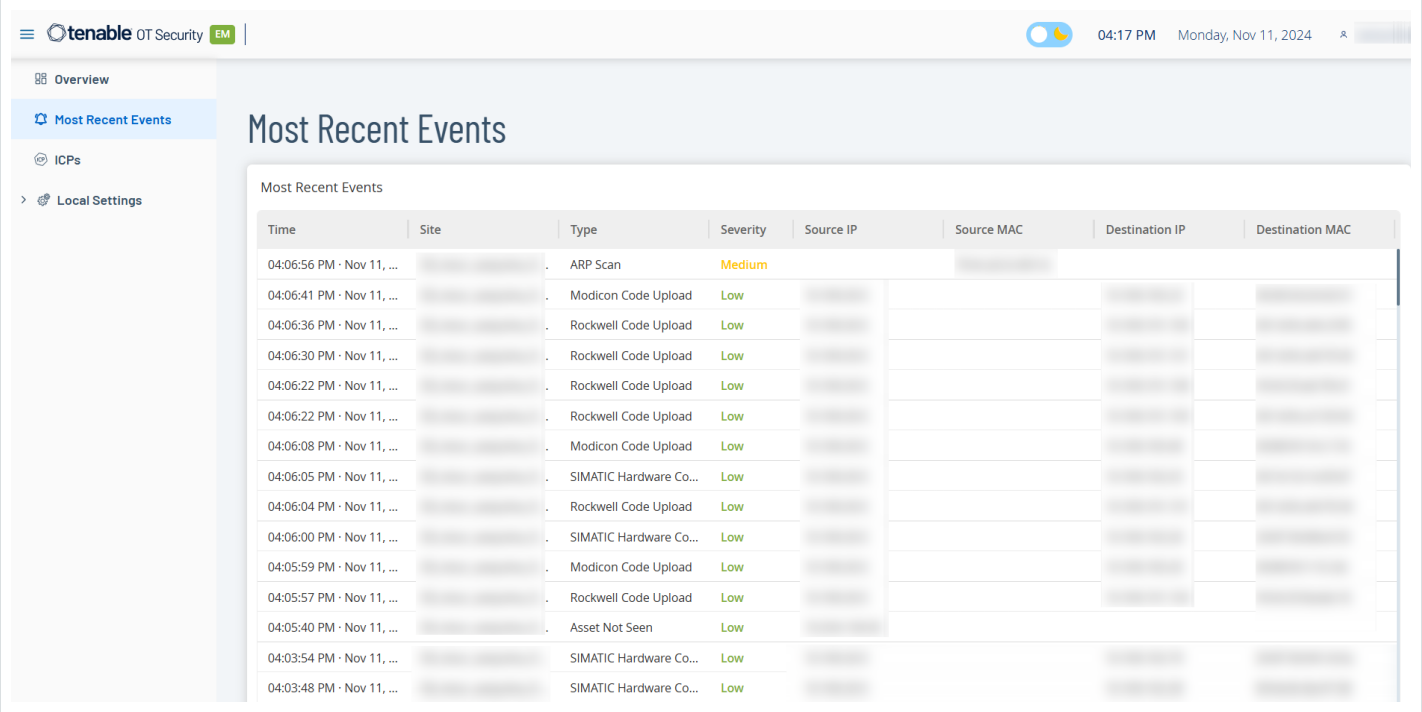
Widget	Description
Risk Score	The Average Risk Score is the average of all asset scores in your environment. To view a breakdown of the score, hover over the value.

	The Average Risk Score uses the following color codes to indicate the severity of the risk: • Low (Green):0–29 • Medium (Yellow): 30–69 • High (Red): 70–100 OT Security calculates the asset scores based on the following factors that changes with time (decaying events, firmware, and state changes): • Criticality - Based on the asset type and purdue level. For example, a PLC controls production, so it is considered critical, whereas a camera is typically less critical. • Vulnerabilities - Based on the Vulnerability Priority Rating (VPR) asset. • Events - Based on the events associated with the asset. Policies trigger events and each policy defines a severity. The severity is calculated based on the number of events, their severity, and how long they existed. Older events affect the score less than recent events. • Backplane - An asset that resides on a backplace affects the scores of its neighbor assets. For example, if one module is vulnerable, the entire backplane is also vulnerable.
Executive Report	Click this link to generate a risk assessment report for your environment based on the data from the last 30 days. The report opens on your browser. To download the report as PDF, click Save as PDF at the top of the page.
Assets and Vulnerabilities	The current state of assets and vulnerabilities in your environment. Includes separate widgets for each asset type (OT Controllers, Network

	Assets, IoT Assets) that show the number of assets in that category and the number of assets that are at high risk.
Status Report	The overall status of your environment, such as assets discovered, total events, number of high risk events, number of configuration events in the last 24 hours. The widget also shows the number of ICPs and sensors that are online. The widget also includes total events in the last 7 days and in the last one hour.
Assets by Type	The number of assets by type, such as endpoint, PLC, and OT device.
Assets by Criticality	The number of assets by their criticality: High, Medium, or Low.
Connected Sites	Lists the ICPs connected to the EM. The widget includes the following details: • Name – The name of the ICP. • Assets – The number of assets within the ICP. • Average Risk Score – The average risk score of the ICP. • Severe Vulnerability – The number of vulnerabilities in the critical state. • Last 24h Events – The number of events recorded in the ICP in the last 24 hours. To open the ICPs page, in the upper-right corner, click ICPs Management.

Most Recent Events

Use the Most Recent Events page to view the list of events in your EM environment in the last 24 hours.



To access the Most Recent Events page:

1. In the left navigation bar, click Most Recent Events.

   The Most Recent Events page appears with the following details:

Column	Description
Time	The time stamp of the event.
Site	The name of the site or ICP where the event is recorded.
Type	The type of event.

Severity	The severity of the event: Low, Medium, or High.
Source IP	The IP address of the event source.
Source MAC	The MAC address of the event source.
Destination IP	The IP address of the destination.
Destination MAC	The MAC address of the destination.

Pair ICP with Enterprise Manager

Required OT Security User Role: Administrator, Supervisor

Note: This flow is available for OT Security 3.18 and later.

You can pair your Industrial Core Platform (ICP) with OT Security EM and manage all your sites.

Note:Once paired with EM, all updates must be done at the EM level so that the sites and their sensors receive the latest version updates.

Before you Begin

Make sure that:

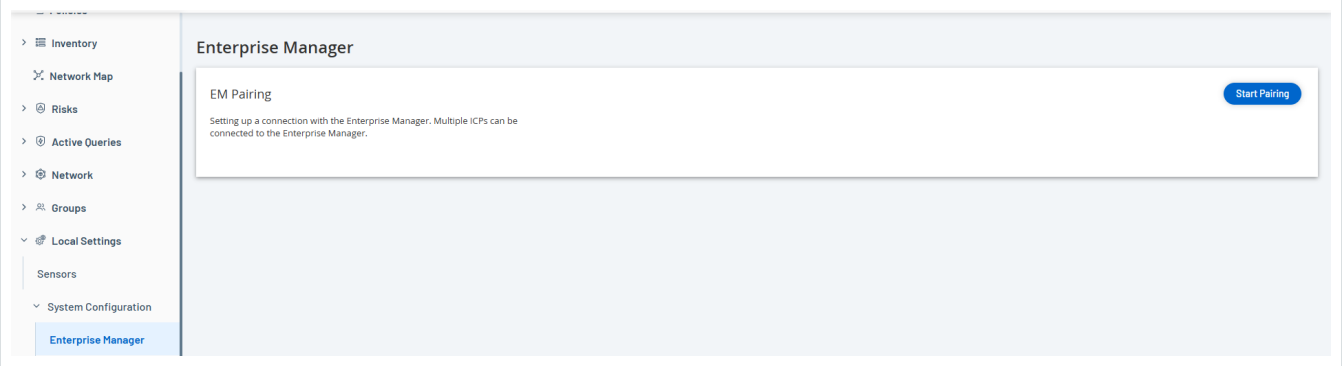
- OT Security EM can connect via API to the ICP.
- Make sure TCP 443 and TCP 28305 are open for communication from ICP to OT Security EM.
- HTTPS connections exist between ICP and OT Security EM.
- (Optional) Generate an API Key in OT Security EM.

  Note: This is required only when pairing using the API key option.

To pair ICP with OT Security EM:

1. In OT Security, go to Settings > System Configuration > Enterprise Manager.

   The Enterprise Manager page appears.



2. In the EM Pairing section, click Start Pairing.

   The EM Pairing Configuration panel appears.

3. Select one of the following:

   - Pair using username and password
   - Pair using API secret

If you select...	Action
Pair using username and password	1. In the Hostname/IP box, type the hostname or the IP address of the EM. 2. In the Username box, type the administrator username of the EM. 3. In the Password box, type the password of the EM. 4. In the EM Certificate Fingerprint, paste the certificate that you copied from the EM Certificates page. Tip: You can skip this step and manually approve the certificate from the EM Pairing page.

	Note: You can access the Certificates page from Local Settings > System Configuration in OT Security EM.
Pair using API Key	1. In the Hostname/IP box, type the hostname or the IP address of the EM. 2. In the API Secret box, paste the API key that you copied from the EM. 3. In the EM Certificate Fingerprint, paste the certificate that you copied from the EM Certificates page. Tip: You can skip this step and manually approve the certificate from the EM Pairing page. Note: You can access the Certificates page from Local Settings > System Configuration in OT Security EM.

4. Click Pair.

   OT Security displays the EM Pairing page with the pairing status.

   Note: The status can show as Waiting for certificate approval (if certificate is not provided) or Pending EM approval (if automatic approval of pairing requests is disabled).

5. (Optional) If the status shows Waiting for certificate approval:

   a. Click Show Certificate.

      The Approve Certificate panel appears.

   b. Verify if the fingerprint on the panel is the same as that on the EM Certificates page.

Click Approve.

OT Security approves the certificate and displays the EM pairing page with the status changed to Pending EM approval.

6. If the status shows Pending EM approval, it indicates that Auto Approve ICP Pairing Requests is disabled, then proceed as follows:

> Tip: To approve pairing requests automatically in OT Security EM, enable the Auto Approve ICP Pairing Requests in the OT Security EM ICPs page.

   a. In OT Security EM, in the left navigation bar, select ICPs.

      The ICPs page appears.

   b. Hover over the row of the system you want to pair, do one of the following:

      - Right-click the Status column and select Approve.
      - In the upper-right corner, click Actions > Approve.

OT Security EM approves the pairing and shows the status as Connected.

> Tip: After the pairing is complete, OT Security EM shows the following:
>
> - Shows the data from the ICP on the EM Dashboards.
> - Newly paired ICP appears on the ICPs page.
> - Access to the ICP by clicking the ICP name from the ICPs page. The ICP instance accessed from the EM shows the ICP label in the header. For more information, see ICPs in the Tenable OT Security Enterprise Manager User Guide.

In OT Security, the Enterprise Manager page shows the status as Connected. You can click Edit to modify the EM pairing configuration.

Disconnect ICP Pairing with Enterprise Manager

Required OT Security User Role: Administrator, Supervisor

You can disconnect the ICP pairing from the EM or the ICP when the pairing is no longer needed.

Disconnect an ICP pairing from OT Security EM

1. In OT Security EM, in the left navigation bar, select ICPs.

   The ICPs page appears.

2. Hover over the row of the ICP you want to delete, do one of the following:

   - Right-click the Status column and select Delete.
   - Click the ICP row. This highlights the row and enables the Actions button.

3. Click Delete.

OT Security EM disconnects the pairing with OT Security.

Disconnect an ICP pairing from OT Security

1. In OT Security, go to Settings > System Configuration > Enterprise Manager.

   The Enterprise Manager page appears.

2. In the EM Pairing section, click Edit.

   The EM Pairing panel appears.

3. Click No Pairing.

4. Click Pair.

   OT Security disconnects the pairing with OT Security EM.

ICPs

Required OT Security User Role: Administrator, Supervisor, Security Manager, Security Analyst, Site Operator, Read Only

Use the ICPs page to view all ICP systems paired with the EM in a table format.

Note: Once paired with EM, all updates must be done at the EM level so that the sites and their sensors receive the latest version updates.

To access the ICPs page:

1. In the left navigation bar, go to Sites Management > ICPs.

   The ICPs page appears with teh list of paired ICPs.

The ICP table includes the following columns:

Column	Description
Name	The name of the ICP paired with the EM.
IP/Host	The IP address or the hostname of the ICP.
Status	The status of the ICP: • Connected • Pending Approval • Disconnected • Update in progress
Last Data Sync	The date of the last data synchronization of the ICP with the EM.
Version	The version of OT Security.
License Status	The status of the license:

	• Active • Expired
License Type	The type of license: Perpetual or Subscription.
License Expires	The date when the license ages out for the ICP.
Licensed Assets	The number of licensed assets for the ICP.
Computer ID	The ID of the ICP system.
Sensors Info	The online or offline status of the connected sensors. Click the sensors link to go to the Sensors page in OT Security. Note: To return to the OT Security EM interface, from the profile button, click Return to EM.
License Usage	The number of licensed assets currently in use.
Last Nessus Plugin Set	The date of the last Nessus plugin update.
Last IDS Engine Ruleset	The date of the last IDS Engine Ruleset.
Memory Usage	The percentage of memory usage of the ICP.
CPU Usage	The percentage of CPU usage of the ICP.

You can do the following actions from the ICPs page:

Approve pairing requests automatically

- To approve ICP pairing with EM automatically, enable the Auto Approve ICP Pairing Requests toggle.

Approve pairing requests manually

To approve ICP pairing requests manually, do one of the following:

a. In the row of the ICP you want to approve:

   - Right-click the ICP and select Approve.
   - Click the ICP row. This highlights the row and enables the Actions button.

b. Click Actions > Approve.

Disconnect an ICP pairing

To disconnect an ICP from the EM, do one of the following:

a. In the row of the ICP you want to disconnect:

   - Right-click and select Delete.
   - Click the ICP row. This highlights the row and enables the Actions button.

b. Click Actions > Delete.

Access the ICP from OT Security EM

To navigate to the ICP from the EM:

a. In the row of the ICP that you want to open, click the ICP link in the Name column.

   OT Security EM opens the OT Security Dashboards page.

When accessing the ICP from ICPs page, the OT Security header shows the ICP label.

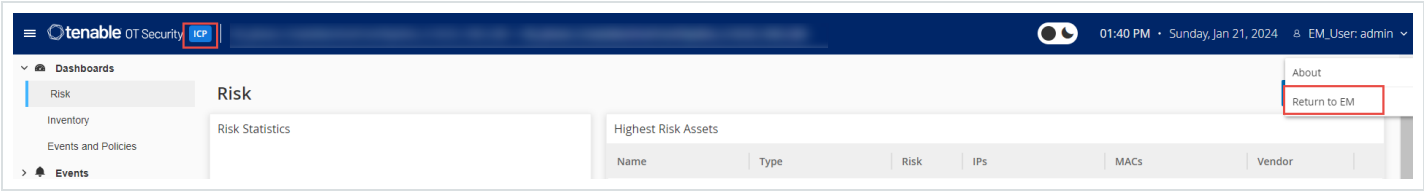
To return to the OT Security EM interface from the ICP:

a. In the upper-right corner, click the profile button,

A menu appears.

b. Select Return to EM.

OT Security EM interface appears.



