Privileged Remote Access Integration Client Guide

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Integration Client Guide

The BeyondTrust Privileged Remote Access (PRA) Integration Client is used to transfer session logs and recordings from the BeyondTrust Appliance B Series to an external system. Two external systems are currently supported: Microsoft SQL Server and Windows-based file systems.

The BeyondTrust Integration Client supports plugins for these systems. A plugin defines the transfer details, such as the destination directory/file name or database to use. Plugin details and the standard SQL Server Schema are defined later in this guide.

This guide walks you through the installation and configuration process for the BeyondTrust PRA Integration Client. To begin using the integration client initially, you should:

- 1. Ensure prerequisites are met. See "Integration Client Prerequisites" on page 4.
- 2. Download the BeyondTrust PRA Integration Client installation package from the Support Portal.
- 3. Install the integration client package. See "Install the BeyondTrust Integration Client" on page 5.
- 4. Configure the settings database. See "Create the Integration Client Settings Database" on page 7.
- 5. Configure the BeyondTrust PRA site. See "Configure the BeyondTrust Site Settings" on page 9.
- 6. Configure the File System or SQL Server plugin. See "Configure the File System or SQL Server Plugin Settings" on page 10.
- 7. Review the SQL Server Storage Database. See "SQL Server Storage Database" on page 14.
- 8. Set the plugin schedule. See "Set the Integration Client Schedule" on page 20.
- 9. Optional: test the integration client specific plugin. See "Test the Integration Client" on page 22.
- 10. Review the BeyondTrust Integration Client Toolset. See "Integration Client Tools" on page 24.

If you need to migrate Integration Client data to a new server, see "Migrate Integration Client Data to a New MS SQL Server" on page 26.

Integration Client Prerequisites

There are several prerequisites that must be in place before installing and running the integration client:

- Prior to BeyondTrust 16.1, credentials for a BeyondTrust account require permissions to view reports and make backups. For BeyondTrust versions 16.1 and above, an API account with reporting and backup permissions is required.
- A Windows machine (7 or later) with access to both the external system to which data is to be transferred and the BeyondTrust PRA site from which data is to be extracted.
- Storage space sufficient to retain all desired recordings, session data, and backups.
- · Microsoft .NET Framework 4.5 or later
- On the host system, an enabled cipher suite matching one enabled on /appliance > Security > SSL/TLS Configuration
- The XML API interface enabled from the /login > Management > API Configuration page

The SQL Server has an additional set of requirements:

- Microsoft SQL Server Database 2008, 2008 R2, or 2012 Standard Edition or above. If you are running an earlier version of SQL Server, contact BeyondTrust Technical Support to determine if the database can be configured for your environment. BeyondTrust suggests a size of 100 GBs for the server database.
- Permission to create tables and execute **INSERT**, **UPDATE**, **DELETE** and **SELECT** statements in a specific database. Two tables are required on the SQL Server.

You may download the integration client installer from the Support Portal.

Install the BeyondTrust Integration Client

Once you have met the prerequisites and received the integration client installation package from BeyondTrust Technical Support, you are ready to install the client.

- To access the integration client installer, you must log into the BeyondTrust Self-Service Center at <u>beyondtrustcorp.service-</u> now.com/csm.
- 2. Once authenticated, click on **Download** from the side menu.
- 3. From the list, locate the integration client compatible with your BeyondTrust PRA site.
- 4. Download the **bomgar-ic-setup.exe** file to your Windows system and then run it.
- 5. From the installation wizard, click Next.

6.	Read and accept the license agreement. If you do not accept the
	license agreement, you will not be able to proceed with the
	installation.

🤣 Beyond Trust Integration Clier	nt Setup		_		×
	Welcom Integrat	e to Beyo ion Client	ndTrust Setup		
PowerdTruct	Setup will guid Integration Cli	le you through ent.	the installation	of Beyond	Trust
beyond Trust	It is recommen before starting relevant system	nded that you c 9 Setup. This wi m files without	lose all other ap Il make it possib having to reboo	plications le to upda t your con	te nputer.
	Click Next to a	ontinue.			
			Next >	Cano	el
🔗 BeyondTrust Integration Clie	nt Setup		_		×
Disclaimer Please review the following d Integration Client.	isclaimer before	installing the B	eyondTrust		C
SOFTWARE	LICENSE A AGREEN	AND SUBS IENT	CRIPTION		^
IMPORTANT - PLEASE REVIEW CAREFULLY THE TERMS OF THIS SOFTWARE LICENSE AND SUBSCRIPTION AGREEMENT. BY CLICKING "ACCEPTED AND AGREED TO." CUSTOMER AGREES TO THESE TERMS					
If you accept the terms of the agreement to install the Beyc	disclaimer, dick andTrust Integrat	l Agree to cont ion Client.	inue. You must a	iccept the	
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7. Choose where you would like the integration client to install. The default location is C:\Program Files\Bomgar \Integration.

