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Welcome to Tenable Nessus for BeyondTrust

This document describes how to configure Tenable Tenable Nessus Manager for integration 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 BeyondTrust with Tenable Nessus, customers have more choice and flexibility.

The benefits of integrating Tenable Nessus Manager with BeyondTrust include:

- Credential updates directly in Tenable Nessus, requiring less management.
- Reduced time and effort to document credential storage locations 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 provides full database support for Nessus for BeyondTrust.

**Required User Role**: Standard, Scan Manager, or Administrator

To configure Tenable for Nessus for BeyondTrust database:

1. Log in to your Tenable user interface.
2. In the upper-left corner, click the ☰ button.
   - The left navigation plane appears.
3. In the left navigation plane, click **Scans**.
   - The **Scans** page appears.
4. In the upper-right corner of the page, click the [→Create a Scan] button.
   - The **Select a Scan Template** page appears.
5. Select a scan template.
   - The scan configuration page appears.
6. In the **Name** box, type a name for the scan.
7. In the **Targets** box, type an IP address, hostname, or range of IP addresses.
8. (Optional) Add a description, folder location, scanner location, and specify target groups.
9. Click the **Credentials** tab.
   - The **Settings** pane appears.
10. Click the **Database** option.
    - The **Database** options appear.
11. In the **Database Type** drop-down box, select **Cassandra**, **Oracle**, **DB2**, **MongoDB**, **PostgreSQL**, **MySQL**, **SQL Server**, or **Sybase ASE**.
12. In the **Auth Type** drop-down box, click **Nessus for BeyondTrust**.
The Nessus for BeyondTrust options appear.

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

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
<th>Required</th>
</tr>
</thead>
<tbody>
<tr>
<td>Username</td>
<td>The username to log in to the host you want to scan.</td>
<td>yes</td>
</tr>
<tr>
<td>Domain</td>
<td>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).</td>
<td>no</td>
</tr>
<tr>
<td>BeyondTrust host</td>
<td>The BeyondTrust IP address or DNS address.</td>
<td>yes</td>
</tr>
<tr>
<td>BeyondTrust port</td>
<td>The port on which BeyondTrust listens.</td>
<td>yes</td>
</tr>
<tr>
<td>BeyondTrust API user</td>
<td>The API user provided by BeyondTrust.</td>
<td>yes</td>
</tr>
<tr>
<td>BeyondTrust API key</td>
<td>The API key provided by BeyondTrust.</td>
<td>yes</td>
</tr>
<tr>
<td>Checkout duration</td>
<td>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 scans. If a password from a previous scan is still checked out when a new scan begins, the new scan fails.</td>
<td>yes</td>
</tr>
</tbody>
</table>

**Note:** Configure the password change interval in BeyondTrust so that password changes do not disrupt your scans. If BeyondTrust changes a password during a scan, the scan fails.

| Use SSL              | When enabled, the integration uses SSL through IIS for secure communications. Configure SSL through IIS in BeyondTrust before enabling this option.                                                            | no       |
| Verify SSL certificate | When enabled, the integration validates the SSL certificate. Configure SSL through IIS in BeyondTrust before enabling this option. | no |

14. Do one of the following:

- If you want to save without launching the scan, click **Save**.
- If you want to save and launch the scan immediately, click **Save & Launch**.

**Note:** If you scheduled the scan to run at a later time, the **Save & Launch** option is not available.
SSH Integration

Complete the following steps to configure SSH credentialed network scans using BeyondTrust.

**Note:** BeyondTrust is only compatible with Tenable Nessus Manager. It is not compatible with Tenable Nessus Professional.

To integrate Tenable Nessus with BeyondTrust using Windows:

1. Log in to your Tenable user interface.
2. In the upper-left corner, click the button.
   The left navigation plane appears.
3. In the left navigation plane, click **Scans**.
   The **Scans** page appears.
4. In the upper-right corner of the page, click the [Create a Scan] button.
   The **Select a Scan Template** page appears.
5. Select a scan template.
   The scan configuration page appears.
6. In the **Name** box, type a name for the scan.
7. In the **Targets** box, type an IP address, hostname, or range of IP addresses.
8. (Optional) Add a description, folder location, scanner location, and specify target groups.
9. Click the **Credentials** tab.
   The **Credentials** pane appears.
10. In the **Select a Credential** menu, select the **Host** drop-down.
11. Select **SSH**.
   The **Settings** pane appears.
12. In the **Auth Type** drop-down box, click **Nessus for BeyondTrust**.
The Nessus for BeyondTrust options appear.

