

Tenable and Splunk Integration Guide

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Welcome to Tenable for Splunk

The Tenable for Splunk integration performs data collection, normalization, and visualization.

Note: The Tenable integration with Splunk also supports Splunk "Cloud" versions.

Changes in Tenable App for Splunk v6.1.0

- Added "Assets Dashboard" for visualizing asset details of the following products: IO, SC, OT, WAS, and ASM
- Added support for "WAS" and "OT" products in the "Vulnerability Center" dashboard.

Tenable App for Splunk Compatibility Matrix

- Browser: Google Chrome, Mozilla Firefox
- OS: Platform independent
- Splunk Enterprise version: 9.4.x and 9.3.x
- Supported Splunk Deployment: Splunk Cloud, Splunk Standalone, and Distributed Deployment

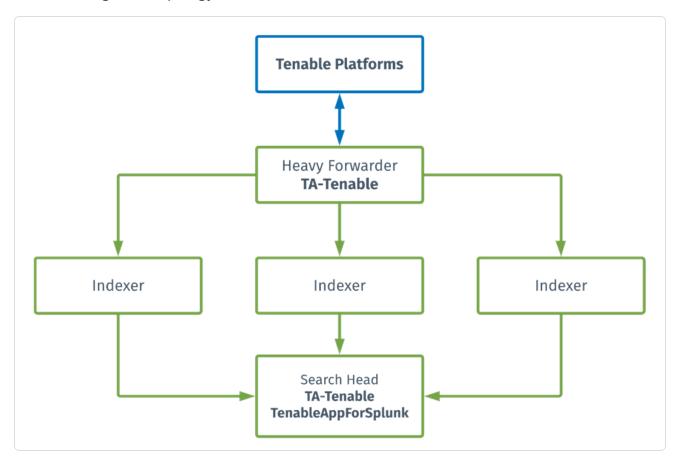
Changes in Tenable Add-On for Splunk v8.0.0

- Added new input to collect TWAS data.
- Added new input to collect TASM data.
- Added support for providing the custom SSL certificate on the Account configuration page.
- Updated the alert actions by adding an option to select Tenable account that user wants to use.
- Updated the PyTenable to v1.6.2

Tenable Add-On for Splunk Compatibility Matrix

- 0
- · Browser: Google Chrome, Mozilla Firefox
- · OS: Platform independent
- Splunk Enterprise version: 9.4.x and 9.3.x
- Supported Splunk Deployment: Splunk Cloud, Splunk Standalone, and Distributed Deployment

Tenable integration topology:



Splunk pulls data from Tenable platforms and normalizes it in Splunk. The current Tenable Web App Scanning Add-on uses the following pyTenable SDK to retrieve all data.

Tenable Attack Surface Management (TASM) is a web-based inventory tool that you can use to identify internet-accessible assets that your organization may or may not know about. TASM identifies assets using DNS records, IP addresses, and ASN, and includes more than 180 columns of metadata to help you organize and inventorize your assets. TASM performs data collection and normalization.

Components

The Tenable Add-on has specific purposes for each Splunk component. The available components are in the following list:

Heavy Forwarder

The **Heavy Forwarder** collects and forwards data for all events.

Note: Configure inputs to run from the heavy forwarder.

Note: Enable the key value store (KV) on the heavy forwarder.

Search Head

The **Search Head** allows full functionality of the Tenable Add-on adaptive response actions.

Note: Configure the **Search Head** with the same configuration details you have on the **Heavy Forwarder** for the adaptive response actions to work correctly.

Note: If you install the Tenable App for Splunk on the search head, you must also install the Tenable Addon.

Tenable Add-on (TA-tenable)

The Tenable Add-On for Splunk pulls data from Tenable platforms and normalizes it in Splunk.

The current Tenable Add-On uses the following API endpoints:

Asset Export

Note: By default, assets/export endpoints fetch both licensed and unlicensed assets.

- POST /assets/export
- GET /assets/export/{export uuid}/status
- GET /assets/export/{export_uuid}/chunks/{chunk_id}
- /analysis (Security Center only)

Vulnerability Export

Note: By default, vulns/export endpoints fetch only licensed vulnerabilities.

- POST /vulns/export
- GET /vulns/export/{export uuid}/status
- GET /vulns/export/{export_uuid}/chunks/{export_uuid}
- /analysis (Security Center only)

Plugins

- GET /plugins/plugin
- /plugin (Security Center only)

Source and Source Types

The Tenable Add-on for Splunk stores data with the following sources and source types.

TOT (ICP)

| Source | Source type | Description |
|---|-------------------|--|
| tenable_ot:// <data input<br="">name></data> | tenable:ot:vuln | Collects cumulative vulnerability data from active and agent scans from licensed assets. |
| tenable_ot:// <data input="" name=""></data> | tenable:ot:assets | Collects all assets data. |
| tenable_ot:// <data input="" name=""></data> | tenable:ot:plugin | Collects all plugin detail data. |

TSC

| Source | Source type | Description |
|---|-----------------|--|
| <username> <address></address></username> | tenable:sc:vuln | Collects cumulative vulnerability and compliance data from active and agent scans. |



| <username> <address></address></username> | tenable:sc:assets | Collects all assets data. | |
|---|-------------------|----------------------------------|--|
| <username> <address></address></username> | tenable:sc:plugin | Collects all plugin detail data. | |

TVM

| Source | Source type | Description |
|---|-------------------|--|
| tenable_io:// <data input<br="">name></data> | tenable:io:vuln | Collects cumulative vulnerability data from active and agent scans from licensed assets. |
| tenable_io:// <data input="" name=""></data> | tenable:io:assets | Collects all assets data. |
| tenable_io:// <data input="" name=""></data> | tenable:io:plugin | Collects all plugin detail data. |

TVM Audit Logs

| Source | Source type | Description |
|--|-----------------------|-------------------------|
| tenable_io:// <data input="" name=""></data> | tenable:io:audit_logs | Collects all audit logs |

TVM Compliance Module

| Source | Source type | Description |
|--|-----------------------|-------------------------------|
| tenable_io:// <data input="" name=""></data> | tenable:io:compliance | Collects all compliance data. |

Tenable Attack Surface Management

| Source | Source type | Description |
|---|--------------------|--------------------------------|
| <username> <address></address></username> | tenable:asm:assets | This collects all assets data. |

Tenable Web App Scanning

| Source | Source type | Description |
|--------|-------------|-------------|
| 30400 | 304.00 type | 5000p.::011 |

| <username> <address></address></username> | tenable:was:assets | This collects all asset data. |
|---|--------------------|---------------------------------------|
| <username> <address></address></username> | tenable:was:vuln | This collects all vulnerability data. |

Splunk Common Information Model Mapping

This chart displays mapping for Tenable vulnerability findings to Splunk Common Information Model (CIM).

| Field Name from Tenable Vulnerability Management API | Field Name from Tenable Security Center API | CIM Field Name | CIM Data Model |
|--|---|-------------------|----------------|
| asset_fqdn | dnsName | dns_name | vulnerability |
| ipv4 | ip | dest_ip | vulnerability |
| plugin.bid | bid | bugtraq | vulnerability |
| plugin.family | family.name | category | vulnerability |
| plugin.synopsis | synopsis | signature | vulnerability |
| Tenable | Tenable | vendor | vulnerability |
| Tenable.io | Tenable.sc | product | vulnerability |

Splunk Environments

The installation process for Splunk varies based on your Splunk environment.

Deployment Types

Single-server, distributed deployment, and cloud instance options are available.

Single-Server Deployment

In a single-server deployment, a single instance of Splunk Enterprise works as a data collection node, indexer, and search head. Use this instance to install the Tenable Add-on and Tenable App on this node. Complete the setup to start data collection.

Distributed Deployment

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In a distributed deployment, install Splunk on at least two instances. One node works as a search head, while the other node works as an indexer for data collection.

The following table displays Tenable Add-On and Tenable App installation information in the distributed environment.

| Component | Forwarder | Indexer | Search Head |
|---|--|---------|---------------------------|
| Tenable Add-on for Splunk (TA-Tenable) | Yes configure accounts configure data input | No | Yes • configure accounts |
| Tenable-SC App for Splunk (Tenable App) | No | No | Yes |

Cloud Instance

In Splunk Cloud, the data indexing takes place in a cloud instance.

Note: The data collection can take place in an on-premises Splunk instance that works as a heavy forwarder.

