# Table of Contents

Welcome to Tenable Core + Tenable.ot ................................................................. 5

Get Started ............................................................................................................. 6

Tenable Core Requirements .................................................................................. 7

System and License Requirements ...................................................................... 8

Access Requirements ........................................................................................... 10

Default Security Configuration Standards ....................................................... 12

Deploy or Install Tenable Core ........................................................................... 17

Deploy Tenable Core in VMware ........................................................................ 18

Install Tenable Core on Tenable-Provided Hardware ....................................... 19

Edit the Network Configuration ......................................................................... 21

Edit the Proxy Configuration .............................................................................. 23

Disk Management ............................................................................................... 25

Add or Expand Disk Space .................................................................................. 26

Manually Configure a Static IP Address ............................................................. 28

Create an Initial Administrator User Account .................................................. 32

Log In to Tenable Core ....................................................................................... 34

Configure Tenable.ot in the Tenable.ot User Interface .................................... 35

Configure and Manage ....................................................................................... 36

View the Dashboard ............................................................................................ 38

Add a Server ......................................................................................................... 39

Edit a Server ......................................................................................................... 40

Delete a Server .................................................................................................... 41
<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Synchronize Accounts</td>
<td>42</td>
</tr>
<tr>
<td>Manage the System</td>
<td>43</td>
</tr>
<tr>
<td>Change Performance Profile</td>
<td>45</td>
</tr>
<tr>
<td>Restart Tenable Core</td>
<td>46</td>
</tr>
<tr>
<td>Shut Down Tenable Core</td>
<td>47</td>
</tr>
<tr>
<td>Edit Your Tenable Core Hostname</td>
<td>48</td>
</tr>
<tr>
<td>Edit Your Time Settings</td>
<td>49</td>
</tr>
<tr>
<td>View the System Log</td>
<td>50</td>
</tr>
<tr>
<td>Filter the System Log</td>
<td>51</td>
</tr>
<tr>
<td>View Container Status</td>
<td>52</td>
</tr>
<tr>
<td>View Tenable.ot Logs</td>
<td>53</td>
</tr>
<tr>
<td>Manage System Networking</td>
<td>54</td>
</tr>
<tr>
<td>Add a Bonded Interface</td>
<td>56</td>
</tr>
<tr>
<td>Add a Team of Interfaces</td>
<td>58</td>
</tr>
<tr>
<td>Add a Bridge Network</td>
<td>59</td>
</tr>
<tr>
<td>Add a VLAN</td>
<td>60</td>
</tr>
<tr>
<td>Manage System Storage</td>
<td>61</td>
</tr>
<tr>
<td>Rename a Filesystem</td>
<td>62</td>
</tr>
<tr>
<td>Delete a Filesystem</td>
<td>63</td>
</tr>
<tr>
<td>Manage User Accounts</td>
<td>64</td>
</tr>
<tr>
<td>Create New User Account</td>
<td>65</td>
</tr>
<tr>
<td>Edit a User Account</td>
<td>66</td>
</tr>
<tr>
<td>Delete a User Account</td>
<td>70</td>
</tr>
<tr>
<td>Manage Services</td>
<td>71</td>
</tr>
<tr>
<td>Task</td>
<td>Page</td>
</tr>
<tr>
<td>------------------------------------------</td>
<td>------</td>
</tr>
<tr>
<td>Create a Timer</td>
<td>74</td>
</tr>
<tr>
<td>Generate a Diagnostic Report</td>
<td>75</td>
</tr>
<tr>
<td>Access the Terminal</td>
<td>76</td>
</tr>
<tr>
<td>Configure a Proxy Server</td>
<td>77</td>
</tr>
<tr>
<td>Start, Stop, or Restart Your Application</td>
<td>78</td>
</tr>
<tr>
<td>Manage Updates</td>
<td>79</td>
</tr>
<tr>
<td>Configure Automatic Updates</td>
<td>80</td>
</tr>
<tr>
<td>Configure Your Automatic Update Schedule</td>
<td>82</td>
</tr>
<tr>
<td>Update On Demand</td>
<td>83</td>
</tr>
<tr>
<td>Update Tenable Core Offline</td>
<td>85</td>
</tr>
<tr>
<td>Manage Certificates</td>
<td>86</td>
</tr>
<tr>
<td>Manage the Server Certificate</td>
<td>87</td>
</tr>
<tr>
<td>Upload a Custom Server Certificate</td>
<td>88</td>
</tr>
<tr>
<td>Remove a Custom Server Certificate</td>
<td>91</td>
</tr>
<tr>
<td>Take a Virtual Machine Snapshot</td>
<td>92</td>
</tr>
</tbody>
</table>
Welcome to Tenable Core + Tenable.ot

You can use the Tenable Core operating system to run an instance of Tenable.ot in your environment. After you deploy Tenable Core + Tenable.ot, you can monitor and manage your Tenable.ot processes through the secure Tenable Core platform.

To quickly get started with Tenable Core + Tenable.ot, see Get Started.

Features

- Secure, stable platform.
- Provides automatic application installation and updates via Tenable public repositories.
- Built on CentOS 7.
- Targets Center for Internet Security (CIS) standards for RedHat 7 with SELinux enabled. For more information, see Default Security Configuration Standards.
- Root access enabled on builds.

Other Tenable Core Configurations

To run a different Tenable application on Tenable Core, see:

- Tenable Core + Nessus
- Tenable Core + Nessus Network Monitor
- Tenable Core + Tenable.sc
- Tenable Core + Tenable.io Web Application Scanning

Note: Tenable does not recommend deploying multiple applications on a single instance of Tenable Core. If you want to deploy several applications on Tenable Core (for example, Tenable.sc and Tenable.ot), deploy a unique instance for each application.
Get Started

Tenable recommends the following sequence to deploy and get started with Tenable Core + Tenable.ot.

To get started with Tenable Core:

1. Confirm that your environment meets the requirements in Tenable Core Requirements. If necessary, prepare to increase your disk space after you deploy.

2. **Deploy or install** Tenable Core + Tenable.ot.

3. (Optional) If you want to increase your disk space to accommodate your organization’s data storage needs, see Disk Management and the Tenable.ot User Guide.

4. (Optional) If Dynamic Host Configuration Protocol (DHCP) is not available on the network where you deployed Tenable Core, **configure an IP address** for your Tenable Core + Tenable.ot deployment.

5. Log in as a wizard user and create an administrator account, as described in Create an Initial Administrator User Account.

6. **Log In to Tenable Core** with your new administrator credentials.

7. In the left navigation bar, click **Tenable.ot**.

   The **Tenable.ot** page appears.

8. When prompted, type your Tenable.ot encryption password.

9. (Optional) If you want to create more user accounts, see Create New User Account.

10. (Optional) If you want to configure Tenable Core to use a proxy server, see **Configure a Proxy Server**.

11. **Configure Tenable.ot in the Tenable.ot User Interface** to meet the specifications you want for your application.

12. Configure and manage Tenable Core. To access the application interface, see **Configure and Manage**.
You can deploy Tenable Core + Tenable.ot on any system that meets the following Tenable Core and Tenable.ot environment requirements.

**Note:** Tenable does not recommend deploying multiple applications on a single instance of Tenable Core. If you want to deploy several applications on Tenable Core (for example, Tenable.sc and Tenable.ot), deploy a unique instance for each application.

- **System and License Requirements**
- **Access Requirements**
- **Default Security Configuration Standards**
System and License Requirements

To install and run Tenable Core + Tenable.ot, your application and system must meet the following requirements.

**Note:** Tenable Support does not assist with issues related to your CentOS 7 operating system, even if you encounter them during installation or deployment.

<table>
<thead>
<tr>
<th>Environment</th>
<th>Tenable Core File Format</th>
<th>More Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Virtual Machine</td>
<td>VMware</td>
<td>.ova file</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Deploy Tenable Core in VMware</td>
</tr>
<tr>
<td>Tenable-provided hardware</td>
<td>.iso image</td>
<td>Install Tenable Core on Tenable-Provided Hardware</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Note:</strong> Tenable Core + Tenable.ot requires Tenable-provided hardware. For more information, contact your Tenable representative.</td>
</tr>
</tbody>
</table>

**Note:** While you could use the packages to run Tenable Core in other environments, Tenable does not provide documentation for those procedures.

Tenable.ot Requirements

**Note:** Tenable does not recommend deploying multiple applications on a single instance of Tenable Core. If you want to deploy several applications on Tenable Core (for example, Tenable.sc and Tenable.ot), deploy a unique instance for each application.

Tenable Core + Tenable.ot ships with the latest version of Tenable.ot included.

**Note:** To update your Tenable.ot application version, contact Tenable Support. You cannot use the Tenable Core interface to update Tenable.ot.

For more information about requirements specifically for Tenable.ot, see Tenable.ot in the General Requirements Guide.

NIC Requirements
If you install Tenable Core + Tenable.ot in a hardware environment, `nic0` (192.0.2.5) and `nic3` (192.168.3.3) are set with static IP addresses. Other network interface controllers (NICs) use DHCP.