Update ICPs

Update your ICP and operating system (OS) to the latest available version. You have the option to update only the OS without the OT Security application. Upgrading only the OS helps reduce system downtime, but Tenable recommends that you update both the application and OS.

Note: For the EM centralized updates to work, the ICP must be able to reach ports 28305 and 8000 (TCP).

Important: You can update ICPs starting from version 4.1 and later. For example, in OT Security EM 4.1, you can update 4.0 ICPs.

To update ICP and OS:

1. In the upper-right corner, click Check for Updates.

The Version column of the ICPs table displays an updates available message.

2. Do one of the following:

Update	Action
A single ICP	To update a single ICP: 1. In the ICPs table, select the checkbox next to the ICP you want to update. OT Security EM enables the Action button in the header bar. 2. Click Actions > Update ICP Version. The Update ICP Version panel appears. 3. Select one of the following options: • Update ICP Application to version xx.xx.xx, including OS (recommended) – This option is selected by default. • Update OS only 4. Click Update. The Update ICP Version panel appears with the message that the update process of the selected ICP is about to start.
Multiple ICPs	To update multiple ICPs: 1. In the ICPs table, select one or more ICPs. OT Security EM enables the Action button in the header bar. 2. Click Actions > Update ICP Version. 3. Select one of the following options:

	• Update ICP Application to version xx.xx.xx, including OS (recommended) – This option is selected by default. • Update OS only 4. Click Update. The Update ICP Version panel appears with the message that the update process of the selected ICPs is about to start.

Note: The update process might take up to an hour to complete. During this time, OT Security application is not accessible.

During the update, the Status column in the ICPs table shows Update in progress. Once the update is complete, the status changes to Connected.

Manage Data Updates

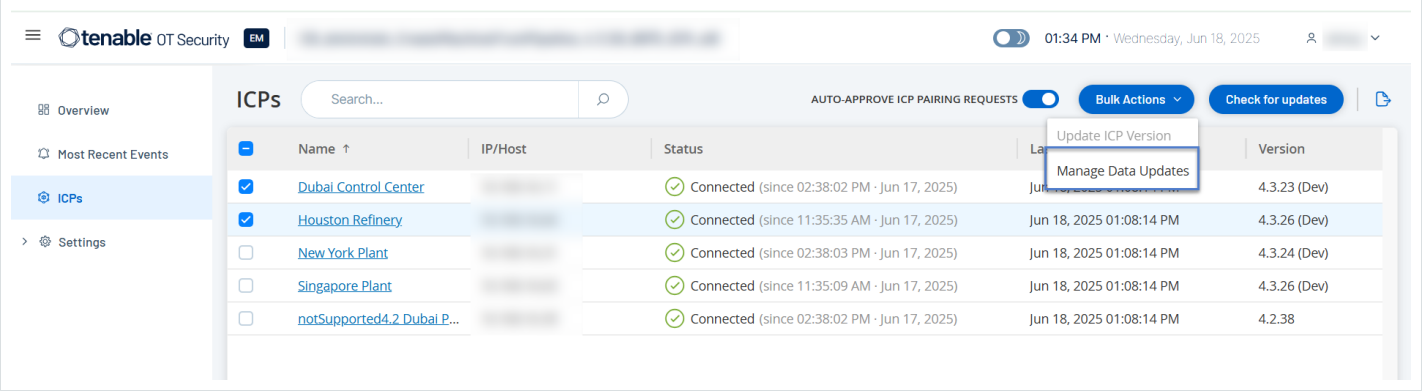
Use this option to manage updates across environments, even in air-gapped or internet-restricted sites. For more information, see Manage Data Updates.

Manage Data Updates

The Manage Data Updates option allows you to centralize distribution of bulk ruleset updates, including plugins, Intrusion Detection Systems (IDS), and Dynamic Fingerprinting Engine (DFE) rulesets. You can use this option to manage updates for all your connected ICPs across various environments, even those with limited or no internet access. In air-gapped or internet-restricted sites, the EM acts as a proxy and facilitates the delivery of updates from Tenable feed to ICPs.

Using centralized update management from EM, you can make sure that your entire environment is running the latest rulesets.

Note: This functionality is available only for licensed EM instances.



To manage updates from EM:

1. In the left navigation bar, click ICPs.

   The ICPs page appears with the list of paired ICPs.

2. To manage data updates, do one of the following:

   ### To update a single ICP:

   a. Do one of the following:

      - In the ICPs table, select the checkbox next to the ICP you want to update.

        OT Security EM enables the Actions button in the header bar.

      - Right-click the ICP you want to update.

        A menu appears.

   b. Click Manage Data Updates.

      The Manage Data Updates panel appears.

   ### To update multiple ICPs:

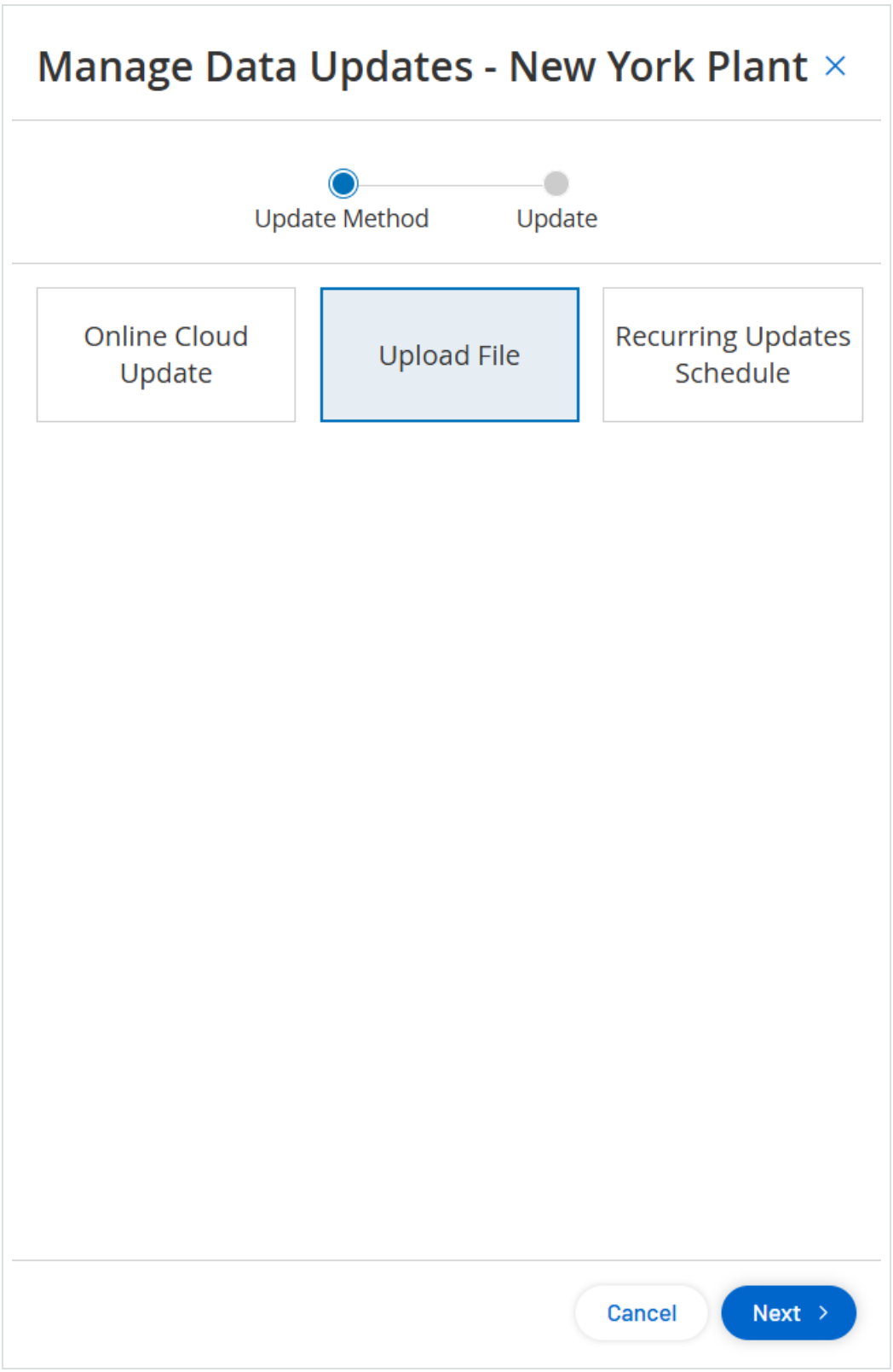
a. In the ICPs table, select one or more ICPs.

   OT Security EM enables the Action button in the header bar.

b. Click Actions > Manage Data Updates.

   The Manage Data Updates panel appears.

3. In the Update Method section, select one of the following options:


Manage Data Updates - New York Plant
Update Method
Update
Online Cloud Update
Upload File
Recurring Updates Schedule
Cancel
Next

- Online Cloud Update
- Upload File
- Recurring Updates Schedule

Online Cloud Update

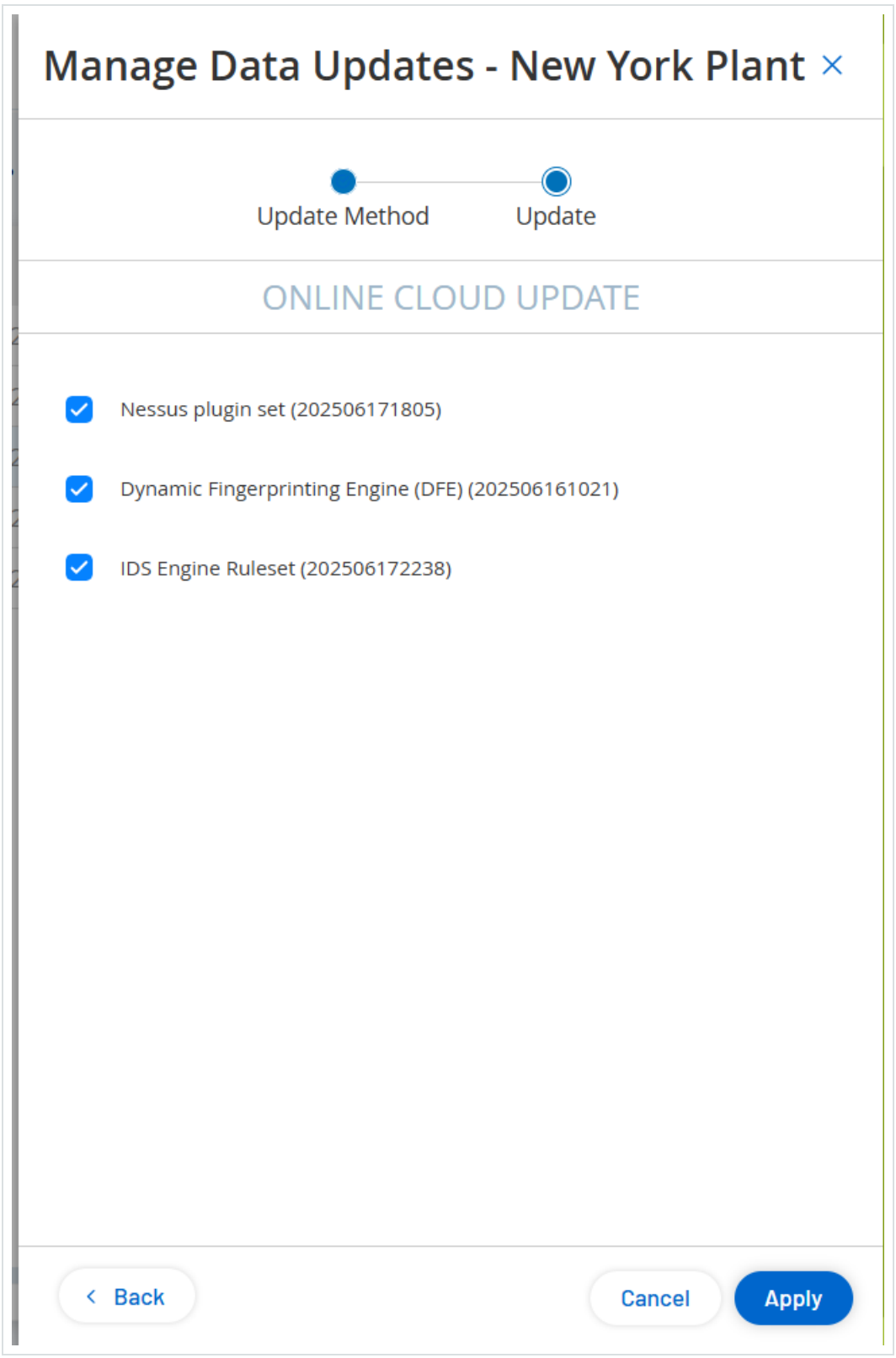
Use this option to fetch the latest rulesets directly from the Tenable Feed and push them immediately to selected ICPs.

To update ICPs using the online method:

1. Select the Online Cloud Update option and click Next.

   The Update section appears with the latest Nessus plugin, DFE update version, and the IDS Engine Ruleset versions. All ruleset options are selected by default.

2. Retain the default selections or clear the checkboxes for options you do not require.



3. Click Apply.

OT Security EM connects to the Tenable feed, downloads the latest rulesets, and sends them to the selected ICPs.

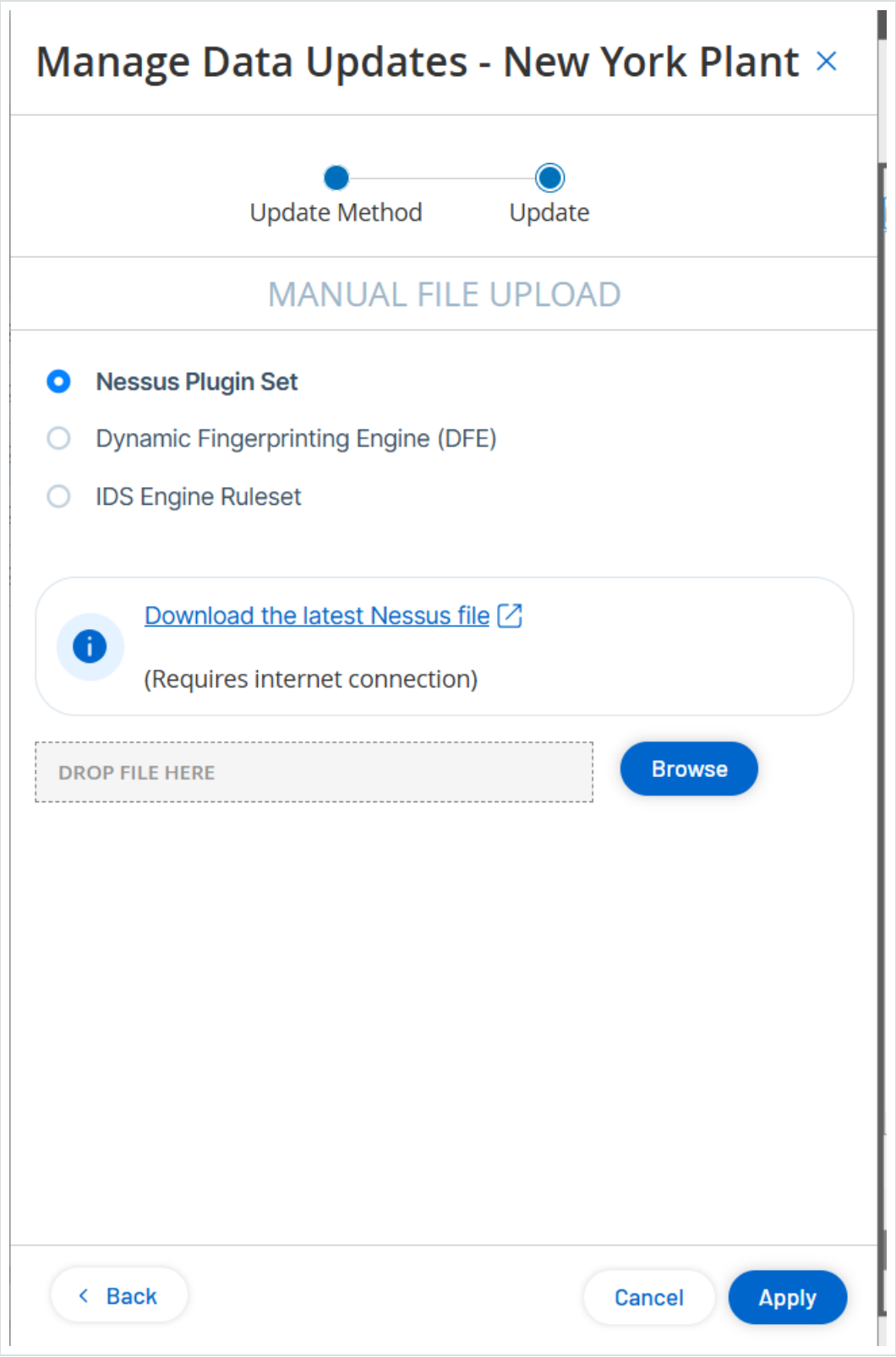
Upload File

Use this option to manually upload an offline ruleset file and distribute it to selected ICPs. This option is ideal for air-gapped environments. Once uploaded, OT Security EM pushes the file to the selected ICPs.