You can install the application via a command line or from the Splunk user interface.

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Tenable Add-On for Splunk Installation

For Tenable Vulnerability Management:

Minimum Required User Role: Basic User

Note: The Tenable integration with Splunk works with a **Basic User** if that user is assigned **Can View** permissions on the assets they are to export, along with **Can Use** permissions on tags the assets are assigned. Without the **Can Use** tag permissions, the assets return undefined or the integration fails to export vulnerabilities if a tag filter is used. For more information on Tenable Vulnerability Management permissions and user roles, refer to Permissions in the *Tenable Developer Portal*.

For Tenable Security Center:

Minumum Required User Role: Vulnerability Analyst

Complete the installation and configuration of the Tenable applications for Splunk according to the following workflow.

Before you begin:

You must have Splunk downloaded on your system with a Splunk basic login.

Note: See the <u>Splunk Environments</u> section for additional information about the different types of Splunk deployments and their requirements.

Note: If you install the Tenable App for Splunk on the search head, you must also install the Tenable Addon.

To install Tenable Add-on for Splunk for the first time:

- 1. Log in to Splunk.
- 2. Go to **Apps > Manage Apps > Browse more apps** at the top of the screen.
- 3. Search for "Tenable" and from the list select "Tenable Add-on for Splunk."
- 4. Download the Add-on from Splunkbase.
- 5. Go to Apps > Manage Apps > Install app from file.

6. Upload the Tenable Add-on for Splunk v8.0.0 file by extracting the compressed file (.tar.gz) into the \$SPLUNK_HOME\$/etc/apps folder.

To upgrade Tenable Add-on for Splunk:

- 1. Log in to Splunk.
- 2. Disable the existing inputs of Tenable Add-on for Splunk by navigating to **Tenable Add-On for Splunk > Inputs**.
- 3. Click the toggle button under **Status** column.
- 4. Navigate to Apps > Manage Apps.
- 5. Click **Install app from file**.
- 6. Click Choose file.
- 7. Select the **Tenable Add-on for Splunk v8.0.0** installation file.
- 8. Check the **Upgrade** checkbox.
- 9. Click Upload.
- 10. Restart Splunk if prompted.

Note: You can set use_milliseconds_for_sc_vulns = True in the configuration under TA-Tenable/default/ta_tenable_settings.conf to enable millisecond based time fields in Tenable Security Center vulnerability data. Add the following lines under local/ta_tenable_settings.conf if you do not want the change to be reset after a plugin update: [sc_configuration] and use_ milliseconds_for_sc_vulns = True

Note: You can optionally update the default chunk size for Tenable Vulnerability Management export host vulnerabilities and export host assets sync calls. To update the default setting, open the \$SPLUNK_HOME/etc/apps/TA-tenable/default/inputs.conf file, and update the value of vuln_num_assets (number of assets used to chunk the vulnerabilities) and assets_chunk_size (number of assets per exported chunk) in tenable io stanza as per requirement. Save the file changes and restart Splunk.

Note: You may need to <u>update the Tenable Macro</u>, **get_tenable_index**, for data to begin populating the application dashboards.

Note: (For Tenable OT Security or Tenable Security Center) If SSL Verification is not needed for a particular product, you can set it to 'False' by navigating to \$SPLUNK HOME/etc/apps/TA-



tenable/bin/tenable_consts.py and disable it for that particular product. The list of product flags:

- verify_ssl_for_ot = True
- verify_ssl_for_sc_cert = True
- verify_ssl_for_sc_api_key = True
- verify_ssl_for_sc_creds = True

Next, create an input.

Configuration

Tenable provides multiple application configuration options for the Tenable Add-On for Splunk.

View the corresponding pages for steps to configure your application:

- Tenable Identity Exposure
- Tenable Attack Surface Management
- Tenable Tenable Network Monitor
- Tenable OT Security (ICP)
- Tenable Security Center Certificates
- Tenable Security Center API Keys
- Tenable Vulnerability Management

Note: Splunk versions 6.0.3 and later do not support web application findings, host audits, or cloud findings.

Configure Tenable Attack Surface Management

Required User Role: Administrator

Connect to Tenable Attack Surface Management by creating the account configuration.

Before you begin:

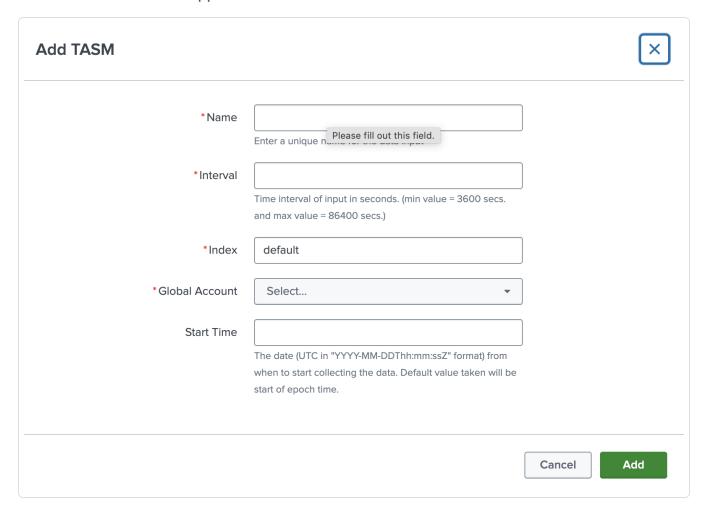
Generate an API key in Tenable Vulnerability Management to complete the configuration. See
the <u>Tenable Attack Surface Management User Guide</u> for instructions on how to generate an
API key. Do not use this API key for any other third-party or custom-built application or
integration. It must be unique for each installed instance of the integration.

To configure your account for Tenable Attack Surface Management:

- 1. Navigate to Tenable Add-on for Splunk > Configuration
- 2. Under the Account tab click on Add.
- 3. In the **Tenable Account Type** dropdown, select **TASM**.



The Add TASM window appears:



- 4. Provide any desired name in Account Name field.
- 5. Enter the FQDN, or IP, of your server for this account without scheme (i.e., http:// or https://) in the **TASM** field.
- 6. Enter your TASM API Key.
- 7. If using a proxy server, click the **Proxy Enable** checkbox and provide proxy fields.
- 8. To complete the configuration, click **Add**.

Parameters Reference Table

| Input Parameters | Description |
|------------------|---|
| Account Name | (Required) The unique name for each Tenable data input. |

| Tenable Account Type | (Required) The type of Tenable account. Select TASM . |
|----------------------|--|
| TASM Domain | (Required) The FQDN, or IP, of your server for this account without scheme (i.e., http:// or https://) in the TASM field. (e.g., asm.cloud.tenable.com) |
| TASM API Key | (Required) Tenable Attack Surface Management API access key. |
| Proxy Enable | Enables the plugin to collect Tenable Attack Surface Management data via a proxy server. If you select this option, the plug- in prompts you to enter the following: |
| | Proxy Type - the type of proxy used. Proxy Host - the hostname or IP address of the proxy server. |
| | • Proxy Port - the port number of the proxy server. |
| | Proxy Username - the username for an account that has permissions to access and use the proxy server. |
| | Proxy Password - the password associated with the username you provided. |

Next steps

• <u>Create an Input</u> for the Tenable Add-On for Splunk.

Configure Tenable Identity Exposure

Connect to Tenable Identity Exposure by creating the account configuration. You can connect to Tenable Identity Exposure using a syslog input. Configure a default UDP/TCP data input of Splunk with the following steps.

| Source Type | Description |
|-------------------|---|
| tenable:ad:alerts | This option configures Splunk to accept Tenable Identity Exposure alerts. |

To configure your account for Tenable Identity Exposure:

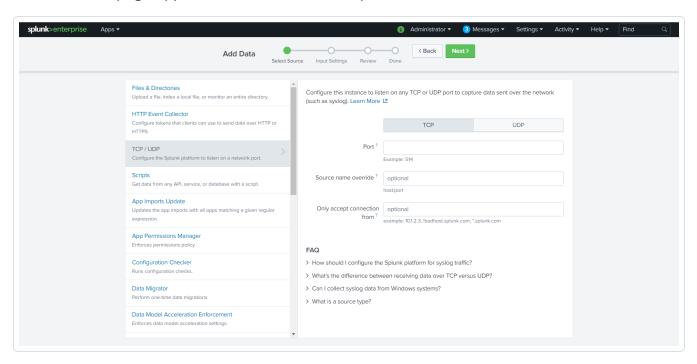
Complete the following steps in Splunk:

1. In the top navigation bar, click **Settings** > **Data Inputs**.

The **Data Inputs** page appears.