🔗 BeyondTrust Integration Client Setup	_		×
Choose Install Location Choose the folder in which to install BeyondTrust Integration Client			9
Setup will install BeyondTrust Integration Client in the following fol a different folder, click Browse and select another folder. Click Instal installation.	der. To ins I to start t	tall in he	
Destination Folder C:Program Files/BeyondTrust\Integration	Brow	vse	
Space required: 3.2 MB Space available: 381.9 GB			
BeyondTrust.com	stall	Car	ncel
🤣 BeyondTrust Integration Client Setup	_		×

8. After installing the integration client, choose **Run BeyondTrust Integration Client** and then click **Finish**. Once the tool is installed, it must be configured before it can begin extracting session data from a BeyondTrust PRA site.

🤣 BeyondTrust Integration Clie	nt Setup —		×
	Completing BeyondTrust Integration Client Setup		
BeyondTrust	BeyondTrust Integration Client has been installe on your computer.	d	
	Click Finish to close Setup.		
	Run BeyondTrust Integration Client		
	< Back Finish	Cance	2

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Create the Integration Client Settings Database

1. The first time you run the integration client, you are prompted to create a settings database. Click **OK** to continue.

The software has detected that this is its first run. You must create a settings database. Press OK to continue or Cancel to exit.

System Setup

2. This database stores the BeyondTrust PRA site information, schedule settings, and other configuration information that the tool uses to transfer information. To create a settings database, click the **Create Database** link.

 In the configuration dialog, enter the settings for your new database. These settings are defined in the table below. Once you have entered the appropriate settings, click the Create Database button.

	OK Cancel
🦁 Settings Database Set	nb ×
f you already have a se	ttings database, enter the connection string below.
Dtherwise click Create D	atabase to create a new one.
Connection String:	
Connection String:	
	Create Database
	Save
🧐 Create Settings Databa	ise ×
•	
This dialog allows you to	o create a settings database to store a list of sites and SQL Servers.
Please supply informatio	n for the appropriate SQL Server below.
 Store settings in a Micros 	oft Access Database (.mdb)
.MDB File Path:	C:\ProgramData\Bomgar\Integration\settings.mdb
Store settings in a Micros	oft SQL Server database
Database Name:	BGAPISettings
SQL Server:	localhost
Authentication Type:	SQL Server O Windows
Username:	Sa
Password:	
Other Connection Params:	
Database Schema File:	C:\Program Files\Bomgar\Integration\DatabaseSchema.xml
	Croste Detabary
	Liede Database

Field	Explanation
Store Settings In	Choose to store the Integration Client settings in a Microsoft Access Database (.mdb) or a Microsoft SQL Server Database.
.MDB File Path	The path to the Microsoft Access Database storing the settings database.
Database Name	The name of this SQL Server settings database.
SQL Server	The name of the SQL Server instance storing the settings database.
Authentication Type	Use SQL Server if a specific username and password are required. Use Windows if the logged-in Windows user account is required. See your SQL Server documentation for more details.
Username	The username used to access the SQL Server database.
Password	The password used to access the SQL Server database.

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Field	Ex	xplanation	
Other Connection Params	Optional field. Use this to specify additional connection string parameters which may be necessary for your specific database environment. See your SQL Server documentation for more details.		
Database Schema File	Leave this at its default setting unless otherwise in	structed by a BeyondTrust technician.	
4. Once you have crea	ted the database, the new string for the settings	🍣 Settings Database Setup 🗙 🗙	¢
database automatic	ally populates the Connection String field.	If you alwards have a activities database, enter the compaction string below	

Click **Save** to complete the settings database setup.

If you already have a settings database, enter the connection string below. Otherwise click Create Database to create a new one.

Connection String: Connection String: Create Database I Save

Note: The settings database is distinct and must be kept separate from all storage databases.

Configure the BeyondTrust Site Settings

- After you have created the settings database, you are prompted to enter information for one or more BeyondTrust PRA sites from which the integration client extracts session data. Click **OK** to continue.
- If the integration client is already installed and you wish to update or add a site, select Site Configuration from the integration client Setup dropdown.



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Tools	Setup	Help	
- Ct-stup	Sit	e Configuration	
Scheo	Pl	ugin Configuration	
Last S	Schedule Configuration		
Next \$	Install Plugin		
Last F	Ap	oplication Settings	8:18:46 AM
<u>Log Fi</u>	No	otification Settings	Exit

- 3. When the **Site Configuration** dialog appears, click the **New** button to input your BeyondTrust PRA site information.
- 4. Enter a name for this site configuration and the URL of the site (note that **https:**// should NOT be included)
- 5. For BeyondTrust PRA sites on version 16.1 and above, you must provide the Client ID and Client Secret for an API account with permissions to view reports and recordings. If you plan to pull site backups, backup API permissions must also be enabled for the API account. Click Edit on the API user account to identify the OAuth Client ID, and click Generate New Client Secret and record the secret.

support.example.com	Site Information	1
	Display Nan	ae: Example
		User Account API Account
	Appliance	
	UF	L: support.example.com
	Useman	e: admin
	Passwo	rd:
	Dealers Dear	
	Backup Fass	, l
	Passwor	
	Confin	n:
		Test Delete Save

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• **Note:** For BeyondTrust PRA sites running version 16.1 and above, if the account's password is reset, the integration client stops pulling data until the site configuration is updated. To prevent this break, it is recommended that you create a special account for the integration client with only permissions needed to retrieve the desired data and with a password set to never expire.