If you deploy Tenable Core + Tenable.ot on VMware, `nic3` (192.168.3.3) is set with a static IP address. Other NICs use DHCP. You must confirm that the Tenable Core `nic1` MAC address matches the NIC MAC address in your VMware passive scanning configuration. If necessary, modify your VMware configuration to match your Tenable Core MAC address.

For more information, see Manually Configure a Static IP Address, Manage System Networking, and the VMware Documentation.
Access Requirements

Your Tenable Core + Tenable.ot deployment must meet the following requirements.

- Internet Requirements
- Port Requirements

Internet Requirements

You must have internet access to download Tenable Core files.

After you transfer a file to your machine, internet access requirements to deploy or update Tenable Core vary depending on your environment.

<table>
<thead>
<tr>
<th>Environment</th>
<th>Tenable Core Format</th>
<th>Internet Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Virtual Machine</td>
<td>VMware</td>
<td>.ova file</td>
</tr>
<tr>
<td></td>
<td></td>
<td>You do not need internet access to deploy or update Tenable Core.</td>
</tr>
<tr>
<td>Hardware</td>
<td>.iso image</td>
<td>Requires internet access to install or update Tenable Core.</td>
</tr>
</tbody>
</table>

Tip: You do not need access to the internet when you install updates to Tenable Core + Tenable.ot via an offline .iso file. For more information, see Update Tenable Core Offline.

Port Requirements

Your Tenable Core deployment requires access to specific ports for inbound and outbound traffic. Tenable.ot also requires application-specific port access. For more information, see the Tenable.ot Documentation.

Inbound Traffic

You must allow inbound traffic to the following ports.
<table>
<thead>
<tr>
<th>Port</th>
<th>Traffic</th>
</tr>
</thead>
<tbody>
<tr>
<td>TCP 22</td>
<td>Inbound SSH connections.</td>
</tr>
<tr>
<td>TCP 443</td>
<td>Inbound communications to the Tenable.ot interface.</td>
</tr>
<tr>
<td>TCP 8000</td>
<td>Inbound HTTPS communications to the Tenable Core interface.</td>
</tr>
</tbody>
</table>

### Outbound Traffic

You must allow outbound traffic to the following ports.

<table>
<thead>
<tr>
<th>Port</th>
<th>Traffic</th>
</tr>
</thead>
<tbody>
<tr>
<td>TCP 22</td>
<td>Outbound SSH connections, including remote storage connections.</td>
</tr>
<tr>
<td>TCP 443</td>
<td>Outbound communications to the appliance.cloud.tenable.com server for system updates.</td>
</tr>
<tr>
<td>UDP 53</td>
<td>Outbound DNS communications for Tenable.ot and Tenable Core.</td>
</tr>
</tbody>
</table>
Default Security Configuration Standards

By default, Tenable Core applies security configurations based on the following Center for Internet Security (CIS) standards. For more information about CIS standards, see cisecurity.org.

**Note:** SELinux is enabled by default on the Tenable Core operating system.

**CIS Standards**

**CIS Benchmarks:** Tenable has implemented the following parts of the CIS Level 1 Benchmark on the Tenable Core:

**CIS Level 1 - 1.x**

- CIS 1.1.1.* (Disable mounting of miscellaneous filesystems)
- CIS 1.1.21 (Ensure sticky bit is set on all world-writable directories)
- CIS 1.4.* (Bootloader adjustments)
  - CIS 1.4.1 Ensure permissions on bootloader config are configured
- CIS 1.7.1.* (Messaging/banners)
  - Ensure message of the day is configured properly
  - Ensure local login warning banner is configured properly
  - Ensure remote login warning banner is configured properly
  - Ensure GDM login banner is configured - banner message enabled
  - Ensure GDM login banner is configured - banner message text

**CIS Level 1 - 2.x**

- CIS 2.2.* (disabled packages)
  - x11
  - avahi-server
• CUPS
• nfs
• Rpc

CIS level 1 - 3.x

• CIS 3.1.* (packet redirects)
  3.1.2 Ensure packet redirect sending is disabled - 'net.ipv4.conf.all.send_redirects = 0'
  3.1.2 Ensure packet redirect sending is disabled - 'net.ipv4.conf.default.send_redirects = 0'

• CIS 3.2.* (ipv4, icmp, etc)
  3.2.1 Ensure source routed packets are not accepted - 'net.ipv4.conf.all.accept_source_route = 0'
  3.2.1 Ensure source routed packets are not accepted - 'net.ipv4.conf.default.accept_source_route = 0'
  3.2.2 Ensure ICMP redirects are not accepted - 'net.ipv4.conf.all.accept_redirects = 0'
  3.2.2 Ensure ICMP redirects are not accepted - 'net.ipv4.conf.default.accept_redirects = 0'
  3.2.3 Ensure secure ICMP redirects are not accepted - 'net.ipv4.conf.all.secure_redirects = 0'
  3.2.3 Ensure secure ICMP redirects are not accepted - 'net.ipv4.conf.default.secure_redirects = 0'
  3.2.5 Ensure broadcast ICMP requests are ignored
  3.2.6 Ensure bogus ICMP responses are ignored
  3.2.7 Ensure Reverse Path Filtering is enabled - 'net.ipv4.conf.all.rp_filter = 1'
  3.2.7 Ensure Reverse Path Filtering is enabled - 'net.ipv4.conf.default.rp_filter = 1'
  3.2.8 Ensure TCP SYN Cookies is enabled
• CIS 3.3.* (IPv6)
  • 3.3.1 Ensure IPv6 router advertisements are not accepted
  • 3.3.2 Ensure IPv6 redirects are not accepted

• CIS 3.5.* (network protocols)
  • 3.5.1 Ensure DCCP is disabled
  • 3.5.2 Ensure SCTP is disabled
  • 3.5.3 Ensure RDS is disabled
  • 3.5.4 Ensure TIPC is disabled

CIS Level 1 - 4.x
• CIS 4.2.* (rsyslog)
  • 4.2.1.3 Ensure rsyslog default file permissions configured
  • 4.2.4 Ensure permissions on all logfiles are configured

CIS Level 1 - 5.x
• CIS 5.1.* (cron permissions)
  • 5.1.2 Ensure permissions on /etc/crontab are configured
  • 5.1.3 Ensure permissions on /etc/cron.hourly are configured
  • 5.1.4 Ensure permissions on /etc/cron.daily are configured
  • 5.1.5 Ensure permissions on /etc/cron.weekly are configured
  • 5.1.6 Ensure permissions on /etc/cron.monthly are configured
  • 5.1.7 Ensure permissions on /etc/cron.d are configured
  • 5.1.8 Ensure at/cron is restricted to authorized users - at.allow
  • 5.1.8 Ensure at/cron is restricted to authorized users - at.deny
  • 5.1.8 Ensure at/cron is restricted to authorized users - cron.allow
- CIS 5.3.* (password/pam)
  - 5.3.1 Ensure password creation requirements are configured - dcredit
  - 5.3.1 Ensure password creation requirements are configured - lcredit
  - 5.3.1 Ensure password creation requirements are configured - minlen
  - 5.3.1 Ensure password creation requirements are configured - ocredit
  - 5.3.1 Ensure password creation requirements are configured - ucredit
  - 5.3.2 Lockout for failed password attempts - password-auth 'auth [default=die] pam_faillock.so authfail audit deny=5 unlock_time=900'
  - 5.3.2 Lockout for failed password attempts - password-auth 'auth [success=1 default=t=bad] pam_unix.so'
  - 5.3.2 Lockout for failed password attempts - password-auth 'auth required pam_faillock.so preauth audit silent deny=5 unlock_time=900'
  - 5.3.2 Lockout for failed password attempts - password-auth 'auth sufficient pam_faillock.so authsucc audit deny=5 unlock_time=900'
  - 5.3.2 Lockout for failed password attempts - system-auth 'auth [default=die] pam_faillock.so authfail audit deny=5 unlock_time=900'
  - 5.3.2 Lockout for failed password attempts - system-auth 'auth [success=1 default=bad] pam_unix.so'
  - 5.3.2 Lockout for failed password attempts - system-auth 'auth required pam_faillock.so preauth audit silent deny=5 unlock_time=900'
  - 5.3.2 Lockout for failed password attempts - system-auth 'auth sufficient pam_faillock.so authsucc audit deny=5 unlock_time=900'
  - 5.3.3 Ensure password reuse is limited - password-auth
  - 5.3.3 Ensure password reuse is limited - system-auth
• CIS 5.4.* (user prefs)
  • 5.4.1.2 Ensure minimum days between password changes is 7 or more
  • 5.4.1.4 Ensure inactive password lock is 30 days or less
  • 5.4.4 Ensure default user umask is 027 or more restrictive - /etc/bashrc

• CIS 5.6.* (wheel group)
  • 5.6 Ensure access to the su command is restricted - pam_wheel.so
  • 5.6 Ensure access to the su command is restricted - wheel group contains root

CIS Level 1 - 6.x

• CIS 6.1.* (misc conf permissions)
  • 6.1.6 Ensure permissions on /etc/passwd- are configured
  • 6.1.8 Ensure permissions on /etc/group- are configured
## Deploy or Install Tenable Core

You can run Tenable Core + Tenable.ot in the following environments.