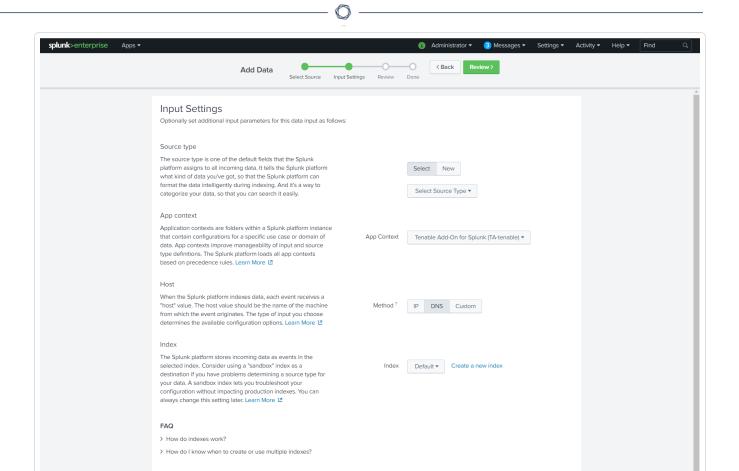
- 2. In the Local Inputs section, scroll to TCP or UDP.
- 3. Click the + Add New option in the TCP or UDP row.

The Add Data page appears with the TCP/UDP option selected.



- 4. Enter the port configuration information.
- 5. At the top of the page, click Next.

The **Input Settings** page appears:



6. For the Source Type option, click New.

More options appear.

- 7. In the **Source Type** box, enter *tenable:ad:alerts*.
- 8. In the **Source Type Category** drop-down, select **Tenable**.
- 9. (Optional) Enter a description in the Source Type Description field.
- 10. Scroll down to the Index option.
- 11. Click on the **Index** drop-down menu.
- 12. Select an Index.
- 13. At the top of the page, click Review.
- 14. Review your configuration settings.

Note: If your configuration needs edits, click Back to update your settings.

15. At the top of the page, click **Done**.

Complete the following steps in Tenable Identity Exposure:

- In the Tenable Identity Exposure console, under Local Settings, go to the Servers > Syslog Servers screen.
- 2. Click + Add Syslog Server.

The **Syslog Server** configuration window appears.

- 3. In the **Server Name** field, enter a name for your Splunk system.
- 4. In the **Hostname\IP** field, enter the IP address of your Splunk system.
- 5. In the **Port** field, enter the port number on the Splunk system to which the events will be sent.
- 6. In the **Transport** field, select from the drop-down list the transport protocol in use. (Options are **TCP** or **UDP**).
- 7. Click **Send Test Message** to send a test message to verify that the configuration was successful, and check if the message has arrived. If the message did not arrive, then troubleshoot to discover the cause of the problem and correct it.
- 8. Click Save.

Configure Tenable Network Monitor

Connect to Tenable Network Monitor by creating the account configuration. You can connect to Tenable Network Monitor using a syslog input. Configure a default UDP/TCP data input of Splunk with the following steps.

| Source Type | Description |
|------------------|---------------------------------------|
| tenable:nnm:vuln | This contains all vulnerability data. |

To configure your account for Tenable Network Monitor:

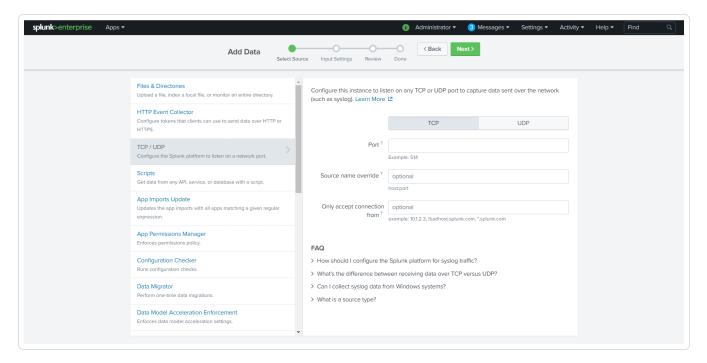
Complete the following steps in Splunk

1. In the top navigation bar, click **Settings** > **Data Inputs**.

The **Data Inputs** page appears.

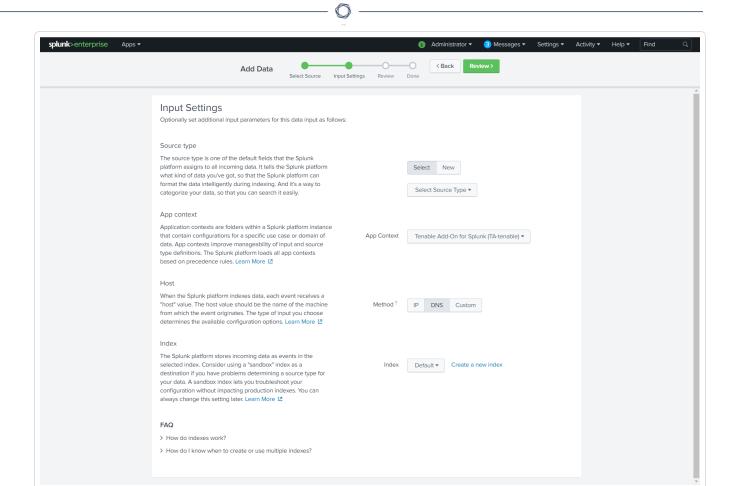
- 2. In the Local Inputs section, scroll to TCP or UDP.
- 3. Click the + Add New option in the TCP or UDP row.

The Add Data page appears with the TCP/UDP option selected.



- 4. Enter the port configuration information.
- 5. At the top of the page, click **Next**.

The **Input Settings** page appears:



6. For the Source Type option, click New.

More options appear.

- 7. In the **Source Type** field, enter *tenable:nnm:vuln*.
- 8. In the **Source Type Category** drop-down, select **Tenable**.
- 9. (Optional) Enter a description in the Source Type Description field.
- 10. Scroll down to the Index option.
- 11. Click on the **Index** drop-down menu.
- 12. Select an Index.
- 13. At the top of the page, click Review.
- 14. Review your configuration settings.

Note: If your configuration needs edits, click Back to update your settings.

15. At the top of the page, click **Done**.

Complete the following steps in NNM

- 1. Log in to NNM.
- 2 Go to O > Configuration.

The **Configuration** page appears.

3. In the **Setting Type** drop-down, click **Syslog**.

The **Syslog** options appear.

4. Next to Realtime Syslog Server List, click Add.

The **+Add Syslog Item** window appears.

- 5. In the IP field, enter the IP address of the Splunk server you configured to accept syslog.
- 6. In the Port field, enter the port number you have Splunk set to listen to when syslog is on.
- 7. For Format Type, select Standard.
- 8. For **Protocol**, select the protocol you have set up to accept the syslog for Splunk.

Configure Tenable OT Security (ICP)

Connect to OT Security (ICP) by creating the account configuration.

Note: The OT Security integration is available for Splunk add-on version 6.3.0 and later.

To configure your account for Tenable OT Security (ICP):



- 1. Navigate to the **Tenable Add-on for Splunk > Configuration**.
- 2. Under the Account tab click Add.
- 3. Select TOT (ICP) in the Tenable Account Type drop-down.
- 4. Enter the necessary information for each field. The following table describes the available options.

| Input Parameters | Description |
|---------------------------|--|
| Account Name | (Required) The unique name for each Tenable data input. |
| Tenable Account Type | (Required) The type of Tenable account. |
| Address | (Required) The FQDN, or IP, of your server for this account without scheme (i.e., http:// or https://) in the TOT field. |
| API Secret | (Required) Tenable OT Security API access key. |
| | Note: For more information on API keys, see Generate an API Key. |
| | Note: SSL Verification - Splunk requires all connections to verify SSL by default and not be configurable via the UI. To configure your TSC connection to not verify SSL certificate you will need to modify {SPLUNK_HOME}/etc/apps/TA-tenable/bin/tenable_consts.py and set to verify_ssl_for_ot = False. |
| Use Custom CA Certificate | Check this box if you are using a Custom CA Certificate. |
| Custom CA Certificate | Enter the Custom CA Certificate for this account. |
| Proxy Enable | (Optional) Enables the plugin to collect Tenable OT Security data via a proxy server. If you select this |



option, the plug- in prompts you to enter the following:

- **Proxy Type** the type of proxy used.
- Proxy Host the hostname or IP address of the proxy server.
- Proxy Port the port number of the proxy server.
- Proxy Username the username for an account that has permissions to access and use the proxy server.
- Proxy Password the password associated with the username you provided.
- 5. Click **Add** to save the configuration.