- 6. Optionally, you may apply a password to any backups created. If you do choose to set a password, you must provide this password in order to revert to the backup.
- 7. Test the supplied credentials and then click Save.
- 8. Note that the integration client supports more than one site. If session data from additional sites needs to be extracted, click the **New** button again and repeat the configuration process. The **host_name** in the **session** table distinguishes the data.
- 9. When you have finished entering your BeyondTrust site information, click Next.

Configure the File System or SQL Server Plugin Settings

Plugins are used to send the downloaded data to external systems. You can add plugins during your initial setup, or you can also add plugins at any time once the integration client is installed. There are two standard plugins that are installed when you install the integration client: File System and SQL Server.

Note: Session data is stored on Windows file systems as XML files. Reading these files may prove difficult without a thirdparty XML parser. SQL Server databases make parsing and management of session data significantly more manageable. However, SQL Server databases cannot be used to store session recordings or site backups. 1. After the initial installation, click Yes to install your plugin. Plugin Configuration You should configure one or more plugins to communicate with an external system. Plugins allow information to be transferred to an external system after it is downloaded from a Bomgar support site. Do you want to configure your plugins now? No Yes 2. If the integration client is already installed and you wish to update or 🦁 BeyondTrust Integration Client × add a plugin, select Plugin Configuration from the integration Tools Setup Help client Setup dropdown. Site Configuration Status Plugin Configuration Sche Schedule Configuration Last S Next Install Plugin... 18:46 AM Last P Application Settings Notification Settings Log Fi Exit From the dropdown at the top of the plugin configuration dialog. Plugin Configuration ✓ Add 21 2↓ □ File System select the type of plugin you would like to configure, and then click Step 1: Friendly Name Destination Name Step 2: Session Data Data Destination Directory Data File Name Conflict Handling Data File Name Format Add. New Plugin Instance 4. Specific directions for the standard plugins' configurations are AppendNumber %LSEQ%-%LSID%.xml Step 3: Session Recording detailed in the tables below. Configure the settings and click Save.
 Step 3: Session Hectorumg

 Recording Destination Directory

 Recording Downdoor Format
 M4V

 Recording Directory

 Recording Directo Recording File Name Control Step 4: Command Shell Recording Date Step 4: Command Shell Rear Command Shell Recording Date Command Shell Recording Shell Record ad F M4V and Shell Recording Destination Directory ry in which to store the downloaded command shell Delete Save Cancel SALES: www.beyondtrust.com/contact SUPPORT: www.beyondtrust.com/support DOCUMENTATION: www.beyondtrust.com/docs

File System Plugin Settings

The table below details the fields on the right of the Plugin Configuration screen for the File System plugin.

Field Name	Description
Destination Name	The name of this plugin instance. This name is used by the integration client for display and logging purposes.
Destination Directory	The directory storing the appropriate XML data, recordings, or site backups. Do not enter a mapped drive in the directory. Unless the directory is local, you must enter a UNC path.
Download Format	Leave this at its default setting unless otherwise instructed by a BeyondTrust technician.
File Name Conflict Handling	The action to be taken when the file name already exists. See below for information about the handling options.
File Name Format	The format creating the file name for the appropriate XML data, recordings, or site backups. See below for special replacement values.
Retention Count	The number of prior backups to keep. Leave this field empty to keep all backups.

The table below describes the options available for File Name Conflict Handling.

Option	Description
AppendNumber	If the destination file name exists, then a new file is created with a number inserted just before the last period in the file name. The value of the number is the smallest possible integer capable of guaranteeing that the file name is unique.
	For example, if the recording for session LSID 1234 is downloaded and the file access.example.com-support-1234.flv already exists, then the file access.example.com- support-1234.1.flv will be created. Likewise, if access.example.com-support-1234.1.flv already exists, then access.example.com-support-1234.2.flv will be created.
Overwrite	If the destination file name already exists, then the contents of the existing file are overwritten with the most recently downloaded data.
Skip	If the destination file name exists, then the existing file is NOT overwritten, and no new file is created.

Special Replacement Values

These are **File Name Format** replacement value fields. All special replacement values start and end with a percent sign (%). Only UPPER CASE characters and underscores (_) are valid characters between the percent signs. Replacement values are case sensitive.

Replacement Name	Description
%LSEQ%	An incrementing number that can be used if your application needs to represent sessions in a non- string format.
	Note: The LSEQ element is not guaranteed to be unique or strictly sequential.
%LSID%	The session's unique string ID.
%EXTERNAL_KEY%	The session's external key.
%SESSION_TYPE%	The session's type name.
%SUPPORT_SITE_HOST%	The hostname of the site from which the session data or the site backup was downloaded.

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Replacement Name	Description
%INSTANCE%	The instance number of the command shell recording or Show My Screen recording. Because multiple shells can be run during a session, one session may have multiple command shell recordings. Likewise, multiple Show My Screen sessions may be run, resulting in multiple Show My Screen recordings.
%EXTENSION%	The file extension name.

Service Properties for Remote Locations

1. If you configured a plugin to save to a network drive or IP address, you need to modify the BeyondTrust Integration Client service. Open your services management console by typing **services.msc** using your Windows **Run** dialog.



