Tenable Vulnerability Management and BeyondTrust Password Safe Integration Guide

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Welcome to Tenable Vulnerability Management for BeyondTrust

This document provides information and steps for integrating Tenable with BeyondTrust Password Safe and BeyondTrust Password Safe Cloud.

Security administrators know that conducting network vulnerability assessments means getting access to and navigating an ever-changing sea of usernames, passwords, and privileges. By integrating Tenable applications with BeyondTrust, customers have more choice and flexibility.

The benefits of integrating Tenable with BeyondTrust include:

- Credential updates directly in Tenable applications, requiring less management.
- Reduced time and effort documenting where credentials are stored in the organizational environment.
- Automatic enforcement of security policies in specific departments or business unit requirements, simplifying compliance.
- Reduced risk of unsecured privileged accounts and credentials across the enterprise.

Database Integration

Tenable Vulnerability Management provides full database support for BeyondTrust.

Requirements

- Tenable Vulnerability Management account
- BeyondTrust account

Required User Role: Standard, Scan Manager, or Administrator

To configure Tenable for BeyondTrust database:

1. Log in to Tenable Vulnerability Management.
2. Click **Scans**.

   The **My Scans** page appears.
3. Click **+ New Scan**.

   The **Scan Templates** page appears.
4. Select a scan template.

   The selected scan template **Settings** page appears.
5. In the **Name** box, type a name for the scan.
6. In the **Targets** box, type an IP address, hostname, or range of IP addresses.
7. (Optional) Add a description, folder location, scanner location, and specify target groups.
8. Click the **Credentials** tab.

   The **Credentials** pane appears.
9. Click the **Database** option.

   The **Database** options appear.
10. In the **Database Type** drop-down box, select **Cassandra**, **Oracle**, **DB2**, **MongoDB**, **PostgreSQL**, **MySQL**, **SQL Server**, or **Sybase ASE**.

11. In the **Auth Type** drop-down box, click **BeyondTrust**.

    The BeyondTrust options appear.

12. Configure each option for the **Database** authentication.

Option	Description	Required
Username	The username to log in to the host you want to scan.	yes
Domain	The domain of the username, which is recommended if using domain-linked accounts (managed accounts of a domain that are linked to a managed system).	no
BeyondTrust host	The BeyondTrust IP address or DNS address.	yes
BeyondTrust port	The port on which BeyondTrust listens.	yes
BeyondTrust API user	The API user provided by BeyondTrust.	yes
BeyondTrust API key	The API key provided by BeyondTrust.	yes
Checkout duration	The length of time, in minutes, that you want to keep credentials checked out in BeyondTrust. Configure the checkout duration to exceed the typical duration of your Tenable Vulnerability Management scans. If a password from a previous scan is still checked out when a new scan begins, the new scan fails. **Note:** Configure the password change interval in BeyondTrust so that password changes do not disrupt your Tenable Vulnerability Management scans. If BeyondTrust changes a password during a scan, the scan fails.	yes
Use SSL	When enabled, Tenable Vulnerability	no

	Management uses SSL through IIS for secure communications. Configure SSL through IIS in BeyondTrust before enabling this option.	
Verify SSL certificate	When enabled, Tenable Vulnerability Management validates the SSL certificate. Configure SSL through IIS in BeyondTrust before enabling this option.	no

13. Click **Save**.

SSH Integration

Tenable Vulnerability Management provides an option for BeyondTrust Windows integration. Complete the following steps to configure Tenable Vulnerability Management with BeyondTrust in SSH.

Requirements

- Tenable Vulnerability Management account
- BeyondTrust account

Required User Role: Standard, Scan Manager, or Administrator

To configure Tenable Vulnerability Management for BeyondTrust SSH:

1. Log in to Tenable Vulnerability Management.
2. In the upper-left corner, click the ☰ button.

   The left navigation plane appears.
3. In the left navigation plane, click **Settings**.

   The **Settings** page appears.
4. Click the **Credentials** widget.