Next steps

• Create an Input for the Tenable Add-On for Splunk.

Configure Tenable Security Center API Keys

Required User Role: Security Analyst

Connect to Tenable Security Center API Keys by creating the account configuration.

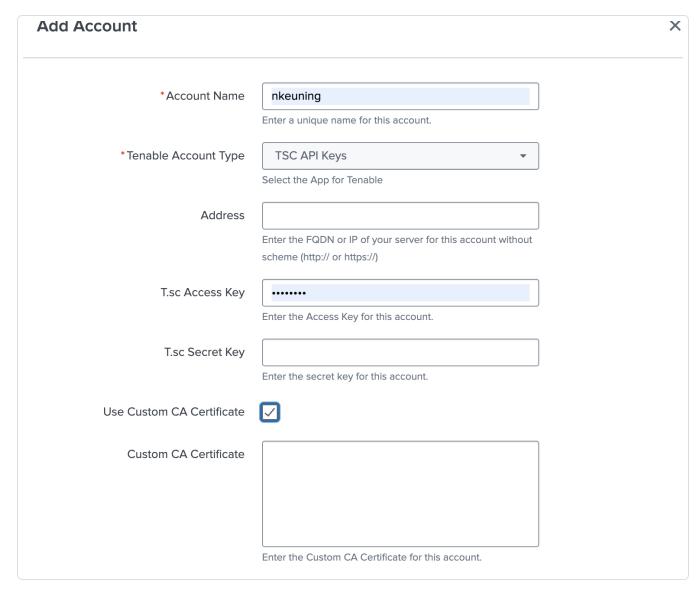
Note: SSL Verification - Splunk requires all connections to verify SSL by default and not be configurable via the UI. To configure your TSC connection to not verify SSL certificate you will need to modify {SPLUNK_HOME}/etc/apps/TA-tenable/bin/tenable_consts.py and set to verify_ssl_for_sc_api_key = False.

To configure your account for Tenable Security Center API Keys:

- 1. Log in to your data collection node.
- 2. In the left navigation bar, click **Tenable Add-on for Splunk**.

- 3. Click the Configuration tab.
- 4. Click the Add button.

An Add Account window appears:



Note: Tenable Security Center standard credential use is deprecated. Use Tenable Security Center API keys for account authentication. For more information on Tenable Security Center API keys, see <u>Generate API Keys</u>.

5. In the Tenable Access Type drop-down box, select TSC API Keys.



6. Enter the necessary information for each field. The following table describes the available options.

| Input Parameters | Description |
|---------------------------|--|
| Account Name | (Required) The unique name for each Tenable data input. |
| Tenable Account Type | (Required) The type of Tenable account. Select TSC API Keys. |
| Address | (Required) The hostname or IP address for Tenable Security Center. |
| T.sc Access Key | (Required) API Access Key |
| T.sc Secret Key | (Required) API Secret Key |
| Use Custom CA Certificate | Check this box if you are using a Custom CA Certificate. |
| Custom CA Certificate | Enter the Custom CA Certificate for this account. |
| Proxy Enable | Enables the plugin to collect Tenable Security Center data via a proxy server. If you select this option, the plug- in prompts you to enter the following: |
| | • Proxy Type - the type of proxy used. |
| | Proxy Host - the hostname or IP address of the proxy server. |
| | Proxy Port - the port number of the proxy server. |
| | Proxy Username - the username for an account that has permissions to access and use the proxy server. |



- Proxy Password the password associated with the username you provided.
- 7. Click **Add** to complete the configuration.

Next steps

Create an Input for the Tenable Add-On for Splunk.

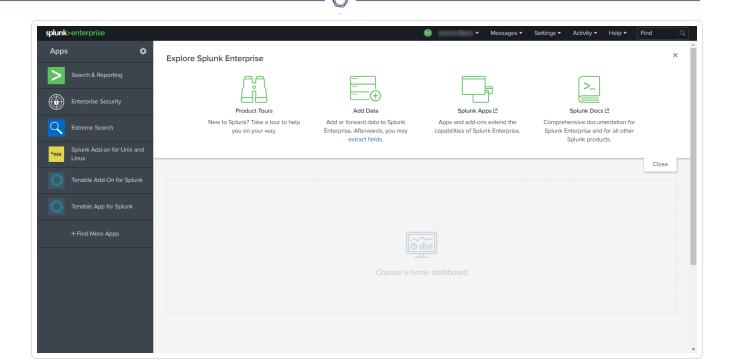
Configure Tenable Security Center Certificates

Connect to Tenable Security Center Certificates by creating the account configuration.

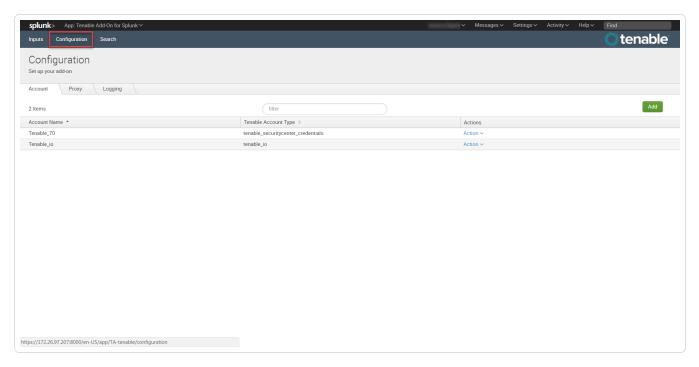
Note: SSL Verification - Splunk requires all connections to verify SSL by default and not be configurable via the UI. To configure your TSC connection to not verify SSL certificate you will need to modify {SPLUNK_HOME}/etc/apps/TA-tenable/bin/tenable_consts.py and set to verify_ssl_for_sc_cert = False. For additional information on Tenable Security Center Certificates, see SSL Client Certificate Authentication.

To configure your account for Tenable Security Center Certificates:

- 1. Log in to your data collection node.
- 2. In the left navigation bar, click Tenable Add-on for Splunk.

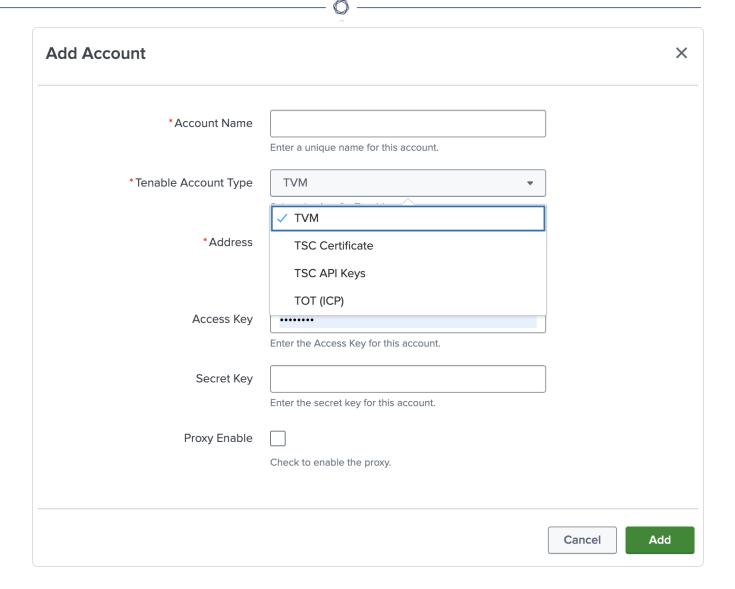


3. Click the **Configuration** tab.



4. Click the Add button.

The Add Account window appears.



- 5. In the **Tenable Account Type** box, select **TSC Certificates**.
- 6. Enter the necessary information for each field. The following table describes the available options.