Note: Do not enter a mapped drive in the Plugin Configuration screen's **Destination Directory** field. Unless this directory is local, you must use a UNC path.

- 2. Right-click the BeyondTrust Integration Client scheduler service and select Properties.
- 3. Select the Log On tab and change the Log on as setting to This account, using an account with rights to the network location. This is most likely be a domain account.
- 4. Apply the changes and close the dialog.
- 5. Restart the BeyondTrust Integration Client scheduler service for the change to take effect.

depository institution. It is not authorized to accept deposits or trust accounts and is not licensed or regulated by any state or federal banking authority.

SQL Server Plugin

When you select to add a SQL Server plugin, the following screen is displayed.

🧐 Plugin Configuration				×
SQL Server V Add	•	21		
[SQL Server] New Plugin Instance	~	Step 1: Friendly Name Destination Name	New Plugin Instance	
	~	Step 2: Sql Server Connection I Connection String	Information	
	~	Step 3: Storage Options		
		Should Store System Information	False	
	•			
	Sq	I Server Connection String		
			Delete Save Cance	el

The table below details the fields for the SQL Server plugin.

Name	Description	
Destination Name	The name of this plugin instance. This name is used by the integration client for display and logging purposes.	
Connection String	The connection string used to connect to the database where session data is stored.	
Should Store System Information	True or False . Designates if the system information is stored. This is the system information collected during a remote session.	
Clicking the I button poyt f	$-\Box X$	

Clicking the [...] button next to the **Connection String** setting brings up another dialog. Enter your database connection information as required.

Enter the database con created automatically.	nection information. If the database does not exist then it will be	
SQL Server:	localhost	
Database Name:	BTSessions	
Authentication Type:	○ Windows	
Usemame:		
Password:		
Additional Connection String Parameters		
	OK Cancel	

SQL Server Storage Database

The following diagram shows the tables created in the SQL Server database with the standard SQL Server plugin. An explanation of each of the tables is detailed in the following pages.



Session Table

This table is the root of all information inserted into the database. Each row represents a BeyondTrust session.

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id	An auto-incrementing number uniquely identifying this field in the database.
lsid	An alphanumeric identification which uniquely identifies this session.
type	The type of session. Currently, support is the only value supported.
start_time	The time at which the session began either by the customer's running the customer client or by the representative's initiating a Jump session. Date is returned in UTC format.
end_time	The time at which the session ended by the representative's closing the session. Date is returned in UTC format. This field is empty for sessions which are still in progress when the data was extracted or which closed abnormally.
duration	Session length in HH:MM:SS format.
file_transfers	The number of file transfers which occurred during the session.
host_name	The hostname of the BeyondTrust PRA site through which the session occurred.
external_key	An arbitrary string can link this session to an identifier on an external system, such as a ticket ID. This can be input from within the access console or defined programmatically.
public_site_id	The identification of the site. This defaults to 1 .
public_site_name	The name of the BeyondTrust site. Unless set, this contains the value Default .
jump_group_id	This is the Jump Group's unique ID for its type. Jump Groups of different types can have the same ID. For Personal Jump Groups, this is the unique ID of the user who owns the Jump Group. Each user can only have a single Personal Jump Group.
jump_group_name	The element's content is the name of the Jump Group. For Personal Jump Groups, the name of the Jump Group is the Private Display Name of the representative who owns the Jump Group.
jump_group_type	This is the Jump Group's type, which can be "shared" or "personal".
	An incrementing number used to represent sessions in a non-string format.
lseq	Note: The LSEQ element is not guaranteed to be unique or strictly sequential.

Session_Event Table

This table links to the **session** table via the **session_id** field. Each row in this table represents a session event taking place during a session. Sessions can have multiple session events.

id	An auto-incrementing number uniquely identifying this field in the database.		
session_id	The ID of the session in which this event occurred. This field links a session_event row to a session row.		
type	The type of event that occurred. Event types include:		
	Chat Message	Registry Exported	
	Command Shell Session Started	Rgisetry Imported	

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	Conference Mercher Added	De rietre (Key Added	
	Conference Member Added	Registry Key Added	
	Conference Member Departed	Registry Key Deleted	
	Conference Member State Changed	Registry Key Renamed	
	Conference Owner Changed	Registry Value Added	
	Directory Created	Registry Value Deleted	
	External Key	Registry Value Modified	
	File Deleted	Registry Value Renamed	
	File Download	Remote Shell Session Started	
	File Download Failed	Service Access Allowed	
	File Moved	Session End	
	File Upload	Session Note Added	
	File Upload Failed	Session Start	
	Files Shared	Show My Screen Recording	
	Foreground Window Changed	System Information Retrieved	
event_time	The time at which the event occurred. The time is retu	rned in UTC format.	
performed_by	The name of the entity performing the action.		
performed_by_type	The type of entity performing the action.		
destination	The name of the entity to whom this action was directed.		
destination_type	The entity to which the event was directed.		

Session_Event_Data Table

This table links to the **session_event** table via the **session_event_id** field. Each row in this table represents a single key-value pair associated with a particular session event. Session events can have multiple key-value pairs.

id	An auto-incrementing number uniquely identifying this field in the database.
session_event_id	The ID of the session event to which this key-value pair belongs. This field links a session_event_data row to a session_event row.
name	The key of this field.
value	The value of this field.