   The **Credentials** page appears. The credentials table lists the managed credentials you have permission to view.
5. Click the ⊕ button next to the **Credentials** title.

   The credential form plane appears.
6. In the **Host** section, click **SSH**.

   The selected credential options appear.
7. In the **Authentication Method** drop-down, select **BeyondTrust**.

   The **BeyondTrust** options appear.
8. Configure the **BeyondTrust** credentials.

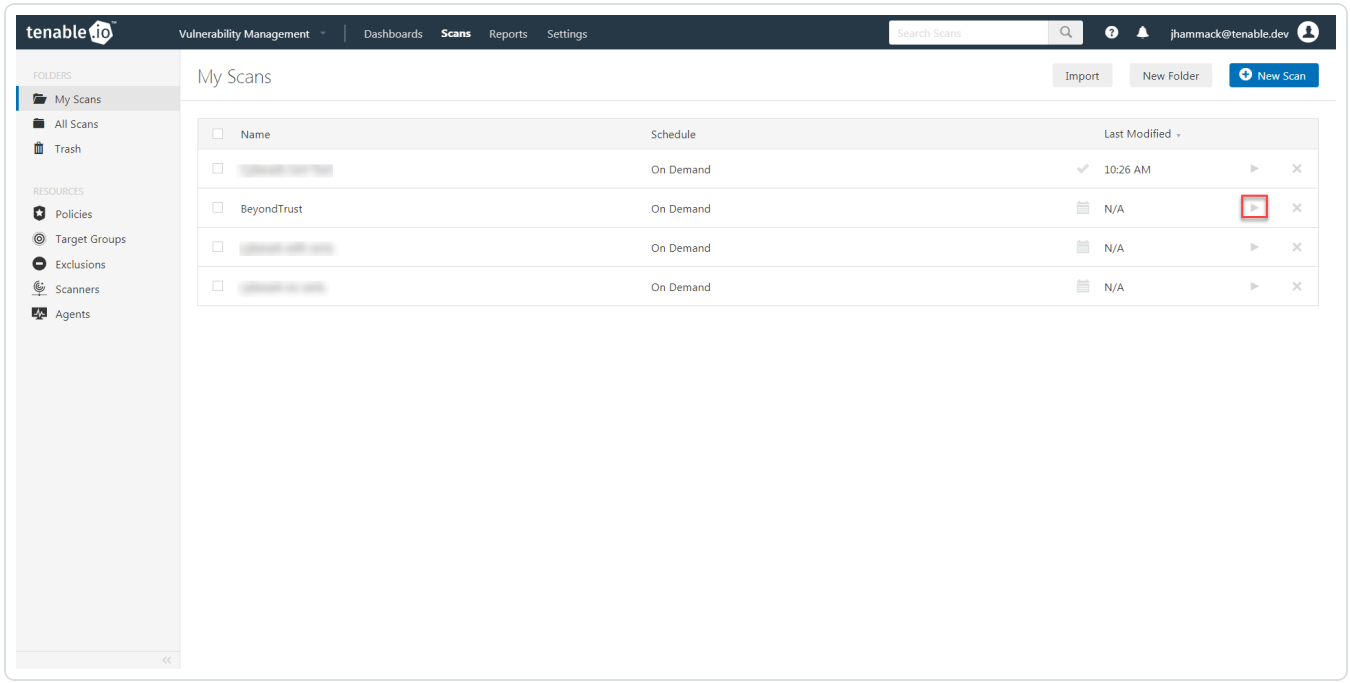
Option	Description	Required
Username	The username to log in to the hosts you want to scan.	yes
BeyondTrust host	The BeyondTrust IP address or DNS address.	yes
BeyondTrust port	The port on which BeyondTrust listens.	yes
BeyondTrust API user	The API user provided by BeyondTrust.	yes
BeyondTrust API key	The API key provided by BeyondTrust.	yes
Checkout duration	The length of time, in minutes, that you want to keep credentials checked out in BeyondTrust. Configure the Checkout duration to exceed the typical duration of your Tenable Vulnerability Management scans. If a password from a previous scan is still checked out when a new scan begins, the new scan fails. **Note:** Configure the password change interval in BeyondTrust so that password changes do not disrupt your Tenable Vulnerability Management scans. If BeyondTrust changes a password during a scan, the scan fails.	yes
Use SSL	When enabled, Tenable Vulnerability Management uses SSL through IIS for secure communications. You must configure SSL through IIS in BeyondTrust before enabling this option.	no
Verify SSL certificate	When enabled, Tenable Vulnerability Management validates the SSL certificate. You must configure SSL through IIS in BeyondTrust before enabling this	no

