BeyondTrust

Privileged Remote Access
Admin Guide

TC:9/17/2020

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BeyondTrust Privileged Remote Access Admin Interface

This guide offers a detailed overview of **/login** and is designed to help you administer BeyondTrust users and your BeyondTrust software. The Secure Remote Access Appliance serves as the central point of administration and management for your BeyondTrust software and enables you to log in from anywhere that has internet access in order to download the access console.

Use this guide only after an administrator has performed the initial setup and configuration of the Secure Remote Access Appliance as detailed in the Secure Remote Access Appliance Hardware Installation Guide at www.beyondtrust.com/docs/privileged-remote-access/getting-started/deployment/hardware/. Once BeyondTrust is properly installed, you can begin accessing your endpoints immediately. Should you need any assistance, please contact BeyondTrust Technical Support at www.beyondtrust.com/support.

Log into the PRA Administrative Interface

Login

Log into the user administrative interface by going to your appliance's URL followed by **/login**. The user administrative interface enables administrators to create user accounts and configure software settings.

Although your appliance's URL can be any registered DNS, it will most likely be a subdomain of your company's primary domain (e.g. access.example.com/login).

Default Username: **admin**

Default Password: **password**

Note: *For security purposes, the administrative username and password used for the /appliance interface are distinct from those used for the /login interface and must be managed separately.*

If two-factor authentication is enabled for your account, enter the code from the authenticator app.

Note: *Users who were receiving codes to log in will be automatically upgraded to 2FA, although they may continue to use email codes until they register an app. Once they begin to use 2FA, the email code option is permanently disabled.*

For more information, please see Log into the PRA Access Console at https://www.beyondtrust.com/docs/privileged-remote-access/getting-started/access-console/login-to-the-access-console.htm.

Use Integrated Browser Authentication

If Kerberos has been properly configured for single sign-on, you can click the link to use integrated browser authentication, allowing you to enter directly into the web interface without requiring you to enter your credentials.

Forgot your password?

If password reset has been enabled from the **/login > Management > Security** page and the SMTP server has been set up for your site, this link is visible. To reset your password, click the link, enter and confirm your email address, and then click **Send**. If there is more than one user sharing the same email address, you are required to confirm your username. You will receive an email with a link that takes you back to the login page. On the login screen, enter and confirm your new password, and then click **Change Password**.

Login Agreement

Administrators may restrict access to the login screen by enabling a prerequisite login agreement that must be confirmed before the login screen is displayed. The login agreement can be enabled and customized from the **/login > Management > Site Configuration** page.

Privileged Remote Access Administration: Status

Information: View BeyondTrust Privileged Remote Access Software Details

Status | Information

Site Status

The main page of the BeyondTrust Privileged Remote Access /login interface gives an overview of your Secure Remote Access Appliance statistics. When contacting BeyondTrust Technical Support for software updates or troubleshooting purposes, you may be asked to email a screenshot of this page.

Restart Privileged Remote Access Software

You can restart the BeyondTrust software remotely. Restart your software only if instructed to do so by BeyondTrust Technical Support.

Time Zone

An administrator can select the appropriate time zone from a dropdown, setting the correct date and time of the appliance for the selected region.

Download License Usage Report

Download a zip file containing detailed information (English only) on your BeyondTrust license usage. This file contains a list of all Jump Items (not counting uninstalled Jump Clients), daily counts for Jump Item operations and license usage, and a summary for the Secure Remote Access Appliance and its endpoint license usage and churn.

Client Software

This is the hostname to which BeyondTrust client software connects. If the hostname attempted by the client software needs to change, notify BeyondTrust Technical Support of the needed changes so that Support can build a software update.

Connected Clients

View the number and type of BeyondTrust software clients that are connected to your Secure Remote Access Appliance Appliance.

For more information about the Secure Remote Access Appliance, please see Secure Remote Access Appliance Overview at https://www.beyondtrust.com/docs/privileged-remote-access/getting-started/deployment/index.htm.

ECM Clients

View the number of BeyondTrust Endpoint Credential Managers (ECM) that are connected to your Secure Remote Access Appliance. Also, view information about the location and connection time for each ECM.

Note: *To ensure optimal up-time, administrators can install up to five ECMs on different Windows machines to communicate with the same site on the Secure Remote Access Appliance. A list of the ECMs connected to the appliance site can be found at* ***/login > Status > Information > ECM Clients****.*

Note: *When multiple ECMs are connected to a BeyondTrust site, the Secure Remote Access Appliance routes requests to the ECM that has been connected to the appliance the longest.*

For more information, please see Log Into Endpoints Using Credential Injection at https://www.beyondtrust.com/docs/privileged-remote-access/getting-started/access-console/web-access/credential-injection.htm.

Users: View Logged In Users and Send Messages

Logged In Users

View a list of users logged into the access console, along with their login time and whether they are running any sessions.

Terminate

You can terminate a user's connection to the access console.

Send Message to Users

Send a message to all logged-in users via a pop-up window in the access console.

Extended Availability Users

View users who have extended availability mode enabled.

Disable

You may disable a user's extended availability.

What's New: See Software Release Details

What's New

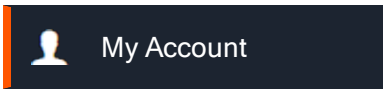
Easily review BeyondTrust features and capabilities newly available with each release. Learning about new features as they become available can help you make the most of your BeyondTrust deployment.

The first time you log into the administrative interface after a BeyondTrust software upgrade, the **What's New** page will receive focus, alerting you that new features are available on your site. You must be an administrator to view this tab.

The information shown on the **What's New** page is also available to users in the access console from the **Help > About** menu.

For more information, please see BeyondTrust Privileged Remote Access Update Documentation at https://www.beyondtrust.com/docs/privileged-remote-access/updates/index.htm.

My Account: Change Password and Username, Download the Access Console and Other Software



BeyondTrust Privileged Web Access Console

Launch the privileged web access console, a web-based access console. Access remote systems from your browser without having to download and install the full access console.

BeyondTrust Access Console

Choose Platform

Choose the operating system on which you wish to install this software. This dropdown defaults to the appropriate installer detected for your operating system.

> For more information, please see Privileged Web Access Console Guide at https://www.beyondtrust.com/docs/privileged-remote-access/getting-started/access-console/web-access/index.htm.

Download BeyondTrust Access Console

Download the BeyondTrust access console installer.

For system administrators who need to push out the console installer to a large number of systems, the Microsoft Installer can be used with your systems management tool of choice. In your command prompt, when composing the command to install the console using an MSI, change to the directory where the MSI was downloaded and enter the command included on the **My Account** page.

You can include optional parameters for your MSI installation.

- **INSTALLDIR=** accepts any valid directory path where you want the console to install.
- **RUNATSTARTUP=** accepts **0** (default) or **1**. If you enter 1, the console will run each time the computer starts up.
- **ALLUSERS=** accepts **""** or **1** (default). If you enter **1**, the console will install for all users on the computer; otherwise, it will install only for the current user.
- **SHOULDAUTOUPDATE=1** If you install for only the current user, you can choose to have the console automatically update each time the site is upgraded by entering a value of 1; a value of **0** (default) will not auto-update, and the console will need to be manually reinstalled when the site is upgraded. If you install the console for all users, it will not auto-update.

Change Your Password

BeyondTrust recommends changing your password regularly.

Username, Current Password, New Password

Verify that you are logged into the account for which you want to change the password, and then enter your current password. Create and confirm a new password for your account. The password may be set to whatever you choose, as long as the string complies with the defined policy set on the **/login > Management > Security** page.

Change Your Email Settings

Email Address

Set the email address to which email notifications are sent, such as password resets or extended availability mode alerts.

Password

Enter the password for your /login account, not your email password.

Two Factor Authentication

Activate Two Factor Authentication

Activate two-factor authentication (2FA) to increase the level of security for users accessing /login and the BeyondTrust access console. Click **Activate Two Factor Authentication**, then use an authenticator app of your choice, such as Google Authenticator, to scan the QR code that displays on the page. Alternatively, you can manually enter the alphanumeric code displayed below the QR code into your authenticator app.

The app automatically registers the account and begins providing you with codes. Enter your password and the code generated by the app you selected, and then click **Activate**. Please note that each code is valid for 60 seconds, after which time a new code is generated. Once you log in, you have the option to switch to a different authenticator app or disable 2FA.

Note: *If 2FA was pushed by your administrator, you do not have the option to disable it.*

Extended Availability Mode

Enable or Disable

Enable or disable Extended Availability Mode by clicking the **Enable/Disable** button. Extended Availability Mode allows you to receive email invitations from other users requesting to share a session when you are not logged into the console.

Remote Desktop Agent

Download Remote Desktop Agent Installer

The Remote Desktop Agent should be installed on 64-bit Windows servers with Remote Desktop Services enabled that need to launch and inject credentials in administrator-defined applications

Virtual Smart Card

To attempt virtual smart card authentication, the BeyondTrust user must have the BeyondTrust virtual smart card driver installed. The computer being accessed must be running in elevated mode. Also, either it must have the BeyondTrust endpoint virtual smart card driver installed, or it must be accessed by the Jump To functionality of the access console.

For more details and requirements, please see the Smart Cards for Remote Authentication at https://www.beyondtrust.com/docs/privileged-remote-access/how-to/smart-card/index.htm.

Choose Windows Architecture

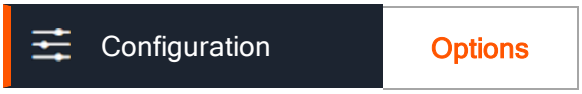
Select to download the virtual smart card installer for the BeyondTrust user system or the endpoint system.

Download Virtual Smart Card Installer

Download the virtual smart card installer selected above. A virtual smart card allows you to authenticate to a remote system using a smart card on your local system.

Configuration

Options: Manage Connection Options, Record Sessions, Speed Up Sessions



Session Options

Require Closed Sessions on Logout or Quit

If you check **Require Closed Sessions on Logout or Quit**, users will be unable to log out of the console if they currently have any session tabs open.

Connection Options

Reconnect Timeout

Determine how long a disconnected endpoint client should attempt to reconnect.

Restrict physical access to the endpoint if the endpoint loses its connection or if all of the users in session are disconnected

If the session connection is lost, the remote system's mouse and keyboard input can be temporarily disabled, resuming either when the connection is restored or when the session is terminated.

Session Termination Behavior

If unable to reconnect within the time you set by **Reconnect Timeout**, choose what action to take. To prevent an end-user from accessing unauthorized privileges after an elevated session, set the client to automatically log the end user out of the remote Windows computer at session end, to lock the remote computer, or to do nothing. These rules do not apply to browser sharing sessions.

Allow users to override this setting per session

You can allow a user to override the session termination setting from the **Summary** tab in the console during a session.

Access Session Logging Options

Enable Screen Sharing Recording

Choose if screen sharing sessions should be automatically recorded as videos.

Screen Sharing Recording Resolution

Set the resolution at which to view session recording playback.

> ***Note:*** *All recordings are saved in raw format; the resolution size affects playback only.*

Enable User Recording for Protocol Tunnel Jump

Choose if Protocol Tunnel Jump sessions should be automatically recorded as videos. Because Protocol Tunnel Jumps require the use of a third-party application of choice, the user's entire desktop is captured, including all monitors.

User Recording Resolution

Set the resolution at which to view session recording playback.

> ***Note:*** *All recordings are saved in raw format; the resolution size affects playback only.*

Require User's Consent Before Recording Starts

Choose if users should receive a prompt telling them that their desktop will be recorded when beginning a Protocol Tunnel Jump session. Please note that if the user does not consent, Protocol Tunnel Jump session will not continue.

Enable Command Shell Recording

Choose if command shell sessions should be automatically recorded as videos. Enabling command shell recordings also enables command shell sessions to be available as text transcripts.

Command Shell Recording Resolution

Set the resolution at which to view session recording playback.

> ***Note:*** *All recordings are saved in raw format; the resolution size affects playback only.*

IMPORTANT!

The recording settings enabled on this page can be overridden by a Jump Policy that has ***Disable Session Recordings*** *selected. This affects screen sharing, protocol tunnel Jump recording, and command shell recordings.*

Enable Automatic Logging of System Information

Choose if system information should be automatically pulled from the remote system at the beginning of the session, to be available later in the session report details.

Enable Session Forensics

Choose if you want the added capability to search across all sessions based on session events, which include chat messages, file transfer, registry editor events, and session foreground window changed events. This feature is enabled by default.

> ***Note:*** *If Command Shell is enabled, Session Forensics allows you to do an in-depth search of shell recordings. When you search for a key term and a match is made in a stored shell recording, the video will automatically be queued to that point in time in the recording. No command output or passwords are recorded.*

Peer to Peer Options

Disabled

This is the default setting. Disables Peer to Peer connections. To enable this feature, you must choose a server to negotiate the session. When screen sharing, file transfer, or command shell is detected, the peer-to-peer connection is attempted. If successful, this creates a direct connection between the user and the client systems, while still sending a second data stream to the appliance for auditing purposes. If for any reason a peer-to-peer connection cannot be established, the session traffic defaults to the appliance-mediated connection.

Use BeyondTrust Hosted Peer to Peer Server

BeyondTrust clients attempt to reach a peer-to-peer connection through the server hosted by BeyondTrust. This requires that your BeyondTrust clients can make outbound UDP 3478 connection requests to stun.bomgar.com. This setting should work in most situations.

Use Appliance as Peer to Peer Server

If your organization requires specific security settings for traffic, you can use the appliance as a peer-to-peer server. This requires that your appliance be able to accept inbound UDP 3478 connection requests by your BeyondTrust clients. Further firewall settings are required.

> For more information, please see Appliance Administration: Restrict Accounts, Networks, and Ports, Enable a STUN Server, Set Up Syslog, Enable Login Agreement, Reset Admin Account at https://www.beyondtrust.com/docs/privileged-remote-access/getting-started/deployment/web/security-appliance-administration.htm.

Access Portal Logo

Administrators may upload a custom logo image to be displayed on public-facing web pages. This allows external users to verify they are on your organization's web site, as well as enhancing the access portal with your organization's branding.

The logo image is displayed on the following public-facing web pages:

- Access invite download page (the page shown after clicking a link in an access invite email)
- Public recording URLs (view and download)

- Extended availability responses (the page shown after clicking a link in an extended availability invitation email)
- Jump approval authorizations (the page shown after clicking a link in a Jump approval email)

Note: *Uploaded logo image files may be in any standard image format. The logical image size maximum is 250 pixels wide and 64 pixels high. However, BeyondTrust supports high density displays which allows for a maximum physical size of 500 pixels wide and 128 pixels high.*

Teams: Group Users into Teams

Manage Teams

Grouping users into teams aids efficiency by assigning leadership within groups of users. In the access console, each team appears as a separate queue for sessions.

Add New Team, Edit, Delete

Create a new team, modify an existing team, or remove an existing team. Deleting a team does not delete those user accounts, only the team with which they are associated.

Add or Edit Team

Team Name

Create a unique name to help identify this team.

Code Name

Set a code name for integration purposes. If you do not set a code name, one is created automatically.

Comments

Add comments to help identify the purpose of this object.

Group Policies

Note any group policies which assign members to this team. Click the link to go to the **Group Policies** page to verify or assign policy members.

Team Members

Search for users to add to this team. You can set each member's role as a **Team Member**, **Team Lead**, or **Team Manager**. These roles play a significant part in the **Dashboard** feature of the access console.

In the table below, view existing team members. You can filter the view by entering a user's name in the filter box. You can also edit a member's role or delete a member from the team.

To add a group of users to a team, go to **Users & Security > Group Policies** and assign that group to one or more teams in a given role.

> ***Note:*** *You may be unable to edit or delete some team members. This occurs when a user is added via group policy.*
>
> *You can click the group policy link to modify the policy as a whole. Any changes made to the group policy apply to all members of that group policy.*
>
> *You also can add the individual to the team, overriding their settings as defined elsewhere.*

Dashboard Settings

Within a team, a user can administrate only others with roles lower than their own. Note, however, that roles apply strictly on a team-by-team basis, so a user may be able to administrate another user in one team but not be able to administer that same user in another team.

Monitoring Team Members from Dashboard

If enabled, a team lead or manager can monitor team members from the dashboard. Choose a selection to **Disable** the ability to monitor, or choose **Only Access Console** to allow a team lead or manager to monitor a team member's access console. Monitoring affects team leads and managers for all teams on the site.

Enable Session Join and Take Over in Dashboard

If this option is checked, a team lead can join or take over a team member's sessions. Similarly, a team manager can administrate both team members and team leads.

Custom Fields: Create, Edit, Delete Custom API Fields

Create custom API fields to gather information about your customer, enabling you to more deeply integrate BeyondTrust with your existing programs. Custom fields must be used in combination with the BeyondTrust API. Create a new field, modify an existing field, or remove an existing field.

Add or Edit Custom API Field

Display Name

Create a unique name to help identify this custom field. This name is displayed in the access console as part of the session details.

Code Name

Set a code name for integration purposes. If you do not set a code name, one is created automatically.

Show in Access Console

If you check **Show in Access Console**, this field and its values will be visible wherever custom session details are displayed in the access console.

Jump

Jump Clients: Manage Settings and Install Jump Clients for Endpoint Access

Jump Client Mass Deployment Wizard

The Mass Deployment Wizard enables administrators and privileged users to deploy Jump Clients to one or more remote computers for later unattended access.

For more information, please see Privileged Remote Access Jump Client Guide: Unattended Access to Systems in Any Network at https://www.beyondtrust.com/docs/privileged-remote-access/how-to/jump-clients/index.htm.

Jump Group

From the dropdown, select whether to pin the Jump Client to your personal list of Jump Items or to a Jump Group shared by other users. Pinning to your personal list of Jump Items means that only you can access this remote computer through this Jump Client. Pinning to a shared Jump Group makes this Jump Client available to all members of that Jump Group.

Name

Add a name for the Jump Client.

Some Mass Deployment Wizard settings allow override, enabling you to use the command line to set parameters that are specific to your deployment, prior to installation.

Jump Policy

You may apply a Jump Policy to this Jump Client. Jump Policies are configured on the **Jump > Jump Policies** page and determine the times during which a user can access this Jump Client. A Jump Policy can also send a notification when it is accessed or can require approval to be accessed. If no Jump Policy is applied, this Jump Client can be accessed without restriction.

Connection Type

Set the **Connection Type** to **Active** or **Passive** for the Jump Clients being deployed. An active Jump Client maintains a persistent connection to the appliance, while a passive Jump Client instead listens for connection requests.

Attempt an Elevated Install if the Client Supports It

If **Attempt an Elevated Install if the Client Supports It** is selected, the installer attempts to run with administrative rights, installing the Jump Client as a system service. If the elevated installation attempt is unsuccessful or if this option is deselected, the installer runs with user rights, installing the Jump Client as an application. This option applies only to Windows and Mac operating systems.

Note: *A Jump Client pinned in user mode is available only when that user is logged in. In contrast, a Jump Client pinned in service mode, with elevated rights, allows that system to always be available, regardless of which user is logged in.*

This Installer Is Valid For

The installer remains usable only as long as specified by the **This Installer is Valid For** dropdown. Be sure to leave adequate time for installation. If someone should attempt to run the Jump Client installer after this time, installation fails, and a new Jump Client installer must be created. Additionally, if the installer is run within the allotted time but the Jump Client is unable to connect to the appliance within that time, the Jump Client uninstalls, and a new installer must be deployed. The validity time can be set for anywhere from 10 minutes to 1 year. This time does NOT affect how long the Jump Client remains active.

In addition to expiring after the period given by the **This Installer is Valid For** option, Jump Client mass deployment packages invalidate when their Secure Remote Access Appliance is upgraded. The only exception to this rule is live updates which change the license count or license expiration date. Any other updates, even if they do not change the version number of the appliance, invalidate the Jump Client installers from before the upgrade. If these installers are MSI packages, they can still be used to uninstall Jump Clients if necessary.

Once a Jump Client has been installed, it remains online and active until it is uninstalled from the local system either by a logged-in admin user, by a BeyondTrust user from the access console's Jump interface, or by an uninstall script. A BeyondTrust user cannot remove a Jump Client unless the user is given appropriate permissions by their admin from the /login interface.

Comments

Add **Comments**, which can be helpful in searching for and identifying remote computers. Note that all Jump Clients deployed via this installer have the same comments set initially, unless you check **Allow Override During Installation** and use the available parameters to modify the installer for individual installations.

Session Policy

You may choose a Session Policy to assign to this Jump Client. Session policies are configured on the **Users & Security > Session Policies** page. A session policy assigned to this Jump Client has the highest priority when setting session permissions.

Jumpoint Proxy

If you have one or more Jumpoints set up as proxies, you can select a Jumpoint to proxy these Jump Client connections. That way, if these Jump Clients are installed on computers without native internet connections, they can use the Jumpoint to connect back to your Secure Remote Access Appliance. The Jump Clients must be installed on the same network as the Jumpoint selected to proxy the connections.

Prompt for Elevation Credentials if Needed

If **Prompt for Elevation Credentials if Needed** is selected, the installer prompts the user to enter administrative credentials if the system requires that these credentials be independently provided; otherwise, it installs the Jump Client with user rights. This applies only if an elevated install is being attempted.

Tag

Adding a **Tag** helps to organize your Jump Clients into categories within the access console.

Allow Override During Installation

Some Mass Deployment Wizard settings allow override, enabling you to use the command line to set parameters that are specific to your deployment, prior to installation.

Mass Deploy Help

For system administrators who need to push out the Jump Client installer to a large number of systems, the Windows, Mac, or Linux executable or the Windows MSI can be used with your systems management tool of choice. You can include a valid custom install directory path where you want the Jump Client to install.

You can also override certain installation parameters specific to your needs. These parameters can be specified for both the MSI and the EXE using a systems administration tool or the command line interface. When you mark specific installation options for override during installation, you can use the following optional parameters to modify the Jump Client installer for individual installations. Note that if a parameter is passed on the command line but not marked for override in the /login administrative interface, the installation fails. If the installation fails, view the operating system event log for installation errors.

Command Line Parameter	Value	Description
--install-dir	<directory_path>	Specifies a new writable directory under which to install the Jump Client. This is supported only on Windows and Linux. When defining a custom install directory, ensure that the directory you are creating does not already exist and is in a location that can be written to.
--jc-name	<name...>	If override is allowed, this command line parameter sets the Jump Client's name.
--jc-jump-group	user:<username>jumpgroup:<jumpgroup-code-name>	If override is allowed, this command line parameter overrides the Jump Group specified in the Mass Deployment Wizard.
--jc-session-policy	<session-policy-code-name>	If override is allowed, this command line parameter sets the Jump Client's session policy that controls the permission policy during an access session.
--jc-jump-policy	<jump-policy-code-name>	If override is allowed, this command line parameter sets the Jump Policy that controls how users are allowed to Jump to the Jump Client.
--jc-tag	<tag-name>	If override is allowed, this command line parameter sets the Jump Client's tag.
--jc-comments	<comments ... >	If override is allowed, this command line parameter sets the Jump Client's comments.
--silent		If included, the installer shows no windows, spinners, errors, or other visible alerts.