System_Information Table

This table links to the **session_event** table via the **session_event_id** field. Each row in this table represents multiple categories of system information collected per a **session_event**.

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Note: System information is logged only when pulled automatically at the beginning of the session and not when specifically requested by the user. This prevents the system from being overloaded with large amounts of dynamic data.

id	An auto-incrementing number uniquely identying this field in the database.
session_event_id	The ID of the session event to which this system information belongs.
category	The type of system information. Types include categories, such as the following: General, Memory, Drives, Processes, Events, Network , and Programs . There are additional categories available. The category is based on the remote operating system.
information	Contains multiple <field></field> elements, each of which contains a descriptor for the specific data field. For example, the Drives category would have <field></field> elements Drive, Type, Percent Used , etc.

User Table

This table links to the **session** table via the **session_id** field. Each row in this table represents a user who participated in this session. Sessions can have multiple user fields.

id	An auto-incrementing number uniquely identifying this field in the database.
gs_number	Uniquely identifies the user regarding their current connection to the B Series Appliance. A gsnumber is assigned on a per-connection basis, so if a user leaves a session and then rejoins without logging out of the B Series Appliance, their gsnumber remains the same. However, if the user's connection is terminated for any reason, when the user logs back into the B Series Appliance, they are assigned a new gsnumber. A gsnumber may be recycled, so while two people connected at the same time never have the same gsnumber, one person may have a gsnumber assigned to another person in the past.
session_id	The ID of the session in which this user participated. This field links a user row to a session row.
user_id	The unique ID assigned to the user.
user_name	The username assigned to the user.
display_name	The private display name assigned to the user. This field contains the private display name's value at the time of the session, which may not match the current value if the private display name has subsequently been changed.
public_display_name	The public display name assigned to the user. This field contains the public display name's value at the time of the session, which may not match the current value if the public display name has subsequently been changed.
display_number	The display number assigned to the user. This is the display number at the time of the session and may not match the current value.
public_ip	The user's public IP address.
private_ip	The user's private IP address.
is_owner	Integer value (1 or 0) indicating whether the user was an actual owner of the session or was merely a conference member.

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is_primary	Integer value (1 or 0) indicating if the user was the final user to own the session.
duration	Integer value indicating the number of seconds the user was involved in this session.
host_name	The hostname of the user's computer.
operating_system	The operating system of the user's computer.

Team Table

This table links to the **session** table via the **session_id** field. Each row in this table represents a team queue to which this session was assigned. Sessions can have multiple team fields.

id	An auto-incrementing number uniquely identifying this field in the database.
session_id	The ID of the session of which this team was an owner. This field links a team row to a session row.
team_id	The unique ID assigned to this team.
name	The display name of the team. This field contains the team name as it currently appears, which may not match the value at the time of the session if the team name has been subsequently changed.
is_primary	Integer value (1 or 0) indicating if this team was the last team to which the session was transferred.

Endpoint (Customer) Table

This table links to the **session** table via the **session_id** field. Each row in this table represents a endpoint that participated in this session. In the current BeyondTrust version, there will always be one endpoint field per session.

id	An auto-incrementing number that uniquely identifies this field in the database.
session_id	The ID of the session in which this customer participated. This field links a customer row to a session row.
gs_number	Uniquely identifies the customer regarding their current connection to the B Series Appliance. A gsnumber may be recycled, so while two people connected at the same time will never have the same gsnumber, one person may have a gsnumber that was assigned to another person in the past. Can be used to correlate a <customer></customer> element with a <primary_cust></primary_cust> or with an event's <performed_by></performed_by> or <destination></destination> element.
issue	The numeric ID of the issue or the representative which the customer selected from the dropdown of the issue submission form or which was designated programmatically.
issue_description	The description of the problem as entered by the customer in the Describe Your Issue text area field of the issue submission form or as programmatically assigned.
display_name	The display name is the name the customer provided in the issue submission form. If no name was provided, then this is populated with the name associated with the user logged into the customer's computer.
company_name	The company name which the customer entered in the Company field on the issue submission form or which was programmatically assigned.
company_code	The code which the customer entered in the Company Code field on the issue submission form or which

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	was programmatically assigned.
public_ip	The customer's public IP address.
private_ip	The customer's private IP address.
rpat_support	Integer value (1 or 0) indicating whether the customer session is provided via RPAT.
host_name	The hostname of the customer's computer.
operating_system	The operating system of the customer's computer.

Custom_Attribute Table

This table links to the **session** table via the **session_id** field. Each row in this table represents a custom attribute which was assigned to this session. Sessions can have multiple custom attribute fields.

id	An auto-incrementing number uniquely identifying this field in the database.
session_id	The ID of the session to which this custom attribute was assigned. This field links a custom_attribute row to a session row.
display_name	The display name of the custom attribute.
code_name	The code name of the custom attribute.
value	The value of the custom attribute. This may have been provided by a user or assigned programmatically.

Exit

Set the Integration Client Schedule

1. It is generally a best practice to set a schedule for the integration client to run periodically. Upon initial installation, you are also prompted to set up a schedule. When prompted, click **Yes**.

2. If the integration client is already installed and you wish to update or add a schedule, select **Schedule Configuration** from the **Setup** dropdown.