	option.	
Use private key	When enabled, Tenable Vulnerability Management uses private key-based authentication for SSH connections instead of password authentication. If it fails, the password is requested.	no
Use privilege escalation	When enabled, BeyondTrust uses the configured privilege escalation command. If it returns something, it will use it for the scan.	no
Custom password prompt	The password prompt used by the target host. Only use this setting when an interactive SSH session fails due to Tenable Vulnerability Management receiving an unrecognized password prompt on the target host's interactive SSH shell.	no
Targets to prioritize credentials	Specify IPs or CIDR blocks on which this credential is attempted before any other credential. To specify multiple IPs or CIDR blocks, use a comma or space-separated list. Using this setting can decrease scan times by prioritizing a credential that you know works against your selected targets. For example, if your scan specifies 100 credentials, and the successful credential is the 59th credential out of 100, the first 58 credentials have to fail before the 59th credential succeeds. If you use **Targets To Prioritize Credentials**, you configure the scan to use the successful credential first, which allows the scan to access the target faster.	no

What to do next:

To verify the integration is working:

1. On the **My Scans** page, click the **Launch** button to initiate an on-demand scan.



2. Once the scan completes, click the scan.

   The scan details appear.

   Look for the following message - *OS Identification and Installed Software Enumeration over SSH: 97993*. This validates that authentication was successful.

Windows Integration

Tenable Vulnerability Management provides an option for BeyondTrust Windows integration. Complete the following steps to configure Tenable Vulnerability Management with BeyondTrust in Windows.

To integrate with Windows:

1. Log in to Tenable Vulnerability Management.
2. In the upper-left corner, click the ☰ button.

   The left navigation plane appears.
3. In the left navigation plane, click **Settings**.

   The **Settings** page appears.
4. Click the **Credentials** widget.

   The **Credentials** page appears. The credentials table lists the managed credentials you have permission to view.
5. Click the ⊕ button next to the **Credentials** title.

   The credential form plane appears.
6. In the **Host** section, click **Windows**.

   The selected credential options appear.
7. In the **Authentication Method** drop-down, select **BeyondTrust**.

   The **BeyondTrust** options appear.
8. Configure the **BeyondTrust** credentials.