To update ICP by uploading a ruleset file:

1. Select the Upload File option and click Next.

   The Update section appears.



2. Select one of the following options:

- Nessus Plugin Set (Default)
- Dynamic Fingerpringing Engine (DFE)
- IDS Engine Ruleset

3. To download the latest file, click the Download the latest <Nessus, DFE, or IDS> file link.

   OT Security EM downloads the latest file.

4. In the Drop File Here box, click Browse to select the downloaded file and upload it.
5. Click Apply.

   OT Security EM pushes the uploaded file to the selected ICPs.

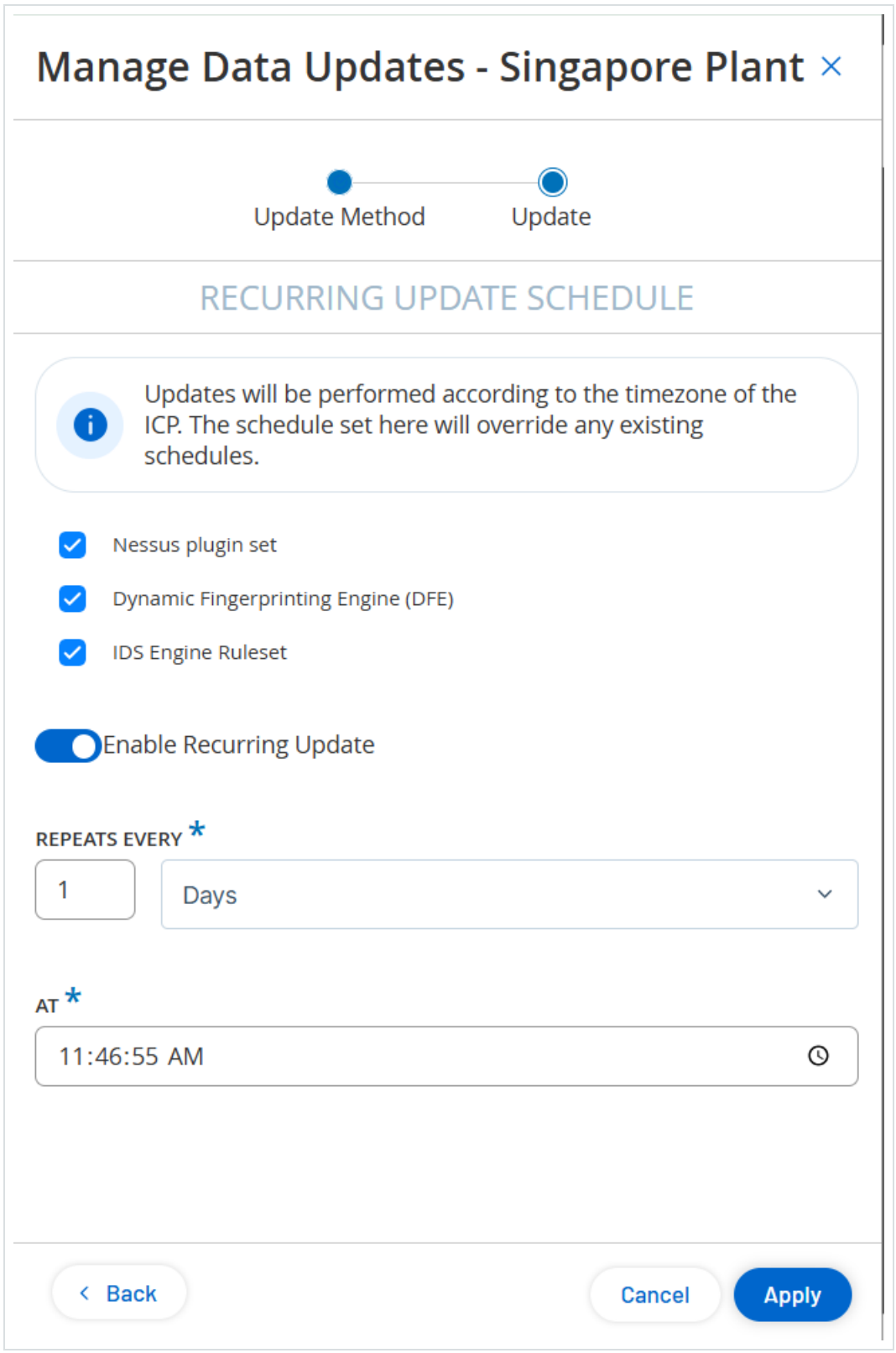
Recurring Updates Schedule

Use this option to set automatic updates by ruleset and time. The schedule runs in the ICP's time zone and overrides any existing ICP-level schedule.

To update ICPs using the recurring schedule option:

1. Select the Recurring Updates Schedule option.

   The Update section appears.



2. Check if the rulesets you want to update are selected. All options are selected by default.

- Nessus plugin set
- Dynamic Fingerprinting Engine (DFE)
- IDS Engine Ruleset

3. Click the Enable Recurring Update toggle to enable the recurring update schedule.

   OT Security EM displays the schedule settings.

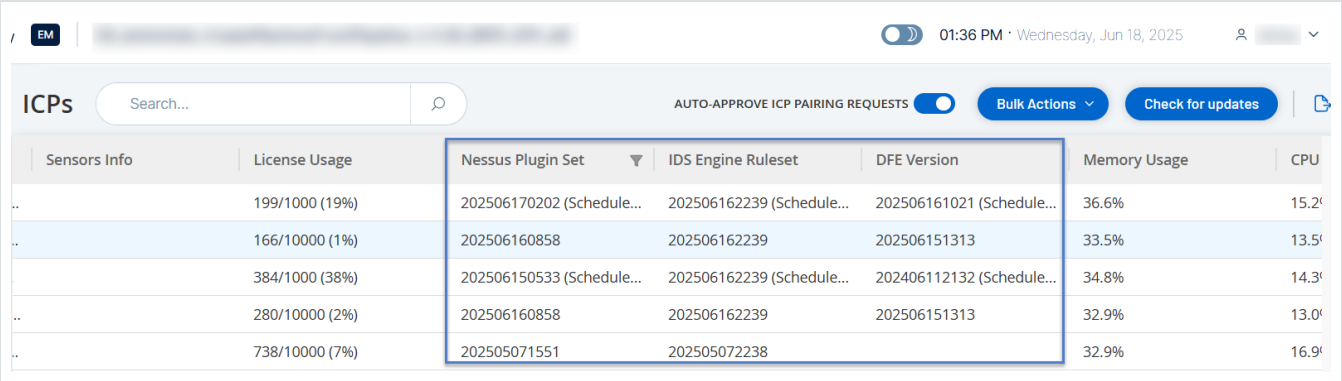
4. In the Repeats Every box, select the number and Days or Weeks.

5. (Optional) If you select Weeks, in the On box, select the days on which you want to schedule the update.

6. In the At box, click the clock icon to display the time window and select the time in the hours: minutes: seconds AM or PM format.

7. Click Apply.

   OT Security EM automatically updates the ICPs at the scheduled time. The scheduled update time appears in the ICP table under the Nessus Plugin Set, IDS Engine Ruleset, and DFE Version columns.



   OT Security EM updates the selected ruleset type (Nessus, DFE, or IDS) based on the type of update.

> Note: In OT Security, you can still manually update the rulesets from Settings > System Configuration > Updates, however, if you schedule the update frequency in EM, OT Security disables the Edit Frequency option until the EM releases the ICP, the systems de-pair, or there's a license issue. For more information, see Updates.

Monitored Networks

> Required OT Security User Role: Administrator, Supervisor

Use the Monitoring Networks page in OT Security EM to define and manage CIDR network boundaries for all ICPs from a single location instead of configuring each ICP individually. This reduces operational workload for organizations managing 10 or more ICPs and ensures consistent network configuration across your entire OT infrastructure.

The Monitored Network configuration contains a set of IP ranges (CIDRs / subnets) that define the monitoring boundaries for OT Security. OT Security ignores all assets outside of these configured ranges.

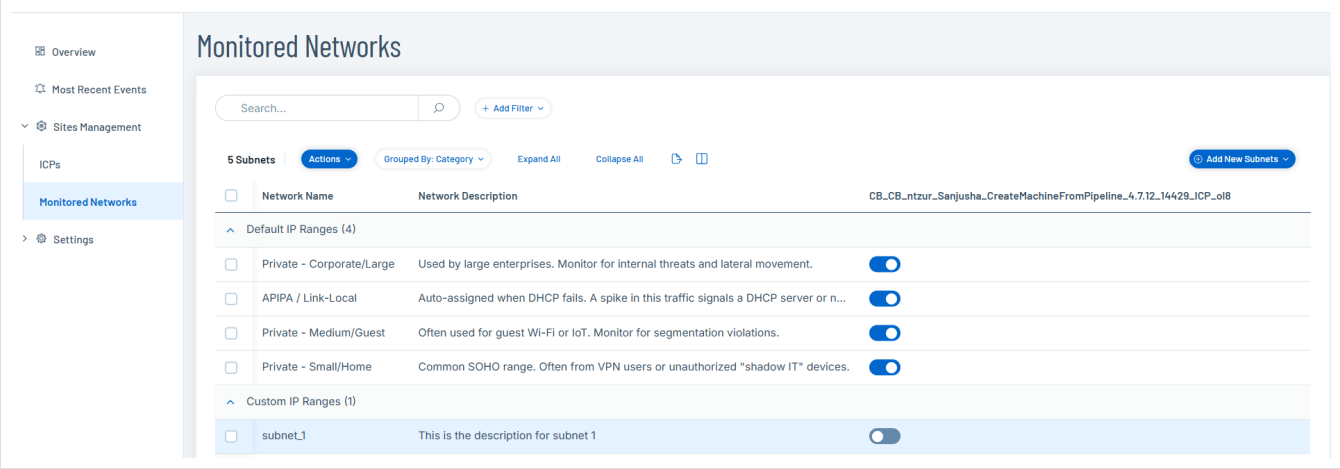
By default, OT Security configures three default public ranges: 10.0.0.0/8, 172.16.0.0/12, and 192.168.0.0/16, as well as the link-local Automatic Private IP Addressing (APIPA) range of 169.254.0.0/16.

> Caution: If you configure more than 5,000 unique monitored subnets, OT Security truncates the list to the first 5,000 entries without displaying a notification.
> For Nessus Network Monitor (NNM) components, OT Security processes only the first 128 entries.

To disable any of the default ranges or add custom ranges for your network:

1. Go to Sites Management > Monitored Networks.

   The Monitored Networks page appears.



2. (Optional) Customize tables as required. For more information, see Customize Tables.

3. The Monitored Networks table includes the following details:

Column	Description
Default IP Ranges and Custom IP Ranges	The Default IP Ranges section displays the default IP ranges configured in OT Security. The Custom IP Ranges section displays any subnet that you manually create.
Network Name	The global name of the network.
Network Description	A description about the network.
	Hover over a value to display the Copy button. You can use this to copy the parameter value.
Monitored	A toggle to enable or disable the monitoring for the configured IP addresses. Monitoring is enabled by default.

Add Subnets

You can add a single subnet or a list of multiple subnets for monitoring.

To add a new subnet:

1. Go to Sites Management > Monitored Networks.

   The Monitored Networks page appears.

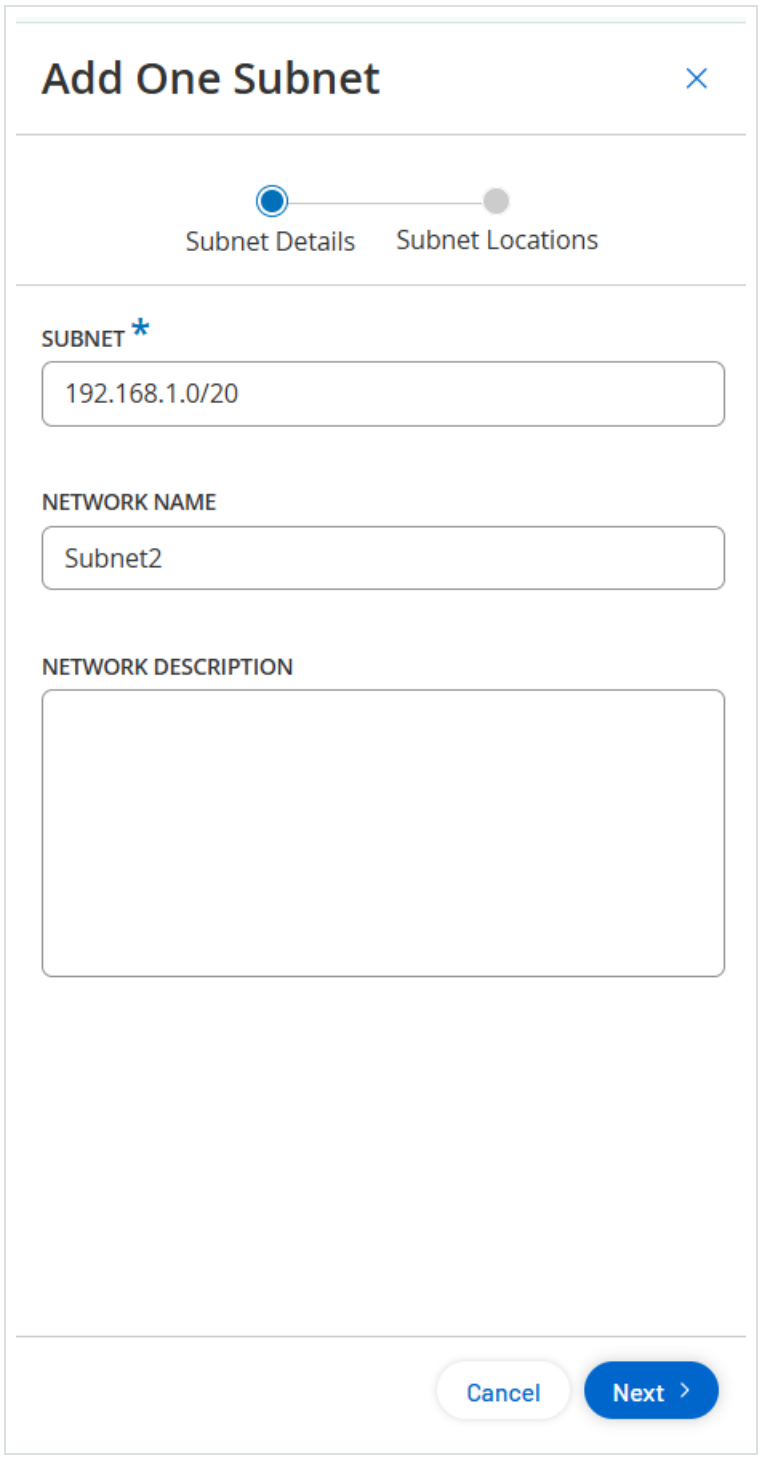
2. In the upper-right corner, click Add New Subnets.