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Tools	Setup Help			
Chatura	Site Configuration	1		
Scher	Plugin Configuration			
Last S	Schedule Configuration			
Next §	Install Plugin			
Last F	Application Settings	02:43:45 P.	М	
Log Fi	Notification Settings			

- 3. From the schedule configuration dialog, schedule a data transfer by clicking the **Add** button.
- 4. Enter a descriptive name in the Schedule Name field.
- 5. From the **Choose Site** dropdown, select a configured BeyondTrust PRA site to act as a source from which to pull data.
- 6. From the **Destination** dropdown, select a plugin instance to act as a destination for the transfer.
- Click Add to create this data transfer instance. A new schedule transfer row is added to the table beneath. You can add multiple transfer instances to one schedule if you wish the transfers to occur simultaneously.

Schedule N	Trans	Period	Last Run	Scher	dule Name:				
Example	1	1 days	Never	Exam	ple			Enable	
				Trans	fers				
				Choo	se Site:	Destination:			
				Test	ing: https://support.	exa 🗸 [SQL Server]	New Plugin Insta	nc 🗸 🛛 Add	
					Source	Destination	Sessions	Session Recordings	Command Shell Recordings
				▶	Testing: https://t.	[SQL Server] Ne			
				<					
				٢					Delet
				٢	_			_	Delet
				< Timin	,			_	Delet
				< Timin Run B	a Every:	<u></u>		_	Delet
				< Timin Run B 1	very: days	A: ✓ Ø8:24 ≤	N		Delet

8. For each transfer instance, select the types of data that you wish to transfer. Recordings and site backups can be saved to a file only and not to a SQL Server database. It is recommended to create separate schedules for backups and data extracts.

Note: Among the five types of data the Beyond Trust integration client can download (session data, session recordings, and site backups). All can be stored on a Windows file system. Session data is stored as .xml files, session recordings are stored as .flv files, and site backups are stored as proprietary .nsb files. The first two types of files can be parsed with XML as appropriate. The .nsb files can only be read by B Series Appliances via an upload from the /login > Management > Software Management page in the Software :: Backup Settings section.

- 9. The **Run Every** setting determines how often these transfers should occur. Transfers can be scheduled from every minute to every seven days. Transfers that are scheduled in increments of days can be set for a particular time. This could allow the transfer to run when more server resources and bandwidth are expected to be available, such as during non-production hours.
- 10. Click **Save** to finish configuring this schedule. You can add multiple schedules to run multiple transfers.

- 11. After configuring a schedule, it appears in the left pane along with a summary of information:
 - Schedule Name: The descriptive name given to this schedule.
 - **Transfers:** The number of transfer instances this schedule initiates. This is equal to the number of rows in the **Transfers** section. One transfer instance may transfer multiple types of data.
 - **Period:** The length of time scheduled between each transfer.
 - Last Run: When the scheduled transfer last was run.

Note: If the integration client cannot connect to the B Series Appliance or to its transfer destination, it still marks the schedule complete and updates the last run date. If the integration client itself experiences an error, it neither marks the schedule complete nor updates the last run date.

IMPORTANT!

Ensure that the clock on the server hosting the integration client is not ahead of the clock on the B Series Appliance from which data is being extracted. If the server clock is ahead, some data may not be downloaded. The best way to ensure that the integration client's host server and the B Series Appliance have synchronized clocks is to use the same network time protocol (NTP) server for both.

Test the Integration Client

 Once you have at least one plugin and the BeyondTrust PRA site configured, it is recommended that you verify the configuration. Open the integration client from its directory location (C:\Program Files\Bomgar \Integration by default) and then run the API Tester from the Tools menu.

🦁 BeyondTrust Integrat	ion Client —		\times
Tools Setup Help	•		
API Tester			
Log File	Running		
Last Scheduled Run:	Wed, October 02, 2019 10:07:20 A	М	
Next Scheduled Run:	Unknown		
Last Program Run:	Fri, October 04, 2019 08:18:46 AM		
Log File	[Exi	t

- 2. To test the database configuration, select one or more sites to verify from the list of configured sites.
- 3. Choose either a start date and duration for which to pull data or enter a specific session ID number.
- 4. Select the destinations you would like to test.
- 5. Finally, from the list of plugin operations, select one or more types of data to transfer.
- 6. Once you click the **Download** button, the API tester begins transferring data based on the parameters you defined. Once the transfer is finished, verify the appropriate information was successfully transferred to the selected destinations.