**Note:** Tenable Support does not assist with issues related to your CentOS 7 operating system, even if you encounter them during installation or deployment.

<table>
<thead>
<tr>
<th>Environment</th>
<th>Tenable Core File Format</th>
<th>More Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Virtual Machine</td>
<td>.ova file</td>
<td><a href="#">Deploy Tenable Core in VMware</a></td>
</tr>
<tr>
<td>Tenable-provided hardware</td>
<td>.iso image</td>
<td><a href="#">Install Tenable Core on Tenable-Provided Hardware</a></td>
</tr>
</tbody>
</table>

**Note:** Tenable Core + Tenable.ot requires Tenable-provided hardware. For more information, contact your Tenable representative.

**Note:** While you could use the packages to run Tenable Core in other environments, Tenable does not provide documentation for those procedures.

---

*Copyright © 2021 Tenable, Inc. All rights reserved. Tenable, Tenable.io, Tenable Network Security, Nessus, SecurityCenter, SecurityCenter Continuous View and Log Correlation Engine are registered trademarks of Tenable, Inc. Tenable.sc, Tenable.ot, Lumin, Indegy, Assure, and The Cyber Exposure Company are trademarks of Tenable, Inc. All other products or services are trademarks of their respective owners.*
Deploy Tenable Core in VMware

To deploy Tenable Core + Tenable.ot as a VMware virtual machine, you must download the Tenable Core + Tenable.ot .ova file and deploy it on a hypervisor.

Before you begin:

- Confirm your environment will support your intended use of the instance, as described in System and License Requirements.
- Confirm your internet and port access will support your intended use of the instance, as described in Access Requirements.

To deploy Tenable Core + Tenable.ot as a VMware virtual machine:

1. Download the Tenable Core + Tenable.ot .ova file.
2. Open your VMware VM in the hypervisor.
3. Import the Tenable Core + Tenable.ot VMware .ova file from your computer to your virtual machine. For information about how to import a .ova file to your virtual machine, see VMware Documentation.
4. In the setup prompt, configure the VM to meet your organization's storage needs and requirements, as well as those described in System and License Requirements.
5. Launch your Tenable Core + Tenable.ot instance.

The VM boot process appears in a terminal window.

**Note:** The boot process may take several minutes to complete.

What to do next:

- Continue getting started with Tenable Core + Tenable.ot, as described in Get Started.
Install Tenable Core on Tenable-Provided Hardware

You can install Tenable Core + Tenable.ot directly on Tenable-provided hardware using an .iso image. When you install Tenable Core via an .iso image on your computer, Tenable Core replaces your existing operating system with the Tenable Core operating system.

**Note:** Tenable Core + Tenable.ot requires Tenable-provided hardware. For more information, contact your Tenable representative.

Before you begin:

- Confirm your environment will support your intended use of the instance, as described in System and License Requirements.
- Confirm your internet and port access will support your intended use of the instance, as described in Access Requirements.
- If this is a new instance of Tenable Core + Tenable.ot, confirm that Tenable Core + Tenable.ot was not preinstalled on your hardware. Not all new instances require manual installation.

To install Tenable Core + Tenable.ot on hardware:

1. Download the Tenable Core + Tenable.ot .iso image.
2. Boot the .iso. For more information, see your environment documentation.

**Caution:** Booting the .iso replaces your existing operating system with the Tenable Core operating system.

**Tip:** To monitor the progress of the installation, select Install TenableCore using serial console from the boot menu. For more information about the Tenable.ot serial console, see the Tenable.ot User Guide.

The installer installs Tenable Core + Tenable.ot on your hardware.

If there are no configuration errors, the installation begins.

If there are configurations errors, the **Installation** menu appears.

If you need to resolve configuration errors with your 4) Installation source and/or 5) Software selection settings, you will need to Edit the Network Configuration or Edit the Proxy.
Configuration.

Caution: Do not enter any other menus or modify any other settings.

The installation runs and the server restarts.

What to do next:

- Continue getting started with Tenable Core + Tenable.ot, as described in Get Started.
Edit the Network Configuration

During installation, you may need to edit the network configuration settings. Perform this procedure to resolve errors [!] with your 4) Installation source and/or 5) Software selection settings.

Caution: Do not enter any other menus or modify any other settings.

To edit the network configuration:

1. From the Installation menu, press the 8 key.
2. Press the Enter key.
   The Network Configuration menu appears.
3. Press the 2 key.
4. Press the Enter key.
   The Device Configuration menu appears.
5. Review the 1) IPv4 address or "dhcp" for DHCP, 2) IPv4 netmask, 3) IPv4 gateway, and 6) Nameservers settings and, if necessary, edit them.
   For example, you must edit these settings if you are installing Tenable Core on a static network without DHCP.
6. Check 8) Apply configuration in installer.
7. Press the c key until you return to the Installation menu.
8. Press the r key to refresh the menu.
9. Confirm that settings 1-7 show an [x]. If the settings all show an [x] proceed to step 11.
10. If 4) Installation source still shows a [!]:
    Refresh the repository URL:
    a. Press the 4 key.
    b. Press the Enter key.
    The Installation Source menu appears.
c. Press the 3 key.

d. Press the Enter key.

The **Installation Source** submenu appears.

e. Press the 2 key.

f. Press the Enter key.

The **Specify Repo Options** menu appears.

g. Press the c key.

h. Press the Enter key.

The system refreshes the repository URL and the **Installation** menu appears.

11. Press the r key to refresh the menu.

12. Press the c key until you return to the **Installation** menu.
Edit the Proxy Configuration

During installation, you may need to edit the proxy configuration settings to identify the proxy you want to use for internet access.

**Caution:** Do not enter any other menus or modify any other settings.

To edit the proxy configuration:

1. From the **Installation** menu, press the 3 key.
2. Press the **Enter** key.
   
   The **Proxy Configuration** menu appears.
3. Type the proxy you want to use. For example, `https://username:password@192.0.2.221:3128`.
   
   **Note:** If your password includes a special character, the special character must be HTML URL encoded.
4. Press the **Enter** key.
5. If your proxy is a man-in-the-middle proxy that intercepts SSL traffic, a prompt appears.
   
   **In the prompt:**
   
   1. Type yes.
   2. Press the **Enter** key.

   The system temporarily disables SSL verification. The system automatically re-enables SSL verification after the installation completes.

   The **Installation** menu appears.
6. Press the 4 key.
7. Press the **Enter** key.
   
   The **Installation Source** menu appears.
8. Press the 3 key.
9. Press the **Enter** key.
The **Installation Source** submenu appears.

10. Press the **2** key.

11. Press the **Enter** key.

   The **Specify Repo Options** menu appears.

12. Press the **c** key.

13. Press the **r** key, then the **Enter** key.

14. If necessary, continue pressing the **r** key, then the **Enter** key until 4) **Installation source** no longer says (**Processing...**).

   The system refreshes the repository URL.
Disk Management

You can use the Tenable Core interface to manage some aspects of your Tenable Core machine disk space. Tenable Core uses Linux logical volume management (LVM) for disk management.

Disk management via the Tenable Core interface assumes you understand basic LVM terminology:

- **Volume group** – A group of one or more physical volumes.
- **Physical volume** – A hard disk, hard disk partition, or RAID unit.
- **Logical volume** – A block of space on the volume group sized to mirror several or all of your physical volumes.
- **File system** – The file system on the logical volume.
- **Mount point** – The location where you mounted the file system in your operating system.

For more information about these concepts, see general documentation for Linux.

Tenable Core Partitions

Tenable Core installs or deploys with the following preconfigured partitions:

- `/boot`
- `Swap`
- `/`
- `/var/log`
- `/var/pcap`
- `/opt`

To add more storage space to Tenable Core (typically, in `/opt`), add a disk or expand a disk as described in [Add or Expand Disk Space](#).
Add or Expand Disk Space

If you need more space in Tenable Core to meet the requirements, add space to your machine by expanding an existing disk or adding a new disk. For general information about Tenable Core disk management, see Disk Management.

**Caution:** You cannot reassign disk space after you have assigned the space to a file system.

To add or expand existing disk space on your Tenable Core machine:

1. Power down your machine, as instructed by your local administrator or the documentation for your local environment.
2. Add a new disk or expand an existing disk in your machine configuration, as instructed by your local administrator or the documentation for your local environment.
3. Power up your machine, as instructed by your local administrator or the documentation for your local environment.
4. Log in to Tenable Core.
   
   The **System** page appears.
5. In the left navigation bar, click **Storage**.

   The **Storage** page appears.
6. In the **Filesystems** section, locate the file system with `/opt` as the **Mount Point** and note the file system **Name** (e.g., `/dev/vg0/00`).

   **Tip:** Typically, you want to add space to `/opt`. To add more storage space to a less common partition (for example, `/` or `/var/log`), locate the file system for that partition.

7. Click the row for the file system **Name** that includes your preferred partition as the **Mount Point**.

   The **Volume Group** page appears.
8. In the **Physical Volumes** section, click the + button.