   A menu appears.

3. Select one of the following:

   - Add One Subnet – To add a single subnet.
   - Add Subnets List – To add multiple subnets.

   The Add Subnet panel appears.



4. If you selected Add One Subnet:

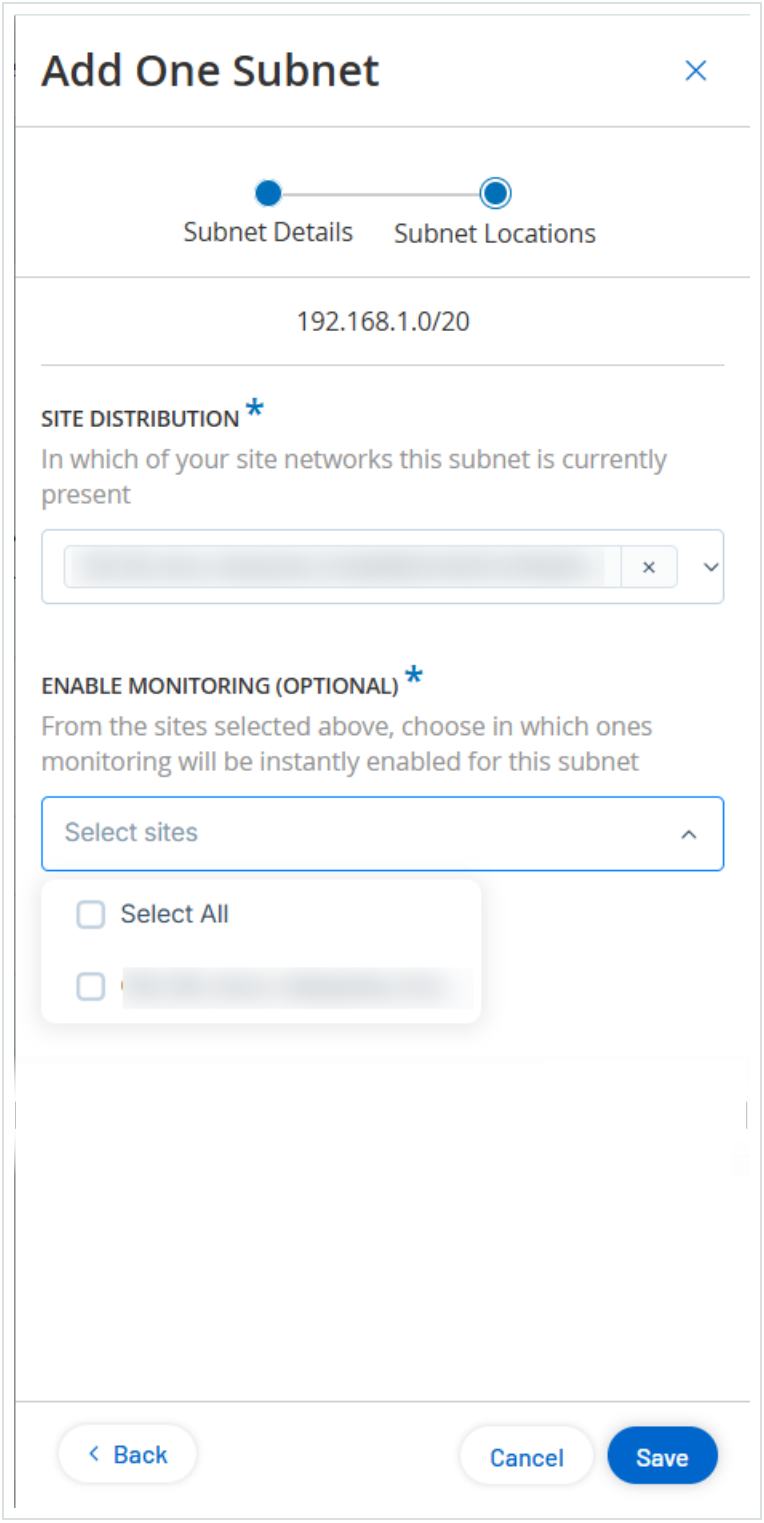
a. In the Subnet box, type the IP address range in the CIDR format. For example, `192.168.1.0/24`.

b. In the Network Name box, type a name for the network.

c. (Optional) In the Description box, type a description for subnet.

d. Click Next.

   The Subnet Locations panel appears.



e. In the Site Distribution drop-down box, select the physical sites that include this subnet.

f. (Optional) In the Enable Monitoring drop-down box, select the sites where you want to enable monitoring.

g. Click Save.

5. If you selected Add Subnets List:

   a. In the CIDR box, provide the list of CIDRs, one CIDR per line.

   b. Click Next.

      The Subnet Locations panel appears.

   c. In the Site Distribution drop-down box, select the physical sites that include these subnets.

   d. (Optional) In the Enable Monitoring drop-down box, select the sites where you want to enable monitoring.

   e. Click Save.

OT Security saves the subnets and displays them on the Monitored Networks page.

Edit a Subnet

You can edit an existing subnet to make changes to it.

1. In the Monitored Networks table, do one of the following:

   - Select the checkbox next to the subnet you want to edit.

     OT Security enables the Actions menu.

   - Right-click the row of the IP range you want to edit.

     A menu appears.

2. Select Edit Details.

The Edit Details panel appears.

3. Modify the configuration details as needed.
4. Click Save.

   OT Security saves the changes to the subnets.

Manage Locations

Use the Manage Locations option to assign additional sites to a subnet and to enable monitoring on these sites.

1. In the Monitored Networks table, do one of the following:

   - Select the checkbox next to the subnet you want to modify.

     OT Security enables the Actions menu.

   - Right-click the row of the IP range you want to modify.

     A menu appears.

2. Select Manage Locations.

   The Manage Locations panel appears.

3. Edit the Site Distribution and Enable Monitoring (Optional) fields as needed.
4. Click Save.

   OT Security updates your subnet site changes.

Settings

You can use the Settings to view and configure the OT Security EM settings. The Settings section includes these pages for configuring your settings:

- Device
- Certificates
- API Keys
- License
- Users Management
- User Settings
- Local Users
- User Groups
- Authentication Servers
- SAML
- Integrations
- Syslog Servers
- System Actions

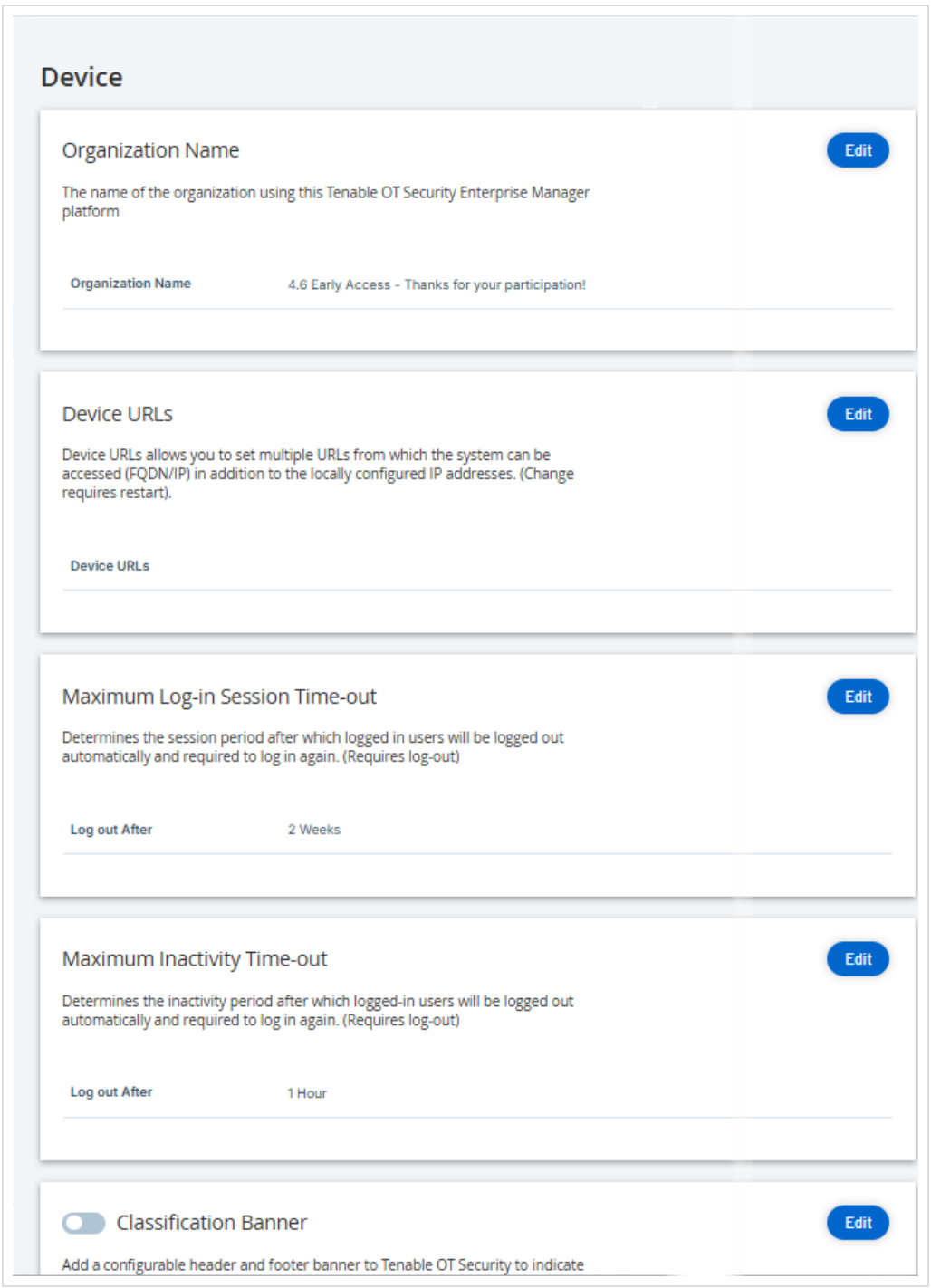
System Configuration

The System Configuration section allows administrators to manage the foundational settings of the OT Security EM. This includes defining the device identity, securing connections via encryption certificates and API keys, and maintaining the system's operational status through license management. The System Configuration includes the following section:

- Device
- Certificates
- API Keys
- OT Security EM License

Device

The page allows you to view and edit device details and network information such as port configuration and system time, automatic logout (inactivity timeout).


Device
Organization Name
Edit
The name of the organization using this Tenable OT Security Enterprise Manager platform
Organization Name
4.6 Early Access - Thanks for your participation!
Device URLs
Edit
Device URLs allows you to set multiple URLs from which the system can be accessed (FQDN/IP) in addition to the locally configured IP addresses. (Change requires restart).
Device URLs
Maximum Log-in Session Time-out
Edit
Determines the session period after which logged in users will be logged out automatically and required to log in again. (Requires log-out)
Log out After
2 Weeks
Maximum Inactivity Time-out
Edit
Determines the inactivity period after which logged-in users will be logged out automatically and required to log in again. (Requires log-out)
Log out After
1 Hour
Classification Banner
Edit
Add a configurable header and footer banner to Tenable OT Security to indicate

Device

Organization Name

Edit

The name of the organization using this Tenable OT Security Enterprise Manager platform

Organization Name	[redacted]

Device URLs

Edit

Device URLs allows you to set multiple URLs from which the system can be accessed (FQDN/IP) in addition to the locally configured IP addresses. (Change requires restart).

Maximum Log-in Session Time-out

Edit

Determines the session period after which logged in users will be logged out automatically and required to log in again. (Requires log-out)

Log out After	2 Weeks

Maximum Inactivity Time-out

Edit

Determines the inactivity period after which logged-in users will be logged out automatically and required to log in again. (Requires log-out)

Log out After	1 Hour

Classification Banner

Edit

Add a configurable header and footer banner to Tenable OT Security to indicate the classification of the data accessible via the software.

Banner Background Color	Yellow

Enable Usage Statistics

Enable this option to turn on telemetry and to access the OT Security Resource Center. After enabling or disabling, refresh your browser for the change to take effect.
Note: When enabled, Tenable collects anonymous telemetry data from your account. This information cannot be attributed to a specific individual; it does not

The Device page shows the following information:

Parameter	Description
Organization Name	The name of the OT Security management system.
Device URLs	The URL used to access the OT Security EM console in a DNS environment.
Maximum Log-in Session Time-out	The session period after which users are logged out automatically.
Maximum Inactivity Time-out	The period of inactivity that causes the system to log out automatically.
Classification Banner	Add a banner to OT Security EM to indicate the data accessible via the software. To add a banner, click Edit. After adding the banner, click to enable the Classification Banner toggle.
Enable Usage Statistics	The Enable Usage Statistics option specifies whether Tenable collects anonymous telemetry data about your OT Security EM deployment. When enabled, Tenable collects telemetry information at the company level and not at an individual level. This information does not include personal data or personally identifiable information (PII). Telemetry information includes, but is not limited to, data about your visited pages, your used reports and dashboards, and your configured features. Tenable uses the data to improve your user experience in future OT Security EM releases and for other reasonable business purposes in accordance with the Tenable

	Master Agreement. This setting is enabled by default. To enable telemetry collection, click the Enable Usage Statistics toggle. Note: You can disable sharing of usage statistics at any time by clicking the toggle switch.
Auto approve ICP pairing requests	Enable this option to approve all ICP pairing requests automatically. For more information about pairing an ICP, see Pair ICP with Enterprise Manager.