🦁 BeyondTrust Integ	ration Client API Tester				×
Support Sites XML	Files				
Select one or more s	upport sites to transfer				
123: support.examp	ble.beyondtrust.com				
				Clear All Se	elect All
Filter By					
Date Bange			Session ID		
Start Date:	9/3/2019		Process Sessions M	/ith No End Time	
	07072010		TIDCESS JESSIONS W		
Duration (Days):	30				
NOTE: Filtering only a recordings	applies when transferring se	ession da	Operations		
[File System] New Plu	din Instance		Occurrition Name	Description	•
[SQL Server] sql			Operation Name	Description	
			Show My Screen Recordin	gs Sends comr	nand :
			Site Backups	Sends site b	ackut v
			<		>
Transferring					Cancel
2019-10-02 13:31:00,5	44 [New Plugin Inst] INFO	Bomgar.	Integration. Util. Show MyScr	enRecordingTran	sferDes A
2019-10-02 13:31:00,5	22 [New Plugin Inst] INFO	Bomgar.	Integration.Util.ShowMyScr	eenRecordingTran	sferDes
2019-10-02 13:31:00,5	19 [New Plugin Inst] INFO	Bomgar.	Integration.Util.CommandSh	ellRecordingTrans	ferDesti
2019-10-02 13:31:00,5	08 [New Plugin Inst] INFO	Bomgar.	Integration.Util.SessionTran	sferDestination 1[[Bomgar
2019-10-02 13:31:00,5	03 [New Plugin Inst] INFO	Bomgar.	Integration.Util.CommandSh	ellRecordingTrans	ferDesti 🗸
<					>

- Alternatively, test your plugin settings by parsing data from previously downloaded XML files. From the XML Files tab, click the Add button to browse to one or more BeyondTrust XML files and then select the files you would like to parse.
- 8. If you choose to transfer any type of data other than session details (session recordings, Show My Screen recordings, command shell recordings, access keys, or site backups), the API tester needs to connect back to the BeyondTrust PRA site. Enter either the appropriate hostname and credentials for the site from which the data was extracted or select the appropriate site from the dropdown of configured sites.
- 9. Select the destinations you would like to test.
- 10. Finally, select one or more types of data to transfer from the list of operations.
- 11. Once you click the **Download** button, the API tester begins parsing the XML files via the methods you specified. Once the transfer is finished, verify the appropriate information was successfully transferred to the selected destinations.

	rust Integration Cli	ent API Tester	r				2
Support Sites	XML Files						
Select XMI	files to read						
C:\Users\ad	dmin\Desktop\8-8d	9c642a6b971	15657abaa9.m4v				
					Dele	te	Add
Login Crede	entials						
Host:	support.example	.com			Support	Site:	
Usemame:	admin	Password:		or	Select a	a site	~
Destination	i New Plugin Instan ri New Plugin Instan		Opera	tions ation Name		Descripti	on ^
Destination [SQL Serve [Metrics DB	New Plugin Instan 7 New Plugin Instan 9 New Plugin Instan		Opera Opera Sessi	tions ation Name		Descripti Sends lo	on ^ gged ses
Destination [SQL Serve [Metrics DB [File System	They Provide Instan 7] New Plugin Instan] New Plugin Instan] New Plugin Instan	ce ce ce	Operal Opera Sess Sess	tions ation Name ions ion Recordings nand Shell Re	s	Descripti Sends lo Sends se	on gged ses ession rec
Destination [SQL Serve [Metrics DB [File System	r] New Plugin Instan] New Plugin Instan] New Plugin Instan] New Plugin Instan	Ce Ce Ce	Operal Operal Sessi Comr <	tions ation Name ions ion Recordings nand Shell Red	s cordings	Descripti Sends lo Sends se Sends co	on ^ gged ses ession rec ommand { v >
Destination [SQL Serve [Metrics DB [File System	r] New Plugin Instan J New Plugin Instan] New Plugin Instan	ce ce ce	Opera Opera Sess Comr <	tions ation Name ions ion Recordings nand Shell Re	s cordings	Descripti Sends lo Sends se Sends co	on ^ gged ses sssion rec ommand t v > Cancel
Destination [SGL Serve [Metrics DB [File System] Transferring 1019-10-02 1 1019-10-02 1 1019-10-02 1 1019-10-02 1	r] New Plugin Instan J New Plugin Instan New Plugin Instan 3.28.09.908 [files(3) 3.28.09.855 [files(3) 3.28.09.855 [files(3) 3.28.09.855 [files(3) 3.28.09.276 [api_tet 3.28.08.276 [api_tet	cce cc cce session link I session link I ster] INFO Bo ster] INFO Bo ster] INFO Bo	NFO Bomgar Integration Al mgar.Integration Al	tions ation Name ions on Recordings nand Shell Re gration. Session export SiteBase PT Ester Using PT Ester Valing	s cordings nTransferLir essionTrans r aw api infi g info from 2	Descripti Sends lo Sends co Sends co sends co it i [[Bomg sferLink Im fo: < 2xml v s XML files	on a gged ses sesion rec ommand t v > Cancel gar.Reportir aidi XML c ersion="1.1

Integration Client Tools

Once you have finished setting up your integration client, you can start it from **Start > Programs > Bomgar > Integration**.

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Note: If the configuration needs to be changed, the integration client should always be run as administrator. Otherwise, file permission access errors are likely to occur.

The integration client shows whether your scheduler is running, stopped, or is not installed. Every minute, the scheduler checks to see if it has any transfers to perform. **Last Program Run** displays the last time that the integration client itself was invoked.

From the **Setup** menu, you can modify your site, plugin, or schedule configurations. You can also install additional plugins, such as inhouse/proprietary applications or third-party applications. Finally, you can set integration client application and notification settings.

From **Application Settings**, you can start and stop the scheduler, uninstall the scheduler, and change log file directory locations. You can also set the **Log File Removal** field to delete the integration client's activity logs after a certain number of days to save disk space and make review of activity logs more manageable.