   The **Add Disks** window appears.
9. Click the check box for the space you added.

10. Click **Add**.

    The **Volume Group** page appears, updated to show the added space in the **Physical Volumes** section.

11. In the **Logical Volumes** section, expand the section for the file system **Name** that includes your preferred partition as the **Mount Point**.

12. Click **Grow**.

    The **Grow Logical Volume** window appears.

13. Use the slider to increase the size of the file system to your desired size (typically, to the new maximum).

14. Click **Grow**.

    The system expands the logical volume and the file system.

    The **Volume Group** page appears, refreshed to reflect the new size.
Manually Configure a Static IP Address

If you deploy Tenable Core in an environment where DHCP is configured, Tenable Core automatically receives network configurations (including your IP address). If DHCP is not configured, you must manually configure a static IP address in Tenable Core.

For more information about the default NIC configuration in your environment, see System and License Requirements.

Before you begin:

- Deploy or install Tenable Core + Tenable.ot, as described in Deploy or Install Tenable Core.
- Contact your network administrator and obtain your network's netmask and the IP address for your Tenable Core + Tenable.ot deployment.

To manually configure a static IP address:

1. In the command line interface (CLI) in Tenable Core, type the following to log in as a wizard user:

   ```
   tenable-y3u1xw1 login: wizard
   Password: admin
   ```

   A prompt appears asking if you want to configure a static IP address.

2. Press the `y` key.

   (Optional) If the prompt does not appear, in the command line interface (CLI) in Tenable Core, run the following command to access the configuration user interface:

   ```
   nmtui edit
   ```

   The list of connections page appears.

3. Select the connection you want to configure.

4. Press `Tab` to select `<Edit>`.

5. Press `Enter`. 
The **Edit Connection** window appears.

6. In the **IPv4 Configuration** row, press **Tab** to select **<Automatic>**.

7. Press **Enter**.

8. Select **<Manual>** from the drop-down box.

9. Press **Enter**.

10. Press **Tab** to select **<Show>**.


   **Note:** Type the value for each configuration field as four numbers separated by a period. Refer to the examples for each field.

12. In the **Addresses** field, type the IPv4 IP address for your Tenable Core + Tenable.ot deployment, followed by a forward slash and your netmask.

   Example:

   192.0.2.57

13. In the **Gateway** field, type your gateway IP address.

   Example:

   192.0.2.177

14. In the **DNS servers** field, type your DNS server IP address.

   Example:

   192.0.2.176

15. Press **Tab** to select **<Add...>**.

   **Note:** Complete steps 12-15 only if you have additional DNS server IP addresses to add. Repeat for each IP address.
16. Press **Enter**.
   An empty box appears in the **DNS servers** row.

17. In the new row, type your second DNS server IP address.
   Example:
   
   ```
   192.0.2.8
   ```

18. Select the check the box in the **Require IPv4 addressing for this connection** row.

19. Press **Tab** to select **<OK>**.
   The list of connections appears.

20. Press **Tab** to select **<Quit>**.

21. Press **Enter**.

   If you log in with a wizard, a prompt appears asking if you want to create an administrator account.

   To create an administrator account, see [Create a First-Time User Account](#).

   You will be logged out of the wizard account.

22. Log into the CLI using the administrator account.

23. Restart the connection. In the command line interface (CLI) in Tenable Core, run the following command:

   ```
   $ nmcli connection down "Wired connection 1" && nmcli connection up "Wired connection 1"
   ```

   **Note:** Restarting the connection enables the system to recognize your static IP address. You can reboot the system instead to trigger the response.

What to do next:
• Confirm that the Tenable Core nic1 MAC address matches the NIC MAC address in your VMware passive scanning configuration. If necessary, modify your VMware configuration to match your Tenable Core MAC address. For more information, see System and License Requirements.
Create an Initial Administrator User Account

The first time you access Tenable Core + Tenable.ot, you log in as a wizard user.

Then, you create an initial administrator account.

Tip: If you delay creating an initial administrator account, after a few minutes, the system locks you out of the wizard user account. You will need to reboot Tenable Core to proceed with the initial administrator account creation.

Before you begin:

- Deploy or install Tenable Core + Tenable.ot, as described in Deploy or Install Tenable Core.

To create an initial administrator user account:

1. Navigate to the URL for your Tenable Core VM.
   
   The login page appears.

2. In the **User name** field, type **wizard**.

3. In the **Password** field, type **admin**.

4. Click **Log In**.
   
   The **Create New Administrator** window appears.

5. In the **Username** field, type the username you want to use for your administrator account.

6. In the **Password** field, type a new password for your administrator account.

7. Click **Create Account**.
   
   A confirmation window appears.

8. Click **Finish Setup**.
   
   Tenable Core creates your user account.

9. Click **Log Out**.

   Tenable Core logs you out.

What to do next:
• (Optional) If you want to log in again, see Log In to Tenable Core.

• (Optional) If you want to create another user account, see Create New User Account.

**Note:** You must log back in again before you can create a new user account.
Log In to Tenable Core

Log in to Tenable Core to configure and manage your Tenable Core + Tenable.ot instance in the Tenable Core interface.

Before you begin:

- Deploy Tenable Core + Tenable.ot, as described in Deploy or Install Tenable Core.

To log in to Tenable Core:

1. Navigate to the URL for your Tenable Core VM.
   The login page appears.

2. In the User name field, type your username.

3. In the Password field, type your password.

4. Select the Reuse my password for privileged tasks check box.
   
   **Note:** You cannot configure or manage your instance of Tenable Core + Tenable.ot if you do not select the Reuse my password for privileged tasks check box.

5. Click Log in.
   Tenable Core logs you in to the user interface.
Configure Tenable.ot in the Tenable.ot User Interface

After you deploy Tenable Core + Tenable.ot, you can access the Tenable.ot interface from the Tenable Core interface in order to configure Tenable.ot.

To access the Tenable.ot interface from the Tenable Core interface:

1. Log in to Tenable Core via the user interface, as described in Log In to Tenable Core.
   The System page appears.
2. In the left navigation bar, click Tenable.ot.
   The Tenable.ot page appears.
3. If prompted, provide your Tenable.ot installation password.
   For more information, contact your Tenable representative.
4. In the Installation Info section, next to URLs, click the URL hyperlink.
   The Tenable.ot interface appears.
5. Configure Tenable.ot, as described in the Tenable.ot User Guide.
Configure and Manage

You can use the Tenable Core user interface to configure and manage Tenable Core + Tenable.ot.

View the Dashboard

Add a Server

Edit a Server

Delete a Server

Synchronize Accounts

Manage the System

Change Performance Profile

Restart Tenable Core

Shut Down Tenable Core

Edit Your Tenable Core Hostname

Edit Your Time Settings

View the System Log

Filter the System Log

View Container Status

View Tenable.ot Logs

Manage System Networking

Add a Bonded Interface

Add a Team of Interfaces

Add a Bridge Network

Add a VLAN

Manage System Storage

Rename a Filesystem
Delete a Filesystem

Manage User Accounts
  Create New User Account
  Edit a User Account
  Delete a User Account

Manage Services
  Create a Timer

Generate a Diagnostic Report

Access the Terminal

Configure a Proxy Server

Start, Stop, or Restart Your Application

Manage Updates
  Configure Automatic Updates
  Update On Demand
  Update Tenable Core Offline

Manage Certificates
  Manage the Server Certificate

Take a Virtual Machine Snapshot
View the Dashboard

You can use the Dashboard page to view usage statistics and manage your attached servers.

To view the Tenable Core dashboard:

1. Log in to Tenable Core via the user interface, as described in Log In to Tenable Core.
   
The System page appears.

2. Hover over the left navigation bar and click Dashboard.
   
The Dashboard page appears.