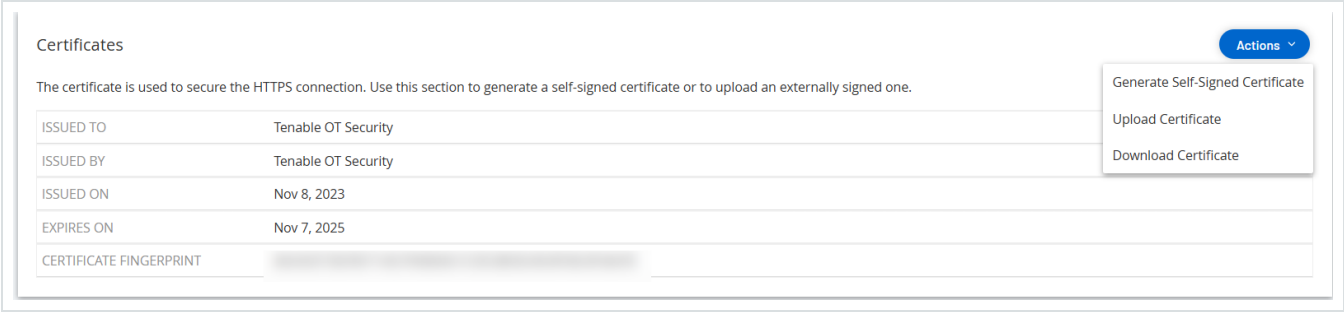
Certificates

The HTTPS certificate ensures the system uses a secure connection to the OT Security EM appliance and server. The initial certificate ages out after two years. You can generate a new self-signed certificate at any time. The new certificate is valid for one year.

To generate a certificate:

1. Go to Settings > System Configuration > Certificates.

   The Certificates page appears.



2. From the Actions menu, select Generate Self-Signed Certificate.

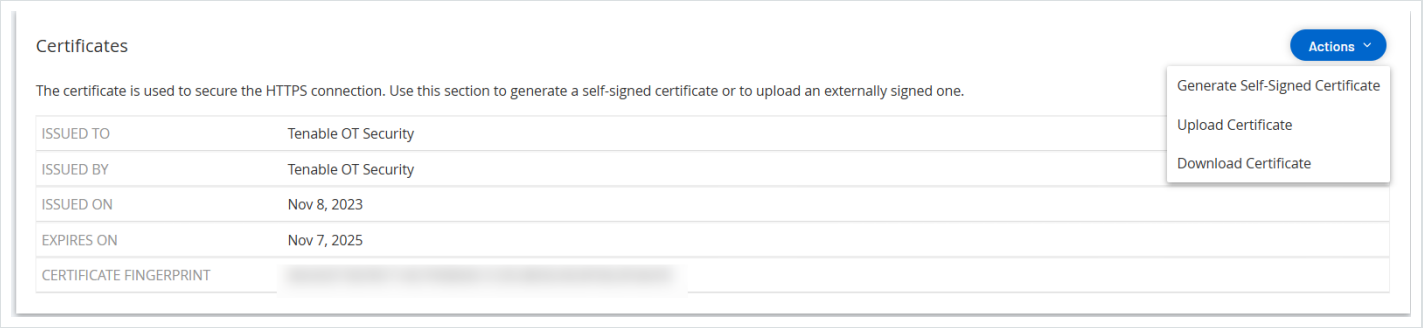
   The Generate Certificate confirmation window appears.

3. Click Generate.

   OT Security EM generate the self-signed certificate, which appears on the Certificates page.

View the Certificates page

On the Certificate page, you can view information about your HTTPS certificate and generate a new certificate for secure HTTPS connections for the OT Security EM. Generating a new certificate overrides the current certificate. A certificate is valid for one year.



The Certificates page shows the following details:

Parameter	Description
Issued to	The entity to which the certificate was issued.
Issued by	The entity that issued the certificate.
Issued on	The issue date of the certificate.
Expires on	The date when the certificate ages out.

Upload a Certificate

To upload a certificate:

1. Go to Settings >System Configuration > Certificates.

   The Certificates window appears.

2. From the Actions menu, select Upload Certificate.

   The Upload Certificate panel appears.

3. In the Certificate File section, click Browse and navigate to the certificate file you want to upload.

4. In the Private Key File section, click Browse and navigate to the private key file you want to upload.

5. In the Private Key Passphrase box, type the private key passphrase.

6. Click Upload.

   OT Security EM uploads the certificate.

Download Certificate

- To download the certificate, click Actions > Download Certificate.

  OT Security EM downloads the certificate to your system.

API Keys

You can generate API keys to pair an ICP with the EM. For information about how to pair an ICP, see Pair ICP with Enterprise Manager.

To generate API keys in OT Security EM:

1. Go to Settings > System Configuration > API Keys.

   The API Keys page appears.

2. In the upper-right corner, click Generate Key.

The Generate Key panel appears.

3. In the Expiration Period box, select the number of days after which the API key can age out.
4. In the Description box, type a description for the API key.
5. Click Generate.

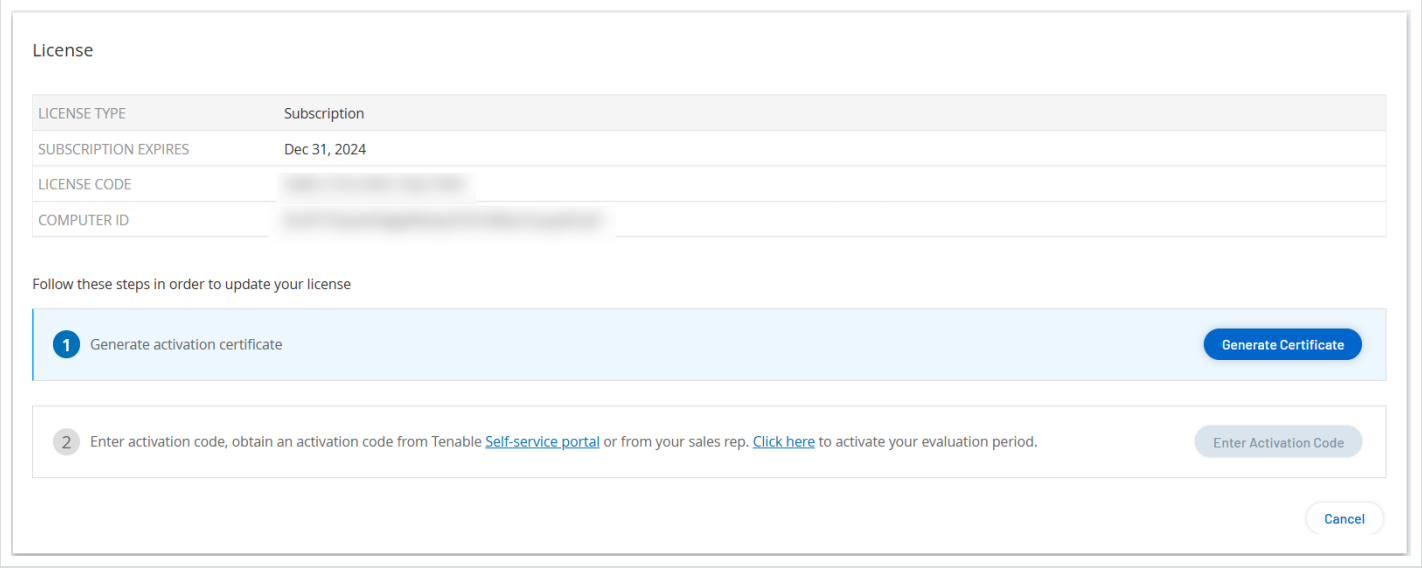
   The Generate Key panel displays the ID and API Key.

6. Click the button to copy the API key.
7. Click Done.

   OT Security EM displays the API Keys page with the newly added key ID..

OT Security EM License

Starting with OT Security version 3.16 or later, the OT Security EM requires a license. You can view the license status here: Settings > System configuration > License.



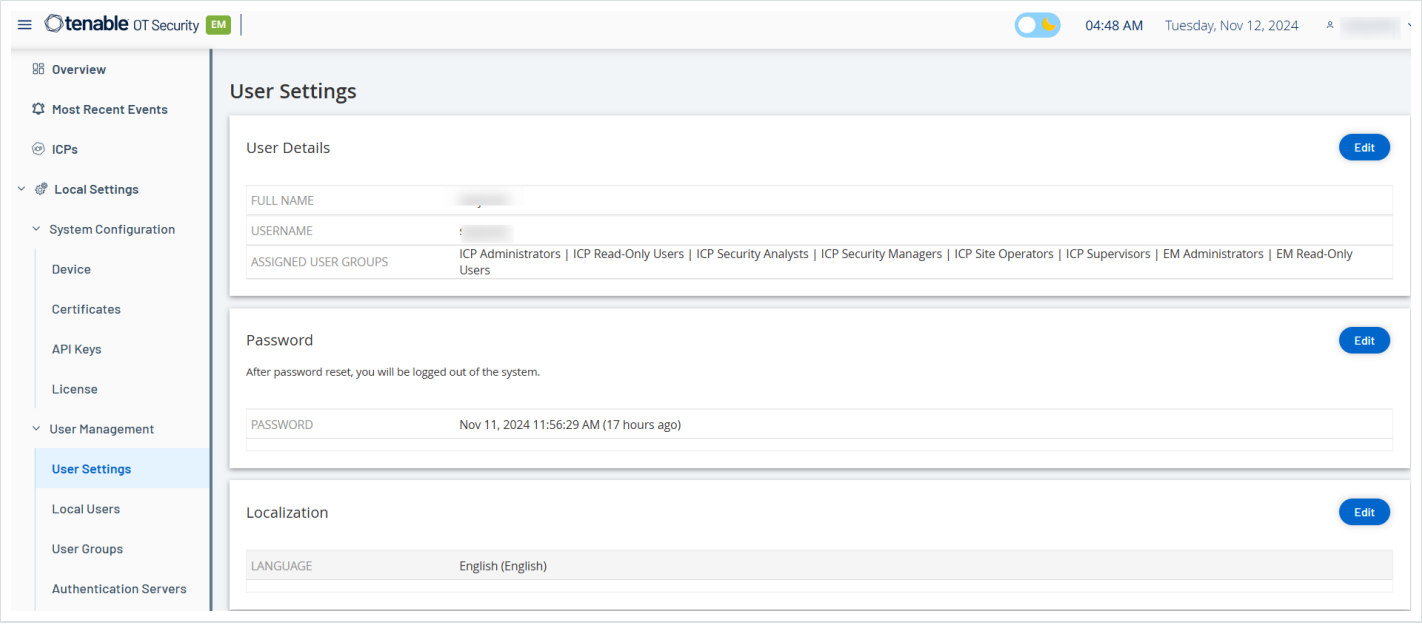
Users Management

The Users Management section includes these pages:

- User Settings
- Local Users
- User Groups
- Authentication Servers
- SAML

User Settings

The User Settings page allows you to view and edit information about the user who is currently logged into the system (Full Name, Username, and Password) and change the user interface language (English, Japanese, Chinese, French, or German).



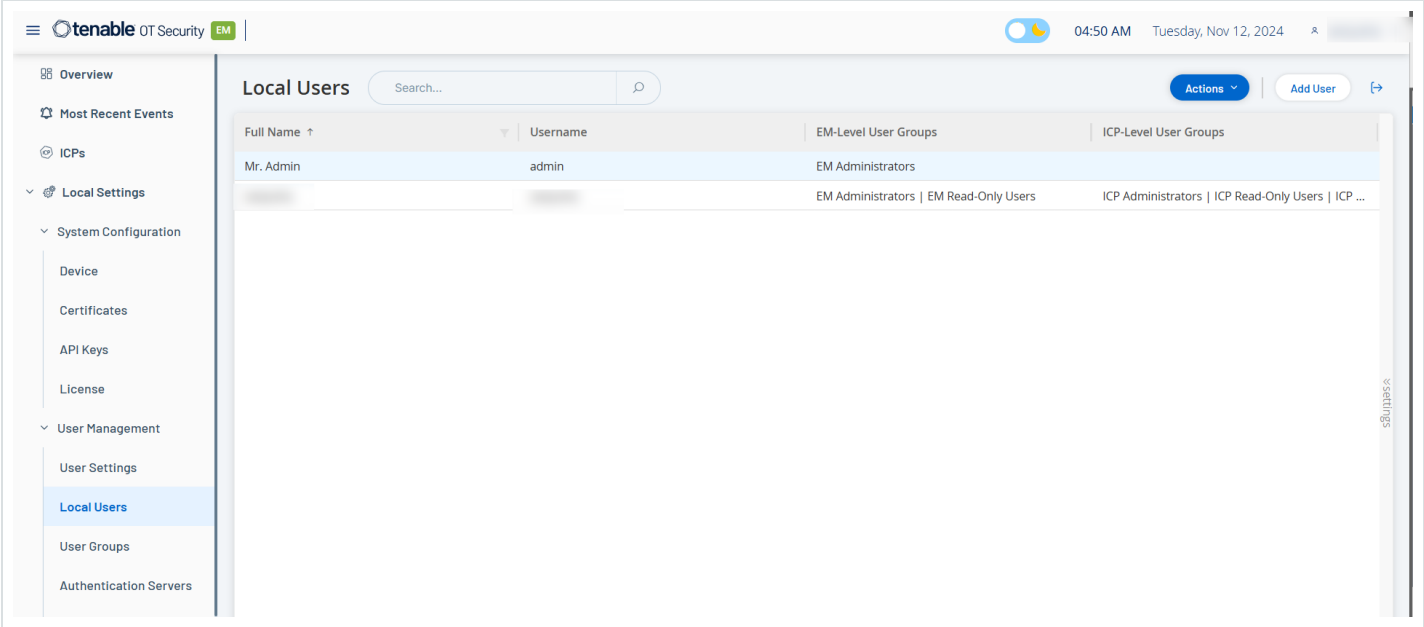
The following table describes the information on the User Settings page.

Parameter	Description
Full Name	The first and last name of the user.

Username	The username of the user.
Assigned User Groups	The user groups assigned to the user.
Language	The language of the user interface (English, Japanese, Chinese, French, or German).

Local Users

The Local Users page lists the local users for the OT Security EM. On this page, an administrator user can create new user accounts, reset passwords, and edit or delete existing accounts. Each user belongs to one or more user groups, which determine the roles assigned to the user.



- To add new users, in the upper-right corner, click Add User.
- To modify a user, delete a user, or change a user's password, click the Actions button.
- To download a CSV file of the users, click the Export button.

You can customize the display settings by adjusting the display and position of columns. You can also sort and filter the users list as well as search for text in the Search box. For information about customizing features, see Customize Tables in the Tenable OT Security User Guide.