Note: *When deploying an MSI installer on Windows using an msiexec command, the above parameters can be specified by:*

1. *Removing leading dashes (--)*
2. *Converting remaining dashes to underscores (_)*
3. *Assigning a value using an equal sign (=)*

MSI Example:

```
msiexec /i bomgar-scc-win32.msi KEY_INFO=w0dc3056g7ff8d1j68ee6wi6dhwzfefggyezh7c40jc90
jc_jump_group=jumpgroup:server_support jc_tag=servers
```

When deploying an EXE installer, the above parameters can be specified by:

- *Adding dashes*
- *Adding a space between the parameter and the value*

EXE Example:

```
bomgar-scc-[unique id].exe --jc_jump_group=jumpgroup:servers --jc-tag servers
```

Other rules to consider:

- ***installdir*** *has a dash in the EXE version but no dashes in the MSI version.*
- ***/quiet*** *is used for the MSI version in place of* ***--silent*** *in the EXE version.*

Jump Client Statistics

An administrator can choose which statistics to view for all Jump Clients on a site-wide basis. These statistics are displayed in the access console and include CPU, console user, disk usage, a thumbnail of the remote screen, and uptime.

Upgrade

Maximum bandwidth of concurrent Jump Client upgrades

You may regulate the bandwidth used during upgrades by setting **Maximum bandwidth of concurrent Jump Client upgrades**.

Maximum number of concurrent Jump Client upgrades

Also set the maximum number of Jump Clients to upgrade at the same time. Note that if you have a large number of Jump Clients deployed, you may need to limit this number to regulate the amount of bandwidth consumed.

Note: *This setting does not affect access console upgrades.*

Global connection rate for Jump Clients

The global connection rate setting is used by disconnected Jump Clients as a clue to know how aggressively to try to reconnect.

Maintenance

Number of days before Jump Clients that have not connected are automatically deleted

If a Jump Client goes offline and does not reconnect to the Secure Remote Access Appliance for the number of days specified by the **Number of days before Jump Clients that have not connected are automatically deleted** setting, it is automatically uninstalled from the target computer and is removed from the Jump interface of the access console.

> ***Note:*** *This setting is shared with the Jump Client during normal operation so that even if it cannot communicate with the site, it uninstalls itself at the configured time. If this setting is changed after the Jump Client loses connection with the appliance, it uninstalls itself at the previously configured time.*

Number of days before Jump Clients that have not connected are considered lost

If a Jump Client goes offline and does not reconnect to the Secure Remote Access Appliance for the number of days specified by the **Number of days before Jump Clients that have not connected are automatically deleted** setting, it is labeled as lost in the access console. No specific action is taken on the Jump Client at this time. It is labeled as lost only for identification purposes, so that an administrator can diagnose the reason for the lost connection and take action to correct the situation.

> ***Note:*** *To allow you to identify lost Jump Clients before they are automatically deleted, this field should be set to a smaller number than the deletion field above.*

Uninstalled Jump Client Behavior

Uninstalled Jump Client Behavior determines how a Jump Client deleted by an end user is handled by the access console. Depending on dropdown option selected, the deleted item can either be marked as uninstalled and kept in the list or actually be removed from the Jump Items list in the access console. If the Jump Client cannot contact the Secure Remote Access Appliance at the time it is uninstalled, the affected item remains in its offline state.

Miscellaneous

Jump Client Default Connection Type

Set whether the default Jump Client connection type should be active or passive.

Passive Jump Client Port

The **Passive Jump Client Port** specifies which port a passive Jump Client uses to listen for a "wake up" command from the appliance. The default port is **5832**. Ensure that firewall settings allow inbound traffic on this port for your hosts with passive Jump Clients. Once awake, Jump Clients always connect to the appliance on port 80 or 443 outbound.

Allow user to attempt to wake up Jump Clients

Allow users to attempt to wake up Jump Clients provides a way to wake up a selected Jump Client by broadcasting Wake-on-LAN (WOL) packets through another Jump Client on the same network. Once a WOL is attempted, the option becomes unavailable for 30 seconds before a subsequent attempt can be made. WOL must be enabled on the target computer and its network for this function to

work. The default gateway information of the Jump Client is used to determine if other Jump Clients reside on the same network. When sending a WOL packet, the user has an advanced option to provide a password for WOL environments that require a secure WOL password.

Note: *You can set Jump Clients to allow or disallow simultaneous Jumps from the* ***Jump > Jump Items > Jump Settings*** *section. If allowed, multiple users can gain access to the same Jump Client without an invitation to join an active session by another user. If disallowed, only one user can Jump to a Jump Client at a time. Only an invitation by the user who originated the session can allow for a second user to access the session.*

For more information see Manage Jump Client Settings at https://www.beyondtrust.com/docs/privileged-remote-access/how-to/jump-clients/settings.htm.

Jump Groups: Configure Which Users Can Access Which Jump Items

Jump Groups

A Jump Group is a way to organize Jump Items, granting members varying levels of access to those items. Users are assigned to Jump Groups either from this page or from the **Users & Security > Group Policies** page.

Add New Jump Group, Edit, Delete

Create a new group, modify an existing group, or remove an existing group.

Add or Edit Group

Name

Create a unique name to help identify this group. This name helps when adding Jump Items to a group as well as when determining which users and group policies are members of a Jump Group.

Code Name

Set a code name for integration purposes. If you do not set a code name, one is created automatically.

Comments

Add a brief description to summarize the purpose of this Jump Group.

Group Policies

This displays a listing of the group policies which assign users to this Jump Group.

Allowed Users

Search for users to add to this Jump Group. You can set each user's **Jump Item Role** to set their permissions specific to Jump Items in this Jump Group, or you can use the user's default Jump Item Roles as set on the **Users & Security > Group Policies** or **Users & Security > Users** page. A Jump Item Role is a predefined set of permissions regarding Jump Item management and usage.

You can also apply a **Jump Policy** to each user to manage their access to the Jump Items in this Jump Group. Selecting **Set on Jump Items** instead uses the Jump Policy applied to the Jump Item itself. Jump Policies are configured on the **Jump > Jump Policies** page and determine the times during which a user can access this Jump Item. A Jump Policy can also send a notification when it is accessed or can require approval to be accessed. If neither the user nor the Jump Item has a Jump Policy applied, this Jump Item can be accessed without restriction.

Existing Jump Group users are shown in a table. You can filter the list of users by entering a username in the **Filter** box. You can also edit a user's settings or delete the user from the Jump Group.

To add groups of users to a Jump Group, go to **Users & Security > Group Policies** and assign that group to one or more Jump Groups.

Note: *Edit and delete functionality may be disabled for some users. This occurs either when a user is added via group policy or when a user's system Jump Item Role is set to anything other than* ***No Access****.*

You can click the group policy link to modify the policy as a whole. Any changes made to the group policy apply to all members of that group policy.

You can click the user link to modify the user's system Jump Item role. Any changes to the user's system Jump Item role apply to all other Jump Groups in which the user is an unassigned member.

You also can add the individual to the group, overriding their settings as defined elsewhere.

For more information, please see Use Jump Groups to Configure Which Users Can Access Which Jump Items at https://www.beyondtrust.com/docs/privileged-remote-access/how-to/jumpoint/jump-groups.htm.

Jump Policies: Set Schedules, Notifications, and Approvals for Jump Items

Jump Policies

Jump Policies are used to control when certain Jump Items can be accessed by implementing schedules, sending email notifications when a Jump Item is accessed, or requiring approval or user entry of a ticket system ID before a Jump Item may be accessed.

Add New Jump Policy, Edit, Delete

Create a new policy, modify an existing policy, or remove an existing policy.

Add or Edit a Policy

Display Name

Create a unique name to help identify this policy. This name should help users identify this policy when assigning it to Jump Items.

Code Name

Set a code name for integration purposes. If you do not set a code name, one is created automatically.

Description

Add a brief description to summarize the purpose of this policy.

Jump Schedule

Enabled

Set a schedule to define when Jump Items under this policy can be accessed. Set the time zone you want to use for this schedule, and then add one or more schedule entries. For each entry, set the start day and time and the end day and time.

If, for instance, the time is set to start at 8 am and end at 5 pm, a user can start a session using this Jump Item at any time during this window but may continue to work past the set end time. Attempting to re-access this Jump Item after 5 pm, however, results in a notification indicating that the schedule does not permit a session to start. If necessary, the user may choose to override the schedule restriction and start the session anyway.

Force session to end when schedule does not permit access

If stricter access control is required, check **Force session to end**. This forces the session to disconnect at the scheduled end time. In this case, the user receives recurring notifications beginning 15 minutes prior to being disconnected.

Jump Notification

Notify recipients when a session starts

If this option is checked, a notification email is sent to the designated recipients whenever a session is started with any Jump Item that uses this Jump Policy. When a user attempts to start a session with a Jump Item that uses this policy, a prompt states that a notification email will be sent and asks if the user would like to start the session anyway.

Notify recipients when a session ends

If this option is checked, a notification email is sent to the designated recipients whenever a session ends for any Jump Item that uses this Jump Policy. When a user attempts to start a session with a Jump Item that uses this policy, a prompt states that a notification email will be sent at the end of the session and asks if the user would like to start the session anyway.

Email Address(es)

Enter one or more email addresses to which emails should be sent. Separate addresses with a space. This feature requires a valid SMTP configuration for your appliance, set up on the **/login > Management > Email Configuration** page.

Display Name

Enter the name of the email recipient. This name appears on the prompt the user receives prior to a session with a Jump Item that uses this policy.

Locale

If more than one language is enabled on this site, set the language in which to send emails.

Jump Approval

Require a ticket ID before a session starts

If this option is checked, the user must enter a valid ticket ID before an access session can begin. When a user attempts to access an endpoint with this Jump Policy applied, the user must enter a ticket ID from your existing ITSM or ticket ID approval process before access is granted. Configure the ITSM or ticket system integration from the **Jump Policies :: Ticket System**section.

Require approval before a session starts

If this option is checked, an approval email is sent to the designated recipients whenever a session is attempted with any Jump Item that uses this Jump Policy. When a user attempts to start a session with a Jump Item that uses this policy, a dialog prompts the user to enter a request reason and the time and duration for the request.

Maximum Access Duration

Set the maximum length of time for which a user can request access to a Jump Item that uses this policy. The user can request a shorter length of access but no longer than that set here.

Access Approval Applies To

When approval has been granted to a Jump Item, that Jump Item becomes available either to any user who can see and request access to that Jump Item or only to the user who requested access.

Email Address(es)

Enter one or more email addresses to which emails should be sent. Separate addresses with a space. This feature requires a valid SMTP configuration for your appliance, set up on the **/login > Management > Email Configuration** page.

Display Name

Enter the name of the email recipient. This name appears on the prompt the user receives prior to a session with a Jump Item that uses this policy.

Locale

If more than one language is enabled on this site, set the language in which to send emails.

Disable Recordings

Disable Recordings

If this option is checked, sessions started with this Jump Policy will not be recorded, even if recordings are enabled on the **Configuration > Options** page. This affects screen sharing, user recordings for protocol tunnel Jump, and command shell recordings.

Email Notification Template

Subject

Customize the subject of this email. Click the link below the **Body** field to view the macros that can used to customize the text in your emails for your purposes.

Body

Customize the body of this email. Click the link below the **Body** field to view the macros that can used to customize the text in your emails for your purposes.

Email Approval Template

Subject

Customize the subject of this email. Click the link below the **Body** field to view the macros that can used to customize the text in your emails for your purposes.

Body

Customize the body of this email. Click the link below the **Body** field to view the macros that can used to customize the text in your emails for your purposes.

Ticket System

Ticket System URL

In **Ticket System URL**, enter the URL for your external ticket system. The Secure Remote Access Appliance sends an outbound request to your external ticketing system. The URL must be formatted for either HTTP or HTTPS. If an HTTPS URL is entered, the site certificate must be verified for a valid connection. If a Jump Policy requiring a ticket ID exists, a ticket system URL must be entered or you will receive a warning message.

Upload a certificate for HTTPS connections

Click **Choose a certificate** to upload the certificate for the HTTPS ticket system connection to the appliance. If your certificate is uploaded, the appliance uses it when it contacts the external system. If you do not upload a certificate and the **Ignore SSL certificate errors** box below this setting is checked, the Secure Remote Access Appliance optionally falls back to use the built-in certificate store when sending the request.

User Prompt

In **User Prompt**, enter the dialog text you want access console users to see when they are requested to enter the ticket ID required for access.

Treat the Ticket ID as sensitive information

If this box is checked, the ticket ID is considered sensitive information and asterisks are shown instead of text. You must use an HTTPS Ticket System URL. If an address with HTTP is entered, an error message appears to remind you HTTPS is required.

When this feature is enabled you cannot bypass issues with SSL certificates by checking the **Ignore SSL certificate errors** box. This means you must have a valid SSL certificate in place. If you try to check the **Ignore SSL certificate errors** box, a message appears stating that you cannot ignore SSL certificate errors.

When the Ticket ID is sensitive, the following rules apply:

- Both the desktop and the web access consoles show asterisks instead of text.
- The ticket is not logged anywhere by the access console or on the appliance.

> For more information, please see Create Jump Policies to Control Access to Jump Items at https://www.beyondtrust.com/docs/privileged-remote-access/how-to/jumpoint/policies.htm.

Ignore SSL certificate errors

If checked, the Secure Remote Access Appliance does **not** include the certificate validation information when it is contacting the external ticket system. Leave this box unchecked if you are uploading a certificate for secure HTTPS connection.

Jump Item Roles: Create Permission Sets for Jump Items

Jump | Jump Item Roles

Jump Item Roles

A Jump Item Role is a predefined set of permissions regarding Jump Item management and usage. Jump Item Roles are applied to users either from the **Jump > Jump Groups** page or from the **Users & Security > Group Policies** page.

If more than one role is assigned to a user, then the most specific role for a user is always used. The order of specificity for Jump Item Roles, from most specific to least specific, is:

- The role assigned to the relationship between a user and a Jump Group on the **Jump > Jump Groups** page.
- The role assigned to the relationship between a user and a Jump Group on the **Users & Security > Group Policies** page.
- The **Jump Item Roles** configured for a user on the **Users & Security > Users** page or the **Users & Security > Group Policies** page.

Add New Jump Item Role, Edit, Delete

Create a new role, modify an existing role, or remove an existing role.

Add or Edit a Jump Item Role

Name

Create a unique name to help identify this role. This name helps when linking a Jump Item Role with a user or group of users in a Jump Group.

Description

Add a brief description to summarize the purpose of this role.

Permissions

Jump Group or Personal Jump Items

Create and deploy new Jump Items

Enables the user to create Jump Items and install them on remote systems.

Move and Copy Jump Items

Enables the user to move or copy Jump Items from one Jump Group into another. This permission must be enabled on both Jump Groups. Copied Jump Items can be edited.

Remove existing Jump Items

Enables the user to delete Jump Items.

Jump Item

Start Sessions

Enables the user to Jump to remote systems.

Edit Tag

Enables the user to edit a Jump Item's tag field.

Edit Comments

Enables the user to edit a Jump Item's comments field.

Edit Jump Policy

Enables the user to set which if any Jump Policy is applied to a Jump Item.

Edit Session Policy

Enables the user to set which if any session policy a Jump Item should use. Changing the session policy may affect the permissions allowed in the session.

Edit Connectivity and Authentication

Enables the user to modify a Jump Item's connection and authentication information. This includes such fields as hostname, Jumpoint, port, and username, among others.

Edit Behavior and Experience

Enables the user to modify the behavior of Jump Items. This includes such fields as connection type, display size, and terminal type, among others.

For more information, please see Use Jump Item Roles to Configure Permission Sets for Jump Items at https://www.beyondtrust.com/docs/privileged-remote-access/how-to/jumpoint/jump-item-roles.htm.

Jumpoint: Set Up Unattended Access to a Network

Jump | Jumpoint

Jumpoint Management

BeyondTrust's Jump Technology enables a user to access computers on a remote network without having to pre-install software on every machine. Simply install a single Jumpoint agent at any network location to gain unattended access to every PC within that network.

Add New Jumpoint, Edit, Delete

Create a new Jumpoint, modify an existing Jumpoint, or remove an existing Jumpoint.

Redeploy

Uninstall an existing Jumpoint and download an installer to replace the existing Jumpoint with a new one. Jump shortcuts associated with the existing Jumpoint will use the new Jumpoint once it is installed.

Note: *When an existing Jumpoint is replaced, its configuration is not saved. The new Jumpoint must be reconfigured.*

Add or Edit Jumpoint

Name

Create a unique name to help identify this Jumpoint. This name should help users locate this Jumpoint when they need to start a session with a computer on the same network.

Code Name

Set a code name for integration purposes. If you do not set a code name, one is created automatically.

Comments

Add a brief description to summarize the purpose of this Jumpoint. This is helpful when managing Jumpoints.

Disabled

If checked, this Jumpoint is unavailable to make Jump connections.

Clustered

If checked, you will be able to add multiple, redundant nodes of the same Jumpoint on different host systems. This ensures that as long as at least one node remains online, the Jumpoint will be available.

Enable Shell Jump Method

If you want users to be able to connect to SSH-enabled and Telnet-enabled network devices through this Jumpoint, check **Enable Shell Jump Method**. Command filtering can be configured to prevent accidental use of commands that can be harmful to endpoint systems.

For more information on command filtering, please see Use Shell Jump to Access a Remote Network Device at www.beyondtrust.com/docs/privileged-remote-access/getting-started/access-console/shell-jump.htm.

Enable Protocol Tunnel Jump Method

If **Enable Protocol Tunnel Jump Method** is checked, users may make TCP connections from their systems to remote endpoints through this Jumpoint.

RDP Service Account

Select the account to be used by the Jumpoint to run a user-initiated client on the RDP server. This allows you to collect additional event information from an RDP session started with this Jumpoint. This account in used only if the Remote RDP Jump Item is configured to enable the **Session Forensics** functionality.

For more information on how to set the **Sessions Forensics** functionality in the access console, please see Use RDP to Access a Remote Windows Endpoint at https://www.beyondtrust.com/docs/privileged-remote-access/getting-started/access-console/rdp.htm.

Group Policies

This displays a listing of the group policies which allow users access to this Jumpoint.

Allowed Users

New Member Name

Search for users to add to this Jumpoint. Users who are allowed to use this Jumpoint can start sessions with or create Jump Items connecting through this Jumpoint, as their permissions allow.

In the table below, view existing Jumpoint users. You can filter the view by entering a string in the **Filter by Name** text box. You can also delete the user from the Jumpoint.

To add a group of users to a Jumpoint, go to **Users & Security > Group Policies** and assign that group to one or more Jumpoints.

Note: *You may see some users whose* ***Delete*** *options are disabled. This occurs when a user is added via group policy.*

You can click the group policy link to modify the policy as a whole. Any changes made to the group policy apply to all members of that group policy.

You also can add the individual to the Jumpoint, overriding their settings as defined elsewhere.

For more information about Jumpoint configuration, please see Configure and Install a PRA Jumpoint at www.beyondtrust.com/docs/privileged-remote-access/how-to/jumpoint/installation.htm.

Jump Items: Mass Import Jump Shortcuts and Manage Jump Item Settings

Jump | Jump Items

Jump Shortcuts Mass Import Wizard

Through a Jumpoint, Jump shortcuts can be created to:

- start a standard access session
- start a Remote Desktop Protocol session with Windows or Linux systems
- Jump to a web site on a remote browser
- Shell Jump to an SSH-enabled or Telnet-enabled network device
- connect to a VNC server
- to make a TCP connection through a Protocol Tunnel Jump

Note: *Linux Jumpoints can only be used for RDP and SSH/Telnet sessions, allowing for credential injection from user or vault, as well as RemoteApp functionality and Shell Jump filtering. Clustered Jumpoints can only add new nodes of the same OS. You cannot mix Windows and Linux nodes.*

When creating a large number of Jump shortcuts, it may be easier to import them via a spreadsheet than to add them one by one in the access console.

For more information, please see Use a Jump Shortcut to Jump to a Remote System at https://www.beyondtrust.com/docs/privileged-remote-access/how-to/jumpoint/jump-shortcuts.htm.

Download Template

From the dropdown in the **Jump Shortcuts Mass Import Wizard section** of the /login interface, select the type of Jump Item you wish to add, and then click **Download Template**. Using the text in the CSV template as column headers, add the information for each Jump shortcut you wish to import. If any required fields are missing, import fails. Optional fields can be filled in or left blank.

Import Jump Shortcuts

Once you have completed filling out the template, use **Import Jump Shortcuts** to upload the CSV file containing the Jump Item information. The maximum file size allowed to be uploaded at one time is 5 MB. Only one type of Jump Item can be included in each CSV file. The CSV file should use the format described in the tables below.

Local Jump Shortcut

Field	Description
Hostname	The hostname of the endpoint to be accessed by this Jump Item. This string has a maximum of 128 characters.

Field	Description
Name	The name of the endpoint to be accessed by this Jump Item. This name identifies the item in the session tabs. This string has a maximum of 128 characters.
Jump Group	The code name of the Jump Group with which this Jump Item should be associated.  ***Note:*** *When using the import method, a Jump Item cannot be associated with a personal list of Jump Items.*
Tag (optional)	You can organize your Jump Items into categories by adding a tag. This string has a maximum of 1024 characters.
Comments (optional)	You can add comments to your Jump Items. This string has a maximum of 1024 characters.
Jump Policy (optional)	The code name of a Jump Policy. You can specify a Jump Policy to manage access to this Jump Item.
Session Policy (optional)	The code name of a session policy. You can specify a session policy to manage the permissions available on this Jump Item.
Endpoint Agreement Policy (optional)	The value **accept** automatically accepts the endpoint agreement if it times out and allows the session the start. The value **reject** automatically rejects the endpoint agreement and stops the session from starting. The value **no_prompt** does not show an endpoint agreement even if the feature is configured. This field has no effect if the global endpoint agreement is not enabled. For more information about the global setting, please see Jump Items: Mass Import Jump Shortcuts and Manage Jump Item Settings at https://www.beyondtrust.com/docs/privileged-remote-access/getting-started/admin/jump-items.htm.