Note: The certificates you upload and configure must be associated with a specific user in Tenable Security Center.

| Input Parameters | Description |
|------------------|---|
| Account Name | (Required) The unique name for each Tenable Security Center data input. |

| | O |
|------------------------|--|
| Tenable Account Type | (Required) The type of Tenable account - Tenable Vulnerability Management, Tenable Security Center API Keys, or Tenable Security Center Certificate. |
| Address | (Required) The hostname or IP address for Tenable Security Center. |
| Verify SSL Certificate | Enabled by default, Splunk verifies the certificate in Tenable Security Center. To disable, set one or more of the following to 'False' based upon your use case: • verify ssl for sc cert = True |
| | verify_ssl_for_sc_api_key = True |
| | verify_ssl_for_sc_creds = True |
| T.sc Access Key | (Required) Tenable Security Center API access key. |
| T.sc Secret Key | (Required) Your Tenable Security Center API secret key. |
| Certificate Filename | The name of the certificate that you uploaded to \$SPLUNK_HOME/etc/apps/TA-tenable/certs/. |
| Key Filename | The name of the key that you uploaded to \$SPLUNK_ HOME/etc/apps/TA-tenable/certs/. |
| Key Password | The password for the key file you uploaded. |
| Proxy Enable | Enables the plugin to collect Tenable Security Center data via a proxy server. If you select this option, the plug- in prompts you to enter the following: |
| | • Proxy Type - the type of proxy used. |



- Proxy Host the hostname or IP address of the proxy server.
- Proxy Port the port number of the proxy server.
- Proxy Username the username for an account that has permissions to access and use the proxy server.
- Proxy Password the password associated with the username you provided.
- 7. Click **Add** to complete the configuration.

Install certificate authority:

1. Run the following command to make a backup of the cacert.pem file.

```
# cp $SPLUNK_HOME/etc/apps/TA-tenable/bin/ta_tenable/certifi/cacert.pem
/tmp/cacert.pem
```

2. Run the following command to append the PEM-encoded root certificate authority that signed the Tenable Security Center SSL certificate to the cacert.pem.

```
# cat <path_to_root_ca.pem> >> $SPLUNK_HOME/etc/apps/TA-tenable/bin/ta_
tenable/certifi/cacert.pem
```

3. Run the following command to restart Splunk.

```
# /opt/splunk/bin/splunk restart
```

Splunk installs the self-signed certificate to trust in your configuration.

Next steps

Create an Input for the Tenable Add-On for Splunk.

Configure Tenable Vulnerability Management or Tenable Web App Scanning



Required User Role: Administrator

Connect to Tenable Vulnerability Management or Tenable Web App Scanning by creating the account configuration.

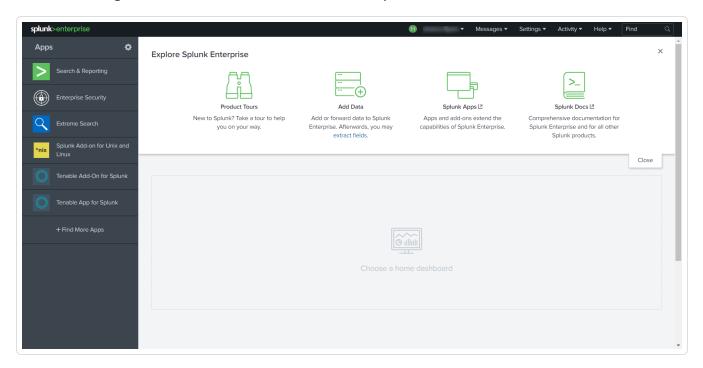
Before you begin:

Generate an API key in Tenable Vulnerability Management to complete the configuration. See
the <u>Tenable Vulnerability Management user guide</u> for instructions on how to generate an API
key. Do not use this API key for any other third-party or custom-built application or integration.
It must be unique for each installed instance of the integration.

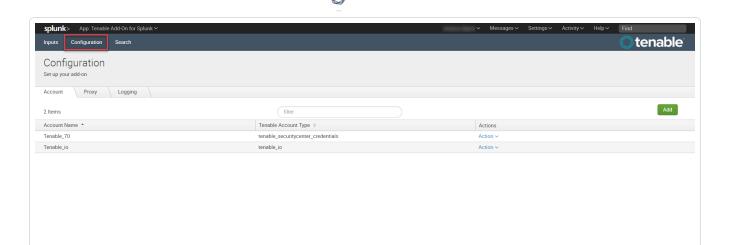
Note: Asset and vulnerabilities in Splunk might differ from individual scan results since the Splunk integration synchronizes cumulative vulnerability and asset data from the <u>Tenable API endpoints</u>.

To configure your account for Tenable Vulnerability Management(**TVM**) or Tenable Web App Scanning(**TWAS**):

- 1. Log in to the heavy forwarder where you installed the Tenable Add-on for Splunk.
- 2. In the left navigation bar, click Tenable Add-on for Splunk.



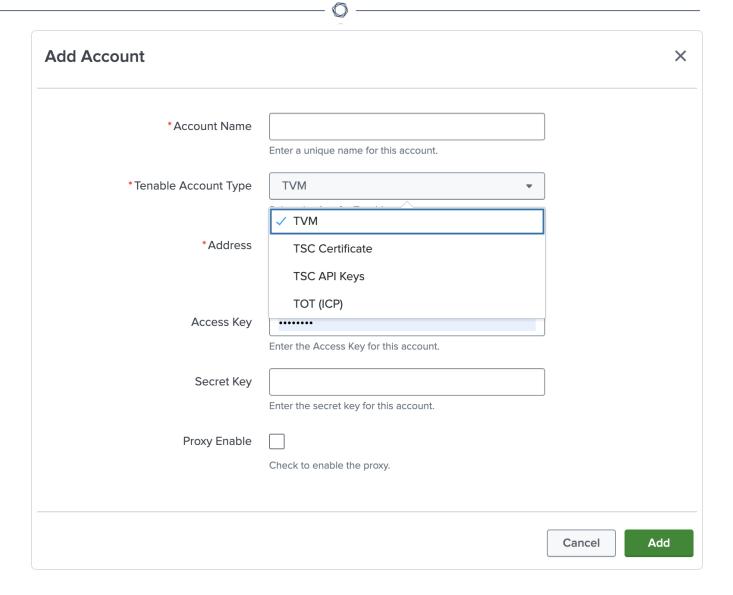
3. Click the **Configuration** tab.



4. Click the Add button.

The Add Account window appears:

https://172.26.97.207:8000/en-US/app/TA-tenable/configuration



- 5. In the **Tenable Account Type** box, select **TVM**.
- 6. Enter the necessary information for each field. The following table describes the available options.

| Input Parameters | Description |
|----------------------|--|
| Account Name | (Required) The unique name for each Tenable data input. |
| Tenable Account Type | (Required) The type of Tenable account. Select TVM or TWAS . |
| Address | (Required) The hostname or IP address for Tenable |

| | — O — |
|------------------------|--|
| | Vulnerability Management or Tenable Web App Scanning. (For example, cloud.tenable.com or fedcloud.tenable.com) |
| Verify SSL Certificate | Enabled by default, Splunk verifies the certificate in Tenable Vulnerability Management or Tenable Web App Scanning. To disable, set one or more of the following to 'False' based upon your use case: • verify_ssl_for_sc_cert = True • verify_ssl_for_sc_api_key = True • verify_ssl_for_sc_creds = True |
| Access Key | (Required) Tenable Vulnerability Management API access key. |
| Secret Key | (Required) Your Tenable Vulnerability Management API secret key. |
| Proxy Enable | Enables the plugin to collect Tenable Vulnerability Management or Tenable Web App Scanning data via a proxy server. If you select this option, the plug- in prompts you to enter the following: Proxy Type - the type of proxy used. Proxy Host - the hostname or IP address of the proxy server. Proxy Port - the port number of the proxy server. |
| | Proxy Username - the username for an account that has permissions to access and use the proxy server. |
| | Proxy Password - the password associated with the username you provided. |



7. To complete the configuration, click **Add**.

Next steps

• Create an Input for the Tenable Add-On for Splunk.

Create an Input

After you complete the configuration for your Tenable Add-On for Splunk, you must create the input for the deployment type you have. The following process outlines input creation if you have a deployment with Tenable Add-On for Splunk.

To create an input:

- 1. In the left navigation bar, click **Tenable Add-On for Splunk**.
- 2. Click the **Inputs** tab.
- 3. Click Create New Input.



The input drop-down list appears:

- 4. Select your input type.
- 5. Provide the following information.