The Local Users page shows the following details:

Parameter	Description
Full Name	The first and last name of the user.
Username	The username of the user.
EM Level User Groups	The EM user groups assigned to the user. The options available are: EM Administrators and EM Read-Only Users.
ICP Level User Groups	The ICP user groups assigned to the user. The ICP user groups available are: • ICP Administrators • ICP Read-Only Users • ICP Security Analysts • ICP Security Managers • ICP Site Operators • ICP Supervisors

You can perform the following actions from the Local Users page:

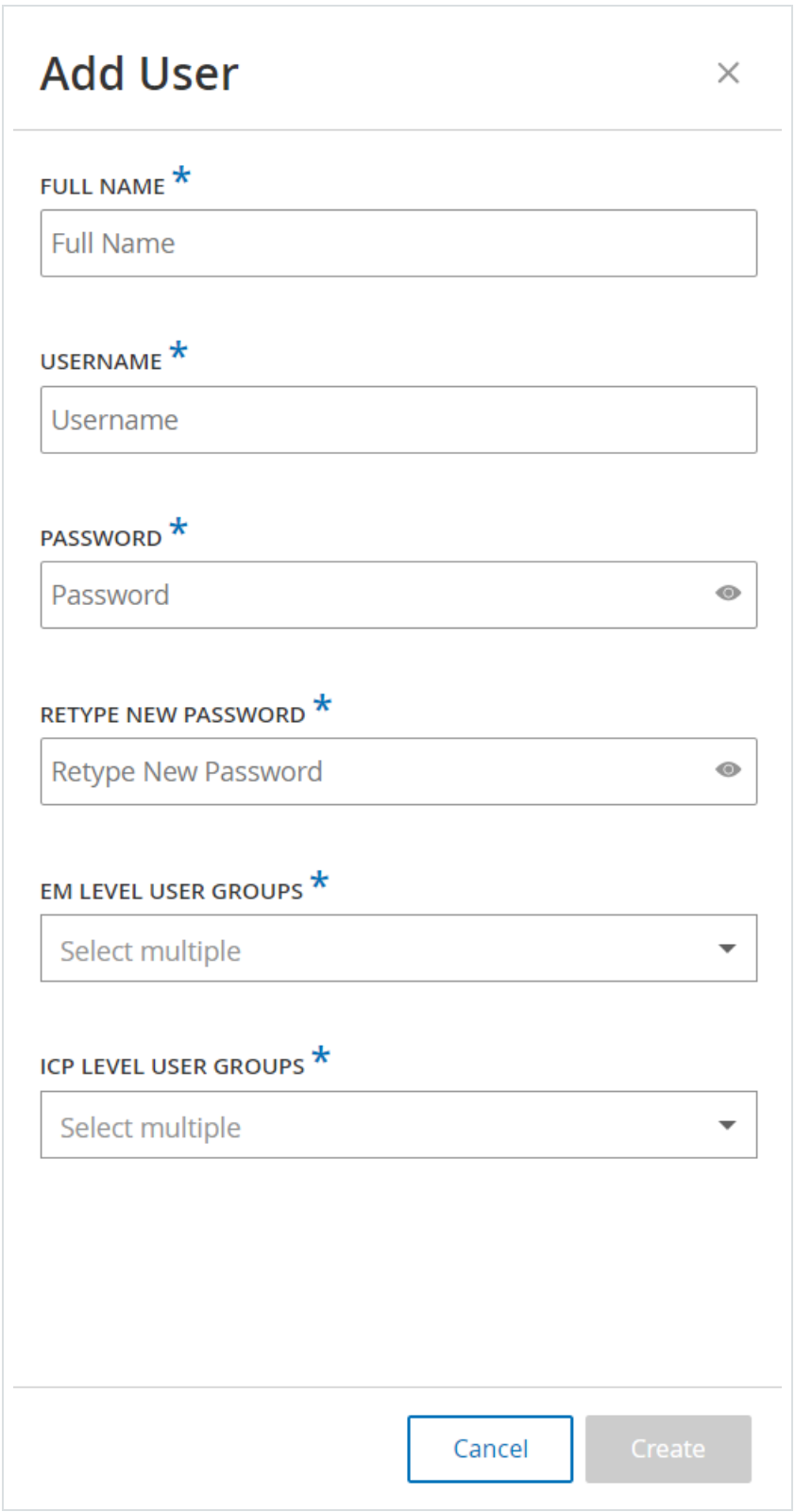
Add a Local User

You can create user accounts to authorize individual users to access the system. Each user must belong to one or more User Groups.

To create a local user account:

1. Go to Settings > User Management > Local Users.
2. Click Add User.

   The Add User pane appears.



3. In the Full Name box, type the first and last name.

> Note: The name that you enter appears in the header bar when the user signs in.

4. In the Username box, type a username to use when logging in to the system.
5. In the Password box, type a password.
6. In the Retype Password box, retype the password.

> Note: This is the password that the user uses for the initial login. The user can change the password in the Settings window after logging into the system.

7. In the EM Level User Groups drop-down box, select the checkbox for each user group to which you want to assign this user. The EM user groups available are: EM Administrators and EM Read-Only Users.
8. In the ICP Level User Groups drop-down box, select the ICP group to which you want to assign this user. The ICP user groups available are:
    - ICP Administrators
    - ICP Read-Only Users
    - ICP Security Analysts
    - ICP Security Managers
    - ICP Site Operators
    - ICP Supervisors
9. Click Create.

    OT Security creates the new user account in the system and adds it to the list of users in the Local Users page.

Edit a User

You can assign a user to additional user groups or remove the user from a group.

To edit a user group:

1. Go to Settings > Users Management > Local Users.

   The Local Users page appears.

2. Do one of the following:

   - Select the row of the user you want to edit and click Actions in the upper-right corner.

     A menu appears.

   - Right-click the row of the user you want to edit.

     A menu appears.

3. Click Edit User.

   The Edit User panel appears.

4. In the EM Level User Groups box, select or clear the user groups to which the user belongs.

5. In the ICP Level User Groups box, select or clear the user groups to which the user belongs.

6. Click Save.

   OT Security EM saves the changes to the user account.

Reset Password

> Note: Only an administrator can change the password for any account in the system. Any user can change their own password from Settings > User Settings.

To change the password of a user:

1. Go to Settings > Users Management > Local Users.

   The Local Users page appears.

2. Do one of the following:

- Select the row of the user you want to change the password and click Actions in the upper-right corner.

  A menu appears.

- Right-click the row of the user whose password you want to change.

  A menu appears.

3. Click Reset Password.

   The Reset Password panel appears.

4. In the New Password box, type a new password.

5. In the Retype New Password box, retype the new password.

6. Click Reset.

   OT Security EM applies the new password to the specified user account.

Delete a User

1. Go to Settings > Users Management > Local Users.

   The Local Users page appears.

2. Do one of the following:

   - Select the row of the user you want to delete and click Actions in the upper-right corner.

     A menu appears.

   - Right-click the row of the user you want to delete.

     A menu appears.

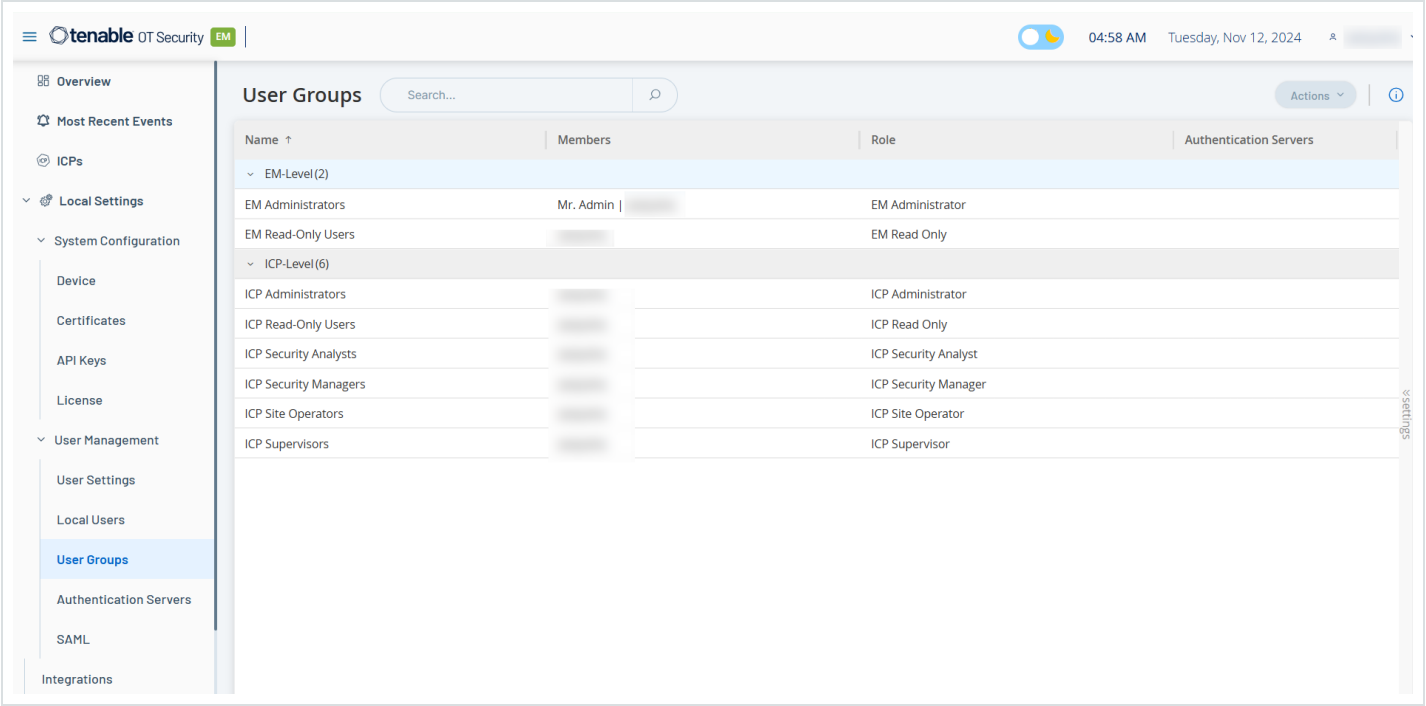
3. Click Delete User.

   OT Security EM deletes the user account from the system.

User Groups

> Required OT Security User Role: EM Administrator

Use the User Groups page to view the list of users assigned to the EM Level and ICP Level User Groups. An administrator can create new user groups and edit existing groups. For more information about assigning users to a user group, see Add a Local User.



The User Groups table includes the following:

Column	Description
Name	The type of user group: EM Level and ICP Level.
Members	The user account assigned to the EM level and ICP level user group.
Role	The role assigned to the user account:

	• EM Administrator • EM Read Only • ICP Administrator • ICP Supervisor • ICP Security Manager • ICP Security Analyst

You can perform the following on the User Groups page:

Create an ICP-Access User Group

You can create an ICP-Access User Group to allow per-ICP permissions. These EM user groups are automatically and consistently synchronized with the linked ICP user groups, ensuring the EM user has the exact role and zone visibility defined at the ICP level.

This allows you to define specific roles per ICP, for instance, Supervisor on *ICP A*, Read-Only on *ICP B*, and no access to *ICP C*.

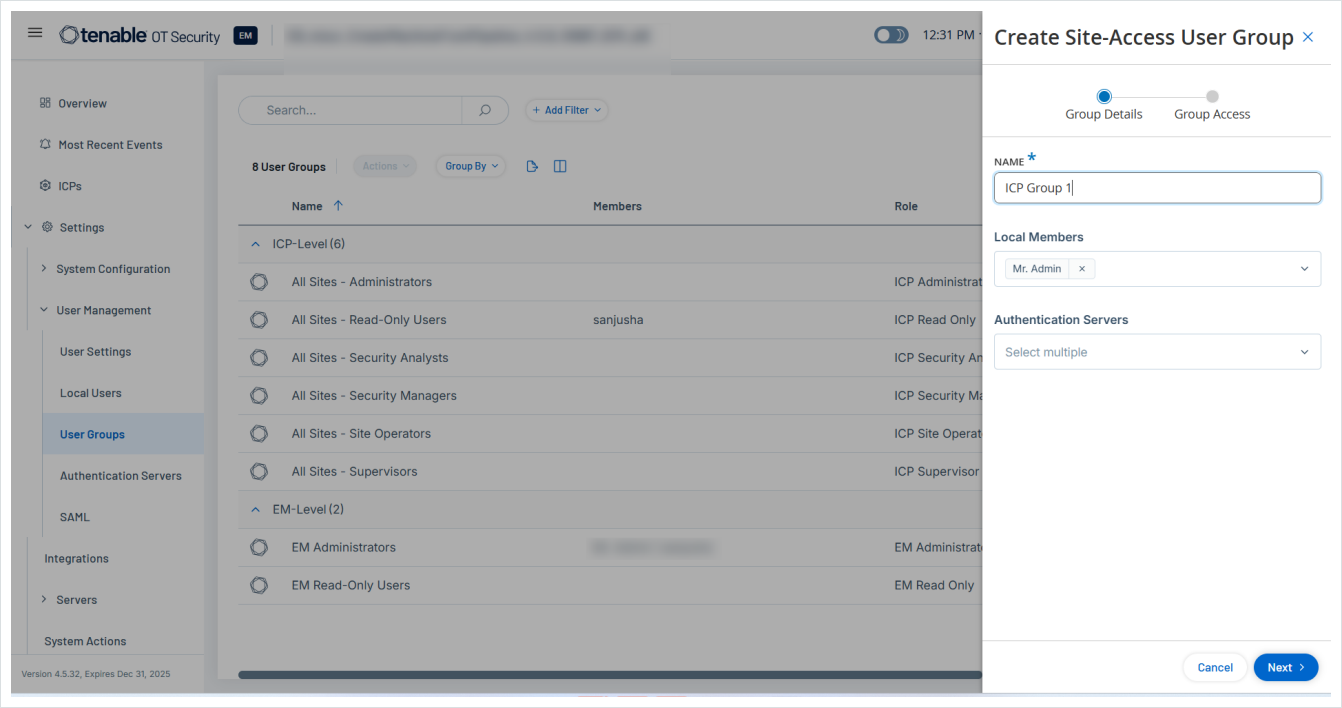
Creating ICP-Access user groups enables you to do the following:

- Assign OT Security EM users to specific ICPs using EM user groups.
- Inherit ICP-level roles and zone visibility without duplicate configuration.
- Restrict access so that users can only view ICPs or zones for which they have authorization.
- Improve security separation and limit the exposure of sensitive site information.

To create an ICP-Access User Group:

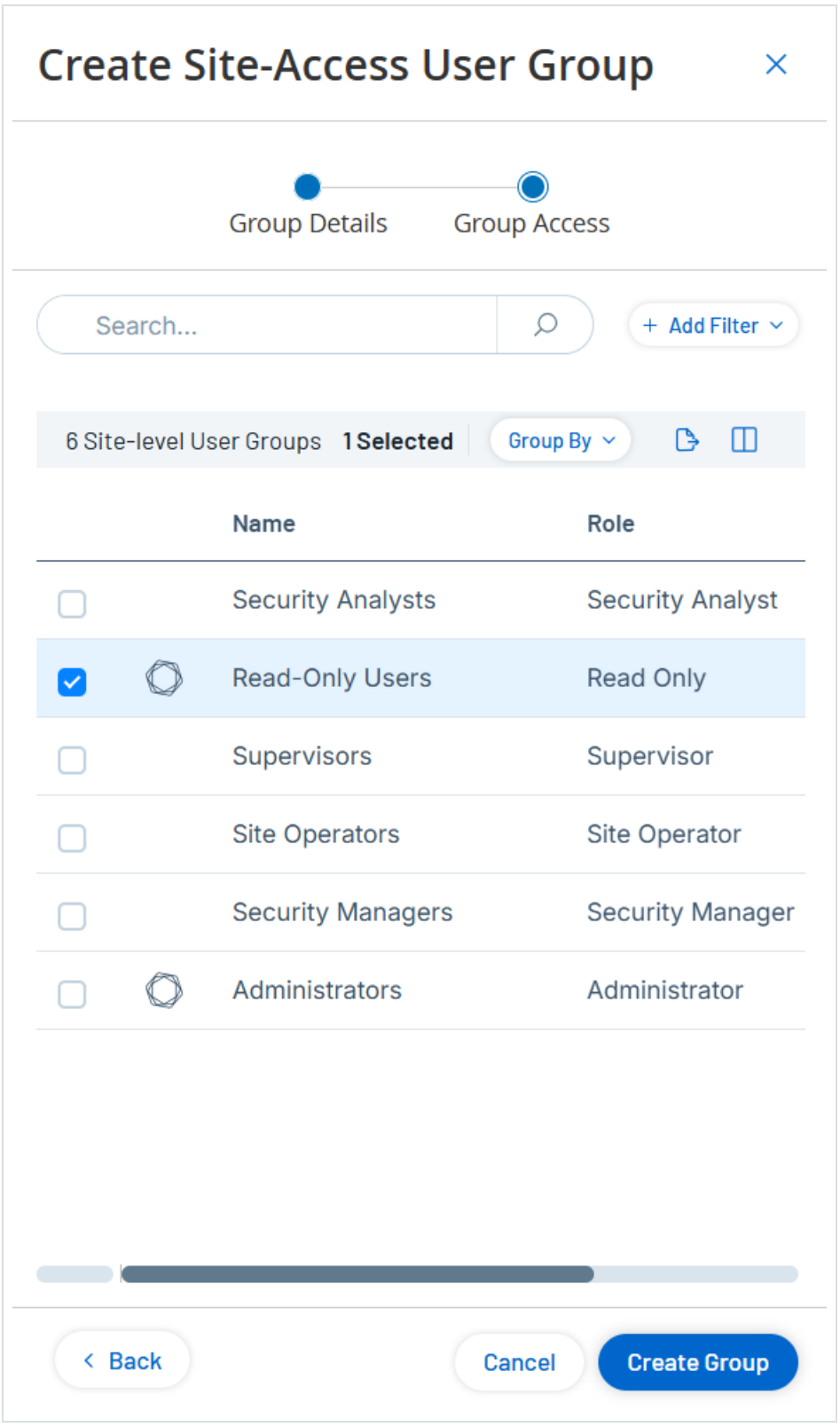
1. In the upper-right corner, click Create ICP-Access User Group.