You can:

<table>
<thead>
<tr>
<th>Section</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Data graphs</td>
<td>• View a graph of the CPU usage on your instance.</td>
</tr>
<tr>
<td></td>
<td>• View a graph of the Memory usage on your instance.</td>
</tr>
<tr>
<td></td>
<td>• View a graph of the Network bandwidth usage on your instance.</td>
</tr>
<tr>
<td></td>
<td>• View a graph of the Disk I/O bandwidth usage on your instance.</td>
</tr>
<tr>
<td></td>
<td>• To change the time range for data displayed in the graph:</td>
</tr>
<tr>
<td></td>
<td>1. In the top-right corner of the graph, click the drop-down box.</td>
</tr>
<tr>
<td></td>
<td>2. Select a time range.</td>
</tr>
<tr>
<td></td>
<td>The system refreshes the graph.</td>
</tr>
<tr>
<td>Servers</td>
<td>• Add a server, as described in Add a Server.</td>
</tr>
<tr>
<td>table</td>
<td>• Edit a server, as described in Edit a Server.</td>
</tr>
<tr>
<td></td>
<td>• Delete a server, as described in Delete a Server.</td>
</tr>
<tr>
<td></td>
<td>• Synchronize user accounts, as described in Synchronize Accounts.</td>
</tr>
<tr>
<td></td>
<td>• To view detailed information about a server, click a server row. For</td>
</tr>
</tbody>
</table>
Add a Server

To add a server:

**Note:** You can add as many servers to the Dashboard as you want.

1. Hover over the far-left navigation bar.
   The left navigation plane appears.
2. Click **Dashboard**.
   The **Dashboard** page appears.
3. Click the **+** icon.
   The **Add Machine to Dashboard** window appears.
4. In the **Address** field, type the IP address or host name for the server you want to add.
5. In the **Color** field, click the color you want to represent the server.
6. Click **Add**.
   A confirmation window appears.
   **Note:** If Tenable Core cannot establish authentication, the Unknown Host window appears. Contact your administrator to confirm your server’s name or IP address.
7. Click **Connect**.
   A credentials window appears.
8. Type your credentials in the **User name** and **Password** fields.
   **Note:** To synchronize your accounts so that your account information and passwords are the same across multiple servers, click the **synchronize accounts and passwords** link. Refer to Synchronize Accounts for more information.
9. Click **Log In**.
   Tenable Core adds the server to your list of servers in the **Servers** table.
   **Note:** If the server does not appear in the list right away, refresh the browser.
Edit a Server

To edit a server:

1. From the top bar in the **Servers** table, click the icon.

   A pencil icon (✏️) and a trashcan icon (🔍) appear next to each server name.

2. Click the icon.

   The **Edit Server** window appears.

3. Do any of the following:
   - In the **Host Name** box, type the name you want for your server.
   - Update the server color:
     - In the **Color** box, click the color bar.
     
     A color menu appears.
     
     - Click the color you want to represent the server.
     
     The server color changes.

4. Click **Set**.

   Tenable Core updates your server information.
Delete a Server

To delete a server:

1. From the top bar in the **Servers** table, click the check mark icon.

   A pencil icon and a trashcan icon appear next to each server name.

2. Click the trashcan icon.

   The server disappears from the server list.
Synchronize Accounts

If you have multiple user accounts but do not want to manage credentials for each one, you can synchronize your accounts, which allows you to seamlessly navigate between accounts without providing a different user name and password for each account.

**Note:** You can synchronize accounts while either adding or editing servers in the Dashboard.

To synchronize accounts:

1. While either adding or editing a server, click the **Synchronize users** link in the dialogue box. The **SYNCHRONIZE USERS** dialogue box appears with a list of your accounts.

   **Note:** If you are adding a server, the linked text in the dialogue box is synchronize accounts and passwords.

2. Check the boxes next the accounts you want to synchronize.

3. Click **Synchronize**.
Manage the System

You can use the **System** page to view usage statistics and manage system settings.

To manage the Tenable Core system:

1. Log in to Tenable Core via the user interface, as described in [Log In to Tenable Core](#).

   The **System** page appears.

   You can:

<table>
<thead>
<tr>
<th>Section</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>System details section</td>
<td>• View summary information about your Tenable Core instance.</td>
</tr>
<tr>
<td></td>
<td>• Change the performance profile for your instance, as described in Change Performance Profile.</td>
</tr>
<tr>
<td></td>
<td>• Restart or shut down your instance, as described in Restart Tenable Core and Shut Down Tenable Core.</td>
</tr>
<tr>
<td></td>
<td>• Edit the hostname for your instance, as described in Edit Your Tenable Core Hostname.</td>
</tr>
<tr>
<td>Data graphs</td>
<td>• Edit the time and time zone settings for your instance, as described in Edit Your Time Settings.</td>
</tr>
<tr>
<td></td>
<td>• View a graph of the <strong>CPU</strong> usage on your instance.</td>
</tr>
<tr>
<td></td>
<td>• View a graph of the <strong>Memory &amp; Swap</strong> usage on your instance.</td>
</tr>
<tr>
<td></td>
<td>• View a graph of the <strong>Disk I/O</strong> bandwidth usage on your instance.</td>
</tr>
<tr>
<td></td>
<td>• View a graph of the <strong>Network Traffic</strong> bandwidth usage on your instance.</td>
</tr>
<tr>
<td></td>
<td>• To change the time range for data displayed in the graphs:</td>
</tr>
<tr>
<td></td>
<td>1. In the top-right corner of the graph, click the drop-down box.</td>
</tr>
<tr>
<td></td>
<td>2. Select a time range.</td>
</tr>
</tbody>
</table>
The system refreshes the graph.
Change Performance Profile

To change the performance profile for your Tenable Core instance:

1. Log in to Tenable Core via the user interface, as described in Log In to Tenable Core.
   The System page appears.
2. In the left navigation pane, click the System option. The System page displays.
3. Click on the link next to the Performance Profile option in the information list that is left of the graph charts. A new window will appear displaying Performance Profile options.
4. Select the desired Performance Profile. The recommended profile is labeled in the list.
5. Click Change Profile to confirm the new selection.

<table>
<thead>
<tr>
<th>Change Performance Profile</th>
</tr>
</thead>
<tbody>
<tr>
<td>powersave</td>
</tr>
<tr>
<td>Optimize for low power consumption</td>
</tr>
<tr>
<td>throughput-performance</td>
</tr>
<tr>
<td>Brodely applicable tuning that provides excellent performance across a variety of common server workloads. This is the default profile for RHEL7.</td>
</tr>
<tr>
<td>virtual-guest</td>
</tr>
<tr>
<td>Optimize for running inside a virtual guest.</td>
</tr>
</tbody>
</table>

Cancel  Change Profile
Restart Tenable Core

To restart your Tenable Core instance:

1. Log in to Tenable Core via the user interface, as described in Log In to Tenable Core.
   The System page appears.
2. In the left navigation pane, click the System option.
   The System page displays.
3. Next to the Power Options item, click the Restart button or select it from the drop-down box.
   A new window will appear.
4. Enter a message for the users in the text box.
5. Select the delay time from the drop down menu. This is the time that the restart will start.
   Choose from one of the minute increments or enter a specific time. There is also an option to restart immediately with no delay.
6. Click the Restart button to initiate and save the updated information.
To shut down your Tenable Core instance:

1. Log in to Tenable Core via the user interface, as described in Log In to Tenable Core.

   The System page appears.

2. In the left navigation pane, click the System option.

   The System page displays.

3. Next to the Power Options item, click the arrow by Restart to display the drop down menu. Select Shut Down.

   A new window will appear.

4. Enter a message for the users in the text box.

5. Select the delay time from the drop down menu. This is the time that the shut down will start. Choose from one of the minute increments or enter a specific time. There is also an option to Shut Down immediately with no delay.

6. Click Shut Down to initiate and save the updated information.
Edit Your Tenable Core Hostname

To edit the hostname for your Tenable Core instance:

1. Log in to Tenable Core via the user interface, as described in Log In to Tenable Core.
   The System page appears.
2. In the left navigation pane, click the System option.
   The System page displays.
3. Click the link next to the Host Name option in the information list that is left of the graph charts.
   A new window will appear with the options to enter/edit the Pretty Host Name and Real Host Name.
4. Enter the Pretty Host Name for the machine.
   The Real Host Name will update as the Pretty Host Name is entered.
5. Click Change to update the name.
   The new name will be displayed next to the Hostname option.
Caution: Do not edit time settings on Tenable Core + Tenable.ot using any method other than the one described below.

To edit the system time and time zone settings for your Tenable Core instance:

1. Log in to Tenable Core via the user interface, as described in Log In to Tenable Core.
   
   The System page appears.

2. Access the Tenable.ot interface, as described in Configure Tenable.ot in the Tenable.ot User Interface.
   
   The Tenable.ot interface appears.

3. Log in to Tenable.ot.

4. Modify your system time settings as described in the Tenable.ot User Guide.
   
   Tenable Core + Tenable.ot reboots.
View the System Log

You can use the System Log page to view errors are encountered in the system. The system log lists, categorizes, and stores system issues that have occurred within the last seven days. Click on an individual entry (row) to get additional information.
Filter the System Log

Several log type filters are available. The **Everything** option is selected by default. Select another option using the drop down menu at the top of the page. The logs are listed with the most recent entry displayed first. Previous days are divided into sections with the corresponding date displayed in the header.

The logs can be filtered using the drop down menu. Click on the date to display the filter options for the logs.
**View Container Status**

After you deploy Tenable Core + Tenable.ot, you can view container and image status information to troubleshoot issues with Tenable.ot.

To view container status information:

1. Log in to Tenable Core via the user interface, as described in [Log In to Tenable Core](#).
   
   The **System** page appears.

2. In the left navigation bar, click **Containers**.
   
   The **Containers** page appears.