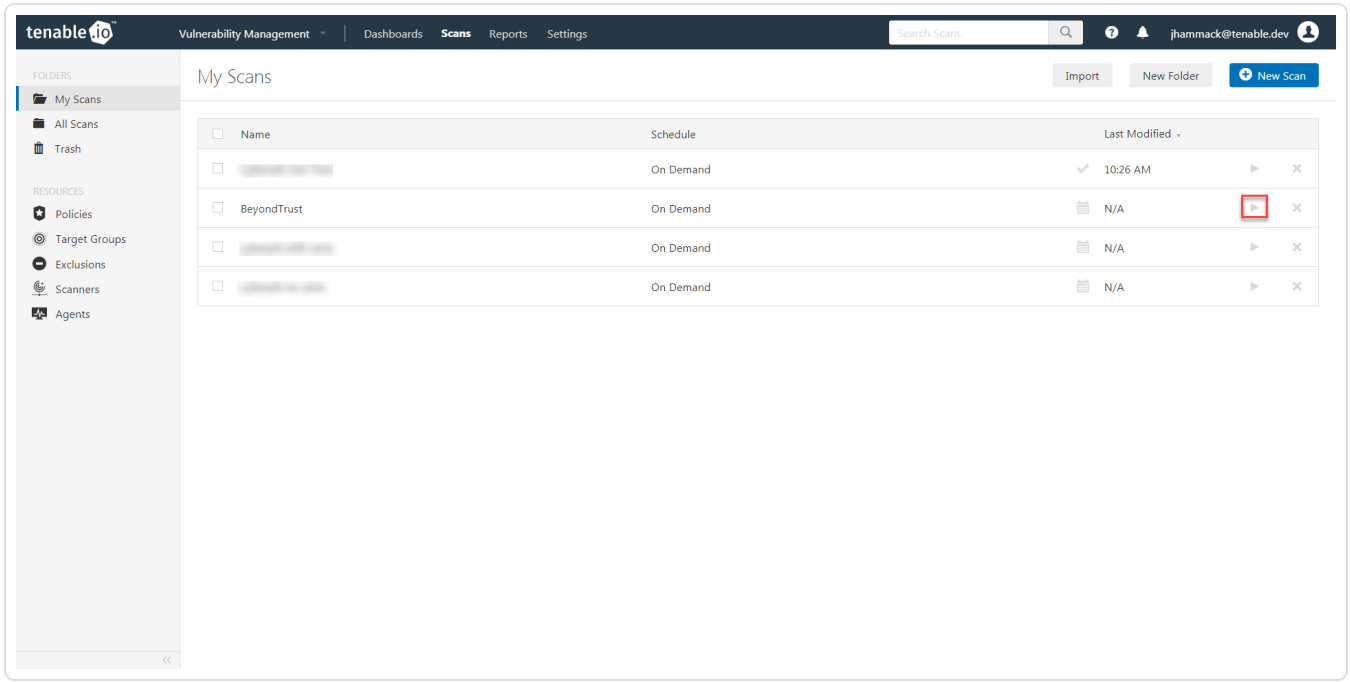
Option	Description	Required
Username	The username to log in to the hosts you want to scan.	yes
Domain	The domain of the username, which is	no

	recommended if using domain-linked accounts (managed accounts of a domain that are linked to a managed system).	
BeyondTrust host	The BeyondTrust IP address or DNS address.	yes
BeyondTrust port	The port on which BeyondTrust listens.	yes
BeyondTrust API user	The API user provided by BeyondTrust.	yes
BeyondTrust API key	The API key provided by BeyondTrust.	yes
Checkout duration	The length of time, in minutes, that you want to keep credentials checked out in BeyondTrust. Configure the Checkout duration to exceed the typical duration of your Tenable Vulnerability Management scans. If a password from a previous scan is still checked out when a new scan begins, the new scan fails. **Note:** Configure the password change interval in BeyondTrust so that password changes do not disrupt your Tenable Vulnerability Management scans. If BeyondTrust changes a password during a scan, the scan fails.	yes
Use SSL	When enabled, Tenable Vulnerability Management uses SSL through IIS for secure communications. You must configure SSL through IIS in BeyondTrust before enabling this option.	no
Verify SSL certificate	When enabled, Tenable Vulnerability Management validates the SSL certificate. You must configure SSL through IIS in BeyondTrust before enabling this option.	no

What to do next:

Verify the integration is working.

1. On the **My Scans** page, click the **Launch** button to initiate an on-demand scan.



2. Once the scan completes, click the scan.

   The scan details appear.

   Look for the following message - *Microsoft Windows SMB Log In Possible: 10394*. This validates that authentication was successful.

API Configuration

API Keys Setup

Enable API Access

API Keys Setup

To set up your API keys:

1. Log in to **BeyondInsight**.
2. Click **Configuration**.

   The general configuration menu appears.
3. Click **API Registrations**.

   The API configuration menu appears.
4. Click **Create API Registration**.
5. Select **API Key Policy**.
6. Enter a name for the API Registration.