   The Create Site-Access User Group panel appears with the Group Details section.



2. In the Name box, type a name for the user group.
3. In the Local Members drop-down box, select one or several users you want to add to this group.
4. In the Authentication Servers box, select one or more servers you want to use for authentication.
5. Click Next.

   The Group Access section appears.


Create Site-Access User Group
Group Details
Group Access
Search...
+ Add Filter
6 Site-level User Groups
1 Selected
Group By
Name
Role
Security Analysts
Security Analyst
Read-Only Users
Read Only
Supervisors
Supervisor
Site Operators
Site Operator
Security Managers
Security Manager
Administrators
Administrator
Back
Cancel
Create Group

6. Search for and select the site-level user permissions you want to assign to the group. For more information about customizing the table, see Customize Tables.
7. Click Create Group.

   OT Security EM creates the group.

Edit an ICP-Access User Group

You can modify the settings for a user group as required.

To edit an Site-Access user group:

1. In the User Groups table, select a Site-Access user group to edit.

   OT Security EM enables the Actions button.
2. Click Actions and select Edit.

   The Edit Site-Access User Group panel appears.
3. Modify the settings as needed.
4. Click Next.

   The Group Access panel appears.
5. Select or deselect site level group permissions as required.
6. Click Create Group.

   OT Security EM saves the modified user group.

Delete an ICP-Access User Group

You can delete a site-access user group you no longer need.

1. In the User Groups table, select a Site-Access user group to delete.

   OT Security EM enables the Actions button.

2. Click Actions and select Delete.

   OT Security EM prompts you to confirm the deletion.

3. Click Delete.

   OT Security EM deletes the site-access user group.

Authentication Servers

The Authentication Servers page shows your existing integrations with authentication servers. You can add a server by clicking the Add server button.

You can integrate OT Security EM with the following types of servers:

Active Directory

You can integrate OT Security EM with your organization's Active Directory (AD). This enables users to log in to OT Security EM using their Active Directory credentials. The configuration involves setting up the integration and then mapping groups in your AD to User Groups in OT Security EM.

To configure your Active Directory:

1. Go to Settings > Users Management > Authentication Servers.

   The Authentication Servers window appears.

2. In the upper-right corner, click Add server.

   The Create Authentication Server panel opens with the Server Type.

3. Click Active Directory, then click Next.

The Active Directory configuration pane appears.

4. In the Name box, type the username used for logging in to the server.
5. In the Domain box, type the FQDN of the organizational domain (for example, company.com).

   > Note: To find your domain, type the command “set” in the Windows CMD or command line. The value given for the “USERDNSDOMAIN” attribute is the Domain Name.

6. In the Base DN box, type the name of the domain. The format for this value is ‘DC={second-level domain},DC={top-level domain}’ (for example DC=company,DC=com).
7. For each of the groups you want to map from the Active Directory group to an OT Security EM User Group, type the Domain Name of the Active Directory group in the relevant box.

   > Note: These parameters are optional. However, If a parameter remains empty, no Active Directory users get assigned to that user group. You can set up an integration without mapped groups, but no user can access the system until you add at least one group mapping.

8. (Optional) In the Trusted CA section, click Browse and navigate to the file that contains your organization’s CA Certificate.

   > Note: You can obtain the certificate from your CA or Network Administrator.

9. Click Save.

   OT Security EM shows a message prompting you to restart to activate the Active Directory.

10. Click Restart.

    After the system restarts, OT Security EM activates the Active Directory settings. Any user assigned to the designated group can access the OT Security EM platform using their organizational credentials.

LDAP

You can integrate OT Security with your organization's LDAP. This enables users to log in to OT Security EM using their LDAP credentials. The configuration involves setting up the integration and then mapping groups in your Active Directory to User Groups in OT Security EM.

To configure LDAP:

1. Go to Settings> User Management > Authentication Servers.
2. Click Add Server.

   The Add Authentication Server panel opens with the Server Type.
3. Select LDAP, then click Next.

   The LDAP Configuration pane appears.
4. In the Name box, type the username that you want to use for logging in.

   > Note:The login name must be unique and clearly denote its usage for LDAP. If you have both LDAP and Active Directory configured, the username serves as the sole identifier that distinguishes between the various server configurations on the login screen.
5. In the Server box, type the FQDN or the login address.

   > Note: If you use a secure connection, Tenable recommends using the FQDN instead of an IP address to ensure verification of the provided secure certificate.

   > Note: If you use hostname, it must appear in the list of DNS Servers in the OT Security EM system. See System Configuration > Device.
6. In the Port box, type 389 to use a non-secure connection, or 636 to use a secure SSL connection.

   > Note: If you select 636, you must provide a certificate to complete the integration.

7. In the User DN box, type the domain name with parameters in DN format. For example, for a server name of AD_1.qa.com, the user DN can be CN=Administrator,CN=Users,DC=qa,DC=com.
8. In the Password box, type the password of the User DN.

   > Note: The OT Security EM configuration with LDAP only continues to work as long as the User DN password is valid. Therefore, when the User DN password changes or ages out, you must update the OT Security EM configuration.

9. In the User Base DN box, type the base domain name in DN format. For example, DC=qa,DC=com.
10. In the Group Base DN box, type the Group base domain name in DN format.
11. In the Domain append box, type the default domain appended to the authentication request if the user did not apply a domain to which they belong.
12. In the relevant group name boxes, type the Tenable group names for the user to use with the LDAP configuration.
13. If using Port 636 for the configuration, under Trusted CA, click Browse, and navigate to a valid PEM certificate file.
14. Click Save.

    OT Security EM starts the Server in the Disabled mode.
15. To apply the configuration, click the enable toggle.

    The System Restart dialog appears.
16. Click Restart Now to restart and apply the configuration immediately, or Restart Later to continue using temporarily the system without the new configuration.

Note: Enabling or disabling LDAP configuration is not complete until the system restarts. If you do not restart the system immediately, click Restart on the banner at the top of the page when you are ready to restart.

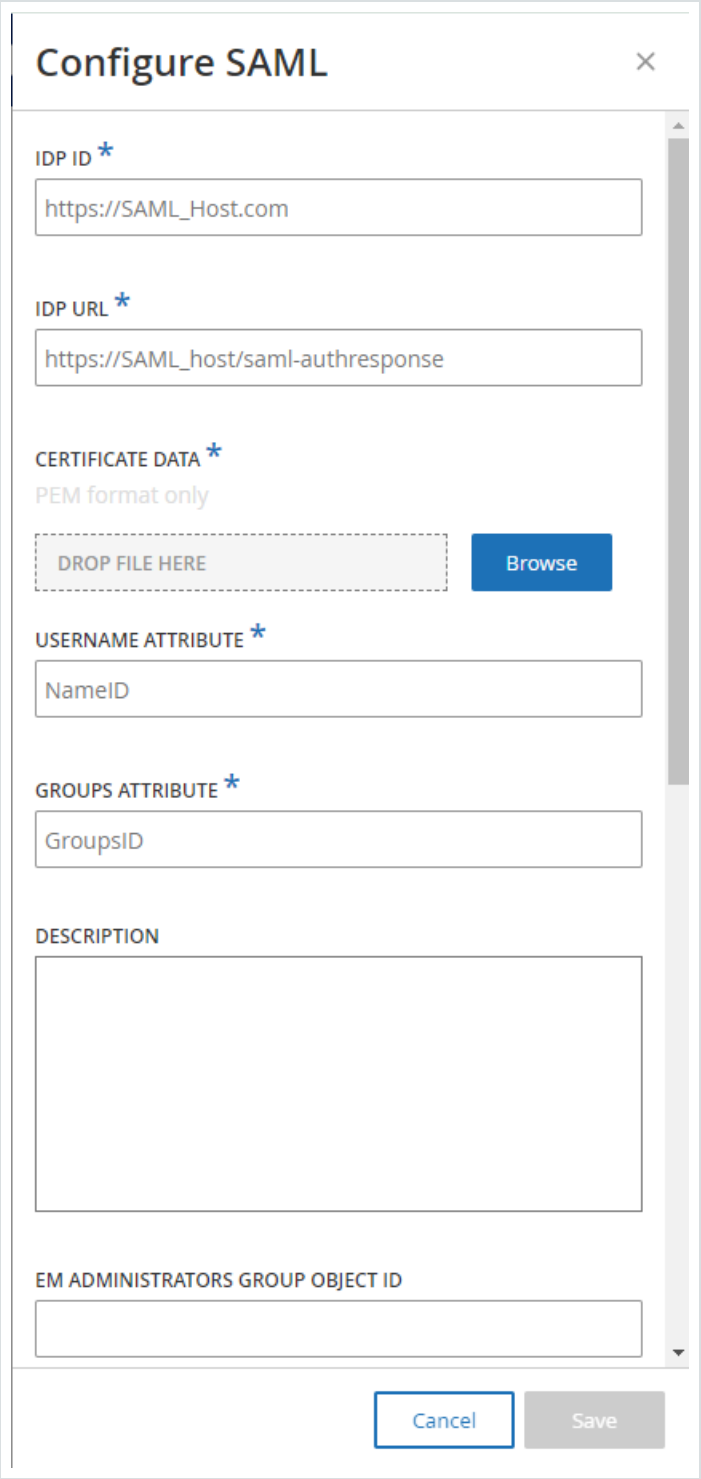
SAML

You can integrate OT Security EM with your organization's identity provider (for example, Microsoft Entra ID). This enables users to authenticate using their identity provider. The configuration involves setting up the integration by creating an OT Security EM application within your identity provider, by entering information about your created OT Security EM application, and uploading your identity provider's Certificate to the OT Security SAML page. Then, map the groups from your identity provider to User Groups in OT Security EM.

To configure SAML:

1. Go to Settings > Users Management > SAML.
2. Click Configure.

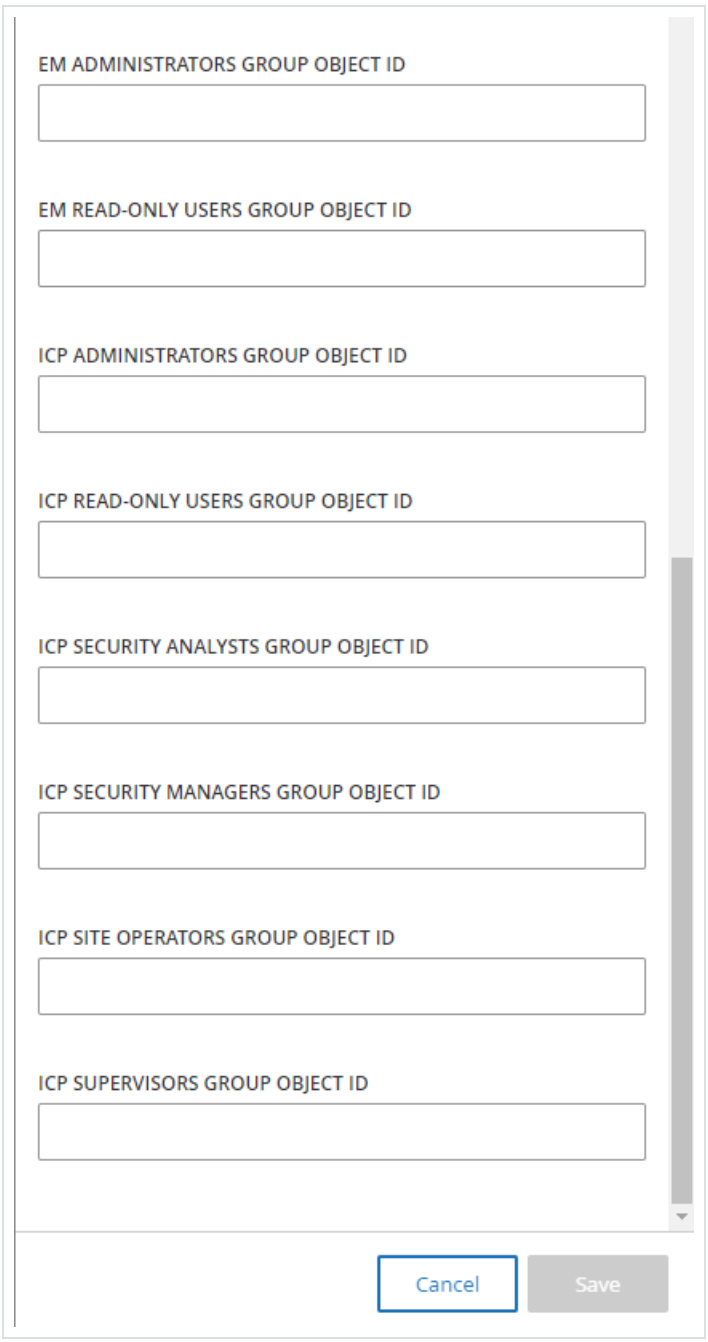
   The Configure SAML panel appears.



3. In the IDP ID box, type the Identity Provider's ID for the OT Security EM application.

4. In the IDP URL box, type the Identity Provider's URL for the OT Security EM application.

5. In Certificate Data, click Drop File Here, navigate to and open the Identity Provider's Certificate file you downloaded for use with the OT Security EM application.
6. In the Username Attribute box, type the username attribute from the Identity Provider for the OT Security EM application.
7. In the Groups Attribute box, type the groups attribute from the Identity Provider for the OT Security EM application.
8. (Optional) In the Description box, type a description.
9. For each group mapping that you want to configure, access the Identity Provider's Group Object ID for a group of users and enter it into the required Group Object ID box to map it to the required OT Security EM User Group.



10. Click Save to save and close the side panel.
11. On the SAML window, click the SAML single sign-on login toggle to enable single sign-on login.

    The System Restart notification window appears.

12. Click Restart Now to restart the system and apply the SAML configuration immediately, or click Restart Later to delay the application of the SAML configuration at the next system restart.