13. Configure each option for the **SSH** authentication.

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
<th>Required</th>
</tr>
</thead>
<tbody>
<tr>
<td>Username</td>
<td>The username to log in to the hosts you want to scan.</td>
<td>yes</td>
</tr>
<tr>
<td>BeyondTrust host</td>
<td>The BeyondTrust IP address or DNS address.</td>
<td>yes</td>
</tr>
<tr>
<td>BeyondTrust port</td>
<td>The port on which BeyondTrust listens.</td>
<td>yes</td>
</tr>
<tr>
<td>BeyondTrust API user</td>
<td>The API user provided by BeyondTrust.</td>
<td>yes</td>
</tr>
<tr>
<td>BeyondTrust API key</td>
<td>The API key provided by BeyondTrust.</td>
<td>yes</td>
</tr>
<tr>
<td>Checkout duration</td>
<td>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 Nessus scans. If a password from a previous scan is still checked out when a new scan begins, the new scan fails.</td>
<td>yes</td>
</tr>
<tr>
<td><strong>Note:</strong> Configure the password change interval in BeyondTrust so that password changes do not disrupt your Tenable Nessus scans. If BeyondTrust changes a password during a scan, the scan fails.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Use SSL</td>
<td>When enabled, Tenable Nessus uses SSL through IIS for secure communications. You must configure SSL through IIS in BeyondTrust before enabling this option.</td>
<td>no</td>
</tr>
<tr>
<td>Verify SSL</td>
<td>When enabled, Tenable Nessus validates the SSL</td>
<td>no</td>
</tr>
<tr>
<td>Feature</td>
<td>Description</td>
<td>Default</td>
</tr>
<tr>
<td>---------------------------------</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>---------</td>
</tr>
<tr>
<td>certificate</td>
<td>You must configure SSL through IIS in BeyondTrust before enabling this option.</td>
<td></td>
</tr>
<tr>
<td>Use private key</td>
<td>When enabled, Tenable Nessus uses private key-based authentication for SSH connections instead of password authentication. If it fails, the password is requested.</td>
<td>no</td>
</tr>
<tr>
<td>Use privilege escalation</td>
<td>When enabled, BeyondTrust uses the configured privilege escalation command. If it returns something, it will use it for the scan.</td>
<td>no</td>
</tr>
<tr>
<td>Custom password prompt</td>
<td>The password prompt used by the target host. Only use this setting when an interactive SSH session fails due to Tenable Nessus receiving an unrecognized password prompt on the target host's interactive SSH shell.</td>
<td>no</td>
</tr>
</tbody>
</table>
| 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      |

14. Do one of the following:
• If you want to save without launching the scan, click **Save**.

• If you want to save and launch the scan immediately, click **Save & Launch**.

**Note:** If you scheduled the scan to run at a later time, the **Save & Launch** option is not available.
Tenable Tenable Nessus for BeyondTrust (Windows)

Complete the following steps to configure Windows credentialed network scans using BeyondTrust.

Note: BeyondTrust is only compatible with Tenable Nessus Manager.

To integrate Tenable Nessus with BeyondTrust using Windows:

1. Log in to your Tenable user interface.
2. In the upper-left corner, click the ☰ button.
   The left navigation plane appears.
3. In the left navigation plane, click Scans.
   The Scans page appears.
4. In the upper-right corner of the page, click the [→Create a Scan] button.
   The Select a Scan Template page appears.
5. Select a scan template.
   The scan configuration page appears.
6. In the Name box, type a name for the scan.
7. In the Targets box, type an IP address, hostname, or range of IP addresses.
8. (Optional) Add a description, folder location, scanner location, and specify target groups.
9. Click the Credentials tab.
   The Credentials pane appears.
10. In the Select a Credential menu, select the Host drop-down.
11. Select Windows.
   The Settings pane appears.
12. In the Auth Type drop-down box, click Nessus for BeyondTrust.
The Nessus for BeyondTrust options appear.

13. Configure each option for the **Windows** authentication.

<table>
<thead>
<tr>
<th>Option</th>
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<tr>
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<tr>
<td>Domain</td>
<td>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).</td>
<td>no</td>
</tr>
<tr>
<td>BeyondTrust host</td>
<td>The BeyondTrust IP address or DNS address.</td>
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</tr>
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<td>The port on which BeyondTrust listens.</td>
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<td>The API user provided by BeyondTrust.</td>
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</tr>
<tr>
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</tr>
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<td>yes</td>
</tr>
</tbody>
</table>

**Note:** Configure the password change interval in BeyondTrust so that password changes do not disrupt your Tenable Nessus scans. If BeyondTrust changes a password during a scan, the scan fails.

| Use SSL             | When enabled, Tenable Nessus uses SSL through                                                                                                                                                                                                                                                                                               | no       |
IIS for secure communications. You must configure SSL through IIS in BeyondTrust before enabling this option.

Verify SSL certificate
When enabled, Tenable Nessus validates the SSL certificate. You must configure SSL through IIS in BeyondTrust before enabling this option. no

14. Do one of the following:

- If you want to save without launching the scan, click **Save**.
- If you want to save and launch the scan immediately, click **Save & Launch**.

**Note:** If you scheduled the scan to run at a later time, the **Save & Launch** option is not available.
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.
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
Note: Each Managed Account that you use for scanning must have API Access enabled. To enable API access:

1. Log in to BeyondInsight.

2. Go to Managed Accounts.

3. Click Edit Account.
4. Click the **API Enabled** option.
5. Click Save.
Additional Information

Elevation

Customized Report

About Tenable

Elevation

BeyondInsight uses Elevation to handle privilege escalation for SSH accounts when performing scans. The Elevation option is used because some rules do not allow server login using root. 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 Nessus. The customized report defines the information needed for Tenable Nessus uploads.

To build the report:

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

**Note:** You can run this report on any of your previous discovery scans, exported as a .csv file, and uploaded as scan targets in Tenable Nessus.

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 uncertainty, 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 Nessus and leaders in vulnerability discovery, by visiting tenable.com.