Note: If you don't use the default index, you must update the Tenable Macro.

Tenable Web App Scanning

| Input Parameters | Description | Required |
|-----------------------------------|--|----------|
| Name | The unique name for each Tenable data input. | Yes |
| Interval | The interval parameter specifies when the input restarts to perform the task again (in seconds). The interval amount must be between 3600 and 86400. | Yes |
| Index | The index in which to store Tenable Vulnerability Management data. | Yes |
| Global Account | Use one of the accounts from the Create an Account page for the matching Tenable product. | Yes |
| Start Time | The date and time to start collecting data. If you leave this field blank, the integration collects all historical data. Note: Uses the YYYY-MM-DD hh:mm:ss format. | No |
| Lowest Severity to Store | Select the lowest level of severity to store. Can be Info, Low, Medium, High, or Critical. | Yes |
| Historical Fixed Vulnerability | Allows the import of vulnerabilities fixed before the current day. | No |

TOT (ICP)

| Input Parameters | Description | Required |
|------------------|--|----------|
| Name | The unique name for each Tenable data input. | Yes |
| Interval | The interval parameter specifies when the input restarts to perform the task again. This supports seconds (between 3600 and 86400) or a cron schedule. | Yes |
| Index | The index in which to store Tenable OT Security data. | Yes |
| Global Account | Use one of the accounts from the Create an Account page for the matching Tenable product. | Yes |

TSC Vulnerability

| Input Parameters | Description | Required |
|------------------|--|----------|
| Name | The unique name for each Tenable data input. | Yes |
| Interval | The interval parameter specifies when the | Yes |

| | input restarts to perform the task again. This supports seconds (between 300 and 86400) or a cron schedule. | |
|-----------------------------------|---|-----|
| | Note: Restricting the input to collect data during inactive scan periods with a cron schedule is recommended, especially for large Security Center deployments. For smaller deployments, a minimum interval of one hour (3600) can be used. | |
| Index | The index in which to store Tenable Security Center data. | Yes |
| Global Account | Use one of the accounts from the Create an Account page for the matching Tenable product. | Yes |
| Start Time | The date and time to start collecting data. If you leave this field blank, the integration collects all historical data. | No |
| | Note: Uses the YYYY-MM-DD hh:mm:ss format. | |
| Sync Plugin Details | If selected, the related tags in Tenable assets include plugin details. | Yes |
| Historical Fixed Vulnerability | Allows the import of vulnerabilities fixed before the current day. | No |
| Query Name | A name for Tenable Security Center vulnerability filter. | No |
| | Note: The interval must be query type | |

TSC Mobile

Vulnerability Detail List.

| Input Parameters | Description | Required |
|------------------|--|----------|
| Name | The unique name for each Tenable data input. | Yes |
| Interval | The interval parameter specifies when the input restarts to perform the task again (in seconds). | Yes |
| Index | The index in which to store Tenable Security Center data. | Yes |
| Global Account | Use one of the accounts from the Create an Account page for the matching Tenable product. | Yes |
| Query Name | A name for Tenable Security Center vulnerability filter. | No |
| | Note: The interval must be query type - Vulnerability Detail List. | |

TVM

| Input Parameters | Description | Required |
|------------------|---|----------|
| Name | The unique name for each Tenable data input. | Yes |
| Interval | The interval parameter specifies when the input restarts to perform the task again. This supports seconds (between 3600 and | Yes |

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|---|---|--|
| 1 | J | |
| | | |

| | | 86400) or a cron schedule. | |
|--------------------------------|------------|---|-----|
| Index | | The index in which to store Tenable Vulnerability Management data. | Yes |
| Global Account | | Use one of the accounts from the Create an Account page for the matching Tenable product. | Yes |
| Sync Plugin Details | | If selected, the related tags in Tenable assets include plugin details. | Yes |
| Historical Fixed Vulnerability | | Allows the import of vulnerabilities fixed before the current day. | No |
| Host Vulnerability | Start Time | The date and time to start collecting host data. If you leave this field blank, the integration collects all historical data. (Enter in this format - YYYY-MM-DD hh:mm:ss.) | No |

| ^ | | |
|-----------------------------------|--|----|
| Lowest Severity Score | The lowest level of severity stored. | No |
| Historical Fixed Vulnerability | Allows the import of host vulnerabilities fixed before the current day. | No |
| Tags | Limits host vulnerabilities pulled to host assets that have tags selected. | No |

TVM Audit Logs

| Input Parameters | Description | Required |
|------------------|--|----------|
| Name | The unique name for each Tenable data input. | Yes |
| Interval | The interval parameter specifies when the input restarts to perform the task again. This supports seconds (between 3600 and 86400) or a cron schedule. | Yes |
| Index | The index in which to store Tenable Vulnerability Management data. | Yes |

| ^ | | |
|----------------|---|-----|
| Global Account | Use one of the accounts from the Create an Account page for the matching Tenable product. | Yes |
| Start Time | The date and time to start collecting data. If you leave this field blank, the integration collects all historical data. | No |
| | Note: Uses the YYYY-MM-DD hh:mm:ss format. | |

TVM Compliance

| Input Parameters | Description | Required |
|------------------|--|----------|
| Name | The unique name for each Tenable data input. | Yes |
| Interval | The interval parameter specifies when the input restarts to perform the task again. This supports seconds (between 3600 and 86400) or a cron schedule. | Yes |

| Index | The index in which to store Tenable Vulnerability Management data. | Yes |
|----------------|---|-----|
| Global Account | Use one of the accounts from the Create an Account page for the matching Tenable product. | Yes |
| Start Time | The date and time to start collecting data. If you leave this field blank, the integration collects all historical data. Note: Uses the YYYY-MM-DD hh:mm:ss format. | No |

Tenable Attack Surface Management

| Input Parameters | Description | Required |
|------------------|--|----------|
| Name | The unique name for each Tenable data input. | Yes |
| Interval | The interval parameter specifies when the input restarts to perform the task again (in seconds). The interval amount must be between 3600 and 86400. | Yes |

| Index | The index in which to store Tenable Vulnerability Management data. | |
|----------------|--|-----|
| Global Account | Use one of the accounts from the Create an Account page for the matching Tenable product. | Yes |
| Start Time | The date and time to start collecting data. If you leave this field blank, the integration collects all historical data. Note: Uses the YYYY-MM-DD hh:mm:ss format. | |

6. Click Add to create the input.

Note: Asset and vulnerabilities in Splunk might differ from individual scan results since the Splunk integration synchronizes cumulative vulnerability and asset data from the <u>Tenable API</u> endpoints.

Next, configure your application.

Tenable Data in Splunk Dashboard

The Tenable App for Splunk provides a single dashboard that displays all of your Tenable data.

To set up the Tenable App for Splunk:

Set up the macro definition

- 1. In Splunk, go to **Settings > Advance search > Search Macros**.
- 2. In the App section, select Tenable App for Splunk.
- 3. Click the search icon.

Results appear.

4. Click get_tenable_index.

The **get_tenable_index** macro page appears.

5. In the **Definition** field, update the definition to *index=INDEX_NAME*.

The INDEX_NAME should be the same name entered when you created the data input.

6. Click Save.

Run the All Time saved search

After installation, you must run the **All Time** saved search specific to your Tenable platform. This is a one-time operation to populate indices that the Tenable App for Splunk depends on.

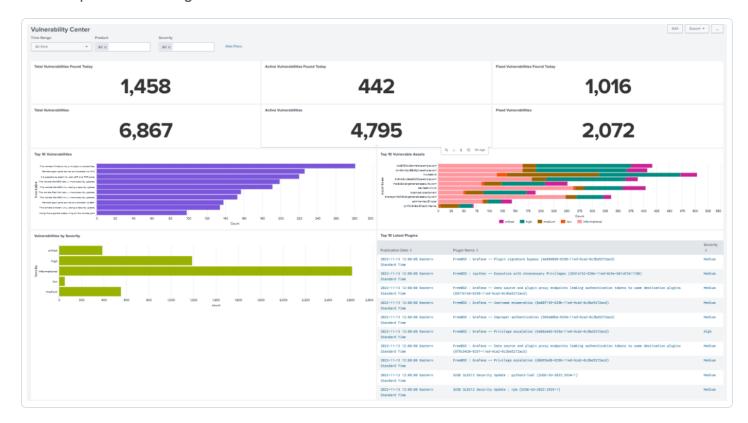
- 1. Navigate to the **Tenable App for Splunk**.
- 2 Click Saved Searches
- 3. Select **Tenable IO Plugin Data All Time**.