Remote Jump Shortcut

Field	Description
Hostname	The hostname of the endpoint to be accessed by this Jump Item. This string has a maximum of 128 characters.
Jumpoint	The code name of the Jumpoint through which the endpoint is accessed.
Name	The name of the endpoint to be accessed by this Jump Item. This name identifies the item in the session tabs. This string has a maximum of 128 characters.
Jump Group	The code name of the Jump Group with which this Jump Item should be associated.  ***Note:*** *When using the import method, a Jump Item cannot be associated with a personal list of Jump Items.*
Tag (optional)	You can organize your Jump Items into categories by adding a tag. This string has a maximum of 1024 characters.
Comments (optional)	You can add comments to your Jump Items. This string has a maximum of 1024 characters.
Jump Policy (optional)	The code name of a Jump Policy. You can specify a Jump Policy to manage access to this Jump Item.
Session Policy	The code name of a session policy. You can specify a session policy to manage the permissions

Field	Description
(optional)	available on this Jump Item.
Endpoint Agreement Policy (optional)	The value **accept** automatically accepts the endpoint agreement if it times out and allows the session the start. The value **reject** automatically rejects the endpoint agreement and stops the session from starting. The value **no_prompt** does not show an endpoint agreement even if the feature is configured. This field has no effect if the global endpoint agreement is not enabled. For more information about the global setting, please see Jump Items: Mass Import Jump Shortcuts and Manage Jump Item Settings at https://www.beyondtrust.com/docs/privileged-remote-access/getting-started/admin/jump-items.htm.

Remote VNC Jump Shortcut

Field	Description
Hostname	The hostname of the endpoint to be accessed by this Jump Item. This string has a maximum of 128 characters.
Jumpoint	The code name of the Jumpoint through which the endpoint is accessed.
Port (optional)	A valid port number from **100** to **65535**. Defaults to **5900**.
Name	The name of the endpoint to be accessed by this Jump Item. This name identifies the item in the session tabs. This string has a maximum of 128 characters.
Jump Group	The code name of the Jump Group with which this Jump Item should be associated. ***Note:*** *When using the import method, a Jump Item cannot be associated with a personal list of Jump Items.*
Tag (optional)	You can organize your Jump Items into categories by adding a tag. This string has a maximum of 1024 characters.
Comments (optional)	You can add comments to your Jump Items. This string has a maximum of 1024 characters.
Jump Policy (optional)	The code name of a Jump Policy. You can specify a Jump Policy to manage access to this Jump Item.

Remote RDP Jump Shortcut

Field	Description
Hostname	The hostname of the endpoint to be accessed by this Jump Item. This string has a maximum of 128 characters.
Jumpoint	The code name of the Jumpoint through which the endpoint is accessed.
Username (optional)	The username to sign in as.
Domain (optional)	The domain the endpoint is on.
Quality (optional)	The quality at which to view the remote system. Can be **low** (2-bit gray scale for the lowest bandwidth consumption), **best_perf** (default - 8-bit color for fast performance), **perf_and_qual** (16-bit for medium

Field	Description
	quality image and performance), **best_qual** (32-bit for the highest image resolution), or **video_opt** (VP9 codec for more fluid video). This cannot be changed during the remote desktop protocol (RDP) session.
Console Session	**1**: Starts a console session. **0**: Starts a new session (default).
Ignore Untrusted Certificate (optional)	**1**: Ignores certificate warnings. **0**: Shows a warning if the server's certificate cannot be verified.
SecureApp Type	The SecureApp launch method. Can be "none", "remote_app" (to use RDP's built-in RemoteApp functionality), "remote_desktop_agent" (to use BeyondTrust's Remote Desktop Agent), or "remote_desktop_agent_credentials" (to use BeyondTrust's Remote Desktop Agent with Credential Injection). If "remote_desktop_agent" or "remote_desktop_agent_credentials" are chosen then the BeyondTrust Remote Desktop Agent must be installed on the remote system.>
RemoteApp Name	The RemoteApp program name. This string has a maximum of 520 characters.
RemoteApp Parameters	A space-separated list of parameters to pass to the RemoteApp. Parameters with spaces can be quoted using double-quotes. This string has a maximum of 16000 characters.
Remote Executable Parameters	A space-separated list of parameters to pass to the remote executable that will be launched using the BeyondTrust Remote Desktop Agent. Parameters with spaces can be quoted using double-quotes. This can only be used if the SecureApp Type uses the BeyondTrust Remote Desktop Agent.
Remote Executable Parameters	A space-separated list of parameters to pass to the remote executable that will be launched using the BeyondTrust Remote Desktop Agent. Parameters with spaces can be quoted using double-quotes. This can only be used if the SecureApp Type uses the BeyondTrust Remote Desktop Agent.
Target System	The name of the target system being accessed by the remote application. This value is used to limit the list of injected credentials to only those that are valid on the target system. This value can only be used if the SecureApp Type uses the BeyondTrust Remote Desktop Agent with Credential injection.
Credential Type	The type of credentials that will be injected into the remote executable. This value will depend on the password vault from which credentials are retrieved. This value can only be used if the SecureApp Type uses the BeyondTrust Remote Desktop Agent with Credential injection.
Name	The name of the endpoint to be accessed by this Jump Item. This name identifies the item in the session tabs. This string has a maximum of 128 characters.
Jump Group	The code name of the Jump Group with which this Jump Item should be associated.  ***Note:*** *When using the import method, a Jump Item cannot be associated with a personal list of Jump Items.*
Tag (optional)	You can organize your Jump Items into categories by adding a tag. This string has a maximum of 1024 characters.
Comments (optional)	You can add comments to your Jump Items. This string has a maximum of 1024 characters.
Jump Policy (optional)	The code name of a Jump Policy. You can specify a Jump Policy to manage access to this Jump Item.

Shell Jump Shortcut

Field	Description
Hostname	The hostname of the endpoint to be accessed by this Jump Item. This string has a maximum of 128 characters.
Jumpoint	The code name of the Jumpoint through which the endpoint is accessed.
Username (optional)	The username to sign in as.
Protocol	Can be either **ssh** or **telnet**.
Port (optional)	A valid port number from **1** to **65535**. Defaults to **22** if the protocol is **ssh** or **23** if the protocol is **telnet**.
Terminal Type (optional)	Can be either **xterm** (default) or **VT100**.
Keep-Alive (optional)	The number of seconds between each packet sent to keep an idle session from ending. Can be any number from **0** to **300**. **0** disables keep-alive (default).
Name	The name of the endpoint to be accessed by this Jump Item. This name identifies the item in the session tabs. This string has a maximum of 128 characters.
Jump Group	The code name of the Jump Group with which this Jump Item should be associated.  ***Note:*** *When using the import method, a Jump Item cannot be associated with a personal list of Jump Items.*
Tag (optional)	You can organize your Jump Items into categories by adding a tag. This string has a maximum of 1024 characters.
Comments (optional)	You can add comments to your Jump Items. This string has a maximum of 1024 characters.
Jump Policy (optional)	The code name of a Jump Policy. You can specify a Jump Policy to manage access to this Jump Item.
Session Policy (optional)	The code name of a session policy. You can specify a session policy to manage the permissions available on this Jump Item.

Protocol Tunnel Jump Shortcut

Field	Description
Hostname	The hostname of the endpoint to be accessed by this Jump Item. This string has a maximum of 128 characters.
Jumpoint	The code name of the Jumpoint through which the endpoint is accessed.
TCP Tunnels	The list of one or more tunnel definitions. A tunnel definition is a mapping of a TCP port on the local user's system to a TCP port on the remote endpoint. Any connection made to the local port causes a connection to be made to the remote port, allowing data to be tunnelled between local and remote systems. Multiple mappings should be separated by a semicolon. Example: `auto->22;3306->3306`

Field	Description
	In the example above, a randomly assigned local port maps to remote port 22, and local port 3306 maps to remote port 3306.
Local Address (optional)	The address from which the connection should be made. This can be any address within the 127.x.x.x subrange. The default address is 127.0.0.1.
Name	The name of the endpoint to be accessed by this Jump Item. This name identifies the item in the session tabs. This string has a maximum of 128 characters.
Jump Group	The code name of the Jump Group with which this Jump Item should be associated. ***Note:*** *When using the import method, a Jump Item cannot be associated with a personal list of Jump Items.*
Tag (optional)	You can organize your Jump Items into categories by adding a tag. This string has a maximum of 1024 characters.
Comments (optional)	You can add comments to your Jump Items. This string has a maximum of 1024 characters.
Jump Policy (optional)	The code name of a Jump Policy. You can specify a Jump Policy to manage access to this Jump Item.

Web Jump Shortcut

Field	Description
Name	The name of the endpoint to be accessed by this Jump Item. This name identifies the item in the session tabs. This string has a maximum of 128 characters.
Jumpoint	The code name of the Jumpoint through which the endpoint is accessed.
Jump Group	The code name of the Jump Group with which this Jump Item should be associated. ***Note:*** *When using the import method, a Jump Item cannot be associated with a personal list of Jump Items.*
Tag (optional)	You can organize your Jump Items into categories by adding a tag. This string has a maximum of 1024 characters.
Comments (optional)	You can add comments to your Jump Items. This string has a maximum of 1024 characters.
Jump Policy (optional)	The code name of a Jump Policy. You can specify a Jump Policy to manage access to this Jump Item.
Session Policy (optional)	The code name of a session policy. You can specify a session policy to manage the permissions available on this Jump Item.
URL	The URL of the web site. The URL must begin with either **http** or **https**.
Verify Certificate (optional)	**1**: The site certificate is validated before the session starts; if issues are found, the session will not start. **0**: The site certificate is not validated.

Field	Description
Username Format	passthru: Pass the username through directly from the credential provider. username_only: If the username is in UPN (Username@Domain) or DLLN (DOMAIN\Username) format then the domain is removed. Only the username is injected.
Username Field Hint	A CSS style query selector that identifies the username field to help with the initial credential injection. If this value is provided and a matching element is not found, then the credential injection will fail.
Password Field Hint	A CSS style query selector that identifies the password field to help with the initial credential injection. If this value is provided and a matching element is not found, then the credential injection will fail.
Submit Button Hint	A CSS style query selector that identifies the submit button to help with the initial credential injection. If this value is provided and a matching element is not found, then the credential injection will fail.
Auth Timeout	The length of time the web jump client should wait for authentication to succeed before timing out. Valid values are 1, 2, 3, 5, 10, 15, 30

For more information, please see Use a Jump Shortcut to Jump to a Remote System at https://www.beyondtrust.com/docs/privileged-remote-access/how-to/jumpoint/jump-shortcuts.htm.

Endpoint User Agreement

Enable Endpoint User Consent Configuration for Applicable Jump Items

Enable a dropdown in the access console which allows endpoint user agreement options to be configured for individual Jump Items.

Title

Customize the title of the agreement. The end-user sees this in the title bar of the prompt. You can localize this text for any languages you have enabled. To revert to the default text, delete the text from the field and then save the blank field.

Text

Provide the text for the agreement. You can localize this text for any languages you have enabled. To revert to the default text, delete the text from the field and then save the blank field.

Acceptance Timeout

If the user does not accept the agreement within the set **Acceptance Timeout**, the agreement is either accepted or rejected as determined by the Jump Item properties.

Automatic Behavior

Choose **Auto Accept** or **Auto Reject**. The **Auto Accept** option automatically accepts the endpoint agreement if it times out and allows the session to start. The **Auto Reject** option automatically rejects the endpoint agreement and stops the session from starting.

Jump Item Settings

Simultaneous Jumps

For Jump Client, Local Jump, Remote Jump, Remote VNC, and Shell Jump

Set this option to **Join Existing Session** to provide a way for multiple users to gain access to the same Jump Item without an invitation to join an active session by another user. The first user to access the Jump Item maintains ownership of the session. Users in a shared Jump session see each other and can chat.

Set this option to **Disallow Jump** to ensure only one user can Jump to a Jump Item at a time. Only an invitation by the user who originated the session can allow for a second user to access the session.

This setting applies to the following Jump Item types: Jump Client, Local Jump, Remote Jump, Remote VNC, and Shell Jump.

For Remote RDP

Set this option to **Start New Session** to provide a way for multiple users to gain access to the same Jump Item without an invitation to join an active session by another user. For Remote RDP, multiple users may gain access to a Jump Item, but each starts an independent session.

Set this option to **Disallow Jump** to ensure only one user at a time can Jump to a Jump Item. Only an invitation by the user who originated the session can allow for a second user to access the session.

This setting applies to Remote RDP Jump Item types only.

Shell Jump Filtering

Recognized Shell Prompts

Enter regular expressions, one per line, that will match against the command shell prompts found on your endpoint systems. A regular expression should only attempt to match the final line of a multi-line prompt.

Shell Prompt Matching Validation

Enter an existing endpoint's shell prompt, and the output will indicate whether it matches any regular expression in the list. This functionality will let you test your regular expressions without starting a session.

Vault for Privileged Remote Access

Accounts: Manage Privileged Accounts Used on Endpoints

View and manage information about all discovered and manually added accounts.

Available information for shared accounts includes:

- **Type**: The type of account, specifically, whether it is a domain or a local account, or a generic password account
- **Name**: The name of the account
- **Group**: The name of the account group to which the account belongs
- **Endpoint**: The endpoint with which the account is associated
- **Description**: Short description about the account
- **Last Checkout**: The last time the account was checked out
- **Password Age**: The age of the password

Tip: *You can filter the list of shared accounts displayed using the filters for* ***Group*** *and* ***Password Age****.*

Based on this information, you can perform various actions, including credential check out, check in, and credential rotation.

Available information for personal accounts includes:

- **Type**: The type of account, specifically, whether it is a domain or a local account, or a generic password account
- **Name**: The name of the account
- **Owner**: The name of the person who created and owns the account
- **Description**: Short description about the account
- **Password Age**: The age of the password

Tip: *You can filter the list of personal accounts displayed by* ***Owner*** *and* ***Password Age****.*

Accounts

Add Account

Click **Add**, to manually add shared or personal generic accounts to the BeyondTrust Vault.

Search Shared Accounts

Search for a specific shared account or a group of accounts based on **Name**, **Endpoint Name**, and **Description**.

Check Out and Check In a Shared Account

Click **Check Out** to view and use a shared credential. When selected, the **Account Password** prompt appears, displaying the credential for 60 seconds to allow you to copy the password. Once the prompt is closed, the **Check In** option becomes available. When finished using the account, click **Check In** to check the password back into the system.

> For more information, please see Check Out Credentials from the PRA /login Interface at https://www.beyondtrust.com/docs/privileged-remote-access/how-to/vault/check-out.htm.

Ellipsis Menu for Shared Accounts

Click the **ellipsis (...)** to view more actions, such as **Rotate Password**, **Edit**, and **Delete**. When **Rotate Password** is selected, the system automatically rotates or changes the password. When **Edit** is selected, you can modify the account's information. The **Delete** option removes the account from the **Accounts** list.

> For more information, please see Rotate Privileged Credentials Using BeyondTrust Vault at https://www.beyondtrust.com/docs/privileged-remote-access/how-to/vault/rotation.htm.

Search Personal Accounts

Search for a specific personal account or a group of accounts based on **Name** and **Description**.

View Password for Personal Account

Click **View Password** to view and use a personal credential. When selected, the **Account Password** prompt appears, displaying the credential for 60 seconds to allow you to copy the password.

Edit Personal Account

Click **Edit Account** to modify the account's information, specifically **Name**, **Description**, **Username**, and **Password**.

Add Shared Generic Account

The **Add > Shared Generic Account** option allows you to add accounts without having to run a discovery job. Instead, you can manually enter information about the account. This option is helpful in situations where a shared account or username/password combination can be used to access many different systems.

Name

Enter a name for the account.

Description

Enter a brief and memorable description of the account.

Username

Provide the username for the account.

Authentication

Select the authentication method for the account: **Password** or **SSH Private Key**.

> ***Note:*** *If you select an SSH key for authentication, you must provide a private key for the account in OpenSSH format. Optionally, you can include the passphrase associated with the private key.*

Password and Confirm Password

If **Password** is selected for authentication, you must enter the password for the account and confirm the password.

SSH Private Key

If **SSH Private Key** is selected for authentication, you must enter the SSH private key for the account.

SSH Private Key

Provide the SSH private key information.

SSH Key Passphrase

If applicable, enter the SSH private key's passphrase.

Allow Simultaneous Checkout

If the account can be checked out and used by multiple users or sessions at the same time, select this option.

Account Group

Select a group from the list to add the shared account to an account group. If a group is not selected, the account is added to the **None** system group.

Account Users

New User Name

Select users who are allowed to access this account.

New Member Role

Select the vault account role for the new user, and then click **Add**. Users can be assigned one of two roles:

- **Inject** (default value): Users with this role can use this account in Privileged Remote Access sessions.
- **Inject and Checkout**: Users with this role can use this account in Privileged Remote Access sessions and can check out the account on **/login**. The **Checkout** permission has no affect on generic SSH accounts.

> ***Note:*** *The **Vault Account Role** is visible in the list of users added to the Vault Account.*

> ***Note:*** *When upgrading to a BeyondTrustPrivileged Remote Access installation with the Configurable Vault Checkout feature, all existing* ***Vault Account Memberships*** *that were configured in Group Policies before the upgrade will have their* ***Vault Account Role*** *set to* ***Inject and Checkout*** *by default after the upgrade.*

IMPORTANT!

Vault Account Role Precedence*: Vault Account Roles can be assigned to both users and group policies. This means the same user can have different roles for a single Vault account. One role can be assigned by the user's group policies, while a different role can be assigned by the user's explicit access to the Vault Account. In such cases, the system uses the most-specific role for that user. Therefore, the system will let the role assigned on the* ***Edit Vault Account*** *page override the role assigned on the user's group policy. When the role is overridden in such a way, the word overridden appears on the* ***Edit Vault Account*** *page for the user's group policy membership. This behavior is consistent with the order of precedence for Jump Item Roles.*

> ***Note:*** *User accounts with the* ***Allowed to Administer Vault*** *permission are implicitly allowed to access every Vault account.*

Add Personal Account

The **Add > Personal Generic Account** option allows you to add accounts.

Name

Enter a name for the account.

Description

Enter a brief and memorable description of the account.

Username

Provide the username for the account.

Authentication

Select the authentication method for the account: **Password** or **SSH Private Key**.

> ***Note:*** *If you select an SSH key for authentication, you must provide a private key for the account in OpenSSH format. Optionally, you can include the passphrase associated with the private key.*

Password and Confirm Password

If **Password** is selected for authentication, you must enter the password for the account and confirm the password.

SSH Private Key

If **SSH Private Key** is selected for authentication, you must enter the SSH private key for the account.

SSH Private Key

Provide the SSH private key information.

SSH Key Passphrase

If applicable, enter the SSH private key's passphrase.

Edit Local Account

Name

View or edit the name used for the account.

Description

View or edit the description of the account.

Username

View the username associated with the account.

Password

Enter a new password for the account, or leave the field blank to keep the existing password. Confirm the password entered.

Password Age

View the age of the existing password.

Automatically Rotate Credentials after Check In

Set local accounts to automatically rotate after use.

Allow Simultaneous Checkout

If the account can be checked out and used by multiple users or sessions at the same time, select this option.

Account Group

Select a group from the list to add the shared account to an account group. If a group is not selected, the account is added to the **None** system group.

Endpoint Name

View which endpoint or endpoints are associated with the account.

Endpoint Hostname

View the hostname of the associated endpoints.

Account Users

Select users who are allowed to access this account, along with their vault account role, and then click **Add**.

> ***Note:*** *User accounts with the* ***Allowed to Administer Vault*** *permission are implicitly allowed to access every Vault account.*

Edit Domain Account

Name

View or edit the name used for the account.

Description

View or edit the description of the account.

Username

View the username associated with the account.

Password

Enter a new password for the account, or leave the field blank to keep the existing password. Confirm the password entered.

Password Age

View the age of the existing password.

Automatically Rotate Credentials after Check In

If you wish for the credential to be automatically rotated after it is checked in, select this option.

Allow Simultaneous Checkout

If the account can be checked out and used by multiple users or sessions at the same time, select this option.

Distinguished Name

View the distinguished name for the account.

Account Group

Select a group from the list to add the shared account to an account group. If a group is not selected, the account is added to the **None** system group.

Account Users

Select users who are allowed to access this account, along with their vault account role, and then click **Add**.

> ***Note:*** *User accounts with the* ***Allowed to Administer Vault*** *permission are implicitly allowed to access every Vault account.*

Edit Personal Generic (Password) Account

Name

Enter a name for the account.

Description

Enter a brief and memorable description of the account.

Username

Provide the username for the account.

Password and Confirm Password

If **Password** is selected for authentication, you must enter the password for the account and confirm the password.

Account Groups: Add and Manage Account Groups

Shared vault accounts can be added to an account group to allow Vault admins to grant users access to multiple shared vault accounts more efficiently. Account groups can also be used to associate a group of shared vault accounts to a group policy.

***Note:** A shared vault account can belong to only one group at a time and personal vault accounts cannot be added to an account group.*

Account Groups

Add, view, and manage account groups.

Add Account Group

Click **Add** to add an account group, add vault accounts to the group, and grant users access to the group of shared vault accounts.

Search Account Groups

Search for a specific account groups based on **Name** or **Description**.

Add Account Group

The **Add Account Group** option allows you to add account groups for the purpose of granting users access to multiple vault accounts at once.

Name

Enter a name for the account group.

Description

Enter a brief and memorable description of the account group.

Group Policies

If the account group was added to any group policies, they are listed here, along with their vault account roles.

Accounts

Source Account Group

Filter the list of accounts available to add to the group by selecting a group from the **Source Account Group** list.

Search Selected Account Group

Filter the list of accounts available to add to the group by searching for an account group. You can search by **Name**, **Endpoint**, and **Description**.

Accounts Not in a Group

List of vault accounts available to add to the account group.

Add

Select accounts from the list of available groups, and then click **Add** to add them to the **Accounts in This Group** list.

Remove

Select accounts from the list of **Accounts in This Group**, and then click **Remove** to remove them from the account group.

Search This Account Group

Filter the list of **Accounts in This Group** by searching for an account group by **Name**, **Endpoint**, and **Description**.

Accounts in This Group

List of vault accounts that exist in this account group.

Allowed Users

New User Name

Select users who are allowed to access this account.

New Member Role

Select the vault account role for the new user, and then click **Add**. Users can be assigned one of two roles:

- **Inject** (default value): Users with this role can use this account in Privileged Remote Access sessions.
- **Inject and Checkout**: Users with this role can use this account in Privileged Remote Access sessions and can check out the account on **/login**. The **Checkout** permission has no affect on generic SSH accounts.