3. View container status information:

<table>
<thead>
<tr>
<th>Section</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Graphs</strong></td>
<td>• View a graph of the combined CPU usage on your instance.</td>
</tr>
<tr>
<td></td>
<td>• View a graph of the combined memory usage on your instance.</td>
</tr>
<tr>
<td><strong>Containers</strong></td>
<td>Expand a row to view details for a container.</td>
</tr>
<tr>
<td><strong>table</strong></td>
<td><strong>Caution:</strong> Tenable does not recommend removing a container or modifying the status of a container unless recommended by Tenable Support.</td>
</tr>
<tr>
<td><strong>Images</strong></td>
<td>Expand a row to view details for an image.</td>
</tr>
<tr>
<td><strong>table</strong></td>
<td><strong>Caution:</strong> Tenable does not recommend removing an image or modifying the status of an image unless recommended by Tenable Support.</td>
</tr>
</tbody>
</table>
View Tenable.ot Logs

If you experience an issue during the Tenable.ot installation process or an issue with the Tenable.ot service, you can view the logs to access additional troubleshooting information.

To view logs for Tenable.ot:

1. Log in to Tenable Core via the user interface, as described in Log In to Tenable Core.
   The **System** page appears.

2. In the left navigation bar, click **Tenable.ot**.
   The **Tenable.ot** page appears.

3. In the **Tenable.ot Logs** section, click the drop-down box and select a log type:
   - **Tenable.ot Service** – Logs related to issues with the Tenable.ot service.
   - **Tenable.ot Installation** – Logs related to issues during the Tenable Core + Tenable.ot installation.
   The section refreshes to show the logs.

4. *(Optional)* To filter the logs that appear, select a time range, a **Severity**, or a **Service**.
   The page applies the selected filters.
Manage System Networking

You can use the Networking page to view real-time system network traffic information, interface connection options, and logs.

To manage Tenable Core system networking:

1. Log in to Tenable Core via the user interface, as described in Log In to Tenable Core.
   The System page appears.

2. In the left navigation bar, click Networking.
   The Networking page appears.

You can:

<table>
<thead>
<tr>
<th>Section</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Graphs</td>
<td>• View a graph of the Sending (outbound) network traffic on your instance.</td>
</tr>
<tr>
<td></td>
<td>• View a graph of the Receiving (inbound) network traffic on your instance.</td>
</tr>
<tr>
<td>Firewall section</td>
<td>• View Firewall rules.</td>
</tr>
<tr>
<td></td>
<td>• Add Zones.</td>
</tr>
<tr>
<td></td>
<td>• Add Allowed Services.</td>
</tr>
<tr>
<td>Interfaces table</td>
<td>• Aggregate multiple network interfaces into a single bonded interface, as described in Add a Bonded Interface.</td>
</tr>
<tr>
<td></td>
<td>• Add a team of interfaces, as described in Add a Team of Interfaces.</td>
</tr>
<tr>
<td></td>
<td>• Add a bridge to create a single aggregate network from multiple communication networks, as described in Add a Bridge Network.</td>
</tr>
<tr>
<td></td>
<td>• Add a VLAN, as described in Add a VLAN.</td>
</tr>
<tr>
<td>Networking Logs table</td>
<td>View a log of activity for the system network.</td>
</tr>
</tbody>
</table>
Add a Bonded Interface

You can add a bond to aggregate multiple network interfaces into a single bonded interface.

To add a bonded interface to Tenable Core:

1. In the left navigation pane, click the Networking option. The Networking page displays.
2. In the Interfaces heading, click the Add Bond button on the Interfaces section. A new window appears.
3. Enter a Name for the bond.
4. Select the members (interfaces) to bond to in the Members section.
5. Select an option for MAC.
6. Select the Mode.
7. Select a Primary.
8. Select the type of Link Monitoring. The recommended type is labeled in the drop down list.
9. Enter the **Monitoring Intervals** with options to link up or down delay increments.

![Bond Settings](image)

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>bond0</td>
</tr>
<tr>
<td>Members</td>
<td>ens160, ens32</td>
</tr>
<tr>
<td>MAC</td>
<td></td>
</tr>
<tr>
<td>Mode</td>
<td>Active Backup</td>
</tr>
<tr>
<td>Primary</td>
<td></td>
</tr>
<tr>
<td>Link Monitoring</td>
<td>MII (Recommended)</td>
</tr>
<tr>
<td>Monitoring Interval</td>
<td>100</td>
</tr>
<tr>
<td>Link up delay</td>
<td>0</td>
</tr>
<tr>
<td>Link down delay</td>
<td>0</td>
</tr>
</tbody>
</table>

[Apply]
Add a Team of Interfaces

To add a team of interfaces to Tenable Core:

1. In the left navigation pane, click the **Networking** option. The **Networking** page displays.
2. In the **Interfaces** heading, click the **Add Team** button on the **Interfaces** section. A new window will appear.
3. Enter the **Team Name**.
4. Select the **Ports** needed for the new team.
5. Select the **Runner** and **Link Watch** from the drop down list.
6. Enter the **Link up** and **Link down delay** increments.

![Team Settings](image-url)
Add a Bridge Network

You can add a bridge to create a single aggregate network from multiple communication networks.

To add a bridge network to Tenable Core:

1. In the left navigation pane, click the Networking option. The Networking page displays.
2. In the Interfaces heading, click the Add Bridge button on the Interfaces section. A new window will appear.
3. Enter a Name for the bridge.
4. Select the Ports that will connect to the bridge.
5. Click the box next to Spanning Tree Protocol (STP) to get additional STP options.
6. Click Apply to add the new bridge.

![Bridge Settings Table]

- Name: bridge0
- Ports: ens192, ens192.1
- Spanning Tree Protocol (STP)
  - STP Priority: 32768
  - STP Forward delay: 15
  - STP Hello time: 2
  - STP Maximum message age: 20

[Apply] [Cancel]
Add a VLAN

To add a VLAN to Tenable Core:

1. Click the Add VLAN button on the Interfaces section. A new window will appear.
2. Select the Parent from the drop down list.
3. Enter the VLAN Id and name.
4. Click Apply to confirm add the VLAN.
5. The new VLAN will display in the Interface list.

<table>
<thead>
<tr>
<th>VLAN Settings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parent</td>
</tr>
<tr>
<td>VLAN Id</td>
</tr>
<tr>
<td>Name</td>
</tr>
</tbody>
</table>
Manage System Storage

You can use the Storage page to view real-time system storage graphs, filesystem information, and logs. For more information, see Disk Management.

To manage Tenable Core storage:

1. Log in to Tenable Core via the user interface, as described in Log In to Tenable Core.

   The System page appears.

2. In the left navigation bar, click Storage.

   The Storage page appears.

You can:

<table>
<thead>
<tr>
<th>Section</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Graphs</td>
<td>• View a graph of the Reading storage activity on your instance.</td>
</tr>
<tr>
<td></td>
<td>• View a graph of the Writing storage activity on your instance.</td>
</tr>
<tr>
<td>Filesystems</td>
<td>• View information about each filesystem.</td>
</tr>
<tr>
<td>Table</td>
<td>• Click a row to view additional details about the filesystem.</td>
</tr>
<tr>
<td></td>
<td>• Rename a filesystem, as described in Rename a Filesystem.</td>
</tr>
<tr>
<td></td>
<td>• Delete a filesystem, as described in Delete a Filesystem.</td>
</tr>
</tbody>
</table>
Rename a Filesystem

To rename a filesystem in Tenable Core:

1. In the left navigation pane, click **Storage**.
   The Storage page appears.

2. In the **File Systems** section, click on the individual file in the file systems list.
   The details page appears.

3. Click the **Rename** button in the upper right section of the window.
   A new window appears.

4. Enter the new name for the **File System**.

5. Click **Create**.
   The new name appears on the page.
Delete a Filesystem

To delete a filesystem in Tenable Core:

1. In the left navigation pane, click the Storage option. The Storage page displays.

2. In the File System section, click the individual file in the files systems list. The details page will appear.

3. Click the red Delete button in the system heading.

4. Confirm that you want to delete the File System.

5. Caution: Deleting a volume group will erase all data on it.

Please confirm deletion of centos

This device has filesystems that are currently in use. Proceeding will unmount all filesystems on it.

Deleting a volume group will erase all data on it.

Cancel Delete
Manage User Accounts

You can use the Accounts page to manage user accounts for your Tenable Core instance.

To manage Tenable Core user accounts:

1. Log in to Tenable Core via the user interface, as described in Log In to Tenable Core.
   The System page appears.

2. In the left navigation bar, click Accounts.
   The Accounts page appears.

Do any of the following:

- Create a new user account, as described in Create New User Account.
- Edit a user account, as described in Edit a User Account.
- Delete a user account, as described in Delete a User Account.
Create New User Account

**Required User Role:** Administrator

You can create a new user account from the Accounts page.

To create a new user account:

1. Log in to Tenable Core, as described in [Log In to Tenable Core](#).
2. In the left navigation bar, click Accounts.
   
The Accounts page appears.
3. Click Create New Account.
   
The Create New Account window appears.
4. In the Full Name box, type the user’s full name.
5. In the User Name box, type a username for the user account.
6. In the Password box, type a password for the user account.
7. In the Confirm box, retype the password.
8. Click Create.
   
Tenable Core creates the new account and displays it on the Accounts page.

What to do next:

- (Optional) If you want to configure the user account, see [Edit a User Account](#).
- (Optional) If you want to delete the user account, see [Delete a User Account](#).
Edit a User Account

**Required User Role:** Administrator

You can edit a user account configuration, including the user's full name, password, roles, access, and public SSH keys.