🦁 Beyo	ndTrust In	tegrati	on Client			-	_		\times
Tools	Setup	Help							
Status Sched Last S Next S Last P	luler Status cheduled I Scheduled rogram Ru	s: Run: Run: n:	<u>Running</u> Wed, Sept Wed, Sept Wed, Sept	tembe tembe	r 25, . r 25, . r 25, .	2019 (2019 (2019 (2019 ()1:50:4)1:51:4)8:14:4	11 PM 11 PM 13 AM	
Log Fi	le							Exi	t



Scheduler		Log File Removal	
Scheduler Status:	Running	Delete log files older than: 7	days
Install Scheduler:	Stop		
Uninstall Scheduler:	Uninstall		
Log File Location			
Service Log File:	C:\ProgramData\Beyond	Trust\Integration\log\ics-log.txt	Modify
Application Log File:	C:\ProgramData\Beyond	Trust\Integration\log\ics-log.txt	Modify
Settings Database			
Connection String:	•••••	••••••	Modify

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From the Notification Settings window, you can set notification parameters. Notifications are sent any time the integration client logs an error.

If you wish to verify that your SMTP settings are accurately configured, click Send Test.

Notification Sett	ings	×
nable Notifications:		
MTP Server:	mail.example.co	m
ort:	25	
se SSL:		
semame:	admin	
assword:	•••••	
rom Email Address:	ic@example.com	n
o Email Address:	admin@example	e.com
		Send Test
Ok	Cancel	Apply
	Notification Sett nable Notifications: MTP Server: ort: lse SSL: lsemame: assword: rom Email Address: o Email Address:	Notification Settings nable Notifications: MTP Server: mail.example.co ort: 25 lse SSL: lsemame: admin assword: rom Email Address: ic@example.com o Email Address: admin@example Ok

To view a log of the integration client's activity, click **Log File** at the bottom of the integration client window or select it from the **Tools** menu. The **IC Log** tab shows activity within the integration client tool itself, while the **Service Log** tab shows activity within the scheduler service.

Clear IC Log File	Refresh	
IC Log Service Log		
2019-09-25 08:14:35, encrypt_ste_password 2019-09-25 08:14:35, 2019-09-25 08:14:35, 2019-09-25 08:14:35, 2019-09-25 08:14:36, 2019-09-25 08:14:36, 2019-09-2	540 [UI BBUG Bengar Hegation. Program Command Line = "C-Morgam Resilbungar Integration beyond feat is cee." - dit 550 [UI EPROR Bongar Hegation. Program Carrot excelse command line argument bacause the settings file does not exist. 550 [UI EPROR Bongar Hegation. Program Carrot excelse command line argument bacause the settings file does not exist. 550 [UI EPROR Bongar Hegation. Program Carrot excelse command line argument bacause the settings file does not exist. 550 [UI EPROR Bongar Hegation. Program Carrot excelse command line argument bacause the settings file does not exist. 550 [UI EPROR Bongar Hegation. Program Carrot excelse command line argument bacause the settings file does not exist. 553 [UI EPROR Bongar Hegation. Program Serving excelse to program Felse Bongar (Hegation Boyon Brayer)] 553 [UI II PROR Bongar Hegation. Program Serving excelses to program felse Bongar (Hegation Boyon Brayer)] 553 [UI II PROR Bongar Hegation. Program Serving excelses to program felse Bongar (Hegation Boyon Brayer)] 553 [UI II II PROR Bongar Hegation. Program Serving excelses to program felse Bongar (Hegation Boyon Brayer)] 553 [UI II II PROR Bongar Hegation. Program Serving excelses to program deb/E004 474 [UI] 554 [UI II II PROF Bongar Hegation. Program Serving excelses to program deb/E004 474 [UI] 554 [UI II II PROF Bongar Hegation. Program Serving excelses to period deb/E004 474 [UI] 555 [UI II II II Deb/E004 1997] 554 [UI II II II DEB/E004 1997] 555	^
at Bomgar.Integratio	on.Util.SharedSettings.GetAllPluginDestinations(Guid guid) on Program ProcessCommandLineArguments(StringIL args)	,

🦁 C:\ProgramData\Bomgar\Integration\log\ic-log.txt

Migrate Integration Client Data to a New MS SQL Server

You can migrate integrations client data from one MS SQL server to another by following the steps below.

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Note: The process may vary depending on your server software versions and configurations. The steps below provide general guidance.

- 1. Backup the databases from the old server, and restore them to the new server. There are two databases to copy:
 - BGAPISettings
 - BGInfo
- 2. Relocate BGAPISettings database in the IC Setup / Application Settings menu.
- 3. Reconnect the Integration Client to the new SQL server by reconfiguring the SQL Plugin.

For more information, please see the following:

- For backing up and restoring databases, <u>Copy Databases with Backup and Restore at https://learn.microsoft.com/en-us/sql/relational-databases/databases/copy-databases-with-backup-and-restore?view=sql-server-ver16.</u>
- For relocating the database, "Create the Integration Client Settings Database" on page 7.
- For reconfiguring the SQL Plugin, "Configure the File System or SQL Server Plugin Settings" on page 10.

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