***Note:** The **Vault Account Role** is visible in the list of users added to the Vault account.*

Endpoints: View and Managed Discovered Systems

Endpoints

View information about all discovered endpoints, such as the name and hostname of the system, along with information about the accounts associated with those systems.

Search Endpoints

Search for a specific endpoint or a group of endpoints based on **Name**, **Hostname**, **Description**, or **Domain Name**.

Accounts

View the number of accounts found during discovery as well as the endpoints they are associated with. Click the **Accounts** link to view the accounts associated with the system.

Jump Items

View the number of jump items associated with each endpoint. Click the **Jump Items** link to view the jump items associated with the system.

Edit

Modify the endpoint's information, specifically **Name**, **Description**, and **Hostname**.

Delete

Delete the endpoint from the **Endpoints** list.

Domains: Add and Manage Domains

Add, view, and manage information about your domains.

Domains

Add Domain

Click **Add** to manually add a new domain to the **Domain**s list.

Domain Name

View the name of the domain.

Jumpoint

View the Jumpoint used to discover accounts and endpoints on the domain.

Management Account

View the management account associated with the Jumpoint and domain.

Discover

Click **Discover** to initiate the Jumpoint to scan and discover endpoints and accounts on the domain.

Edit

Click **Edit** to modify domain information.

Delete

Click **Delete** to delete this domain from the **Domains** list.

Add Domain

DNS Name

Enter the **DNS Name** of the domain.

Jumpoint

Choose an existing Jumpoint located in the environment where you wish to discover accounts.

Management Account

Select the management account needed to initiate a discovery job for this domain. Choose to use a new account, which requires a **Username**, **Password**, and **Password Confirmation**. Or choose to use an existing account discovered from a previous job or added manually in the **Accounts** section.

Edit Domain

DNS Name

View or edit the **DNS Name** of the domain.

Jumpoint

View or edit the Jumpoint information for the domain.

Management Account

View or edit the management account needed to initiate a discovery job for this domain. Choose to use a new account, which requires a **Username**, **Password**, and **Password Confirmation**. Or choose to use an existing account discovered from a previous job or added manually in the **Accounts** section.

Discovery: Discover Domains, Accounts, and Endpoints

BeyondTrust Vault is an on-appliance credential store, enabling discovery of and access to privileged credentials. You can manually add privileged credentials, or you can use the built-in discovery tool to scan and import Active Directory and local accounts into BeyondTrust Vault.

For more information, please see BeyondTrust Vault Technical Whitepaper at https://www.beyondtrust.com/docs/privileged-remote-access/how-to/vault/index.htm.

Domain Discovery

With the BeyondTrust Vault add-on, you can discover Active Directory accounts, local accounts, and endpoints. Jumpoints are used to scan endpoints and discover the accounts associated with those endpoints.

To learn more about Jumpoints, please see the BeyondTrust Privileged Remote Access Jumpoint Guide at https://www.beyondtrust.com/docs/privileged-remote-access/how-to/jumpoint/index.htm.

DNS Name

Enter the DNS name for your environment.

Jumpoint

Choose an existing Jumpoint located in the environment where you wish to discover accounts.

Management Account

Select the management account needed to initiate the discovery job. Choose to use a new account, which requires a **Username**, **Password**, and **Password Confirmation** to be entered. Or, choose to use an existing account discovered from a previous job or added manually in the **Accounts** section. Once an account is selected, click **Discover** to start the discovery job.

Username

Enter a valid username to use for discovery (username@domain).

Password

Enter a valid a password to user for discovery.

Confirm Password

Re-enter the password to confirm.

> ***Note:*** *You can define which parts of a domain to run a* ***Discovery/Import*** *job. Once you select the required fields for a* ***Discovery Job****, you can refine the search by specifying which OU's to target or entering LDAP queries.*

Discovery Jobs

View discovery jobs that are in progress for a specific domain, or review the results of successful and failed discovery jobs.

View Results

View the results of the discovery job from the **Discovery Results** section, which includes discovered endpoints, discovered local accounts, and discovered domain accounts found on the domain. For each discovered item, a **Name** and **Description** are provided. You can select which endpoints and accounts to import and store in your BeyondTrust Vault instance.For each list item you wish to import, check the box beside it and click **Import Selected**.

Options: Schedule Password Rotation

Automatic Password Management

Enable Scheduled Password Rotation

Check the **Enable Scheduled Password Rotation** option to automatically rotate passwords for vault accounts when the password reaches a specified maximum age.

Maximum Password Age

Specify the maximum number of days a password can be in place for vault accounts before it is automatically rotated.

Access Console

Access Console Settings: Manage Default Access Console Settings

Manage Access Console Settings

You can configure the default access console settings for your entire user base, applying a consistent access console user experience and increasing team efficiency. You can force settings, allow settings to be overridden by the user, or leave settings unmanaged. If you select **Unmanaged**, the BeyondTrust default setting will be displayed alongside for your consideration.

Each **Enable** or **Disable** setting provides an administrative checkbox option to become a forced setting. Forced settings take effect on the user's next login and do not allow configuration in the console. A forced setting cannot be overridden unless an administrator deselects the **Forced** checkbox option for that setting in the /login administrative interface.

> For details on how a user may configure settings in the access console to their preference, please see Change Settings and Preferences in the Access Console at https://www.beyondtrust.com/docs/privileged-remote-access/getting-started/access-console/settings.htm.

Choose the settings you want to be the default for your users, and click the **Save** button at the top of the page.

Note that saved settings take effect only upon login to the console. Even if you save and apply the changes by clicking the **Apply Now** button at the bottom of the page, detailed later, the user will not use the new settings until login.

If, for instance, you wish to set up default settings for new users but leave existing users' settings unchanged, save your managed settings but do not apply them. This will make it so all new access console logins will begin with your managed default settings. Existing users will have forced settings applied upon next login, but all other settings will remain unchanged.

Global Settings

Spell checking enabled

From the **Global Settings** section, you may choose to enable or disable spell check for chat. Currently, spell check is available for US English only.

Configurable session side bar

Choose if you want the session menu icon to display, if the sidebar can be detached, and if the widgets on the session sidebar can be rearranged and resized.

Alerts - Chat Alerts

Audible alerts - Play a sound when a chat message is received

Choose if a sound should be played when the user receives a chat message. If unmanaged or if enabled and not forced, the user may designate a custom sound in WAV format no larger than 1MB.

Visual alerts - Flash the application icon when a chat message is received

Choose if the application icon should flash when the user receives a chat message.

Show status messages in team chat windows

Choose if the team chat should include status messages, such as users logging in and out, or only chats sent between team members.

Pop-up Notifications

Team Chat

Choose if a user should receive a pop-up notification for chat messages received in a team chat.

Access Sessions

Choose if a user should receive a pop-up notification for chat messages received in a access session

Alerts - Queue Alerts

Audible alerts - Play a sound when a session enters any queue

Choose if a sound should be played when a session enters any of a user's queues.

Pop-up Notifications

Pop-up notifications appear independent of the access console and on top of other windows. If the pop-up notification is enabled and not forced or left unmanaged, the user will be able to choose how they receive pop-up notifications.

Personal Queue - Shared Sessions

Choose if a user should receive a pop-up notification for shared sessions in this queue.

Team Chat - Shared Sessions

Choose if a user should receive a pop-up notification for shared sessions in this queue.

Pop-up Behavior - Location and Duration

Set the default location and duration for pop-up notifications.

Access Sessions

Automatically request screen sharing

Choose if you want your users' sessions to begin with screen sharing.

Automatically detach

Choose if you want to open sessions as tabs in the access console or to automatically detach sessions into new windows.

Default Quality

Set the default quality for screen sharing sessions.

Default Scaling

Set the default size for screen sharing sessions.

Automatically enter full screen mode when screen sharing starts

When screen sharing starts, the user can automatically enter full screen mode.

Automatically restrict endpoint visibility when screen sharing starts

When screen sharing starts, the remote system can automatically have its display, mouse, and keyboard input restricted, providing a privacy screen.

Command Shell

Number of lines of available command history

You can set the number of lines to save in the command shell history. The default value is 500 lines.

Save

Click **Save** to save all of the profile settings you have configured. The confirmation message **Settings profile was successfully saved** will appear at the top of the page. All users who log into the access console after you save a new profile will receive the new settings as the default settings.

Apply Access Console Settings

Apply Now

If you wish to push the default settings to your entire user base, click **Apply Now**. The top of the page displays a confirmation message, **Settings profile was successfully applied**.

After applying new settings to your user base, the users will receive an alert dialog for confirmation when they first log into the access console after you apply the settings. The dialog warns them that their settings have changed and prompts them with the option simply to acknowledge the dialog or to open their access console settings window to review the changes.

Custom Links: Add URL Shortcuts to the Access Console

Access Console | Custom Links

Custom Links

Create links to sites your users can access during sessions. Examples could be a link to a searchable knowledge base, giving users a chance to look for a solution to an issue on the endpoint system, or a customer relationship management (CRM) system.

Links created here become available through the **Links** button on the access console.

Add Custom Link, Edit, Delete

Add a new link, modify an existing link, or remove an existing link.

Add or Edit a Custom Link

Name

Create a unique name to help identify this link.

URL

Add the URL to which this custom link should direct. Click the link below the **Body** field to view the macros that can used to customize the text in your emails for your purposes.

For more information, please see Access Session Overview and Tools at https://www.beyondtrust.com/docs/privileged-remote-access/getting-started/access-console/session-overview.htm.

Canned Scripts: Create Scripts for Screen Sharing or Command Shell Sessions

Access Console | Canned Scripts

Canned Scripts

Create custom scripts to be used in screen sharing and command shell sessions. The script will be displayed in the screen sharing or command shell interface as it is being executed. Executing a script in the screen sharing interface displays the running script on the remote screen.

> For more information, please see Access Session Overview and Tools at https://www.beyondtrust.com/docs/privileged-remote-access/getting-started/access-console/session-overview.htm.

> For more information, please see Open the Command Shell on the Remote Endpoint Using the Access Console at https://www.beyondtrust.com/docs/privileged-remote-access/getting-started/access-console/command-shell.htm.

Team Availability and Categories Filters

Filter your view by selecting a team or category from the dropdown lists.

Add New Canned Script, Edit, Delete

Create a new script, modify an existing script, or remove an existing script.

Add or Edit Canned Script

Script Name

Create a unique name to help identify this script. This name should help users locate the script they wish to run.

Description

Add a brief description to summarize the purpose of this script. This description is displayed on the prompt to confirm that the user wants to run the selected script.

Command Sequence

Write the command sequence. Scripts must be written in command line format, similar to writing a batch file or shell script. Note that only the last line of the script may be interactive; you cannot prompt for input in the middle of the script.

Within the script, reference an associated resource file using **"%RESOURCE_FILE%"**, making sure to include the quotation marks. Please note that the command sequence is case sensitive.

You can access the resource file's temporary directory using **%RESOURCE_DIR%**. When you run a script with an associated resource file, that file will be temporarily uploaded to the customer's computer.

Team Availability

Select which teams should be able to use this item.

Categories

Select the category under which this item should be listed.

Resource File

You may select a resource file to be associated with this script.

Categories

Add Category, Delete

Create a new category or remove an existing category.

Resources

Choose and Upload Resource

Add any resource files you want to access from within your scripts. You may upload up to 100 MB to your resource file directory.

Delete

Remove an existing resource file.

Special Actions: Create Custom Special Actions

Access Console | Special Actions

Special Actions

Create special actions to speed your processes. Special actions can be created for Windows, Mac, and Linux systems.

Add New Special Action, Edit, Delete

Create a new special action, modify an existing special action, or remove an existing special action.

Add or Edit Special Action

Action Name

Create a unique name to help identify this action. During a session, a user can see this name on the special actions dropdown.

Command

In the **Command** field, enter the full path of the application you wish to run. Do not use quotation marks; they will be added as necessary. Windows systems may make use of the macros provided. If the command cannot be located on the remote system, then this custom special action will not appear in the user's list of special actions.

Arguments

If the provided command will accept command line arguments, you may enter those arguments next. Arguments may use quotation marks if necessary, and arguments for Windows systems may use the provided macros.

For help with Windows arguments, search for "command line switches" on docs.microsoft.com.

Confirm

If you check the **Confirm** box, users will be prompted to confirm they want to run this special action before it will execute. Otherwise, selecting the special action from the menu during a session will cause that special action to run immediately.

Special Actions Settings

Show Built-In Special Actions

If you want to enable the default special actions provided by BeyondTrust, check **Show Built-In Special Actions**. Otherwise, to enable only your custom special actions, deselect this option.

***Note:** The **Windows Security (Ctrl-Alt-Del)** special action cannot be disabled.*

Users and Security

Users: Add Account Permissions for a User or Admin

User Accounts

View information about all users who have access to your Secure Remote Access Appliance, including local users and those who have access through security provider integration.

Add User, Edit, Delete

Create a new account, modify an existing account, or remove an existing account. You cannot delete your own account.

Search Users

Search for a specific user account based on username, display name, or email address.

Security Provider

Select a security provider type from the dropdown to filter the list of users by security provider.

Synchronize

Synchronize the users and groups associated with an external security provider. Synchronization occurs automatically once a day. Clicking this button forces a manual synchronization.

Reset Failed Login Attempts and Unlock Account

If a user has one or more failed login attempts, click the **Reset** button for their user account to reset the number back to zero.

If a user becomes locked due to too many failed consecutive login attempts, click the **Unlock Account** button for their user account to reset the number back to zero and unlock their account.

Add or Edit User

Username

Unique identifier used to log in.

Display Name

User's name as shown in team chats, in reports, etc.

Email Address

Set the email address to which email notifications are sent, such as password resets or extended availability mode alerts.

Password

Password used with the username to log in. The password may be set to whatever you choose, as long as the string complies with the defined policy set on the **/login > Management > Security** page.

Must Reset Password at Next Login

If this option is selected, then the user must reset their password at next login.

Password Never Expires

Check this box to set the user's password to never expire.

Password Expiration Date

Set a date for the password to expire.

Memberships

***Note:** The **Memberships** section does not initially display while a new user is being created. Once the new user has been saved, a new **Memberships** section appears, listing any group policy or teams to which the user may have been added.*

Group Policy Memberships

Listing of the group policies to which the user belongs.

Team Memberships

Listing of the teams to which the user belongs.

Jumpoint Memberships

Listing of the Jumpoints which the user can access.

Jump Group Memberships

Listing of the Jump Groups to which the user belongs.

Account Settings

Two Factor Authentication

Two factor authentication (2FA) uses an authenticator app to provide a time-based, one time code to login to the administrative interface, as well as the access console. If **Required** is selected , the user will be prompted to enroll and begin using 2FA at the next login. If **Optional** is selected, the user will have the option to use 2FA, but itis not required. **Click Remove Current Authenticator App** if you want a user to stop login in with a specific authenticator.

> ***Note:*** *Users who were receiving codes to log in will be automatically upgraded to 2FA, although they may continue to use email codes until they register an app. Once they begin to use 2FA, the email code option is permanently disabled.*

Account Never Expires

When checked, the account never expires. When not checked, an account expiration date must be set.

Account Expiration Date

Causes the account to expire after a set date.

Account Enablement

Allows you to disable the account so the user cannot log in. Disabling does NOT delete the account.

Comments

Add comments to help identify the purpose of this object.

General Permissions

Administration

Administrative Privileges

Grants the user full administrative rights.

Allowed to Administer Vault

Enables the user access to the Vault.

Password Setting

Enables the user to set passwords and unlock accounts for non-administrative local users.

Jumpoint Editing

Enables the user to create or edit Jumpoints. This option does not affect the user's ability to access remote computers via Jumpoint, which is configured per Jumpoint or group policy.

Team Editing

Enables the user to create or edit teams.

Jump Group Editing

Enables the user to create or edit Jump Groups.

Canned Script Editing

Enables the user to create or edit canned scripts for use in screen sharing or command shell sessions.

Custom Link Editing

Enables the user to create or edit custom links.

Allowed to View Access Session Reports

Enables the user to run reports on access session activity, viewing only sessions for which they were the primary session owner, only sessions for endpoints belonging to a Jump Group of which the user is a member, or all sessions.

Allowed to view access session recordings

Enables the user to view video recordings of screen sharing sessions and command shell sessions.

Allowed to view Vault Reports

Enables the user the view the his or her own vault events or all vault events.

Access Permissions

Access

Allowed to access endpoints

Enables the user to use the access console in order to run sessions. If endpoint access is enabled, options pertaining to endpoint access will also be available.

Session Management

Allowed to share sessions with teams which they do not belong to

Enables the user to invite a less limited set of user to share sessions, not only their team members. Combined with the extended availability permission, this permission expands session sharing capabilities.

> For more information, please see Control the Remote Endpoint with Screen Sharing at https://www.beyondtrust.com/docs/privileged-remote-access/getting-started/access-console/screen-sharing.htm.

Allowed to invite external users

Enables the user to invite a third-party user to participate in a session one time only.

> For more information, please see Invite an External User to Join an Access Session at https://www.beyondtrust.com/docs/privileged-remote-access/getting-started/access-console/access-invite.htm.

Allowed to enable extended availability mode

Enables the user to receive email invitations from other users requesting to share a session even when they are not logged into the access console.

> For more information, please see Use Extended Availability to Stay Accessible When Not Logged In at https://www.beyondtrust.com/docs/remote-support/getting-started/rep-console/extended-availability.htm.

Allowed to edit the external key

Enables the user to modify the external key from the session info pane of a session within the access console.

> For more information, please see Access Session Overview and Tools at https://www.beyondtrust.com/docs/privileged-remote-access/getting-started/access-console/session-overview.htm.

User to User Screen Sharing

> For more information, please see Share your Screen with Another User at https://www.beyondtrust.com/docs/privileged-remote-access/getting-started/access-console/user-screensharing.htm.

Allowed to show screen to other users

Enables the user to share their screen with another user without the receiving user having to join a session. This option is available even if the user is not in a session.

Allowed to give control when showing screen to other users

Enables the user sharing their screen to give keyboard and mouse control to the user viewing their screen.

Jump Technology

Allowed Jump Item Methods

Enables the user to Jump to computers using **Jump Clients**, **Local Jump on the local network**, **Remote Jump via a Jumpoint**, **Remote VNC via a Jumpoint**, **Remote RDP via a Jumpoint**, **Web Jump via a Jumpoint**, **Shell Jump via a Jumpoint**, and **Protocol Tunnel Jump via a Jumpoint**.

Jump Item Roles

A Jump Item Role is a predefined set of permissions regarding Jump Item management and usage. For each option, click **Show** to open the Jump Item Role in a new tab.

The **Default** role is used only when **Use User's Default** is set for that user in a Jump Group.

The **Personal** role applies only to Jump Items pinned to the user's personal list of Jump Items.

The **Teams** role applies to Jump Items pinned to the personal list of Jump Items of a team member of a lower role. For example, a team manager can view team leads' and team members' personal Jump Items, and a team lead can view team members' personal Jump Items.

The **System** role applies to all other Jump Items in the system. For most users, this should be set to **No Access**. If set to any other option, the user is added to Jump Groups to which they would not normally be assigned, and in the access console, they can see non-team members' personal lists of Jump Items.

> For more information, please see Use Jump Item Roles to Configure Permission Sets for Jump Items at https://www.beyondtrust.com/docs/privileged-remote-access/how-to/jumpoint/jump-item-roles.htm.

Session Permissions

Set the prompting and permission rules that should apply to this user's sessions. Choose an existing session policy or define custom permissions for this user. If **Not Defined**, the global default policy will be used. These permissions may be overridden by a higher policy.

Description

View the description of a pre-defined session permission policy.

Screen Sharing

Screen Sharing Rules

Enable the user to view or control the remote screen. If **Not Defined**, this option will be set by the next lower priority policy. This setting may be overridden by a higher priority policy.

For more information, please see Control the Remote Endpoint with Screen Sharing at https://www.beyondtrust.com/docs/privileged-remote-access/getting-started/access-console/screen-sharing.htm.

Application Sharing Restrictions

Limit access to specified applications on the remote system with either **Allow only the listed executables** or **Deny only the listed executables**. You may also choose to allow or deny desktop access.

Note: *This feature applies only to Windows and Linux operating systems and does not include Remote Desktop Protocol (RDP) or VNC sessions.*

Add New Executables

If application sharing restrictions are enforced, an **Add New Executables** button appears. Clicking this button opens a dialog that allows you to specify executables to deny or allow, as appropriate to your objectives.

After you have added executables, one or two tables display the file names or hashes you have selected for restriction. An editable comment field allows administrative notes.

Enter file names or SHA-256 hashes, one per line

When restricting executables, manually enter the executable file names or hashes you wish to allow or deny. Click on **Add Executable(s)** when you are finished to add the chosen files to your configuration.

You may enter up to 25 files per dialog. If you need to add more, click **Add Executable(s)** and then reopen the dialog.

Browse for one or more files

When restricting executables, select this option to browse your system and choose executable files to automatically derive their names or hashes. If you select files from your local platform and system in this manner, use caution to ensure that the files are indeed executable files. No browser level verification is performed.

Choose either **Use file name** or **Use file hash** to have the browser derive the executable file names or hashes automatically. Click **Add Executable(s)** when you are finished to add the chosen files to your configuration.

You may enter up to 25 files per dialog. If you need to add more, click **Add Executable(s)** and then reopen the dialog.

Note: *This option is available only in modern browsers, not in legacy browsers.*

Allowed Endpoint Restrictions

Set if the user can suspend the remote system's mouse and keyboard input. The user may also prevent the remote desktop from being displayed.

For more information, please see Control the Remote Endpoint with Screen Sharing at https://www.beyondtrust.com/docs/privileged-remote-access/getting-started/access-console/screen-sharing.htm.

Annotations

Annotation Rules

Enables the user to use annotation tools to draw on the remote system's screen. If **Not Defined**, this option will be set by the next lower priority policy. This setting may be overridden by a higher priority policy.

> For more information, please see Use Annotations to Draw on the Remote Screen of the Endpoint at https://www.beyondtrust.com/docs/privileged-remote-access/getting-started/access-console/annotations.htm.

File Transfer

File Transfer Rules

Enables the user to upload files to the remote system, download files from the remote system, or both. If **Not Defined**, this option will be set by the next lower priority policy. This setting may be overridden by a higher priority policy.

Accessible paths on the endpoint's filesystem

Allow the user to transfer files to or from any directories on the remote system or only specified directories.

Accessible paths on user's filesystem

Allow the user to transfer files to or from any directories on their local system or only specified directories.

> For more information, please see File Transfer to and from the Remote System Endpoint at https://www.beyondtrust.com/docs/privileged-remote-access/getting-started/access-console/file-transfer.htm.