Before you begin:

To edit a user account:

1. Log in to Tenable Core, as described in [Log In to Tenable Core](#).
2. In the left navigation bar, click **Accounts**.
   
   The **Accounts** page appears.
3. Click the user account you want to edit.
   
   The account page for the user account appears.
4. On the user account page, you can:

<table>
<thead>
<tr>
<th>Section</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Full Name</strong></td>
<td>Type a name for the user account.</td>
</tr>
</tbody>
</table>
| **Roles** | • To grant the user account administrator access, select the **Server Administrator** check box.  
• To remove administrator access from the user account, clear the **Server Administrator** check box. |
| **Access** | • To lock the user account, select the **Lock Account** check box to lock the user account.  
• To unlock the user account, clear the **Lock Account** check box to unlock the user account.  
• To configure the account to remain unlocked indefinitely:  
  
  **Note:** If you do not configure the account to remain unlocked indefinitely: |
1. Click **Never lock account**.
   
The **Account Expiration** window appears.
2. Select the **Never lock account** option.
3. Click **Change**.
   
   Tenable Core sets the account to remain unlocked indefinitely.

- **Select an expiration date for the account:**
  1. Click **Never lock account**.
     
     The **Account Expiration** window appears.
  2. Select the **Lock account on** option.
  3. Click the box next to the **Lock account on** option.
     
     A calendar drop-down box appears.
  4. In the calendar drop-down box, select the date when you want the account to expire.
  5. Click **Change**.

   Tenable Core sets the expiration date for the user account.

---

**Password**

- **To set a new user account password:**
  1. Click **Set Password**.
     
     The **Set Password** window appears.
  2. In the **New Password** box, type the password you want to use for the account.
  3. Click **Set**.
Tenable Core updates the user account password.

- To force a user to change their user account password:
  1. Click **Force Change**.
     The **Force password change** window appears.
  2. Click **Reset**.
     Tenable Core disables the password for the user account. The user must change the password on the next log in attempt.

- Configure the user account password to remain active indefinitely:
  
  **Note**: If you do not configure the password to remain active indefinitely, Tenable Core automatically expires the password on the set expiration date.

  1. Click **Never expire password**.
     The **Password Expiration** window appears.
  2. Select the **Never expire password** option.
  3. Click **Change**.
     Tenable Core sets the password to remain active indefinitely.

- Select an expiration date for the user account password:
  1. Click **Never expire password**.
     The **Password Expiration** window appears.
  2. Select the **Require password change every [blank] days** option.
  3. In the **Require password change every [blank] days** sec-
4. Click **Change**.

Tenable Core sets the expiration date for the user account password.

<table>
<thead>
<tr>
<th>Authorized Public SSH Keys</th>
<th>• To add a public SSH key to the user account:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1. In the <strong>Authorized Public SSH Keys</strong> table, click the icon.</td>
</tr>
<tr>
<td></td>
<td>The <strong>Add public key</strong> window appears.</td>
</tr>
<tr>
<td></td>
<td>2. In the text box, type or paste your public SSH key.</td>
</tr>
<tr>
<td></td>
<td>3. Click <strong>Add key</strong>.</td>
</tr>
<tr>
<td></td>
<td>Tenable Core adds the SSH key to the user account.</td>
</tr>
<tr>
<td></td>
<td>• To remove a public SSH key:</td>
</tr>
<tr>
<td></td>
<td>1. In the <strong>Authorized Public SSH Keys</strong> table, next to the key you want to remove, click the icon.</td>
</tr>
<tr>
<td></td>
<td>Tenable Core removes the SSH key from your account.</td>
</tr>
</tbody>
</table>
Delete a User Account

**Required User Role:** Administrator

You can delete a user account from the Accounts page.

To delete a new user account:

1. Log in to Tenable Core in a browser, as described in Log In to Tenable Core.
2. In the left navigation bar, click Accounts.
   
   The Accounts page appears.
3. Click the user account you want to delete.
   
   The account page for the user account appears.
4. In the upper-right corner, click Delete.
   
   The delete window for the user account appears.
5. (Optional), if you want to permanently delete files attached to the user account, select the Delete Files check box.

   **Note:** If you do not delete them, the files remain attached to the Tenable Core instance, along with their existing access permissions. Users who were previously granted access can still access the files.
6. Click Delete.

   Tenable Core delete the user account.
Manage Services

You can use the Services page to view information about targets, system services, sockets, timers, and paths.

To manage Tenable Core services:

1. Log in to Tenable Core via the user interface, as described in Log In to Tenable Core.

   The System page appears.

2. In the left navigation bar, click Services.

   The Services page appears.

You can:

<table>
<thead>
<tr>
<th>Tab</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Targets</strong></td>
<td>1. Click <strong>Stop</strong>, <strong>Start</strong>, <strong>Restart</strong>, or <strong>Reload</strong>.</td>
</tr>
<tr>
<td></td>
<td><strong>Note:</strong> Restarting a service will completely stop and restart the service. Rewinding a service will only reload the service's configuration files.</td>
</tr>
<tr>
<td></td>
<td>The system changes the status of the service.</td>
</tr>
<tr>
<td><strong>System Services</strong></td>
<td>• View a list of system services.</td>
</tr>
<tr>
<td></td>
<td>• Click a row to view detailed information about a service.</td>
</tr>
<tr>
<td></td>
<td>• To change the status of a service:</td>
</tr>
<tr>
<td></td>
<td>1. Click a row.</td>
</tr>
<tr>
<td></td>
<td>The service details page appears.</td>
</tr>
<tr>
<td></td>
<td>2. Click <strong>Stop</strong>, <strong>Start</strong>, <strong>Restart</strong>, or <strong>Reload</strong>.</td>
</tr>
<tr>
<td></td>
<td><strong>Note:</strong> Restarting a service will completely stop and restart the service. Rewinding a service will only reload the service's configuration files.</td>
</tr>
<tr>
<td></td>
<td>The system changes the status of the service.</td>
</tr>
<tr>
<td><strong>Sockets</strong></td>
<td><strong>Timers</strong></td>
</tr>
<tr>
<td>-------------</td>
<td>------------</td>
</tr>
<tr>
<td>• View a list of socket services.</td>
<td>• View a list of timer services.</td>
</tr>
<tr>
<td>• Click a row to view detailed information about a service.</td>
<td>• Click a row to view detailed information about a service.</td>
</tr>
<tr>
<td>• To change the status of a service:</td>
<td>• To change the status of a service:</td>
</tr>
<tr>
<td>1. Click a row.</td>
<td>1. Click a row.</td>
</tr>
<tr>
<td>The service details page appears.</td>
<td>The service details page appears.</td>
</tr>
<tr>
<td>2. Click <strong>Stop, Start, Restart</strong>, or <strong>Reload</strong>.</td>
<td>2. Click <strong>Stop, Start, Restart</strong>, or <strong>Reload</strong>.</td>
</tr>
</tbody>
</table>

**Note**: Restarting a service will completely stop and restart the service. Reloading a service will only reload the service's configuration files.

The system changes the status of the service.
1. Click a row.

The service details page appears.

2. Click **Stop, Start, Restart, or Reload**.

**Note**: Restarting a service will completely stop and restart the service. Reloading a service will only reload the service's configuration files.

The system changes the status of the service.
Create a Timer

To create a timer:

1. In the left navigation pane, click the **Services** option. The **Services** page displays.
2. In the **Services** page heading, click the **Create Timers** button. A new window appears.
3. Enter the **Service Name**, **Description**, **Command**, and **Run** information.
4. Click **Save**. The new timer will display in the enabled section of the list.
Generate a Diagnostic Report

You can use diagnostic reports to assist with troubleshooting Tenable Core.

To generate a diagnostic report for troubleshooting:

1. Log in to Tenable Core via the user interface, as described in Log In to Tenable Core.
   The System page appears.

2. In the left navigation bar, click Diagnostic Reports.
   The Diagnostic Reports page appears.

3. Click the Create Report button.

4. A new window with a status bar will appear as the report generates.

5. When the report is complete, the status will display Done.

6. Click the Download Report button to save and print the report.
Access the Terminal

The **Terminal** page provides a console to access a user-specific command line interface.
Configure a Proxy Server

If your organization configured a proxy server to conceal your IP address, share an internet connection on your local network, or control internet access on your network, set the proxy configuration in Tenable Core.

Before you begin:

- Log in to Tenable Core in a browser, as described in Log In to Tenable Core.

To configure a proxy server:

1. In the left navigation bar, click Update Management.
   
   The Updates page appears.

2. In the Proxy Host box, type the hostname and port for your proxy server in the format hostname:port (e.g., https://192.0.2.1:2345).

3. (Optional) In the Proxy Username box, type a username for your proxy server.

4. (Optional) In the Proxy Password box, type a password for the proxy.

5. Click Save Proxy.

   The system initiates your proxy configuration.
Start, Stop, or Restart Your Application

To start, stop, or restart your application via the UI:

1. Log in to Tenable Core via the user interface, as described in Log In to Tenable Core.
   
   The **System** page appears.