Splunk completes the query.

- 4. Repeat steps 2 and 3 for other All Time saved searches:
 - a. Tenable IO Vuln Data All Time
 - b. Tenable SC Vuln Data All Time

Displayed Components

- Total Vulnerabilities Found Today
- Active Vulnerabilities Found Today
- Fixed Vulnerabilities Found Today
- Total Vulnerabilities
- Active Vulnerabilities
- Fixed Vulnerabilities
- Top 10 Vulnerabilities
- Top 10 Vulnerable Assets
- Vulnerabilities by Severity
- Top 10 Latest Plugins



Tenable Network Monitor Data in Splunk Dashboard

The Tenable App for Splunk provides a single dashboard showing all of your Tenable Network Monitor data. Set the following components:

0

Displayed Components

Dashboard

- Total Real-time events
- Unique Real-time events
- Top 10 Events
- Top Event Trends
- Top Source IP
- Top Event Name

Traffic Overview

- Top Destination Port
- Top Source Port
- Top Destination IP
- Top Source IP

Traffic Map

- Source IP Map
- Destination IP Map

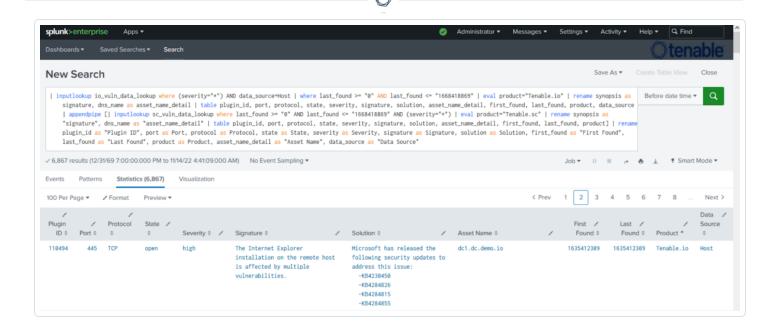
Events

- Top Events
- Events

Vulnerability Center Dashboard

Clicking the value in any panel of the Vulnerability Center dashboard results in a drill-down table.

Drill-down tables



Splunk application lookup and drill-down fields for Tenable Vulnerability Management and Tenable Security Center.

| Tenable Security Center drill-down field | Tenable Security Center lookup field | Tenable Vulnerability Management-Host drill- down field | Tenable Vulnerability Management-Host lookup field |
|--|--|---|--|
| - | SC_address | - | asset_uuid |
| DNS Name | dns_name | Data Source | data_source |
| First Found | first_found | Asset Name | dns_name |
| - | ip | First Found | first_found |
| - | last_fixed | - | last_fixed |
| Last Found | last_found | Last Found | last_found |
| Plugin ID | plugin_id | Plugin ID | plugin_id |
| Port | port | Port | port |
| Protocol | protocol | Protocol | protocol |
| - | repository_id | Severity | severity |



| Severity | severity | Solution | solution |
|-----------|-----------|-----------|-----------|
| Solution | solution | State | state |
| State | state | Signature | synopsis |
| Signature | synopsis | - | vpr_score |
| - | vpr_score | - | - |

| Tenable Vulnerability Management-Plugin drill-down field | Tenable Vulnerability Management-plugin lookup field | Tenable Security Center-Plugin drill-down field | Tenable Security Center-plugin lookup field |
|--|--|---|---|
| Plugin ID | plugin_id | Plugin ID | plugin_id |
| Plugin Name | plugin_name | Plugin Name | plugin_name |
| - | plugin_version | - | plugin_family_id |
| Severity | risk_factor | - | plugin_family |
| Solution | plugin_solution | - | plugin_version |
| Signature | plugin_synopsis | Severity | risk_factor |
| Publication Date | plugin_publication_ date | Signature | plugin_synopsis |
| - | plugin_modification_ date | Solution | plugin_solution |
| - | vpr_score | Publication Date | plugin_ publication_date |
| - | - | - | plugin_ modification_ date |
| - | - | - | vpr_score |

Saved Searches



The **Saved Search** option creates lookup tables. The lookup tables contain filtered data that automatically removes duplicate information providing accurate, readable results.

Note: Tenable recommends running the saved search every 24 hours. However, you can adjust as needed.

Note: Some search commands need an additional key to use KV store lookups. (For example, use inputlookup to get search results from a KV Store collection: inputlookup sc_vuln_data_lookup)

Tenable Saved Search Types

Tenable Vulnerability Management vulnerability data: Type the following command to view the KV store collection for Tenable Vulnerability Management host vulnerability data.

```
io_vuln_data_lookup
```

Tenable Vulnerability Management asset data: Type the following command to view the KV store collection for Tenable Vulnerability Management host asset data.

```
io_asset_data_lookup
```

Tenable Vulnerability Management plugin data: Type the following command to view the KV store collection for Tenable Vulnerability Management plugin data.

```
io_plugin_data_lookup
```

Tenable Security Center Saved Searches

Tenable Security Center vulnerability data: Type the following command to view the KV store collection for Tenable Security Center vulnerability data.

```
sc_vuln_data_lookup
```

Tenable Security Center asset data: Type the following command to view the KV store collection for Tenable Security Center asset data.

```
sc_asset_data_lookup
```



Tenable Security Center plugin data: Type the following command to view the KV store collection for Tenable Security Center plugin data.

sc_plugin_data_lookup

Tenable Network Monitor Saved Search Types

Tenable Network Monitor vulnerability data: Type the following command to view the KV store collection for Tenable Network Monitor vulnerability data.

nnm_vuln_data_lookup

NNM events over time, NNM Top 10 Events, NNM Top Destination by Country, NNM Top Source by Country, Top Destination IP, Top Destination Port, Top NNM Plugin ID, Top Source IP, and Top Source Port: Type the following command to view Tenable Network Monitor events.

tenable:nnm:vuln

Adaptive Response

You can create a correlation search and bind it to the adaptive response action when you save it. This allows you to call actions automatically when you run a search.

Before you begin:

Select an index on the <u>Alert Actions Configuration</u> tab in the Tenable Configuration section to retrieve data.

To configure saved actions:

Configure adaptive response actions when you create a correlation search.

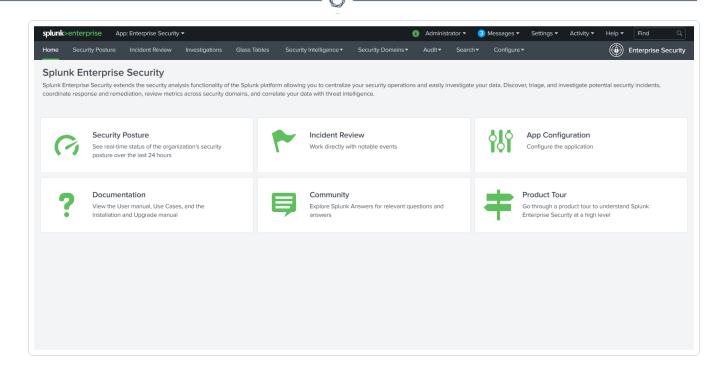
Note: When you run the search, the actions are retrieved automatically

1. In the Splunk navigation bar, click the **Apps** drop-down menu.



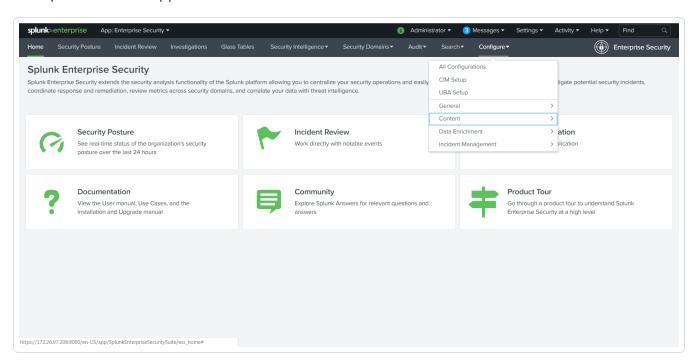
2. Select Enterprise Security.