Command Shell

Command Shell Rules

Enables the user to issue commands on the remote computer through a virtual command line interface. If **Not Defined**, this option will be set by the next lower priority policy. This setting may be overridden by a higher priority policy.

> ***Note:*** *Command shell access cannot be restricted for Shell Jump sessions.*

Configure command filtering to prevent accidental use of commands that can be harmful to endpoint systems.

> For more information on command filtering, please see Use Shell Jump to Access a Remote Network Device at www.beyondtrust.com/docs/privileged-remote-access/getting-started/access-console/shell-jump.htm.

For more information, please see Open the Command Shell on the Remote Endpoint Using the Access Console at https://www.beyondtrust.com/docs/privileged-remote-access/getting-started/access-console/command-shell.htm.

System Information

System Information Rules

Enables the user to see system information about the remote computer. If **Not Defined**, this option will be set by the next lower priority policy. This setting may be overridden by a higher priority policy.

Allowed to use system information actions

Enables the user to interact with processes and programs on the remote system without requiring screen sharing. Kill processes; start, stop, pause, resume, and restart services; and uninstall programs.

For more information, please see View System Information on the Remote Endpoint at https://www.beyondtrust.com/docs/privileged-remote-access/getting-started/access-console/system-info.htm.

Registry Access

Registry Access Rules

Enables the user to interact with the registry on a remote Windows system without requiring screen sharing. View, add, delete and edit keys, search and import/export keys.

For more information, please see Access the Remote Registry Editor on the Remote Endpoint at https://www.beyondtrust.com/docs/privileged-remote-access/getting-started/access-console/registry-editor.htm.

Canned Scripts

Canned Script Rules

Enables the user to run canned scripts that have been created for their teams. If **Not Defined**, this option will be set by the next lower priority policy. This setting may be overridden by a higher priority policy.

For more information, please see Open the Command Shell on the Remote Endpoint Using the Access Console at https://www.beyondtrust.com/docs/privileged-remote-access/getting-started/access-console/command-shell.htm.

Availability Settings

Login Schedule

Restrict user login to the following schedule

Set a schedule to define when users can log into the access console. Set the time zone you want to use for this schedule, and then add one or more schedule entries. For each entry, set the start day and time and the end day and time.

If, for instance, the time is set to start at 8 am and end at 5 pm, a user can log in at any time during this window but may continue to work past the set end time. They will not, however, be allowed to log back in after 5 pm.

Force logout when the schedule does not permit login

If stricter access control is required, check this option. This forces the user to log out at the scheduled end time. In this case, the user receives recurring notifications beginning 15 minutes prior to being disconnected. When the user is logged out, any owned sessions will follow the session fallback rules.

User Account Report

Export detailed information about your users for auditing purposes. Gather detailed information for all users, users from a specific security provider, or just local users. Information collected includes data displayed under the "show details" button, plus group policy and team memberships and permissions.

User Accounts for Password Reset: Allow Users to Administer Passwords

Users & Security | Users

User Accounts

Administrators can delegate, via user permission, the task of resetting local users' passwords and locked user accounts to privileged users, without also granting full administrator permissions. Local users may continue to reset their own passwords.

> ***Note:*** *Administrators with the* ***Allowed to set passwords*** *permission will see no difference in the user interface.*

When a privileged non-administrative user enters the **Users & Security > Users** page in the administrative /login interface, they will see a limited-view **Users** screen containing **Change Password** buttons for non-administrative users. The privileged user will not be able to edit or delete user accounts. Privileged users are not allowed to reset administrator passwords, nor the passwords of security provider users.

Search Users

Search for a specific user account based on username, display name, or email address.

Reset Failed Login Attempts and Unlock Account

If a user has one or more failed login attempts, click the **Reset** button for their user account to reset the number back to zero.

If a user becomes locked due to too many failed consecutive login attempts, click the **Unlock Account** button for their user account to reset the number back to zero and unlock their account.

Change Password

Change the password for a non-administrative user.

Change Password

Username

Unique identifier used to log in. This field is not editable.

Display Names

User's name as shown in team chats, in reports, etc. This field is not editable.

Email Address

The email address to which email notifications are sent, such as password resets or extended availability mode alerts. This field is not editable.

Comments

Comments about the account. This field is not editable.

Password

The new password to assign to this user account. The password may be set to whatever you choose, as long as the string complies with the defined policy set on the **/login > Management > Security** page.

Email Password Reset Link to User

Send an email to the user containing a link to reset the password for their account. This feature requires a valid SMTP configuration for your appliance, set up on the **/login > Management > Email Configuration** page.

Must Reset Password at Next Login

If this option is selected, then the user must reset their password at next login.

Access Invite: Create Profiles to Invite External Users to Sessions

Users & Security | Access Invite

Access Invitation Email

With access invite, a privileged user can invite an external user to join a session one time only. When the user makes the invitation, they will select a security profile to determine what level of privileges the external user should be granted. Access invite security profiles are configured as session policies on the **Users & Security > Session Policies** page and must be enabled for access invite use.

The invitation email is sent to external users when you invite them to join a session.

Subject

Customize the subject of this email. Click the link below the **Body** field to view the macros that can used to customize the text in your emails for your purposes.

Body

Customize the body of this email. Click the link below the **Body** field to view the macros that can used to customize the text in your emails for your purposes.

For more information, please see Invite an External User to Join an Access Session at https://www.beyondtrust.com/docs/privileged-remote-access/getting-started/access-console/access-invite.htm.

Security Providers: Enable LDAP, Active Directory, RADIUS, and Kerberos Logins

Users & Security | Security Providers

Security Providers

You can configure your Secure Remote Access Appliance to authenticate users against existing LDAP, RADIUS, or Kerberos servers, as well as to assign privileges based on the pre-existing hierarchy and group settings already specified in your servers. Kerberos enables single sign-on, while RSA and other two factor authentication mechanisms via RADIUS provide an additional level of security.

Add Provider

From the **Add** dropdown, select LDAP, RADIUS, Kerberos, SAML, or SCIM to add a new security provider configuration.

Change Order

Click this button to drag and drop security providers to set their priority. You can drag and drop servers within a cluster; clusters can be dragged and dropped as a whole. Click **Save Order** for prioritization changes to take effect.

Disable

Disable this security provider connection. This is useful for scheduled maintenance, when you want a server to be offline but not deleted.

Sync

Synchronize the users and groups associated with an external security provider. Synchronization occurs automatically once a day. Clicking this button forces a manual synchronization.

View Log

View the status history for a security provider connection.

Duplicate Node

Create a copy of an existing clustered security provider configuration. This will be added as a new node in the same cluster.

Upgrade to a Cluster

Upgrade a security provider to a security provider cluster. To add more security providers to this cluster copy an existing node.

Copy

Create a copy of an existing security provider configuration. This will be added as a top-level security provider and not as part of a cluster.

Edit, Delete

Modify an exiting object or remove an existing object.

Edit Security Provider - LDAP

General Settings

Name

Create a unique name to help identify this provider.

Enabled

If checked, your Secure Remote Access Appliance can search this security provider when a user attempts to log in. If unchecked, this provider will not be searched.

User Authentication

Choose if this provider should be used for user authentication. If deselected, options specific to user authentication are disabled.

User Provision

By default, user provisioning occurs on this provider. If you have a SCIM provider set up, you can choose to provision users through that provider instead. If this provider is not used for user authentication, then **Do not provision users** is selected.

Note: *This setting cannot be modified after this security provider is first saved.*

Keep user information synchronized with the LDAP server

Checking this option keeps a user's display name set to the name designated on the security provider rather than allowing the display name to be modified in BeyondTrust.

Authorization Settings

Synchronization: Enable LDAP object cache

If checked, LDAP objects visible to the appliance are cached and synchronized nightly, or manually, if desired. When using this option, fewer connections are made to the LDAP server for administrative purposes thereby potentially increasing speed and efficiency.

If unchecked, changes to the LDAP server are immediately available without the need to synchronize. However, when you make changes on user policies through the administrative interface, several short-lived LDAP connections may occur as necessary.

For providers that have previously had the synchronization setting enabled, disabling or unchecking the synchronization option will cause all cached records that are currently not in use to be deleted.

Lookup Groups

Choose to use this security provider only for user authentication, only for group lookups, or for both. If the **User Authentication** option above is not checked, then **Lookup groups using this provider** is selected. The option to look up groups using a different provider is available only if another provider capable of group lookup has already been created.

Default Group Policy *(Visible Only if User Authentication is Allowed)*

Each user who authenticates against an external server must be a member of at least one group policy in order to authenticate to your Secure Remote Access Appliance, logging into either the /login interface or the access console. You can select a default group policy to apply to all users allowed to authenticate against the configured server.

Note that if a default policy is defined, then any allowed user who authenticates against this server will potentially have access at the level of this default policy. Therefore, it is recommended that you set the default to a policy with minimum privileges to prevent users from gaining permissions that you do not wish them to have.

> ***Note:*** *If a user is in a default group policy and is then specifically added to another group policy, the settings for the specific policy will always take precedence over the settings for the default, even if the specific policy is a lower priority than the default, and even if the default policy's settings are set to disallow override.*

Connection Settings

Hostname

Enter the hostname of the server that houses your external directory store.

> ***Note:*** *If you will be using **LDAPS** or **LDAP with TLS**, the hostname must match the hostname used in your LDAP server's public SSL certificate's subject name or the DNS component of its alternate subject name.*

Port

Specify the port for your LDAP server. This is typically port **389** for LDAP or port **636** for LDAPS. BeyondTrust also supports global catalog over port **3268** for LDAP or **3269** for LDAPS.

Encryption

Select the type of encryption to use when communicating with the LDAP server. For security purposes, **LDAPS** or **LDAP with TLS** is recommended.

> ***Note:*** *Regular LDAP sends and receives data in clear text from the LDAP server, potentially exposing sensitive user account information to packet sniffing. Both LDAPS and LDAP with TLS encrypt user data as it is transferred, making these methods recommended over regular LDAP. LDAP with TLS uses the StartTLS function to initiate a connection over clear text LDAP but then elevates this to an encrypted connection. LDAPS initiates the connection over an encrypted connection without sending any data in clear text whatsoever.*

If you select **LDAPS** or **LDAP with TLS**, you must upload the Root SSL Certificate used by your LDAP server. This is necessary to ensure the validity of the server and the security of the data. The Root Certificate must be in PEM format.

> ***Note:*** *If the LDAP server's public SSL certificate's subject name, or the DNS component of its alternate subject name, does not match the value in the* ***Hostname*** *field, the provider will be treated as unreachable. You can, however, use a wildcard certificate to certify multiple subdomains of the same site. For example, a certificate for* ****.example.com*** *would certify both* ***access.example.com*** *and* ***remote.example.com****.*

Bind Credentials

Specify a username and password with which your Secure Remote Access Appliance can bind to and search the LDAP directory store.

If your server supports anonymous binds, you may choose to bind without specifying a username and password. Anonymous binding is considered insecure and is disabled by default on most LDAP servers.

Connection Method

If you are using an external directory store in the same LAN as your Secure Remote Access Appliance, the two systems may be able to communicate directly, in which case you can leave the option **Proxy from appliance through the Connection Agent** unchecked and move on.

If the two systems are unable to communicate directly, such as if your external directory server is behind a firewall, you must use a connection agent. Downloading the Win32 connection agent enables your directory server and your Secure Remote Access Appliance to communicate via an SSL-encrypted, outbound connection, with no firewall configuration. The connection agent can be downloaded to either the directory server or a separate server on the same network as your directory server (recommended).

In the case above, check **Proxy from appliance through the Connection Agent**. Create a **Connection Agent Password** for use in the connection agent installation process. Then click **Download Connection Agent**, run the installer, and follow the installation wizard. During installation, you will be prompted to enter the security provider name and the connection agent password you created above.

> ***Note:*** *BeyondTrust Cloud customers must run the connection agent in order to use an external directory store.*

Username

Enter a username for the bind credentials.

Password and Confirm Password

Enter and confirm a password for the bind credentials.

Directory Type

To aid in configuring the network connection between your Secure Remote Access Appliance and your security provider, you can select a directory type as a template. This pre-populates the configuration fields below with standard data but must be modified to match your security provider's specific configuration. Active Directory LDAP is the most common server type, though you can configure BeyondTrust to communicate with most types of security providers.

Cluster Settings *(Visible Only for Clusters)*

Member Selection Algorithm

Select the method to search the nodes in this cluster.

Top-to-bottom first attempts the server with the highest priority in the cluster. If that server is unavailable or the account is not found, the next highest priority server is attempted. The search moves down through the list of clustered servers until either the account is found or it is determined that the account does not exist on any of the specified and available servers.

Round-robin is designed to balance the load between multiple servers. The algorithm chooses at random which server to attempt first. If that server is unavailable or the account is not found, another random server is attempted. The search continues at random through the remaining servers in the cluster until either the account is found or it is determined that the account does not exist on any of the specified and available servers.

Retry Delay

Set how long to wait after a cluster member becomes unavailable before trying that cluster member again.

User Schema Settings

Override Cluster Values *(Visible Only for Cluster Nodes)*

If this option is unchecked, this cluster node will use the same schema settings as the cluster. If unchecked, you may modify the schema settings below.

Search Base DN

Determine the level in your directory hierarchy, specified by a distinguished name, at which the Secure Remote Access Appliance should begin searching for users. Depending on the size of your directory store and the users who require BeyondTrust accounts, you may improve performance by designating the specific organizational unit within your directory store that requires access. If you are not sure or if users span multiple organizational units, you may want to specify the root distinguished name of your directory store.

User Query

Specify the query information that the Secure Remote Access Appliance should use to locate an LDAP user when the user attempts to log in. The **User Query** field accepts a standard LDAP query (RFC 2254 – String Representation of LDAP Search Filters). You can modify the query string to customize how your users log in and what methods of usernames are accepted. To specify the value within the string that should act as the username, replace that value with *.

Browse Query

The browse query affects how results are displayed when browsing via group policies. This filters results so that only certain results display in the member selection dropdown when adding members to a group policy.

Object Classes

Specify valid object classes for a user within your directory store. Only users who posses one or more of these object classes will be permitted to authenticate. These object classes are also used with the attribute names below to indicate to your Secure Remote Access Appliance the schema the LDAP server uses to identify users. You can enter multiple object classes, one per line.

Attribute Names

Specify which fields should be used for a user's unique ID, display name, and email address.

Unique ID

This field requests a unique identifier for the object. While the distinguished name can serve as this ID, a user's distinguished name may change frequently over the life of the user, such as with a name or location change or with the renaming of the LDAP store. Therefore, most LDAP servers incorporate some field that is unique per object and does not change for the lifetime of the user. If you do use the distinguished name as the unique ID and a user's distinguished name changes, that user will be seen as a new user, and any changes made specifically to the individual's BeyondTrust user account will not be carried over to the new user. If your LDAP server does not incorporate a unique identifier, use a field that is least likely to have an identical entry for another user.

E-mail

This determines which field should be used as the user's email address.

Display Name

This determines which field should be used as the user's display name.

Group Schema Settings *(Visible Only if Performing Group Lookups)*

Directory Type

To aid in configuring the network connection between your Secure Remote Access Appliance and your security provider, you can select a directory type as a template. This pre-populates the configuration fields below with standard data but must be modified to match your security provider's specific configuration. Active Directory LDAP is the most common server type, though you can configure BeyondTrust to communicate with most types of security providers.

Search Base DN

Determine the level in your directory hierarchy, specified by a distinguished name, at which the Secure Remote Access Appliance should begin searching for groups. Depending on the size of your directory store and the groups that require access to the Secure Remote Access Appliance, you may improve performance by designating the specific organizational unit within your directory store that requires access. If you are not sure or if groups span multiple organizational units, you may want to specify the root distinguished name of your directory store.

Browse Query

The browse query affects how results are displayed when browsing via group policies. This filters results so that only certain results display in the member selection dropdown when adding members to a group policy.

Object Classes

Specify valid object classes for a group within your directory store. Only groups that possess one or more of these object classes will be returned. These object classes are also used with the attribute names below to indicate to your Secure Remote Access Appliance the schema the LDAP server uses to identify groups. You can enter multiple group object classes, one per line.

Attribute Names

Specify which fields should be used for a group's unique ID and display name.

Unique ID

This field requests a unique identifier for the object. While the distinguished name can serve as this ID, a group's distinguished name may change frequently over the life of a group, such as with a location change or with the renaming of the LDAP store. Therefore, most LDAP servers incorporate some field that is unique per object and does not change for the lifetime of the group. If you do use the distinguished name as the unique ID and a group's distinguished name changes, that group will be seen as a new group, and any group policies defined for that group will not be carried over to the new group. If your LDAP server does not incorporate a unique identifier, use a field that is least likely to have an identical entry for another group.

Display Name

This value determines which field should be used as the group's display name.

User to Group Relationships

This field requests a query to determine which users belong to which groups or, conversely, which groups contain which users.

Perform recursive search for groups

You can choose to perform a recursive search for groups. This will run a query for a user, then queries for all of the groups to which that user belongs, then queries for all groups to which those groups belong, and so forth, until all possible groups associated with that user have been found.

Running a recursive search can have a significant impact on performance, as the server will continue to issue queries until it has found information about all groups. If it takes too long, the user may be unable to log in.

A non-recursive search will issue only one query per user. If your LDAP server has a special field containing all of the groups to which the user belongs, recursive search is unnecessary. Recursive search is also unnecessary if your directory design does not handle group members of groups.

Test Settings

Username and Password

Enter a username and password for an account that exists on the server you are testing. This account must match the criteria for login specified in the configuration above.

Try to obtain user attributes and group memberships if the credentials are accepted

If this option is checked, your successful credential test will also attempt to check user attributes and group lookup. Note that for these features to be successfully tested, they must be supported and configured in your security provider.

Start Test

If your server is properly configured and you have entered a valid test username and password, you will receive a success message. Otherwise, you will see an error message and a log that will help in debugging the problem.

Edit Security Provider - RADIUS

General Settings

Name

Create a unique name to help identify this provider.

Enabled

If checked, your Secure Remote Access Appliance can search this security provider when a user attempts to log in. If unchecked, this provider will not be searched.

Keep display name synchronized with remote system

Checking this option keeps a user's display name set to the name designated on the security provider rather than allowing the display name to be modified in BeyondTrust.

Authorization Settings

Only allow the following users

You can choose to allow access only to specified users on your RADIUS server. Enter each username separated by a line break. Once entered, these users will be available from the **Add Policy Member** dialog when editing group policies on the **/login > Users & Security > Group Policies** page.

If you leave this field blank, all users who authenticate against your RADIUS server will be allowed; if you allow all, you must also specify a default group policy.

LDAP Group Lookup

If you want users on this security provider to be associated with their groups on a separate LDAP server, choose one or more LDAP group servers to use for group lookup.

Default Group Policy

Each user who authenticates against an external server must be a member of at least one group policy in order to authenticate to your Secure Remote Access Appliance, logging into either the /login interface or the access console. You can select a default group policy to apply to all users allowed to authenticate against the configured server.

Note that if a default policy is defined, then any allowed user who authenticates against this server will potentially have access at the level of this default policy. Therefore, it is recommended that you set the default to a policy with minimum privileges to prevent users from gaining permissions that you do not wish them to have.

Note: *If a user is in a default group policy and is then specifically added to another group policy, the settings for the specific policy will always take precedence over the settings for the default, even if the specific policy is a lower priority than the default, and even if the default policy's settings are set to disallow override.*

Connection Settings

Hostname

Enter the hostname of the server that houses your external directory store.

Port

Specify the authentication port for your RADIUS server. This is typically port **1812**.

Connection Method

If you are using an external directory store in the same LAN as your Secure Remote Access Appliance, the two systems may be able to communicate directly, in which case you can leave the option **Proxy from appliance through the Connection Agent** unchecked and move on.

If the two systems are unable to communicate directly, such as if your external directory server is behind a firewall, you must use a connection agent. Downloading the Win32 connection agent enables your directory server and your Secure Remote Access Appliance to communicate via an SSL-encrypted, outbound connection, with no firewall configuration. The connection agent can be downloaded to either the directory server or a separate server on the same network as your directory server (recommended).

In the case above, check **Proxy from appliance through the Connection Agent**. Create a **Connection Agent Password** for use in the connection agent installation process. Then click **Download Connection Agent**, run the installer, and follow the installation wizard. During installation, you will be prompted to enter the security provider name and the connection agent password you created above.

Shared Secret

Provide a new shared secret so that your Secure Remote Access Appliance and your RADIUS server can communicate.

Timeout (seconds)

Set the length of time to wait for a response from the server. Note that if the response is **Response-Accept** or **Response-Challenge**, then RADIUS will wait the entire time specified here before authenticating the account. Therefore, it is encouraged to keep this value as low as reasonably possible given your network settings. An ideal value is 3-5 seconds, with the maximum value at three minutes.

Cluster Settings *(Visible Only for Clusters)*

Member Selection Algorithm

Select the method to search the nodes in this cluster.

Top-to-bottom first attempts the server with the highest priority in the cluster. If that server is unavailable or the account is not found, the next highest priority server is attempted. The search moves down through the list of clustered servers until either the account is found or it is determined that the account does not exist on any of the specified and available servers.

Round-robin is designed to balance the load between multiple servers. The algorithm chooses at random which server to attempt first. If that server is unavailable or the account is not found, another random server is attempted. The search continues at random through the remaining servers in the cluster until either the account is found or it is determined that the account does not exist on any of the specified and available servers.

Retry Delay

Set how long to wait after a cluster member becomes unavailable before trying that cluster member again.

Test Settings

Username and Password

Enter a username and password for an account that exists on the server you are testing. This account must match the criteria for login specified in the configuration above.

Try to obtain user attributes and group memberships if the credentials are accepted

If this option is checked, your successful credential test will also attempt to check user attributes and group lookup. Note that for these features to be successfully tested, they must be supported and configured in your security provider.

Start Test

If your server is properly configured and you have entered a valid test username and password, you will receive a success message. Otherwise, you will see an error message and a log that will help in debugging the problem.

Edit Security Provider - Kerberos

General Settings

Name

Create a unique name to help identify this provider.

Enabled

If checked, your Secure Remote Access Appliance can search this security provider when a user attempts to log in. If unchecked, this provider will not be searched.

Keep display name synchronized with remote system

Checking this option keeps a user's display name set to the name designated on the security provider rather than allowing the display name to be modified in BeyondTrust.

Strip realm from principal names

Select this option to remove the REALM portion from the User Principal Name when constructing the BeyondTrust username.

Authorization Settings

User Handling Mode

Select which users can authenticate to your Secure Remote Access Appliance. **Allow all users** allows anyone who currently authenticates via your KDC. **Allow only user principals specified in the list** allows only user principles explicitly designated. **Allow only user principals that match the regex** allows only users principals who match a Perl-compatible regular expression (PCRE).