    If you choose to restart later, OT Security EM shows following banner until the next restart:

    After the restart, the settings are activated to allow any user belonging to the designated groups access the OT Security EM platform using their Identity Provider credentials.

Integrations

You can set up integrations for OT Security EM with other Tenable products – Tenable Security Center and Tenable Vulnerability Management. This enables OT Security to send data to Tenable Security Center and Tenable Vulnerability Management. The data from OT Security EM includes OT Security vulnerabilities as well as data discovered by IT-type Tenable Nessus scans initiated from OT Security. By setting up the integrations on the OT Security EM level, you provide a single source of data, and alleviate the need to configure separate integrations for each site.

> Note: To integrate the platforms, OT Security must be able to reach Tenable Security Center and/or Tenable Vulnerability Management via port 443. Tenable recommends that you create a specific user on Tenable Security Center and/or Tenable Vulnerability Management to be used as the integration user to OT Security.

Integrate with Tenable Security Center

You can integrate Tenable Security Center with OT Security EM so that OT Security EM sends information to the designated repositories.

> Note: Tenable recommends that you create Tenable Security Center repositories with matching names to OT Security Sites to optimize the mapping of Sites to repositories. The exact OT Security

Site names must be contained within the Tenable Security Center repository names. For example, for a site named “London”, a repository name of “OT_London” or “London - OT”. Sites without a matching repository send information to the default repository that you designate during the integration setup. For detailed instructions, click the button on the Integrations page.

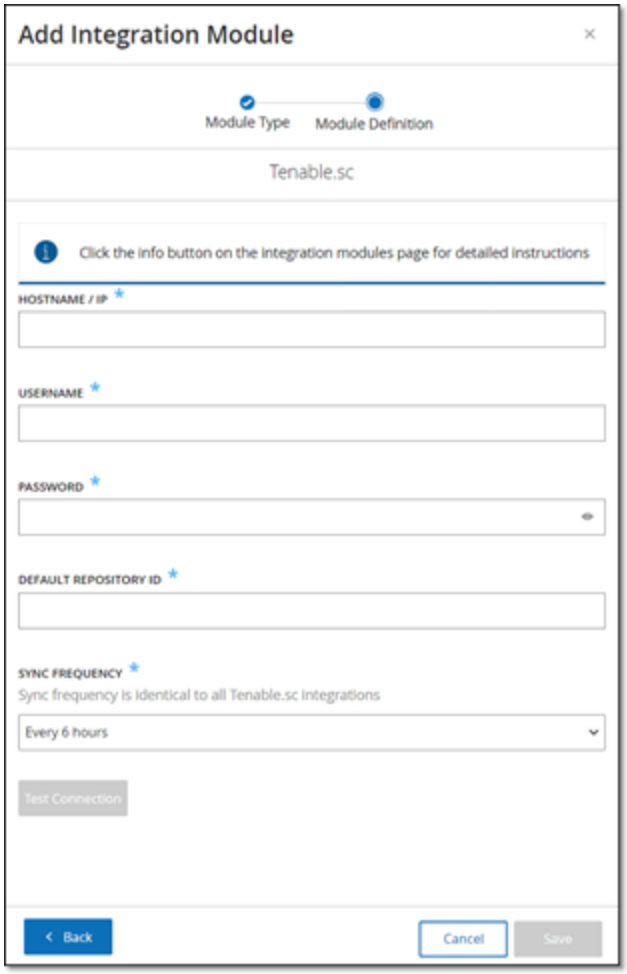
To integrate Tenable Security Center:

1. In the Tenable OT Security interface, navigate to Settings > Integrations.
2. Click Add Integration.

   The Add Integration wizard opens with the Module Type page.

3. Click **Tenable Security Center**, then click Next.

The Module Definition page appears.



4. In the Hostname\IP box, type a hostname or an IP address of the Tenable Security Center system.
5. In the Username box, type the username associated with the Tenable Security Center system.
6. In the Password box, type the password associated with the Tenable Security Center system.
7. In the Default Repository ID box, type the ID for the repository that can serve as the default destination for any synced information that does not have a designated repository (see the note).
8. In the Sync Frequency box, set the sync frequency for the integration.

9. To test the connection, click Test Connection.

10. Click Save.

> Note: Tenable recommends that you create a specific user on Tenable Security Center to integrate with OT Security EM. The user must have the Security role.

Integrate with Tenable Vulnerability Management

You can integrate Tenable Vulnerability Management with OT Security EM after generating an API key in the Tenable Vulnerability Management console.

> Note: First generate an API key in the Tenable Vulnerability Management console (Settings > My Account > API Keys > Generate). You are given an Access Key and a Secret Key which you provide in the OT Security console when configuring the integration. For more information, see Generate API Keys in the Tenable Vulnerability Management User Guide.

To integrate Tenable Vulnerability Management:

1. In the Tenable OT Security interface, navigate to Settings > Integrations.

2. Click Add Integration.

   The Add Integration wizard opens with the Module Type page.

3. Click **Tenable Vulnerability Management**, then click Next.

   The Module Definition page of the Add Integration Module wizard opens.

4. In the Access Key box, type the access key for the API.
5. In the Secret Key box, type the secret key for the API.
6. In the Sync Frequency box, set the sync frequency for the integration.
7. To test the connection, click Test Connection.
8. Click Save.

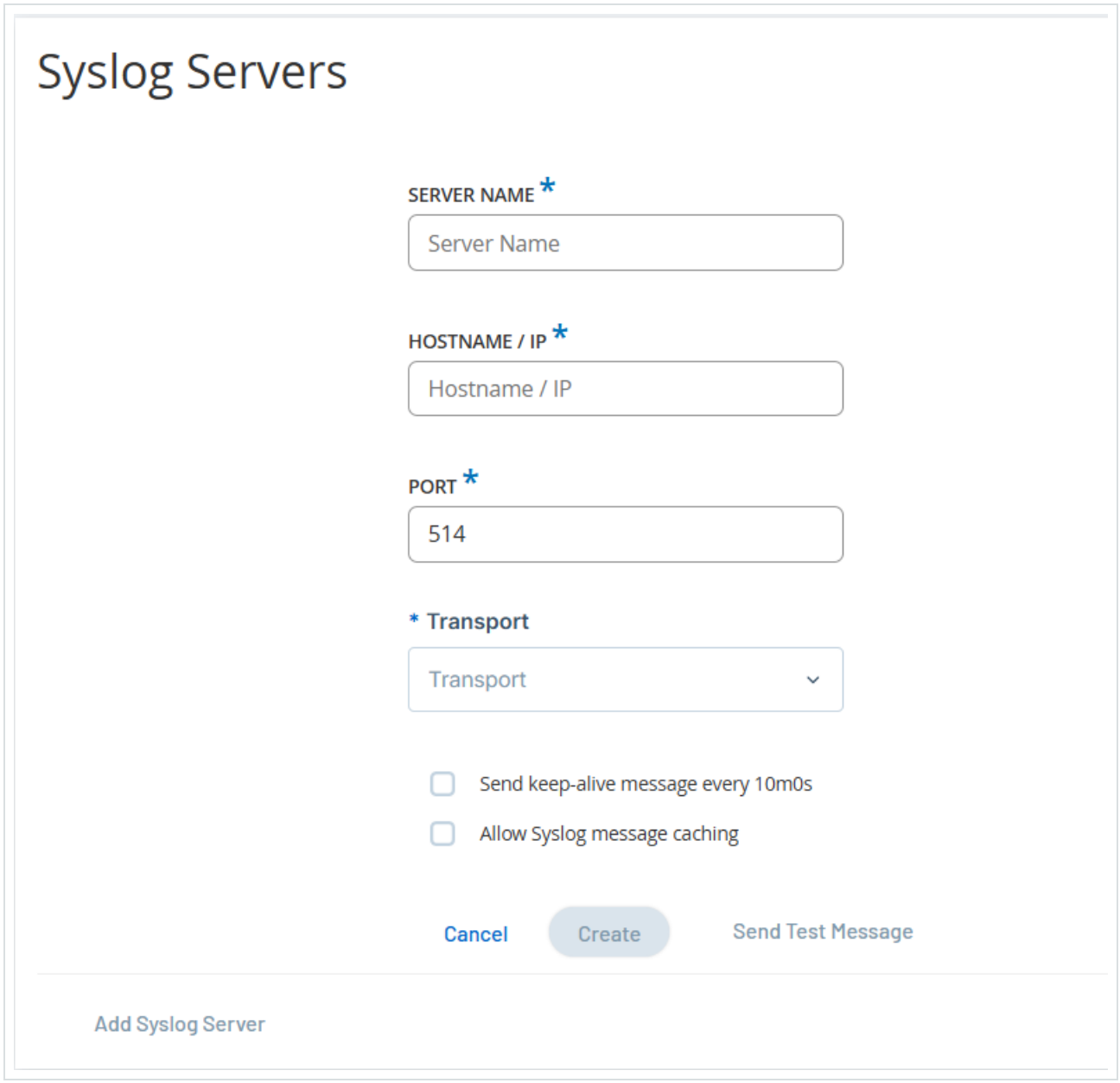
Syslog Servers

To collect log events on an external server, you need to set up a Syslog server. If you do not want to set up a Syslog server, the event logs can only be saved on the OT Security EM platform.

To set up a Syslog server:

1. Go to Settings > Servers > Syslog Servers.
2. Click + Add Syslog Server.

   The Syslog Servers configuration window appears.



3. In the Server Name box, type the name of a Syslog server for logging system events.

4. In the Hostname/IP box, type a hostname or an IP address of the Syslog server.
5. In the Port box, type the port number on the Syslog server that receives the events. (Default: 514)
6. In the Transport drop-down box, select the transport protocol you want to use. Options are TCP or UDP.
7. (Optional) Select the Send keep alive message every 10m0s option to check the connection at frequent intervals.
8. (Optional) For TCP syslog, select the Allow syslog message caching option to cache events when the connection is disrupted and to send them once the connection is restored.

   > Note: UDP syslog messages do not have any state awareness and may be lost if the connection is interrupted.

9. To send a test message to verify that the configuration is successful, click Send Test Message.

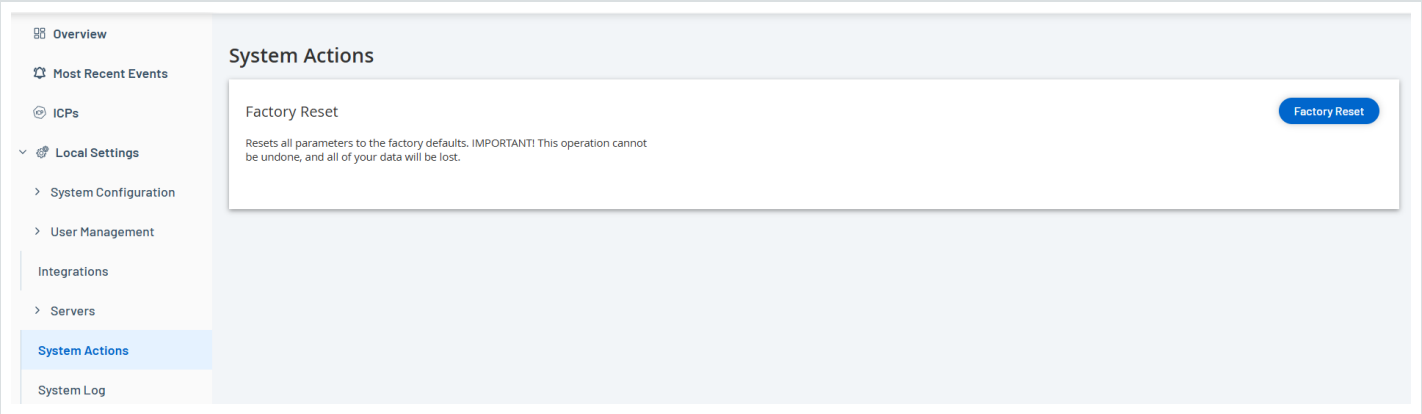
   Verify if the message arrived. If the message did not arrive, then troubleshoot to discover the cause of the problem and rectify it.

10. Click Save.

    You can set up additional Syslog servers by repeating this procedure.

System Actions

The System Actions page shows a list of system activities that you can perform.

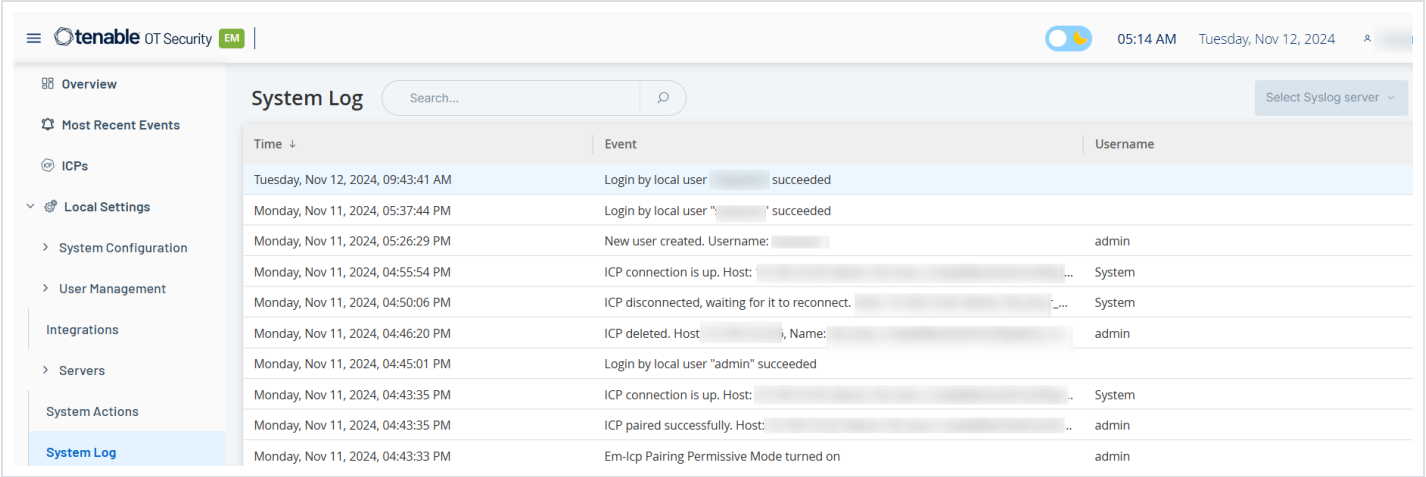


The System Actions page includes the following:

Parameter	Description
Factory Reset	Returns all settings to the factory default settings. Warning: You cannot undo this operation and you lose all data in the system.

System Log

The System Log page shows a list of all the system events that occurred in the system, such as Policy turned on, Policy edited, and Event Resolved. This log includes both user-initiated events as well as automatically occurring system events (for example, Policy turned off automatically because of too many hits). This log does not include policy-generated events (which are shown on the Events page). You can export the logs as a CSV file. You can also configure the system to send the System Log events to a Syslog server.



The following information is available for each logged event:

Parameter	Description
Time	The time and date when the event occurred.
Event	A brief description of the event.
Username	The name of the user that initiated the event. For events that occur automatically, there is no username.

Send System Log to a Syslog Server

To configure the system to send system events to a Syslog server:

1. Go to Settings > System Log.
2. In the header bar, click Select syslog server.

   A drop-down list of servers appears.

   > Note: To add a Syslog server, see Syslog Servers.

3. Select the desired server.

   OT Security EM sends the system log events to the specified Syslog server.