The **Enterprise Security** page appears:



3. In the Enterprise Security top navigation bar, click Configure.

A drop-down menu appears:



4. Click Content.

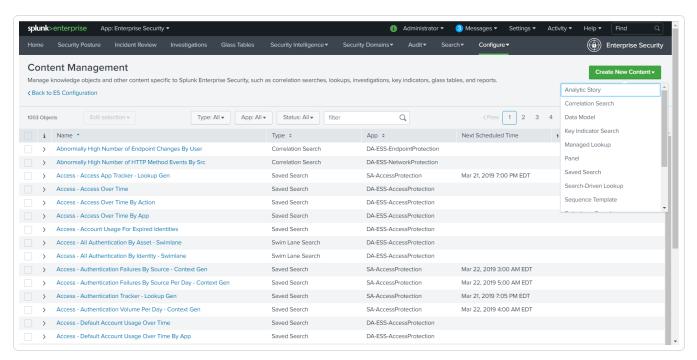
More options appear.

5. Click Content Management.

The Content Management page appears.

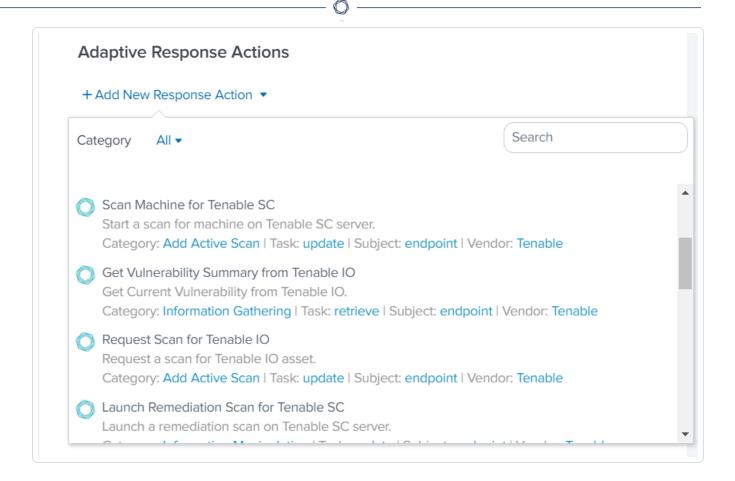
6. In the top-right corner, click the **Create New Content** button.

A drop-down menu appears:

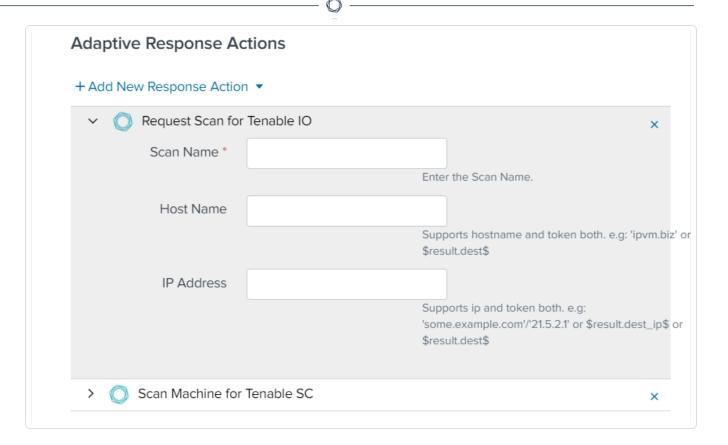


- 7. Select Correlation Search.
- 8. Enter information for the correlation search. Refer to the <u>Correlation Search</u> section in the Splunk user guide for additional information.
- 9. Scroll to the **Adaptive Response Actions** section.
- 10. Click the Add New Response Action link.

A list of options appears:



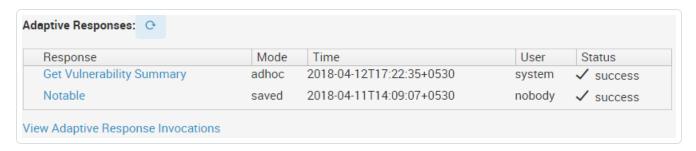
- 11. Select the appropriate action for your search.
- 12. The field options for the selected option appear:



- 13. Enter the required information in the fields of your added response action.
- 14. Click Save.

A confirmation message appears.

15. Run a search.

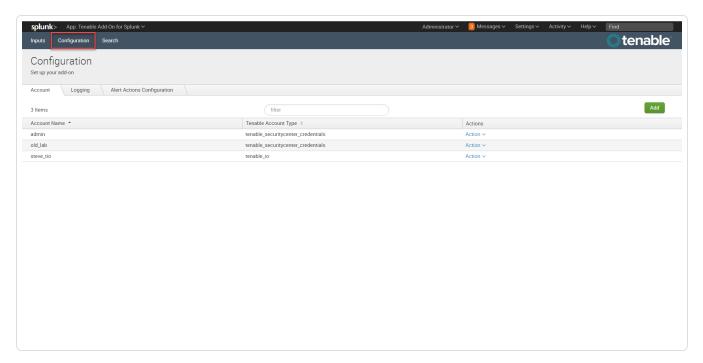


Alert Action Configuration

To configure alert actions:

1. In the Tenable navigation bar, click Configuration.

The **Configuration** page appears:



2. Click the Adaptive Actions Configuration tab.

The Alert Actions Configuration options appear.

- 3. Select an index from the \boldsymbol{Alert} $\boldsymbol{Actions}$ \boldsymbol{Index} drop-down menu.
- 4. Click Save.

Additional Information

See the following pages for additional information:

- Customized Actions
- Update Macro Definition
- Troubleshooting

Best Practices

The Splunk 6.1.1 Tenable Add-on fix can cause a small amount of duplicate data to be synced to the Splunk index. To address this, Tenable recommends using deduplication in queries when searching for Tenable Vulnerability Management data in Splunk. Tenable dashboard in Splunk takes care of showing only the unique vulnerabilities.

Customized Actions

The Tenable Add-on for Splunk provides an option that allows you to call a customized action manually. You can call an action to make a REST API call for a specific action.

To call a customized action:

1. Open the Incident Review and search for events.

The list of events appears.

- 2. Do one of the following:
 - Expand the event to view the details.
 - Click drop-down list in the top-right corner of the item.
- 3. Select Run Adaptive Response Action.

A list of the configured adaptive response actions appears.

Next steps

 You can view the Alert Action status in the Adaptive Responses section to verify they were executed successfully.

Tenable Macros

To modify the macro definition:

Tenable Index Macro

- 1. Go to Settings > Advance search > Search Macros.
- 2. In the App section, select Tenable App for Splunk.
- 3. Click the search icon.

Results appear.

4. Click get_tenable_index.

The **get_tenable_index** macro page appears.

- 5. In the **Definition** entry field, update the definition to *index=INDEX_NAME*. The INDEX_NAME should be the same name entered when you created the data input.
- 6. Click Save.

Tenable Source Types

- 1. Go to Settings > Advance search > Search Macros.
- 2. Click get_tenable_sourcetype.

Note: The default macro definition is sourcetype=(tenable:sc:vuln OR tenable:io:vuln).

Frequently Asked Questions

- 1. I am unable to save the account for TASM.
 - Check the Domain and API Key. Make sure each one is valid.
 - If using a proxy, check the proxy configuration.
- 2. I am unable to save the account for TSC and TOT.
 - Custom Certificate option has been added in v8.0.0, Make sure that SSL Certificate is valid if provided.
- 3. Input is created successfully but data is not getting collected.
 - Check the data by expanding the time range in Splunk search.
 - If using a proxy, check the proxy configuration. Make sure that you are entering correct search query. For example, if you want to search TASM data the search query will be: index = your index sourcetype = tenable:asm:assets
 - Check the log messages for errors:
 - For logs related to TASM data collection: You can view the logs in the ta_ tenable_tenable_asm.log log file by navigating to \$SPLUNK_
 HOME/var/log/splunk/.
 - For logs related to TWAS Assets & Vulns: You can view the logs in the ta_ tenable_tenable_was.log log file by navigating to \$SPLUNK_ HOME/var/log/splunk/.
 - Error log messages regarding TASM data collection can also be seen from Splunk search in "_internal" index: index = _internal source = *ta_tenable_ tenable asm.log* ERROR
 - Error log messages regarding TWAS Assets & Vulns data collection can also be seen from Splunk search in "_internal" index: index = _internal source = *ta tenable_tenable_was.log* ERROR

Note: \$SPLUNK HOME is the path where the Splunk is installed.