SPN Handling Mode: Allow only SPNs specified in the list

If unchecked, all configured Service Principal Names (SPNs) for this security provider are allowed. If checked, select specific SPNs from a list of currently configured SPNs.

LDAP Group Lookup

If you want users on this security provider to be associated with their groups on a separate LDAP server, choose one or more LDAP group servers to use for group lookup.

Default Group Policy

Each user who authenticates against an external server must be a member of at least one group policy in order to authenticate to your Secure Remote Access Appliance, logging into either the /login interface or the access console. You can select a default group policy to apply to all users allowed to authenticate against the configured server.

Note that if a default policy is defined, then any allowed user who authenticates against this server will potentially have access at the level of this default policy. Therefore, it is recommended that you set the default to a policy with minimum privileges to prevent users from gaining permissions that you do not wish them to have.

Note: *If a user is in a default group policy and is then specifically added to another group policy, the settings for the specific policy will always take precedence over the settings for the default, even if the specific policy is a lower priority than the default, and even if the default policy's settings are set to disallow override.*

Edit Security Provider - SAML

General Settings

Name

This unique name helps to identify your provider. The name for your SAML provider is auto-generated and cannot be edited at this time.

Enabled

If checked, your Secure Remote Access Appliance can search this security provider when a user attempts to log in. If unchecked, this provider will not be searched.

User Provision

By default, user provisioning occurs on this provider. If you have a SCIM provider set up, you can choose to provision users through that provider instead.

> ***Note:*** *This setting cannot be modified after this security provider is first saved.*

Identity Provider Settings

Identity Provider Metadata

The metadata file contains all the information needed for the initial setup of your SAML provider and must be downloaded from your identity provider. Save the XML file, and then click **Choose File** to select and upload the selected file.

> ***Note:*** *The fields for **Entity ID**, **Single Sign-On Service URL**, and **Certificate** are automatically populated from the identity provider's metadata file. If you cannot get a metadata file from your provider, this information can be entered manually.*

Entity ID

This is the unique identifier for the identity provider you are using.

Single Sign-On Service URL

When you want to log into BeyondTrust using SAML, this is the URL where you are automatically redirected so you can log in.

SSO URL Protocol Binding

This determines whether an HTTP POST occurs or whether the user is redirected to the sign-on URL. This should be left as redirect unless otherwise required by the identity provider.

Server Certificate

This certificate is used to verify the signature of the assertion sent from the identity provider.

Service Provider Settings

Service Provider Metadata

Download the BeyondTrust metadata, which you then need to upload to your identity provider.

Entity ID

This is your BeyondTrust URL. It uniquely identifies your site to the identity provider.

Private Key

If necessary, you can decrypt messages sent by the identity provider, if they support and require encryption. Click **Choose File** to upload the private key necessary to decrypt the messages sent from the identity provider.

User Provision Settings *(Visible Only if This Provider is Used for User Provisioning)*

User SAML Attribute

These attributes are used to provision users within BeyondTrust. The default values match BeyondTrust-certified applications with various identity providers. If you are creating your own SAML connector, you may need to modify the attributes to match what is being sent by your identity provider.

Authorization Settings *(Visible Only if This Provider is Used for User Provisioning)*

Group Lookups

This is the SAML attribute that contains the names of groups to which users should belong. The default name for the BeyondTrust applications is "Groups".

> ***Note:*** *If the attribute value contains multiple group names, you need to specify the delimiter used to separate their names. If the delimiter is left blank, then the attribute value may contain multiple XML nodes with each one containing a different name.*

Available Groups

Allows a predefined list of groups to be associated with the security provider. This list can then be used to associate a group with the appropriate group policy.

Default Group Policy

Each user who authenticates against an external server must be a member of at least one group policy in order to authenticate to your Secure Remote Access Appliance, logging into either the /login interface or the access console. You can select a default group policy to apply to all users allowed to authenticate against the configured server.

Note that if a default policy is defined, then any allowed user who authenticates against this server will potentially have access at the level of this default policy. Therefore, it is recommended that you set the default to a policy with minimum privileges to prevent users from gaining permissions that you do not wish them to have.

> ***Note:*** *If a user is in a default group policy and is then specifically added to another group policy, the settings for the specific policy will always take precedence over the settings for the default, even if the specific policy is a lower priority than the default, and even if the default policy's settings are set to disallow override.*

> For more information, please see SAML for Single Sign-On Authentication at https://www.beyondtrust.com/docs/privileged-remote-access/how-to/integrations/security-providers/saml/index.htm.

Edit Security Provider - SCIM

Note: *For SCIM to function, the SCIM API must be enabled on an API account, and the API must be configured on your SCIM provider. API accounts are managed at* ***/login > Management > API Configuration****. At this time, only one SCIM provider can be created. Once a SCIM provider has been created, the SCIM option is no longer available from the* ***Create Provider*** *dropdown. SCIM user provisioning utilizes SCIM 2.0 Users and Group objects. For more information about the SCIM 2.0 standard, please see http://www.simplecloud.info/.*

Note: *Privileged Remote Access now supports SCIM APIs for groups of users. Once you have configured a SCIM provider in /login and configured users and groups in your SCIM solution, PRA reflects the same groups as what is present in your SCIM solution, allowing you to select group polices by SCIM group.*

General Settings

Name

Create a unique name to help identify this provider.

Enabled

If checked, your Secure Remote Access Appliance can search this security provider when a user attempts to log in. If unchecked, this provider will not be searched.

SCIM User Query ID

From the dropdown, select the unique ID that SCIM should use for user queries.

SCIM Group Query ID

From the dropdown, select the unique ID that SCIM should use for group queries.

User Provision Settings

User Attribute

These attributes are used to provision users within BeyondTrust. The default values match BeyondTrust-certified applications with various identity providers.

Authorization Settings

Unique ID

Enter the SCIM attribute to use as the user's unique ID within BeyondTrust.

Default Group Policy

Each user who authenticates against an external server must be a member of at least one group policy in order to authenticate to your Secure Remote Access Appliance, logging into either the /login interface or the access console. You can select a default group policy to apply to all users allowed to authenticate against the configured server.

Note that if a default policy is defined, then any allowed user who authenticates against this server will potentially have access at the level of this default policy. Therefore, it is recommended that you set the default to a policy with minimum privileges to prevent users from gaining permissions that you do not wish them to have.

> ***Note:*** *If a user is in a default group policy and is then specifically added to another group policy, the settings for the specific policy will always take precedence over the settings for the default, even if the specific policy is a lower priority than the default, and even if the default policy's settings are set to disallow override.*

Attribute Name

Enter the name of the SCIM attribute that identifies users uniquely.

The groups provisioned with SCIM are always uniquely identified case-insensitively through their name for Group Lookup purposes.

Vendor Groups

Users & Security | Vendors

Create vendor groups to allow third-party users controlled access to systems. This may be needed to provide support, maintenance, or any other task that requires access system. You can configure up to 15 vendor groups.

Add New Vendor Group

Name

Enter a name for this vendor group.

Authorization Settings

Group Policy

The selected group policy defines the permissions, memberships, and other settings to all users authenticating with this vendor. These settings cannot be changed on a per-user basis. Select a policy from those available, or go to **Users and Security > Group Policies** to create a new one.

> ***Note:*** *Group Policies that grant administrative permissions are not available for vendors.*

Account Expires After

Set the number of days after which the account will be deactivated.

Notify the PRA Admin when a User is Added to this Vendor Group

If this box is checked, an email is sent to the PRA admin each time a new user is added to the group. You can require PRA admin approval for new members. If admin approval is required, a message displays next to the new member's name in the group member's list, indicating that the user **Needs Approval**.

PRA Administrator

Click the search field to select an admin. All vendor groups must have at least one admin. Vendor admins cannot add other vendor admins.

Network Restrictions

Network Address Whitelist

Enter network address prefixes, one per line, in the formats shown in the examples. Netmasks are optional, and they can be given in either dotted-decimal or integer bitmask format. Entries that omit a netmask are assumed to be single IP addresses.

Session Policies: Set Session Permission and Prompting Rules

Session Policies

With session policies, you can customize session security permissions to fit specific scenarios. Session policies can be applied to users and Jump Clients.

The **Session Policies** section lists available policies. Click the arrow by a policy name to quickly see where that policy is being used; its availability for users, access invites, and Jump Clients; and the tools configured.

Add, Edit, or Delete Session Policy

Create a new policy, modify an existing policy, or remove an existing policy.

Copy

To expedite the creation of similar policies, click **Copy** to create a new policy with identical settings. You can then edit this new policy to meet your specific requirements.

Add or Edit Session Policy

Display Name

Create a unique name to help identify this policy. This name helps when assigning a session policy to users and Jump Clients.

Code Name

Set a code name for integration purposes. If you do not set a code name, one is created automatically.

Description

Add a brief description to summarize the purpose of this policy. The description is seen when applying a policy to user accounts, group policies, and access invites.

Availability

Users

Choose if this policy should be available to assign to users (user accounts and group policies).

Access Invite

Choose if this policy should be available for users to select when inviting an external user to join a session.

Jump Items

Choose if this policy should be available to assign to Jump Items.

Dependents

If this session policy is already in use, you will see the number of users and Jump Clients using this policy.

Permissions

For all of the permissions that follow, you can choose to enable or disable the permission, or you can choose to set it to **Not Defined**. Session policies are applied to a session in a hierarchical manner, with Jump Clients taking the highest priority, then users, and then the global default. If multiple policies apply to a session, then the policy with the highest priority will take precedence over the others. If, for example, the policy applied to a Jump Client defines a permission, then no other policies may change that permission for the session. To make a permission available for a lower policy to define, leave that permission set to **Not Defined**.

Set which tools should be enabled or disabled with this policy.

Allow Elevated Access to Tools and Special Actions on the Endpoint

If enabled, access to elevated functionality is provided in the access console for this session without needing the explicit rights of a logged-in user on the remote endpoint.

If disabled, this setting restricts users from gaining full access to the file transfer and command shell functions when they jump to an elevated Jump Item but do not have elevated rights. To do this, special actions and power control actions are hidden and not available. It also restricts **File Transfer**, **Command Shell**, and **Registry Access** when there is no user present in the session. This setting applies where allowed by the endpoint's platform.

Screen Sharing

Screen Sharing Rules

Enable the user to view or control the remote screen. If **Not Defined**, this option will be set by the next lower priority policy. This setting may be overridden by a higher priority policy.

Allowed Endpoint Restrictions

Set if the user can suspend the remote system's mouse and keyboard input. The user may also prevent the remote desktop from being displayed.

Application Sharing Restrictions

Limit access to specified applications on the remote system with either **Allow only the listed executables** or **Deny only the listed executables**. You may also choose to allow or deny desktop access.

> ***Note:*** *This feature applies only to Windows and Linux operating systems and does not include Remote Desktop Protocol (RDP) or VNC sessions.*

Add New Executables

If application sharing restrictions are enforced, an **Add New Executables** button appears. Clicking this button opens a dialog that allows you to specify executables to deny or allow, as appropriate to your objectives.

After you have added executables, one or two tables display the file names or hashes you have selected for restriction. An editable comment field allows administrative notes.

Enter file names or SHA-256 hashes, one per line

When restricting executables, manually enter the executable file names or hashes you wish to allow or deny. Click on **Add Executable(s)** when you are finished to add the chosen files to your configuration.

You may enter up to 25 files per dialog. If you need to add more, click **Add Executable(s)** and then reopen the dialog.

Browse for one or more files

When restricting executables, select this option to browse your system and choose executable files to automatically derive their names or hashes. If you select files from your local platform and system in this manner, use caution to ensure that the files are indeed executable files. No browser level verification is performed.

Choose either **Use file name** or **Use file hash** to have the browser derive the executable file names or hashes automatically. Click **Add Executable(s)** when you are finished to add the chosen files to your configuration.

You may enter up to 25 files per dialog. If you need to add more, click **Add Executable(s)** and then reopen the dialog.

> ***Note:*** *This option is available only in modern browsers, not in legacy browsers.*

Allowed to log in using credentials from an Endpoint Credential Manager

Enable connection of a user to your Endpoint Credential Manager to use credentials from your existing password stores or vaults.

Use of the Endpoint Credential Manager requires a separate services agreement with BeyondTrust. Once a services agreement is in place, you may download the required middleware from the BeyondTrust Support Portal.

> ***Note:*** *Prior to 15.2, this feature is available only in sessions started from an elevated Jump Client on Windows®. Starting with 15.2, you also may use an Endpoint Credential Manager in Remote Jump sessions, Microsoft® Remote Desktop Protocol sessions, VNC sessions, and Shell Jump sessions. You may also use this feature with the Run As special action in a screen sharing session on a Windows® system.*

Annotations

Annotation Rules

Enables the user to use annotation tools to draw on the remote system's screen. If **Not Defined**, this option will be set by the next lower priority policy. This setting may be overridden by a higher priority policy.

File Transfer

File Transfer Rules

Enables the user to upload files to the remote system, download files from the remote system, or both. If **Not Defined**, this option will be set by the next lower priority policy. This setting may be overridden by a higher priority policy.

Accessible paths on the endpoint's filesystem

Allow the user to transfer files to or from any directories on the remote system or only specified directories.

Accessible paths on user's filesystem

Allow the user to transfer files to or from any directories on their local system or only specified directories.

Command Shell

Command Shell Rules

Enables the user to issue commands on the remote computer through a virtual command line interface. If **Not Defined**, this option will be set by the next lower priority policy. This setting may be overridden by a higher priority policy.

Note: *Command shell access cannot be restricted for Shell Jump sessions.*

Configure command filtering to prevent accidental use of commands that can be harmful to endpoint systems.

For more information on command filtering, please see Use Shell Jump to Access a Remote Network Device at www.beyondtrust.com/docs/privileged-remote-access/getting-started/access-console/shell-jump.htm.

System Information

System Information Rules

Enables the user to see system information about the remote computer. If **Not Defined**, this option will be set by the next lower priority policy. This setting may be overridden by a higher priority policy.

Allowed to use system information actions

Enables the user to interact with processes and programs on the remote system without requiring screen sharing. Kill processes; start, stop, pause, resume, and restart services; and uninstall programs.

Registry Access

Registry Access Rules

Enables the user to interact with the registry on a remote Windows system without requiring screen sharing. View, add, delete and edit keys, search and import/export keys.

Canned Scripts

Canned Script Rules

Enables the user to run canned scripts that have been created for their teams. If **Not Defined**, this option will be set by the next lower priority policy. This setting may be overridden by a higher priority policy.

Export Policy

You can export a session policy from one site and import those permissions into a policy on another site. Edit the policy you wish to export and scroll to the bottom of the page. Click **Export Policy** and save the file.

Import Policy

You may import those policy settings to any other BeyondTrust site that supports session policy import. Create a new session policy and scroll to the bottom of the page. Browse to the policy file and then click **Import Policy**. Once the policy file is uploaded, the page will refresh, allowing you to make modifications. Click **Save Policy** to make the policy available.

Save

Click **Save** to make this policy available.

Session Policy Simulator

Because layering policies can be complex, you can use the **Session Policy Simulator** to determine what the outcome will be. Additionally, you could use the simulator to troubleshoot why a permission is not available when you expected it to be.

User

Start by selecting the user performing the session. This dropdown includes both user accounts and access invite policies.

Session Start Method

Select the session start method.

Jump Client / Jump Shortcut

Search for a Jump Client or Jump Shortcut by name, comments, Jump Group, or tag.

Simulate

Click **Simulate**. In the area below, the permissions configurable by session policy are displayed in read-only mode. You can see which permissions are allowed or denied as a result of the stacked policies, as well as which policy set each permission.

Group Policies: Apply User Permissions to Groups of Users

Users & Security | Group Policies

Group Policies

The **Group Policies** page enables you to set up groups of users who will share common privileges.

Add New Policy, Edit, Delete

Create a new policy, modify an existing policy, or remove an existing policy.

Change Order

Click the **Change Order** button to drag and drop group policies to set their priority. Click **Save Order** for prioritization changes to take effect. When multiple policies apply to a given user, the permissions take effect by starting at the top of the **Group Policies** list, and then moving down the list. If a permission conflicts with a permission applied by a group policy higher in the list, then the lower permission will overwrite the higher, unless the higher was set as **Final**. In short, group policies that appear lower in the list have a higher functional priority than those that are higher.

Copy

To expedite the creation of similar policies, click **Copy** to create a new policy with identical settings. You can then edit this new policy to meet your specific requirements.

Add or Edit Policy

Policy Name

Create a unique name to help identify this policy.

Available Members and Policy Members

To assign members, click the **Add** button to open a select box. Select users from your local system, or select users or entire groups from configured security providers. To add users or groups from an external directory store such as LDAP, RADIUS, or Kerberos, you must first configure the connection on the **/login > Users & Security > Security Providers** page. If an attempt to add a user from a configured security provider is invalid, the synchronization log error message will appear here as well as in the log.

Account Settings

Which account settings should this Group Policy control?

For each setting, select whether it should be defined in this policy or left available for configuration for individual users. If it is defined, you will be unable to modify that privilege for an individual user from their user account page.

If you have a policy that defines a permission and you do not want any policy to be able to replace that permission, then you must select that the permission cannot be overridden, and the policy must be a higher priority than other policies that additionally define that setting.

Two Factor Authentication

Two-factor authentication (2FA) uses an authenticator app to provide a time-based, one-time code to log into the administrative interface, as well as the access console. If **Required** is selected, the user will be prompted to enroll and begin using 2FA at the next login. If **Optional** is selected, the user has the option to use 2FA, but it is not required.

> ***Note:*** *Users who were receiving codes to log in will be automatically upgraded to 2FA, although they may continue to use email codes until they register an app. Once they begin to use 2FA, the email code option is permanently disabled.*

Account Expiration

When checked, the account never expires. When not checked, an account expiration date must be set.

Account Enablement

Allows you to disable the account so the user cannot log in. Disabling does NOT delete the account.

Comments

Add comments to help identify the purpose of this object.

General Permissions

Which general settings should this Group Policy control?

For each setting, select whether it should be defined in this policy or left available for configuration for individual users. If it is defined, you will be unable to modify that privilege for an individual user from their user account page.

If you have a policy that defines a permission and you do not want any policy to be able to replace that permission, then you must select that the permission cannot be overridden, and the policy must be a higher priority than other policies that additionally define that setting.

Administration

Administrative Privileges

Grants the user full administrative rights.

Vault Administrative Privileges

Enables the user access to the Vault.

Password Setting

Enables the user to set passwords and unlock accounts for non-administrative local users.

Jumpoint Editing

Enables the user to create or edit Jumpoints. This option does not affect the user's ability to access remote computers via Jumpoint, which is configured per Jumpoint or group policy.

Team Editing

Enables the user to create or edit teams.

Jump Group Editing

Enables the user to create or edit Jump Groups.

Canned Script Editing

Enables the user to create or edit canned scripts for use in screen sharing or command shell sessions.

Custom Link Editing

Enables the user to create or edit custom links.

Reporting

Session and Team Report Access

Allowed to View Access Session Reports

Enables the user to run reports on access session activity, viewing only sessions for which they were the primary session owner, only sessions for endpoints belonging to a Jump Group of which the user is a member, or all sessions.

Allowed to view access session recordings

Enables the user to view video recordings of screen sharing sessions and command shell sessions.

Vault Report Access

Allowed to view Vault Reports

Enables the user the view the his or her own vault events or all vault events.

Access Permissions

Allowed to access endpoints

Enables the user to use the access console in order to run sessions. If endpoint access is enabled, options pertaining to endpoint access will also be available.

Session Management

Allowed to share sessions with teams which they do not belong to

Enables the user to invite a less limited set of user to share sessions, not only their team members. Combined with the extended availability permission, this permission expands session sharing capabilities.

Allowed to invite external users

Enables the user to invite a third-party user to participate in a session one time only.

Allowed to enable extended availability mode

Enables the user to receive email invitations from other users requesting to share a session even when they are not logged into the access console.

Allowed to edit the external key

Enables the user to modify the external key from the session info pane of a session within the access console.

User to User Screen Sharing

Allowed to show screen to other users

Enables the user to share their screen with another user without the receiving user having to join a session. This option is available even if the user is not in a session.

Allowed to give control when showing screen to other users

Enables the user sharing their screen to give keyboard and mouse control to the user viewing their screen.

Jump Technology

Allowed Jump Item Methods

Enables the user to Jump to computers using **Jump Clients**, **Local Jump on the local network**, **Remote Jump via a Jumpoint**, **Remote VNC via a Jumpoint**, **Remote RDP via a Jumpoint**, **Web Jump via a Jumpoint**, **Shell Jump via a Jumpoint**, and **Protocol Tunnel Jump via a Jumpoint**.

Jump Item Roles

A Jump Item Role is a predefined set of permissions regarding Jump Item management and usage. For each option, click **Show** to open the Jump Item Role in a new tab.

The **Default** role is used only when **Use User's Default** is set for that user in a Jump Group.

The **Personal** role applies only to Jump Items pinned to the user's personal list of Jump Items.

The **Teams** role applies to Jump Items pinned to the personal list of Jump Items of a team member of a lower role. For example, a team manager can view team leads' and team members' personal Jump Items, and a team lead can view team members' personal Jump Items.

The **System** role applies to all other Jump Items in the system. For most users, this should be set to **No Access**. If set to any other option, the user is added to Jump Groups to which they would not normally be assigned, and in the access console, they can see non-team members' personal lists of Jump Items.

Session Permissions

Set the prompting and permission rules that should apply to this user's sessions. Choose an existing session policy or define custom permissions for this user. If **Not Defined**, the global default policy will be used. These permissions may be overridden by a higher policy.

Description

View the description of a pre-defined session permission policy.

Screen Sharing

Screen Sharing Rules

Enable the user to view or control the remote screen. If **Not Defined**, this option will be set by the next lower priority policy. This setting may be overridden by a higher priority policy.

For more information, please see Control the Remote Endpoint with Screen Sharing at https://www.beyondtrust.com/docs/privileged-remote-access/getting-started/access-console/screen-sharing.htm.

Application Sharing Restrictions

Limit access to specified applications on the remote system with either **Allow only the listed executables** or **Deny only the listed executables**. You may also choose to allow or deny desktop access.

Note: *This feature applies only to Windows and Linux operating systems and does not include Remote Desktop Protocol (RDP) or VNC sessions.*

Add New Executables

If application sharing restrictions are enforced, an **Add New Executables** button appears. Clicking this button opens a dialog that allows you to specify executables to deny or allow, as appropriate to your objectives.

After you have added executables, one or two tables display the file names or hashes you have selected for restriction. An editable comment field allows administrative notes.