   Note: This name does not need to match your username. You do not need to enter anything under **Key**, it is automatically generated.

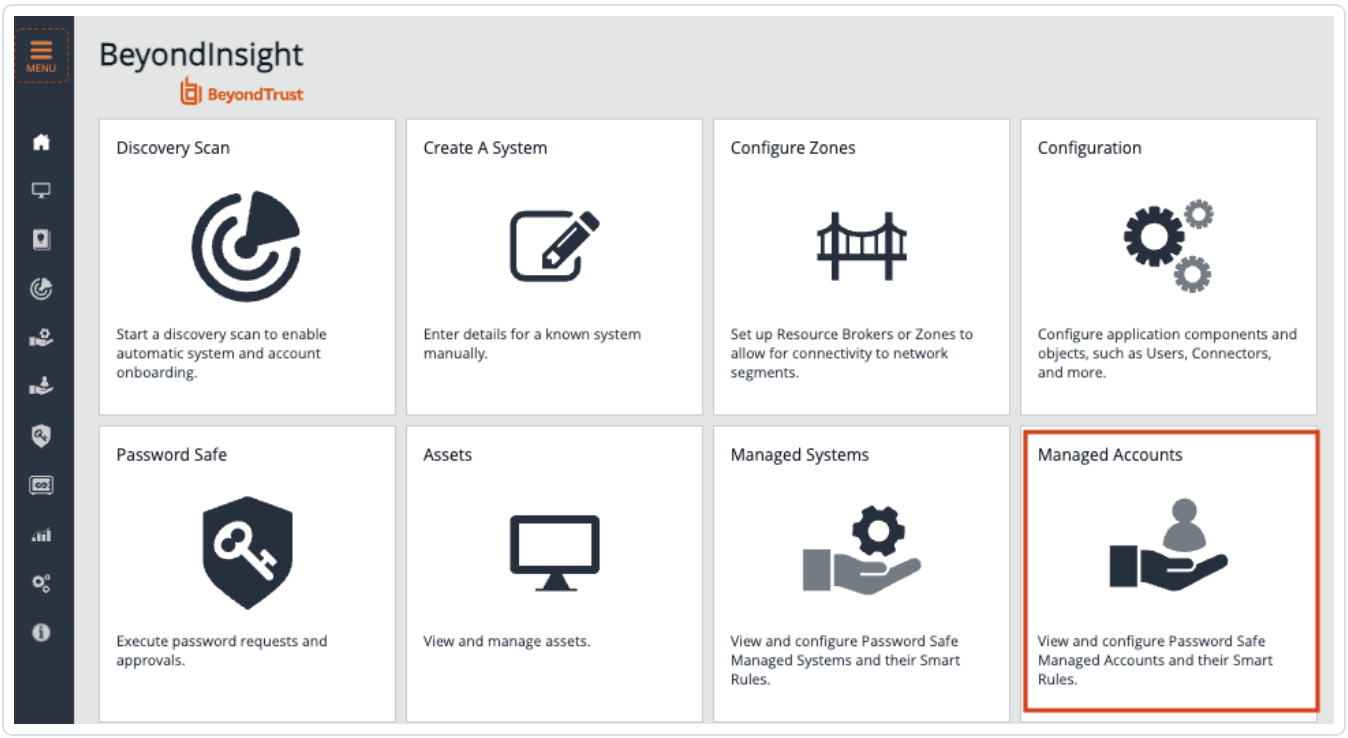
   Caution: Do not select any **Authentication Rule Options** when using the API with Tenable integrations. This may cause the integration to fail.
7. Configure **Authentication Rules** by clicking **Add Authentication Rule**. Configure an IP address or range of IP addresses of one or more scanners.
8. Click **Create Registration**.

Once saved, the API Key is available for future requests.