2. In the left navigation bar, click **Tenable.ot**.
   
   The application page appears.

3. In the **Installation Info** section, click **Start**, **Stop**, or **Restart**.

To start, stop, or restart your application via the CLI:

1. Log in to Tenable Core via the **Terminal page** or command line interface (CLI).
   
   The command line appears.

2. To change the status of your application, see the **Tenable.ot Documentation**.
Manage Updates

You can use the **Updates Management** page and the **Software Updates** page to manage your Tenable Core updates.

**Note:** To update your Tenable.ot application version, contact Tenable Support. You cannot use the Tenable Core interface to update Tenable.ot.

If your deployment is online, Tenable recommends:

- Configuring automatic updates. For more information, see [Configure Automatic Updates](#).
- Performing on-demand updates, as needed. For more information, see [Update On Demand](#).

If your deployment is offline, you can perform offline updates. For more information, see [Update Tenable Core Offline](#).
Configure Automatic Updates

By default, automatic updates are enabled on Tenable Core.

If Tenable Core is installed or deployed in an online environment, Tenable recommends keeping automatic updates enabled. When performing an automatic update, Tenable Core retrieves and installs:

- The latest version of Tenable.ot.
- The latest version of CentOS included in Tenable Core.
- The latest version of any additional packages required by Tenable Core.
- The latest version of any additional CentOS packages you installed.

**Note:** To update your Tenable.ot application version, contact Tenable Support. You cannot use the Tenable Core interface to update Tenable.ot.

To configure automatic updates:

1. Log in to Tenable Core via the user interface, as described in Log In to Tenable Core. The System page appears.

2. In the left navigation pane, click Update Management. The Update Management page appears.

3. In the AUTOMATIC UPDATES section, click the link in Scheduled updates can be enabled/disabled Here. The Services details page appears, displaying the details for the tenablecore.update.timer service.

4. Confirm that Automatic Startup is enabled.

**Note:** Tenable does not recommend disabling automatic updates or otherwise modifying Automatic Startup for the tenablecore.update.timer service.

5. Review the schedule for the automatic updates and modify, if needed, as described in Configure Your Automatic Update Schedule.
What to do next:

- If the update included any of the following packages, restart Tenable Core as described in [Start, Stop, or Restart Your Application](#).
  - kernel
  - glibc
  - linux-firmware
  - systemd
Configure Your Automatic Update Schedule

By default, automatic updates are enabled on Tenable Core.

If Tenable Core is installed or deployed in an online environment, Tenable recommends keeping automatic updates enabled.

To configure the schedule for your automatic updates:

1. Log in to Tenable Core via the user interface, as described in Log In to Tenable Core.

   The System page appears.

2. In the left navigation pane, click Update Management.

   The Update Management page appears.

3. In the AUTOMATIC UPDATES section, click the link in Timer Config Line.

   The Edit Timer Configuration window appears.

4. Modify the schedule.

   **Note:** If you set both a Day of week and a Day of month, the system only performs updates on days when those two parameters are true. For example, if you set Wednesday as the Day of week and 8 as the Day of month, Tenable Core performs automatic updates only on the 8th of the month if it is a Wednesday.

   **Tip:** Tenable Core uses Eastern Time as your default time zone, unless you modify it as described in Edit Your Time Settings.

5. Click Save.

   Tenable Core modifies the schedule for automatic updates.
Update On Demand

If Tenable Core is installed or deployed in an online environment, you can perform updates on demand. When updating on demand, Tenable Core retrieves and installs:

- The latest version of Tenable.ot.
- The latest version of CentOS included in Tenable Core.
- The latest version of any additional packages required by Tenable Core.
- The latest version of any additional CentOS packages you installed.

**Note:** To update your Tenable.ot application version, contact Tenable Support. You cannot use the Tenable Core interface to update Tenable.ot.

Before you begin:

- Manually refresh the packages:
  
  a. Log in to Tenable Core via the Terminal page or command line interface (CLI).
     
     The command line appears.
  
  b. In the command line interface (CLI) in Tenable Core, run the following command:

     ```bash
     sed -i.orig '/self.cache_age == 0/s/=/</' /usr/share/PackageKit/helpers/yum/yumBackend.py
     ```

To update on demand:

1. Log in to Tenable Core via the user interface, as described in Log In to Tenable Core.
   
   The System page appears.

2. In the left navigation pane, click Software Updates.
   
   The Software Updates page appears.

3. Click Check for Updates.

   The page refreshes and displays available updates.
4. If updates are available, click **Install all updates**.

   Tenable Core performs the updates.

**What to do next:**

- If the update included any of the following packages, restart Tenable Core as described in **Start, Stop, or Restart Your Application**.
  
  - kernel
  - glibc
  - linux-firmware
  - systemd
Update Tenable Core Offline

To perform an offline update of Tenable Core + Tenable.ot, contact Tenable Support.
Manage Certificates

From the SSL/TLS Security Certificates page, you can manage the certificates used by Tenable Core and your application.

Manage the Server Certificate
Manage the Server Certificate

When you first deploy or install Tenable Core, Tenable provides a default server certificate for accessing the Tenable Core interface.

Tip: By default, Tenable Core uses separate certificates for Tenable Core and Tenable.ot. For information about the Tenable.ot application certificate, see the Tenable.ot Documentation.

Note: The default certificate is not signed by a recognized certificate authority (CA). If your browser reports that the Tenable Core server certificate is untrusted, Tenable recommends uploading a custom server certificate signed by a trusted certificate authority (CA) for Tenable Core use. For more information, see Upload a Custom Server Certificate. Alternatively, you can download the Tenable-provided CA certificate (cacert.pem) for your server certificate and upload it to your browser.

If you upload a custom server certificate signed by a custom CA, you must also provide certificates in the chain to validate your custom server certificate.

For more information, see:

- [Upload a Custom Server Certificate](#)
- [Remove a Custom Server Certificate](#)
Upload a Custom Server Certificate

If you do not want to use the Tenable-provided server certificate, you can upload a custom server certificate to Tenable Core. For more information, see Manage the Server Certificate.

You cannot upload multiple custom server certificates to Tenable Core. Uploading a new file replaces the existing file.

**Tip:** By default, Tenable Core uses the same certificates for Tenable Core as well as Tenable.ot.

Before you begin:

- Confirm your custom server certificate and key files use the *.*.der, *.*.pem, or *.*.crt extension.
- Move the custom server certificate and key files to a location accessible from your browser.

To upload a custom server certificate for Tenable Core:

1. Log in to Tenable Core via the user interface, as described in Log In to Tenable Core.
   
   The **System** page appears.

2. In the left navigation pane, click **SSL/TLS Certificates**.
   
   The **SSL/TLS Certificates** page appears.

3. Click the **System Certificate** tab.

4. Locate the **Update Certificate** section in the **SERVER CERTIFICATES** section.
5. Provide your **Server Certificate**.
   a. Click **Choose File**.
      
      The upload window appears.
   b. Browse to and select the file.
      
      Tenable Core loads the file.

6. Provide your **Server Key**.
   a. Click **Choose File**.
      
      The upload window appears.
   b. Browse to and select the file.
      
      Tenable Core loads the file.

7. (Optional) If your custom server certificate is signed by a custom CA that requires an intermediate certificate to validate the custom server certificate, provide your **Intermediate Certificate**.
   a. Click **Choose File**.
      
      The upload window appears.
   b. Browse to and select the file.
      
      Tenable Core loads the file.

8. (Optional) If your custom server certificate is signed by a custom CA, upload your **Custom Root CA Certificate**.
   a. Click **Choose File**.
      
      The upload window appears.
   b. Browse to and select the file.
      
      Tenable Core loads the file.

9. Click **Install Server Certificates**.
Tenable Core uploads the files. A success message appears to confirm the upload succeeded.

10. In the left navigation pane, click **Services**.

The **Services** page appears.

11. Restart the **Cockpit** service, as described in **Manage Services**.

The **Cockpit** service restarts and enables the new certificate.
Remove a Custom Server Certificate

If you no longer want to use your custom server certificate for Tenable Core, you can remove the certificate and revert to using a Tenable-provided server certificate. For more information, see Manage the Server Certificate.

To remove a custom server certificate and revert to the Tenable-provided default certificate:

1. Log in to Tenable Core via the user interface, as described in Log In to Tenable Core. The System page appears.

2. In the left navigation pane, click SSL/TLS Certificates. The SSL/TLS Certificates page appears.

3. Click the System Certificate tab.

4. In the SERVER CERTIFICATES section, in the Update Certificate section, click Reset Server Certificates. A confirmation window appears.

5. Click Reset. A success message appears to confirm the reset succeeded.
Take a Virtual Machine Snapshot

You can take a snapshot to back up the your entire machine, including application-installed files, application data, OS files and configurations.

Before you begin:

- Stop your instance of Tenable Core + Tenable.ot, as described in Start, Stop and Restart Tenable Core.

To take a snapshot of Tenable Core:

1. Take a snapshot, as described in the documentation for your environment.