Enter file names or SHA-256 hashes, one per line

When restricting executables, manually enter the executable file names or hashes you wish to allow or deny. Click on **Add Executable(s)** when you are finished to add the chosen files to your configuration.

You may enter up to 25 files per dialog. If you need to add more, click **Add Executable(s)** and then reopen the dialog.

Browse for one or more files

When restricting executables, select this option to browse your system and choose executable files to automatically derive their names or hashes. If you select files from your local platform and system in this manner, use caution to ensure that the files are indeed executable files. No browser level verification is performed.

Choose either **Use file name** or **Use file hash** to have the browser derive the executable file names or hashes automatically. Click **Add Executable(s)** when you are finished to add the chosen files to your configuration.

You may enter up to 25 files per dialog. If you need to add more, click **Add Executable(s)** and then reopen the dialog.

> ***Note:*** *This option is available only in modern browsers, not in legacy browsers.*

Allowed Endpoint Restrictions

Set if the user can suspend the remote system's mouse and keyboard input. The user may also prevent the remote desktop from being displayed.

> For more information, please see Control the Remote Endpoint with Screen Sharing at https://www.beyondtrust.com/docs/privileged-remote-access/getting-started/access-console/screen-sharing.htm.

Annotations

Annotation Rules

Enables the user to use annotation tools to draw on the remote system's screen. If **Not Defined**, this option will be set by the next lower priority policy. This setting may be overridden by a higher priority policy.

> For more information, please see Use Annotations to Draw on the Remote Screen of the Endpoint at https://www.beyondtrust.com/docs/privileged-remote-access/getting-started/access-console/annotations.htm.

File Transfer

File Transfer Rules

Enables the user to upload files to the remote system, download files from the remote system, or both. If **Not Defined**, this option will be set by the next lower priority policy. This setting may be overridden by a higher priority policy.

Accessible paths on the endpoint's filesystem

Allow the user to transfer files to or from any directories on the remote system or only specified directories.

Accessible paths on user's filesystem

Allow the user to transfer files to or from any directories on their local system or only specified directories.

For more information, please see File Transfer to and from the Remote System Endpoint at https://www.beyondtrust.com/docs/privileged-remote-access/getting-started/access-console/file-transfer.htm.

Command Shell

Command Shell Rules

Enables the user to issue commands on the remote computer through a virtual command line interface. If **Not Defined**, this option will be set by the next lower priority policy. This setting may be overridden by a higher priority policy.

Note: *Command shell access cannot be restricted for Shell Jump sessions.*

Configure command filtering to prevent accidental use of commands that can be harmful to endpoint systems.

For more information on command filtering, please see Use Shell Jump to Access a Remote Network Device at www.beyondtrust.com/docs/privileged-remote-access/getting-started/access-console/shell-jump.htm.

For more information, please see Open the Command Shell on the Remote Endpoint Using the Access Console at https://www.beyondtrust.com/docs/privileged-remote-access/getting-started/access-console/command-shell.htm.

System Information

System Information Rules

Enables the user to see system information about the remote computer. If **Not Defined**, this option will be set by the next lower priority policy. This setting may be overridden by a higher priority policy.

Allowed to use system information actions

Enables the user to interact with processes and programs on the remote system without requiring screen sharing. Kill processes; start, stop, pause, resume, and restart services; and uninstall programs.

> For more information, please see View System Information on the Remote Endpoint at https://www.beyondtrust.com/docs/privileged-remote-access/getting-started/access-console/system-info.htm.

Registry Access

Registry Access Rules

Enables the user to interact with the registry on a remote Windows system without requiring screen sharing. View, add, delete and edit keys, search and import/export keys.

> For more information, please see Access the Remote Registry Editor on the Remote Endpoint at https://www.beyondtrust.com/docs/privileged-remote-access/getting-started/access-console/registry-editor.htm.

Canned Scripts

Canned Script Rules

Enables the user to run canned scripts that have been created for their teams. If **Not Defined**, this option will be set by the next lower priority policy. This setting may be overridden by a higher priority policy.

> For more information, please see Open the Command Shell on the Remote Endpoint Using the Access Console at https://www.beyondtrust.com/docs/privileged-remote-access/getting-started/access-console/command-shell.htm.

Availability Settings

Login Schedule

Restrict user login to the following schedule

Set a schedule to define when users can log into the access console. Set the time zone you want to use for this schedule, and then add one or more schedule entries. For each entry, set the start day and time and the end day and time.

If, for instance, the time is set to start at 8 am and end at 5 pm, a user can log in at any time during this window but may continue to work past the set end time. They will not, however, be allowed to log back in after 5 pm.

Force logout when the schedule does not permit login

If stricter access control is required, check this option. This forces the user to log out at the scheduled end time. In this case, the user receives recurring notifications beginning 15 minutes prior to being disconnected. When the user is logged out, any owned sessions will follow the session fallback rules.

Memberships

Add Team Membership

Search for teams to which members of this group policy should belong. You can set the role as **Team Member**, **Team Lead**, or **Team Manager**. These roles play a significant part in the **Dashboard** feature of the access console. Click **Add**.

Added teams are shown in a table. You can edit the role of members in a team or delete the team from the list.

Remove Team Membership

Search for teams from which members of this group policy should be removed, and then click **Add**. Removed teams are shown in a table. You can delete a team from the list.

Add Jumpoint Membership

Search for Jumpoints which members of this group policy should be allowed to access, and then click **Add**. Added Jumpoints are shown in a table. You can delete a Jumpoint from the list.

Remove Jumpoint Membership

Search for Jumpoints from which members of this group policy should not be removed, and then click **Add**. Removed Jumpoints are shown in a table. You can delete a Jumpoint from the list.

Add Jump Group Memberships

Search for Jump Groups to which members of this group policy should belong. You can set each user's Jump Item Role to set their permissions specific to Jump Items in this Jump Group, or you can use the user's default Jump Item Roles set in this group policy or on the **Users & Security > Users** page. A Jump Item Role is a predefined set of permissions regarding Jump Item management and usage.

> For more information, please see Use Jump Item Roles to Configure Permission Sets for Jump Items at https://www.beyondtrust.com/docs/privileged-remote-access/how-to/jumpoint/jump-item-roles.htm.

You can also apply a Jump Policy to manage user access to the Jump Items in this Jump Group. Selecting **Set on Jump Items** instead uses the Jump Policy applied to the Jump Item itself. Jump Policies are configured on the **Jump > Jump Policies** page and determine the times during which a user can access this Jump Item. A Jump Policy can also send a notification when it is accessed or can require approval to be accessed. If neither the user nor the Jump Item has a Jump Policy applied, this Jump Item can be accessed without restriction.

> For more information, please see Create Jump Policies to Control Access to Jump Items at https://www.beyondtrust.com/docs/privileged-remote-access/how-to/jumpoint/policies.htm.

Added Jump Groups are shown in a table. You can edit a Jump Group's settings or delete the Jump Group from the list.

Remove Jump Group Memberships

Search for Jump Groups from which members of this group policy should be removed, and then click **Add**. Removed Jump Groups are shown in a table. You can delete a Jump Group from the list.

Add Vault Account Memberships

Search for an account, select the **Vault Account Role**, and then click **Add** to grant members of the policy access to the selected vault account. Users may have memberships added by other group policies. View **Vault > Accounts** to see all members within each account. Users may be assigned one of two roles for using the vault account:

- **Inject** (default value): Users with this role can use this account in Privileged Remote Access sessions.
- **Inject and Checkout**: Users with this role can use this account in Privileged Remote Access sessions and can check out the account on **/login**. The **Checkout** permission has no affect on generic SSH accounts.

> ***Note:*** *Enable the* ***Add Vault Account Memberships*** *permission to assign a* ***Vault Account Role*** *to a vault account in a group policy. The* ***Vault Account Role*** *is visible in the list of accounts added to the group policy.*

Add Vault Account Group Memberships

Search for an account group, select the **Vault Account Role**, and then click **Add** to grant members of the policy access to the group of vault accounts. Users may have memberships added by other group policies. View **Vault > Account Groups** to see all members within each group. Users may be assigned one of two roles for using the group of vault accounts:

- **Inject** (default value): Users with this role can use this account in Privileged Remote Access sessions.
- **Inject and Checkout**: Users with this role can use this account in Privileged Remote Access sessions and can check out the account on **/login**. The **Checkout** permission has no affect on generic SSH accounts.

> ***Note:*** *Enable the* ***Add Vault Account Group*** *permission to assign a* ***Vault Account Role*** *to a group of vault accounts in a group policy. The* ***Vault Account Role*** *is visible in the list of account groups added to the group policy.*

Save

Click **Save** to put the policy into effect.

Export Policy

You can export a group policy from one site and import those permissions into a policy on another site. Edit the policy you wish to export and scroll to the bottom of the page. Click **Export Policy** and save the file.

> ***Note:*** *When exporting a group policy, only the policy name, account settings, and permissions are exported. Policy members, team memberships, and Jumpoint memberships are not included in the export.*

Import Policy

You may import exported group policy settings to any other BeyondTrust site that supports group policy import. Create a new group policy or edit an existing policy whose permissions you wish to overwrite, and then scroll to the **Import Policy** section at the bottom of the page. Click **Select Policy File**, locate the policy file, and then click **Open**. Once the policy file is uploaded, the page will refresh, allowing you to make modifications; click **Save** to put the group policy into effect.

Note: *Importing a policy file to an existing group policy will overwrite any previously defined permissions, with the exception of policy members, team memberships, and Jumpoint memberships.*

Kerberos Keytab: Manage the Kerberos Keytab

Users & Security | Kerberos Keytab

Kerberos Keytab Management

BeyondTrust supports single sign-on functionality using the Kerberos authentication protocol. This enables users to authenticate to the Secure Remote Access Appliance without having to enter their credentials. Kerberos authentication applies both to the /login web interface and to the access console.

To integrate Kerberos with your Secure Remote Access Appliance, you must have a Kerberos implementation either currently deployed or in the process of being deployed. Specific requirements are as follows:

- You must have a working Key Distribution Center (KDC) in place.
- Clocks must be synchronized across all clients, the KDC, and the Secure Remote Access Appliance. Using a Network Time Protocol server (NTP) is an easy way to ensure this.
- You must have a Service Principal Name (SPN) created on the KDC for your Secure Remote Access Appliance.

Configured Principles

The **Configured Principals** section lists all of the available SPNs for each uploaded keytab.

Once you have available SPNs, you can configure a Kerberos security provider from the **Security Providers** page and define which user principals may authenticate to the Secure Remote Access Appliance via Kerberos.

Import Keytab

UploadChoose File

Export the keytab for the SPN from your KDC and upload it to the Secure Remote Access Appliance via the **Import Keytab** section of this page.

Reports

Access: Report on Session Activity

Access Reports

Administrators and privileged users can generate broad, comprehensive reports and also apply specific filtering to customize reported information based on clear-cut needs.

Report Type

Generate activity reports according to three separate report types: **Session**, **Summary**, and **Session Forensics** (if enabled).

Session Report

View all access sessions that match the criteria you specified in report filters. Session reports include basic session information along with links to session details, chat transcripts, and video recordings of screen sharing, Protocol Tunnel Jumps, and command shells.

Session reports detail a record of the full chat transcript, the number of files transferred, and specific actions that took place during the session. Windows events that present obvious visual changes within a session are captured as events in the session details. This primarily includes changes to the foreground window, with the executable name and its window title.

Other session information includes the session duration, local and remote IP addresses, and remote system information (if enabled). Reports can be viewed online or downloaded to your local system.

If session recording is enabled, view a video playback of individual sessions, including captions of who was in control of the mouse and keyboard at any given point during the session. If Protocol Tunnel Jump recording is enabled, view video recordings of the user's entire desktop. If command prompt recording is enabled, view recordings and/or text transcripts of all command shells run during the session. All recordings are stored on the BeyondTrust Appliance in raw format and are converted to compressed format when viewed or downloaded.

Summary Report

Summary reports provide an overview of session activity over time, categorized by user. Statistics include the total number of sessions run, the average number of sessions per weekday, and the average duration of sessions.

Session Forensics Report

Access sessions forensics reports allow you to search for session events across all access sessions, as well as find sessions containing the given text or phrase provided in the filter. This searches chat messages, command shell commands, file transfers, file system modifications, registry modifications, and foreground window titles.

Filters

Apply filtering options as needed to derive more customized reports from the basic report types. Enable one or more filters as you wish, but only sessions that match all filters selected will be shown.

Session ID or Sequence Number

This unique identifier requires that you specify the ID (LSID) or sequence number for the single session you seek. This is often helpful if you have an external ticketing system or CRM integration. You cannot combine this filter with others.

Date Range

Select a start date for which to pull reporting data. Then select either the number of days for which to pull your report or an end date.

Endpoint

Filter sessions by computer name, public IP, or private IP.

Jump Group

Filter sessions by Jump Items belonging to a certain Jump Group. If selected, the following options are available:

- Find all sessions started from Jump Items belonging to a specific Jump Group.
- Find all sessions started from personal Jump Items for a specific user.
- Find all sessions in your personal Jump Group.

User

Select a user from the **Search for a user** box to filter sessions where a specific user participated. Check **Match only if the selected user is the primary user for the session** to find sessions only where the user was the primary user.

External Key

Filter to report sessions that used the same specific external key.

Include only completed sessions

Filter to include only sessions that have been completed. This excludes sessions that are still running.

Team Activity Report

Date Range

Select a start date for which to pull reporting data. Then select either the number of days for which to pull your report or an end date.

Team

Choose the team for which you want to view activity logs.

View all team activity that matches the criteria specified on the previous page. Team activity reports include information about users as they log in or out of the access console, chat messages sent between team members, user-to-user screen sharing actions as logged in chat, and files shared and downloaded.

Vault: Report on Vault Account and User Activity

Reports | Vault

Vault Account Activity Report

Date Range

Select a start date for which to pull reporting data. Then select either the number of days for which to pull your report or an end date.

Account

To see all events involving a specific BeyondTrust Vault stored account, type in the account name, or select the account from the dynamic pop-up list.

User

To see all events involving a specific privileged user, type in the user's name, or select the user's name from the dynamic pop-up list.

For more information, please see BeyondTrust Vault Technical Whitepaper at https://www.beyondtrust.com/docs/privileged-remote-access/how-to/vault/index.htm.

***Note:** If a user has been anonymized in an effort to follow compliance standards, the **Vault Account Activity** report may display pseudonyms for user data or may indicate that information has been deleted. To learn more about data anonymization and deletion for compliance efforts, please see Compliance: Anonymize Data to Meet Compliance Standards at https://www.beyondtrust.com/docs/privileged-remote-access/getting-started/admin/compliance.htm.*

Vault Account Activity Report Results

Because users can be granted separate access to use and check out accounts, the **Vault Account Activity Report** distinguishes between the two. This allows administrators to tell the difference between a user who is able to view the account's password and a user who is only able to inject credentials in a session.

In the **Vault Account Activity Report**, the **Data** column shows information associated with the event. The **Credentials Checked Out** event contains a **Details** link in the new **Data** column when credentials are checked out while in a session. This link redirects to the **Support Session Detail Report** in which the credentials were used.

***Note:** If the credentials are checked out from **/login**, then no **Details** link is present in the **Data** column.*

Compliance: Make Privileged Remote Access Data Anonymous to Meet Compliance Standards

Reports | Compliance

IMPORTANT!

*By default, the **Compliance** tab is disabled. If your organization wishes to have this functionality, please contact BeyondTrust Support at www.beyondtrust.com/docs/index.htm#support.*

User Anonymization

Information about users as well as the actions performed during access sessions can be made anonymous to meet privacy regulations and compliance standards.

To make data anonymous, type the username, display name, or email address and then select the user from the list. Click **Search Representative Activity**. If data is found, the system returns a list of the information found for the user, along with a randomly-generated, proposed replacement term for the information. The proposed term is click-able, allowing the **Edit Replacement** prompt to appear. Within the prompt, the data can be made anonymous by entering in a preferred replacement term for the data. When finished, click **Edit Replacement Term in All History** to replace the term in the section.

The list updates with the new replacement term and displays "All access sessions and team activity events for this user will be marked as anonymized at: (date and time)." After reviewing the replacement terms and time stamp, click **Delete User and Anonymize** to begin the anonymizing process for the entire software. Before stating the anonymization process, you are required to enter your display name.

IMPORTANT!

All session recordings are deleted as part of the anonymization request.

Endpoint Anonymization

Information about endpoints being accessed as well as the actions performed during access sessions can be made anonymous to meet privacy regulations and compliance standards.

To make data anonymous, enter the endpoint's name, hostname, or IP address into the field. Select the **Partial match** checkbox if partial matches should be listed. Then click **Search Customer Activity**. If data is found, the system returns a list of the information found for the endpoint along with a randomly-generated, proposed replacement term for the information. The proposed term is clickable, allowing the **Edit Replacement** prompt to appear. Within the prompt, the data can be made anonymous by entering in a preferred replacement term for the data. When finished, click **Edit Replacement Term in All History** to replace the term in the section.

The list updates with the new replacement term and displays "The selected access sessions will be marked as anonymized at: (date and time)." After reviewing the replacement terms and time stamp, click **Anonymize Selected Sessions** to kick-start the anonymizing process for the entire software. Before stating the anonymization process, you are required to enter your display name.

You can also choose to **Add Custom**. This allows you to enter and to search for customized information, such as account numbers.

IMPORTANT!

All session recordings are deleted as part of the anonymization request.

Status

Review information about anonymization jobs, including the found and replacement terms, the type of data being anonymized, and the status of the job.

The job status is automatically refreshed every 15 seconds, and the status for completed requests remains available for 24 hours.

***Note:** This status information is also available in session reports.*

***Note:** For environments where failover or Atlas is configured, the anonymization of data is not complete until synchronization across all nodes or backup appliances has occurred.*

Management

Software: Download a Backup, Upgrade Software

Backup Settings

It is an important disaster recovery best practice to save a backup copy of your software settings regularly. BeyondTrust recommends backing up your Secure Remote Access Appliance configuration each time you change its settings. In the event of a hardware failure, a backup file will speed time-to-recovery and, if necessary, allow BeyondTrust to provide you access to temporary hosted services while retaining the settings from your most recent backup.

Backup Password

To password protect your software backup file, create a password. If you do choose to set a password, you will be unable to revert to the backup without providing the password.

Include logged history reporting data

If this option is checked, your backup file will include session logs. If unchecked, session reporting data will be excluded from the backup.

Download Backup

Save a secure copy of your software configuration. Save this file in a secure location.

Backup Vault Encryption Key

The Vault encryption key is used to encrypt and decrypt all the Vault credentials stored on the appliance. If you are ever required to restore configuration data from a backup onto a new appliance, you must also restore the Vault encryption key from a backup to be able to use the encrypted Vault credentials contained in the configuration backup.

Restore Settings

Configuration and Vault Encryption Key Backup File

Should you need to revert to a backup, browse to the latest backup file that you saved.

Configuration and Vault Encryption Key Backup Password

If you created a password for your backup file, enter it here.

Upload Backup

Upload the backup file to your Secure Remote Access Appliance and restore your site's settings to those saved on the backup.

> For more information, please see Back Up Procedures at https://www.beyondtrust.com/docs/privileged-remote-access/how-to/disaster-recovery/back-up-procedures.htm.

Upload Update

Select a software update file to manually upload new software packages from BeyondTrust. You will be asked to confirm that you wish to upload the software package. The **Uploaded Update** section displays additional information to verify your uploaded package. Click **Install** if you wish to complete the installation process, or **Delete Update** if you wish to clear the update staging area. If your update package only contains additional licenses, you can install the update without restarting the appliance. After confirmation that you wish to install, the page will display a progress bar to notify you of the overall installation progress. Updates made here will automatically update all sites and licenses on your Secure Remote Access Appliance.

> ***Note:*** *Your Secure Remote Access Appliance administrative can also use the* ***Check for Updates*** *feature of the appliance interface to automatically search for and install new software packages.*

Security: Manage Security Settings

Passwords

Minimum Password Length

Set rules for local user accounts regarding the length of passwords.

Require Complex Passwords

Set rules for local user accounts regarding the complexity of passwords.

Default Password Expiration

Set rules for local user accounts regarding how often passwords expire.

Enable Password Reset

Allow users with configured email addresses to reset passwords. The link provided in password reset emails are valid until one of the following events occurs:

- 24 hours has elapsed.
- The link is clicked, and the password is successfully reset.
- The system sends another link to the email address.

Account Lockout After

Set the number of times an incorrect password can be entered before the account is locked out.

Account Lockout Duration

Set how long a locked-out user must wait before being allowed to reattempt login. Alternatively, require an admin to unlock the account.

Access Console

Terminate Session If Account Is In Use

If a user tries to log into the access console with an account already in use, a checked **Terminate Session** box disconnects the previous connection in order to allow the new login.

Enable Saved Logins

Allow or disallow the access console to remember a user's credentials.

Log Out Idle User After

Set the length of time after which an inactive user is logged out of the access console to free the license for another user.

Enable Warning and Logout Notification on Idle Timeout

Set this option to show a notification to an idle user 30 seconds before a logout is set to occur. The user will also receive another notification when the logout has occurred.

Remove User from Session After Inactivity

This option effectively pushes a user out of a session after the period of inactivity you select. This helps BeyondTrust customers meet compliance initiatives with inactivity requirements. The user is notified 1 minute prior to removal and may reset the timeout.

A user is considered active in a session if any files are being transferred, whether through the file transfer tab or the chat interface, or if they click the mouse or press a key in the session tab. Mouse movement by itself does not count as activity. As soon as activity stops, the inactivity timer begins.

Allow Mobile Access Console and Privileged Web Access Console to Connect

Give users the option of accessing remote systems through the BeyondTrust access console app for iOS and Android, as well as through the privileged web access console, a browser-based access console.

Clipboard Synchronization Mode

Clipboard Synchronization Mode determines how users are allowed to synchronize clipboards within a screen sharing session. The available settings are as follows:

- **Not Allowed**: The user cannot access or modify the remote computer's clipboard.
- **Allowed to Manually Send Clipboard From User to Customer** : The user can click a button to copy the contents of the local clipboard to the remote computer's clipboard.
- **Allowed to Manually Send Clipboard in Either Direction**: The user can click a button to copy the contents of the local clipboard to the remote computer's clipboard or can copy the contents of the remote clipboard to their local clipboard.
- **Automatically Send Clipboard Changes in Both Directions**: The contents of both the local and remote clipboards automatically remain the same.