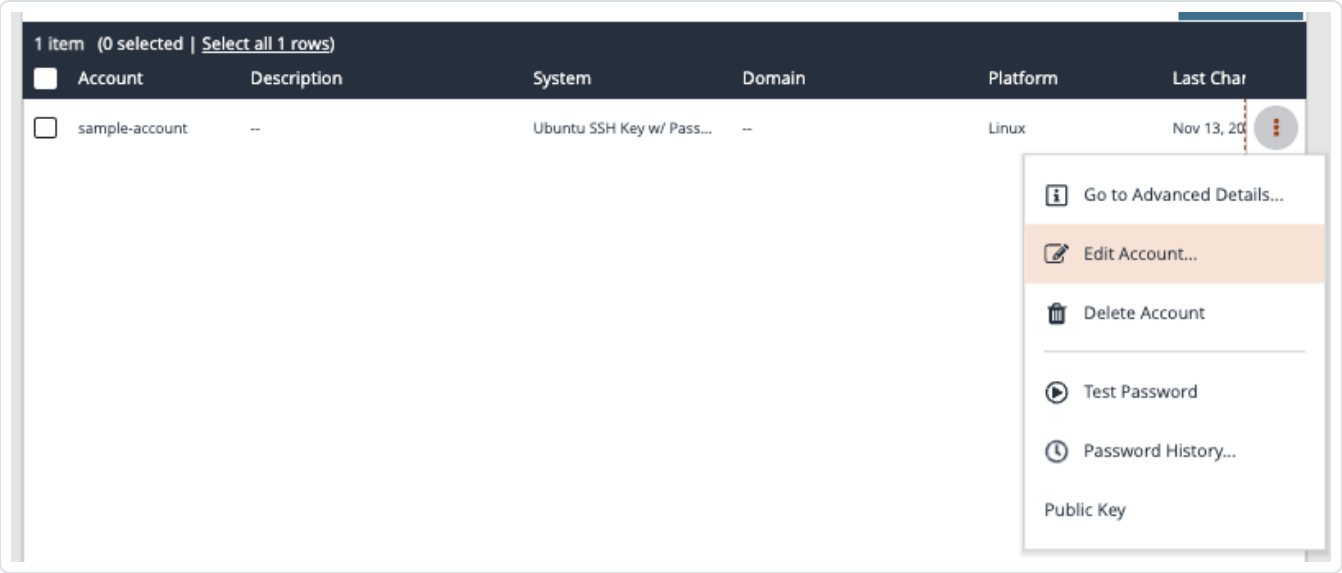
Enable API Access

To enable API access:

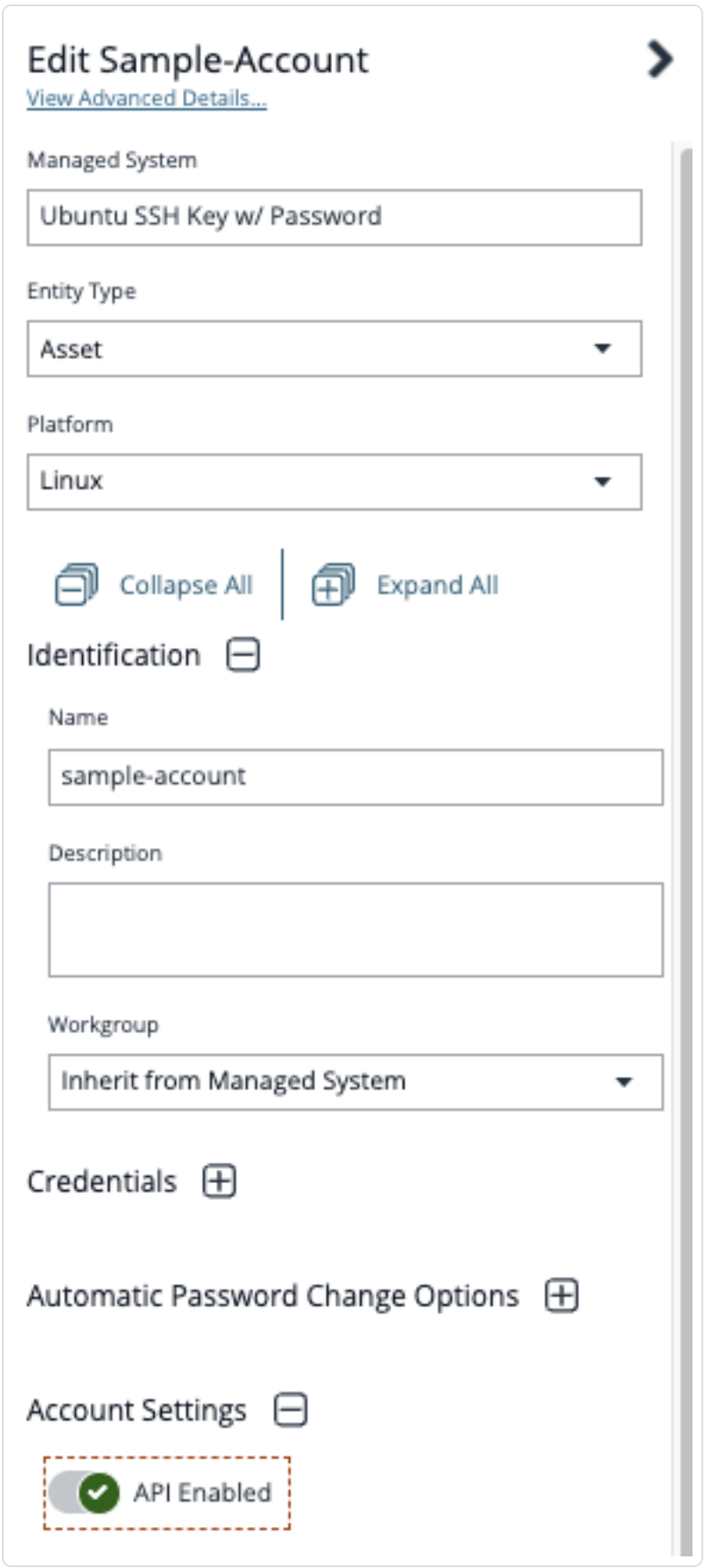
1. Log in to BeyondInsight.
2. Go to **Managed Accounts**.



3. Click **Edit Account**.



4. Click the **API Enabled** option.


Edit Sample-Account
View Advanced Details...
Managed System
Ubuntu SSH Key w/ Password
Entity Type
Asset
Platform
Linux
Collapse All
Expand All
Identification
Name
sample-account
Description
Workgroup
Inherit from Managed System
Credentials
Automatic Password Change Options
Account Settings
API Enabled

5. Click **Save**.

Additional Information

Elevation

Elevation is used in BeyondInsight to handle privilege escalation for SSH accounts when performing scans. This option is used because some rules do not allow server login using `root`. The **Elevation** can be enforced on BeyondInsight at system level or account level.

Customized Report

You can build a customized report in BeyondInsight to import hosts from a .csv file to scan in Tenable Vulnerability Management. The customized report defines the information needed for Tenable Vulnerability Management uploads.

To build the report:

1. Log in to BeyondInsight.
2. Go to - **Assets** > **Scan** > **Customize Report**.
3. Select the **Parameters**.
4. Click **Run Report**.

Note: This report can be run on any of your previous discovery scans, exported as a .csv file, and uploaded as a scan target in Tenable Vulnerability Management.

About Tenable

Tenable transforms security technology for the business needs of tomorrow through comprehensive solutions that provide continuous visibility and critical context, enabling decisive actions to protect your organization. Tenable eliminates blind spots, prioritizes threats, and reduces exposure and loss. With more than one million users and more than 20,000 enterprise customers worldwide, organizations trust Tenable for proven security innovation. Tenable's customers range from Fortune Global 500 companies, to the U.S. Department of Defense, to mid-sized and small businesses in all sectors, including finance, government, healthcare, higher education, retail, and energy. Transform security with Tenable, the creators of Tenable Vulnerability Management and leaders in continuous monitoring, by visiting tenable.com.