Note: *You MUST restart the software on the status page for this setting to take effect.*

Miscellaneous

Days to Keep Logging Information

In **Days to Keep Logging Information**, you can set how long logging information should be stored on the appliance. This information includes the session reporting data and recordings. The maximum duration for which session reporting data and recordings can be retained on a Secure Remote Access Appliance is 90 days. This is the default value in a new installation. It is possible that session recordings for some sessions within the retention time frame are not available. This could be caused by disk space constraints or the **Days to Keep Logging Information** setting.

The Secure Remote Access Appliance runs a maintenance script every day that ensures disk usage does not exceed 90%. Should this be exceeded, the script begins deleting session recordings based on a formula until the disk usage is less than 90%. If the **Days to Keep Logging Information** setting was recently changed, the new setting may take up to 24 hours to go into effect.

If data or recordings must be retained beyond the configured limit, BeyondTrust recommends using the Reporting API (www.beyondtrust.com/docs/privileged-remote-access/how-to/integrations/api/reporting).

Inter-appliance Communication Pre-shared Key

Enter a password in the **Inter-appliance Communication Pre-shared Key** field to establish a trusted relationship between two appliances. Matching keys are required for two or more appliances to be configured for features such as failover or clustering. The key must contain at least 6 characters and contain at least one uppercase letter, one lowercase letter, one number, and one special character.

Network Restrictions

Determine which IP networks should be able to access /login, /api, and the BeyondTrust access console on your Secure Remote Access Appliance. If you enable network restrictions, you can also enforce the networks on which access consoles may be used.

Admin Interface (/login) and API Interface (/api)

- **Always apply network restrictions**: when selected, you have the option of creating either a whitelist containing only allowed networks, or a blacklist containing networks that are denied access. When this option is selected, you can determine which restrictions, if any, should apply to the desktop, mobile, and web access consoles.
- **Never apply network restrictions**: when selected, no restrictions are applied and no other options are available to apply restrictions to the desktop, mobile, and web console.

Desktop and Mobile Access Console

- **Always apply network restrictions**: when selected, it inherits the network restrictions entered for the Admin interface.
- **Never apply network restrictions**: when selected, no restrictions are applied to the desktop and mobile consoles, but you have the option to apply restrictions to the web access console.
- **Only apply network restrictions for user's first authentication**: this applies restrictions selected above, but only when the user first logs in.

Web Console (/console)

- **Always apply network restrictions**: when selected, the web access console inherits the restrictions entered for the admin interface.
- **Never apply network restrictions**: when selected, no restrictions are applied to the web access console, even if restrictions are in effect for the other access console methods.

For more information, please see Privileged Web Access Console Guide at https://www.beyondtrust.com/docs/privileged-remote-access/getting-started/access-console/web-access/index.htm.

Port Restrictions for Administrative Web Interface

Set the ports through which your /login interface can be accessed.

Proxy Configuration

Configure a proxy server to control the dataflow for information sent from the appliance. This applies to outbound events and API calls.

Proxy Protocol

Configure HTTP or HTTPS proxy types for outbound connectivity from the appliance.

Enable Proxy Configuration

Check the box to enable the outbound proxy settings.

Proxy Host

Enter the IP address or hostname of your proxy server.

Proxy Port

Enter the port your proxy server uses. The default port is **1080**.

Proxy Username and Password

If your proxy server requires authentication, enter a username and password.

Site Configuration: Set HTTP Ports, Enable Prerequisite Login Agreement

Management | Site Configuration

HTTP

Site Addresses

Set one or more DNS addresses that resolve to your Secure Remote Access Appliance.

HTTP Port and HTTPS Port

Experienced network technicians operating in non-standard network environments can change the ports through which BeyondTrust traffics. These port settings should be adjusted only in the case where ports other than the standard 80 and 443 are used for web access.

/login Prerequisite Login Agreement

Enable Login Agreement

You can enable a login agreement that users must accept before accessing the /login administrative interface. The configurable agreement allows you to specify restrictions and internal policy rules before users are allowed to log in.

Agreement Title

Customize the title of the agreement.

Agreement Text

Provide the text for the login agreement.

Email Configuration: Configure the Software to Send Emails

Management | Email Configuration

Email Address

Note: *If an appliance is designated as a backup appliance or a traffic node, the email configuration for that appliance will be overwritten with the email configuration defined on the primary master appliance.*

From Address

Set the email address from which automatic messages from your Secure Remote Access Appliance will be sent.

SMTP Relay Server

Configure your Secure Remote Access Appliance to work with your SMTP relay server in order to send automatic email notifications of certain events.

SMTP Relay Server

Enter the hostname or IP address of your SMTP relay server.

SMTP Port

Set the SMTP port to contact this server on.

SMTP Encryption

If your SMTP server supports TLS encryption, choose **TLS** or **STARTTLS**. Otherwise, select **None**.

SMTP Username

If your SMTP server requires authentication, enter a username.

SMTP Password

If your SMTP server requires authentication, enter a password.

Admin Contact

Default Admin Contact Email Addresses

Enter one or more email addresses to which emails should be sent. Separate addresses with a space.

Send Daily Communication Notice

You can have the Secure Remote Access Appliance send a daily notification to ensure that alert communication is working correctly.

In addition to the test email and daily communication notices that can be configured above, emails are sent for the following events:

- During any failover operation, the product version on the primary node does not match the product version on the backup node.
- During a failover status check, any of the following problems are detected.
    - The current appliance is the primary node and a shared IP address is configured in /login, but its network interface is not enabled.
    - A shared IP address is configured in /login but is not listed as an IP address in /appliance.
    - The backup node could not contact the primary node, and it also could not contact any of the test IP addresses configured on the **Management > Failover** page.
    - The backup node could not contact any of the test IP addresses configured on the **Management > Failover** page.
    - The backup node's backup operations are disabled on the **Management > Failover** page.
    - The backup node unexpectedly failed to perform a probe of itself, indicating that it is malfunctioning.
    - The backup node failed to contact the primary node using the primary node's hostname.
    - Automatic failover is disabled, and the backup node failed to probe the primary node.
    - Automatic failover is enabled, and the backup node failed to probe the primary node. The backup node will automatically become the primary node if the primary node remains unresponsive.
    - Automatic failover is enabled, and the backup node is automatically becoming the primary node because the primary node was down for too long.
    - The primary node failed to perform a data sync with the backup node sometime in the past 24 hours.

Send a test email when the settings are saved

If you wish to receive an immediate test email to verify that your SMTP settings are accurately configured, check this option before clicking the **Save** button.

Outbound Events: Set Events to Trigger Messages

Management | Outbound Events

HTTP Recipients

You can configure your Secure Remote Access Appliance to send messages to an HTTP server or to an email address when different events are triggered.

The variables sent by the Secure Remote Access Appliance arrive as an HTTP POST method and can be accessed by calling the method used to retrieve POST data in your coding language. If the server does not respond with an HTTP 200 to indicate success, the Secure Remote Access Appliance will re-queue the current event and retry it later.

Add New HTTP Recipient, Edit, Delete

Create a new recipient, modify an existing recipient, or remove an existing recipient.

Add or Edit HTTP Recipient

Name

Create a unique name to help identify this outbound event.

URL

Enter the destination URL for this outbound event handler.

***Note:** BeyondTrust Cloud customers must use of URLs beginning with HTTPS; only port 443 is supported.*

Enabled

Check **Enabled** to enable the event handler. Uncheck **Enabled** to quickly stop the messages for the event handler you set up, as in the event of planned integration testing.

Use a CA Certificate

When operating over an HTTPS connection, you must upload the certificate authority's root certificate advertised by the outbound event server.

Send Custom Fields

When enabled, all custom fields configured on the **Custom Fields** page will be included in the outbound event.

Events to Send

Choose which events should trigger messages to be sent.

Retry Interval

Set how often to retry a failed attempt.

Retry Duration

If an event continues to retry and fail, set how long it should continue to retry before being dropped.

Email Contact

Enter one or more email addresses to which notification should be sent if an error should occur.

Send Email Alert After

Set how long after an error the email should be sent; if the problem is resolved before this time is reached and the event succeeds, no error notification will be sent.

Resend Email Alerts

Set how often error emails should be sent if a failed status should continue.

Email Recipients

Add New Email Recipient, Edit, Delete

Create a new recipient, modify an existing recipient, or remove an existing recipient.

Current Status

Displays a brief status message from the SMTP relay server. As long as the appliance is able to send messages to the relay server, the status will show **OK**. Otherwise, review your SMTP relay server settings.

Retry Duration

If an event continues to retry and fail, set how long it should continue to retry before being dropped.

Add Email Recipient

Before you set up your Secure Remote Access Appliance to send event messages to an email address, verify that your Secure Remote Access Appliance is configured to work with your SMTP relay server. Go to the **Management > Email Configuration** page to verify settings.

Enabled

Check **Enabled** to enable the event handler. Uncheck **Enabled** to quickly stop the messages for the event handler you set up, as in the event of planned integration testing.

Name

Create a unique name to help identify this outbound event.

Email Address

Enter the email address to receive notice of the selected events. You can configure up to ten email addresses, separated by commas.

Require External Key

If this option is checked, emails will be sent only for sessions which have an external key at the time the event occurs.

Events to Send

Choose which events should trigger messages to be sent.

Subject

Customize the subject of this email. Click the link below the **Body** field to view the macros that can used to customize the text in your emails for your purposes.

Body

Customize the body of this email. Click the link below the **Body** field to view the macros that can used to customize the text in your emails for your purposes.

Cluster: Configure Atlas Technology for Load Balancing

Management | Cluster

Status

Large-scale geographic deployments benefit from BeyondTrust Atlas Cluster technology, establishing a single BeyondTrust site across multiple appliances, which are termed nodes in a cluster. The master appliance/primary master node is the site of most administration tasks. The traffic node is a Secure Remote Access Appliance that participates in effectively routing your support traffic.

On the primary master node, you will configure both the primary master itself and the traffic nodes.

> Find more information about Atlas in the BeyondTrust Atlas Technology Guide at https://www.beyondtrust.com/docs/privileged-remote-access/how-to/atlas.

Current Status

Confirms the role of the site instance from which you accessed the page.

Sync Now

Synchronize the clustered appliances.

Disband Cluster

Disband the cluster, effectively removing each appliance from its role in the cluster.

Status History

Show or hide the log of clustered appliance messages.

Traffic Nodes

Method for Choosing Traffic Nodes

This selector is used to define how a traffic node is chosen for a representative or customer client connection. The available methods for defining the connection are **Random**, **A Record Lookup**, **SRV Record Lookup**, **IP Anycast**, and **Timezone Offset**. Your choice of connection method is highly dependent upon your network infrastructure, among other complex considerations.

Add New Traffic Node, Edit Node, Remove Node

Create a new node, modify an existing node, or remove an existing node.

Accepting New Client Connections

Be sure this is checked; otherwise, clients will not be able to use the traffic node.

Add Traffic Node

Accepting New Client Connections

Be sure this is checked; otherwise, clients will not be able to use the traffic node.

Name

Create a unique name to help identify this node.

Timezone Offset

Used only if **Method for Choosing Traffic Nodes** is set to **Timezone Offset**. This process involves detecting the time zone setting of the host machine and using that setting to match the appropriate traffic node that has the closest time zone offset. The time zone offset is derived from the customer time zone setting relative to Coordinated Universal Time (UTC).

Public Address

Enter the hostname you set up in DNS for this node, and enter the port over which clients will communicate with the node.

Internal Address

This can be the same as the public address. Advanced configurations can optionally set this to a different hostname for inter-appliance communication.

Network Address Prefixes

You may leave this blank.

For advanced configurations, enter network address prefixes, one per line, in the form of **ip.add.re.ss[/netmask]**. Netmask is optional and can be given in either dotted-decimal format or as an integer bitmask. If netmask is omitted, as single IP address is assumed.

When this field is populated, the master node attempts to assign a client to this traffic node if the client's IP address matches one of the network address prefixes. If the client's IP address matches more than one traffic node's network address prefixes, the client is assigned to the traffic node with the longest matching prefix. If the matching prefixes are of equal length, one of the matching traffic nodes is chosen at random. If a client's IP address does not match any network address prefixes, the client is assigned using the method configured.

Master Node Configuration

Primary master node

Name

Create a unique name to help identify this node.

Public Address

Enter the hostname you set up in DNS for this node, and enter the port over which clients will communicate with the node.

Internal Address

This can be the same as the public address. Advanced configurations can optionally set this to a different hostname for inter-appliance communication.

Maximum Client Fallback to Master

Allows the number of clients you set to fall back to using the master for traffic control if necessary.

Failover: Set Up a Backup Appliance for Failover

Management | Failover

Note: *This feature is available only to customers who own an on-premises Secure Remote Access Appliance. BeyondTrust Cloud customers do not have access to this feature.*

For more information, please see Privileged Remote Access Failover Configuration at https://www.beyondtrust.com/docs/privileged-remote-access/how-to/failover/index.htm.

Configuration

New Backup Site Connection Details

Host Name or IP Address

Enter the host name or IP address of the Secure Remote Access Appliance you wish to use as the backup in a failover relationship.

Port

Enter the TLS port allowing this primary appliance to connect to the backup appliance.

Reverse Connection Details To This Primary Site

Host Name or IP Address

Enter the host name or IP address of this Secure Remote Access Appliance, which you wish to use as the primary in a failover relationship.

Port

Enter the TLS port allowing the backup appliance to connect to this primary appliance.

Status

This host's status

View the host name of this site, along with its status of primary site instance or backup site instance.

Peer host's status

View the host name of this site, along with its status of primary site instance or backup site instance. Also view the date and time of the last status check.

Status History

Expand or collapse a table of status events that have occurred.

Primary or Backup Site Instance Status

Text confirms that you are either on the primary or backup site instance for your host site.

Sync Now

Manually force a data sync from the primary appliance to the backup appliance.

Become Backup/Primary

Switch roles with the peer appliance, essentially forcing a failover for planned maintenance or a known failover event.

Check this box to pull a data-sync from the site instance at example.com while becoming the backup/primary.

If you want to synchronize data from the peer appliance prior to swapping roles, select this checkbox. If this option is selected, all users on the existing primary appliance will be disconnected during the data sync, and no other operations will be available until the swap is complete.

Check this box to become a backup even if the peer site instance at example.com cannot be contacted.

On the primary site instance, you have the option to become the backup even if the peer appliance cannot be contacted. If this option is unchecked, failover will be canceled if both appliances cannot be kept in sync in terms of their failover roles (one primary and one backup).

For example, if you know the current backup appliance is online but cannot be reached by the primary due to a network connection issue, you may wish to check this option to make the primary the backup before the network connection is restored. In this example, you would also need to access the current backup and make it the primary.

Break Failover Relationships

Break the failover relationship, removing each appliance from its role as primary or backup.

Primary or Backup Site Instance Configuration

Shared IPs

Control the shared IP address the site instance uses in the event of a failover by selecting the checkbox for the failover IP address. If you change the relationship between the sites, the checked IP addresses will disable when a primary site becomes a backup, and will enable when a backup becomes a primary site. You should manually mirror the setting on the peer site, as the setting is not shared.

Backup Settings

The settings you configure here will be enabled only when the site instance you are configuring is in a backup role.

When on the primary site instance, select **Backup Settings >** to expand or collapse the page displaying the configuration fields.

Enable Backup Operations

Enable or disable site backups.

Automatic Data-Sync Interval

You can control the timing details of the automatic data-sync interval.

Data-Sync Bandwidth Limit

Set bandwidth parameters for data-sync.

Enable Automatic Failover

Quickly enable or disable automatic failover.

Primary Site Instance Timeout

Set how long the primary site must be unreachable before failing over.

Network Connectivity Test IPs

Enter IP addresses for the backup site to check to determine whether the backup's inability to reach the primary is because the primary is offline or the backup has lost its network connection.

API Configuration: Enable the XML API and Configure Custom Fields

Management | API Configuration

API Configuration

Enable XML API

Choose to enable the BeyondTrust XML API, allowing you to run reports and issue commands such as starting or transferring sessions from external applications, as well as to automatically back up your software configuration.

Allow HTTP Access to XML API

By default, access to the API is SSL-encrypted. However, you can choose to allow unencrypted HTTP access. It is highly recommended that HTTP access be disallowed as a security best practice.

> ***Note:*** *This option has been deprecated as of 16.1 and does not appear to new users. For users upgrading from a version prior to 16.1, the option is still available if you continue to use the deprecated method of authenticating to the API with a user account. If you switch to the preferred method of authenticating with an API account, all API traffic must occur over HTTPS.*

API Accounts

An API account stores all of the authentication and authorization settings for the API client. At least one API account is required to use the API, either in conjunction with the Integration Client, with a third-party app, or with your own in-house developed software.

> ***Note:*** *Prior to 16.1, a user account was used to authenticate to the API. This method has been deprecated, though for customers already using this method, it is still supported for backward compatibility.*

Add an API Account, Edit, Delete

Create a new account, modify an existing account, or remove an existing account.

Add or Edit an API Account

Enabled

If checked, this account is allowed to authenticate to the API. When an account is disabled, all OAuth tokens associated with the account are immediately disabled.

Name

Create a unique name to help identify this account.

Comments

Add comments to help identify the purpose of this object.

OAuth Client ID

The OAuth client ID is a unique ID generated by the appliance. It cannot be modified. The client ID is considered public information and, therefore, can be shared without compromising the security of the integration.

OAuth Client Secret

The OAuth client secret is generated by the appliance using a cryptographically secure pseudo-random number generator.

> ***Note:*** *The client secret cannot be modified, but it can be regenerated on the* ***Edit*** *page. Regenerating a client secret and then saving the account immediately invalidates any OAuth tokens associated with the account. Any API calls using those tokens will be unable to access the API.*

> ***Note:*** *The OAuth client ID and client secret are used to create OAuth tokens, necessary for authenticating to the API.*

> For more information, please see the API Guide at www.beyondtrust.com/docs/privileged-remote-access/how-to/integrations/api/index.htm.

Permissions

Select the areas of the API this account is allowed to use. For the **Command API**, choose to deny access, to allow read-only access, or to allow full access. Also set if this account can use the **Reporting API**, the **Backup API**, the Configuration API, and/or the **Endpoint Credential Manager API**.

The Configuration API allows for the management and configuration of common tasks in **/login**, which can be automated and work with your orchestration processes.

> For more information, please see Vault Account Configuration APIs at www.beyondtrust.com/docs/privileged-remote-access/how-to/integrations/api/configuration-api.htm.

The **SCIM API** allows the option to provision users from a different security provider. If you allow access to the SCIM API, the option **Allow long-lived bearer token** becomes available. Allowing long-lived tokens is not recommended unless it is required by your SCIM client, as these bearer tokens never expire. Because all other API permissions require tokens with a one-hour expiry, enabling long-lived tokens for SCIM disables all other API permissions.

Network Restrictions

List network address prefixes from which this account can authenticate.

> ***Note:*** *API accounts are not restricted by the network prefixes configured on* ***/login > Management > Security****. They are restricted only by the network prefixes configured for the API account.*

Support: Contact BeyondTrust Technical Support

Management | Support

BeyondTrust Support Contact Information

The support page provides contact information should you need to contact a BeyondTrust Technical Support representative.

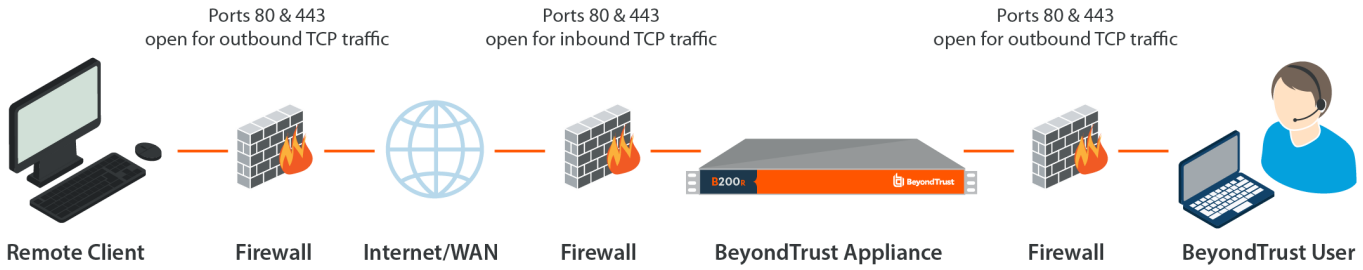
Advanced Technical Support from BeyondTrust

In the event that a BeyondTrust Technical Support representative should need access to your appliance, they will provide you with support, access, and override codes to enter on this page to create an appliance-initiated, fully encrypted support tunnel back to BeyondTrust for quick resolution of complex issues.

Ports and Firewalls

BeyondTrust solutions are designed to work transparently through firewalls, enabling a connection with any computer with internet connectivity, anywhere in the world. However, with certain highly secured networks, some configuration may be necessary.

TYPICAL NETWORK SETUP



- Ports 80 and 443 must be open for outbound TCP traffic on the remote system's and local user's firewalls. More ports may be available depending on your build. The diagram shows a typical network setup; more details can be found in the Appliance Hardware Installation Guide.
- Internet security software such as software firewalls must not block BeyondTrust executable files from downloading. Some examples of software firewalls include McAfee Security, Norton Security, and Zone Alarm. If you do have a software firewall, you may experience some connection issues. To avoid such issues, configure your firewall settings to allow the following executables, wherein {uid} is a unique identifier consisting of letter and numbers:
    - bomgar-scc-{uid}.exe
    - bomgar-scc.exe
    - bomgar-pac-{uid}.exe
    - bomgar-pac.exe
    - bomgar-pec-{uid}.exe
    - bomgar-pec.exe

  For assistance with your firewall configuration, please contact the manufacturer of your firewall software.
- Example firewall rules based on appliance location can be found at www.beyondtrust.com/docs/privileged-remote-access/getting-started/deployment/dmz/firewall-rules.htm.

If you should still have difficulty making a connection, contact BeyondTrust Technical Support at www.beyondtrust.com/support.

Disclaimers, Licensing Restrictions and Tech Support

Disclaimers

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Licensing Restrictions

One BeyondTrust Privileged Remote Access license enables one support representative at a time to troubleshoot an unlimited number of remote computers, whether attended or unattended. Although multiple accounts may exist on the same license, two or more licenses (one per concurrent support representative) are required to enable multiple support representatives to troubleshoot simultaneously.

One BeyondTrust Privileged Remote Access license enables access to one endpoint system. Although this license may be transferred from one system to another if access is no longer required to the first system, two or more licenses (one per endpoint) are required to enable access to multiple endpoints simultaneously.

Tech Support

At BeyondTrust, we are committed to offering the highest quality service by ensuring that our customers have everything they need to operate with maximum productivity. Should you need any assistance, please contact BeyondTrust Technical Support at www.beyondtrust.com/support.

Technical support is provided with annual purchase of our maintenance plan.