BeyondInsight 24.1
Analytics & Reporting

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BeyondInsight Analytics & Reporting

BeyondInsight contains a data warehouse solution with business intelligence and analytics. This module extracts data from the BeyondInsight database and then processes the data in Microsoft SQL Server Integration and Analysis Services. You can browse these cubes in BeyondInsight, Microsoft SQL Server Management Studio, or using tools such as Microsoft Excel.

Using an on-premises BeyondInsight Analytics & Reporting deployment, you can perform the following:

- Run reports on:
  - User accounts
  - Asset details
  - BeyondInsight user audit activity by user action, username, and IP address
  - BeyondInsight, Endpoint Privilege Management, Password Safe, and Workforce Passwords licensing usage
  - Password Safe activity, such as:
    - Detailed view of all password and session activity
    - Password Safe release and update activity
    - Scheduled password changes
    - Password age for managed accounts
    - User and group entitlements
    - Smart Rule details
    - Assets and managed accounts that are associated with multiple Smart Rules
    - Details on whether or not sessions were reviewed, when, and by whom
    - Who has admin access to your managed applications
  - User and product events and statistics
  - Scan job history and metrics
  - Secrets Safe entitlements
- Subscribe to reports to generate them on a schedule for automatic delivery to a network file share or through email.
- Save report views to easily reuse a report with predefined parameters.
- Download reports as the following file types: Word, Excel, PowerPoint, PDF, TIFF, MHTML (web archive), CSV (comma delimited), XML, data feed.
- Create report snapshots to save static views of report data.
- Interactively explore data and create and save custom reports with a pivot grid.

Using BeyondInsight Analytics & Reporting Cloud, you can perform the following:

- Run reports on:
  - Scanned target details
  - Asset details
  - Password Safe and Workforce Passwords licensing usage
  - BeyondInsight user audit activity by user action, username, and IP address

- Password Safe activity, such as:
  - Detailed view of all password and session activity
  - Password Safe release and update activity
  - Scheduled password changes
  - Password age for managed accounts
  - User and group entitlements
  - Smart Rule details
  - Assets and managed accounts that are associated with multiple Smart Rules
  - Details on whether or not sessions were reviewed, when, and by whom
  - Who has admin access to your applications
  - Secrets Safe entitlements
- Download reports as the following file types: Word, Excel, PDF, TIFF, CSV (comma delimited).
- Subscribe to reports to have them generated on a schedule and made available for file download from the subscription on the Analytics & Reporting page in BeyondInsight.

Prerequisites

To view reports, users must have read permissions to the **Analytics and Reporting** and **Management Console Access** features, which are assigned at the user group level. Administrators can view all reports.
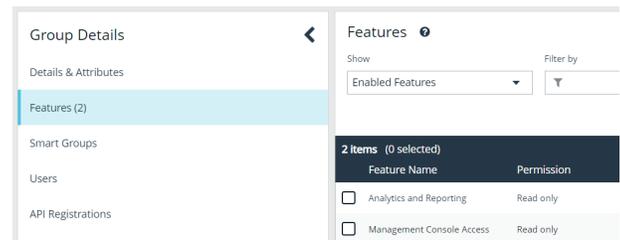
Some report categories are visible only when specific product licenses are detected and if read permissions have been assigned to the user group for specific features, as listed below.

Report Category	License and Permission Requirement
Active Directory Bridge	AD Bridge license
Endpoint Privilege Management	Endpoint Privilege Management license and read permissions for the Endpoint Privilege Management feature
Licensing	Read permissions for the License Reporting feature
Privilege Management UNIX Linux	Privilege Management for Unix & Linux license and read permissions for the Endpoint Privilege Management for Unix & Linux feature.
Password Safe	Password Safe license
Secrets Safe	Password Safe license

Report by Category in an On-Premises BeyondInsight Deployment

The below table provides a list of reports, with their descriptions, found in each report folder in an on-premises deployment of BeyondInsight Analytics & Reporting.

Report Folder	Report Name	Report Description
Account	Account Delta by Day	Shows the daily delta change for user accounts (added, removed, ending counts).
	Account Delta by Month	Shows the monthly delta change for user accounts (added, removed, ending counts).
	Account Delta by Week	Shows the weekly delta change for user accounts (added, removed, ending counts).
	Account Last Login	Provides a list of user accounts with their last login date and time.
	Account Password Age by Last Scan	Provides a list of asset user accounts grouped by the latest password change date of each, as reported by the last successful scan.
	Database User List	Provides a list of database users with their details.
	User Account List	Provides a list of asset user accounts with their details, filtered by location, status, group membership and more.
Active Directory Bridge	Access by Server	Shows users with logon access rights by server.
	Access by User	Shows servers to which this user has been granted logon rights.
Asset	Asset Delta	Shows asset change rate based on combined software, service, ports, and user accounts.
	Asset Delta Details	Shows added and removed software, service, ports, and user accounts.
	Asset Item State	Shows assets missing one or more selected items.
	Asset Software Delta Trend	Shows the delta trend (added, removed, current) for software installed on assets.
	Asset Software Details by OS	Shows software installed by operating system.
	Assets Discovered	Lists discovered assets, grouped by operating system.
	Hardening Security Dashboard	Displays an asset hardening compliance dashboard.
	Operating System Discovered	Lists discovered operating systems with the count of assets.
	Smart Group Software Details	Provides a list of software installed on assets, grouped by Smart Group.
Clarity	Event Review - Endpoint Privilege Management	Provides a breakdown of alert triggers for Endpoint Privilege Management events by threat level.
	Event Review - Password Safe Release Events	Provides a breakdown of alert triggers for Password Safe Release events by threat level.
	Event Review - Privilege Management for Unix & Linux	Provides a breakdown of alert triggers for Privilege Management for Unix & Linux events by threat level.
	Top 10 Assets by Total Threat Level	Shows top 10 assets by overall threat level.
	Top 10 Users by Threat Level	Shows top 10 users by overall threat level.

Report Folder	Report Name	Report Description
Configuration	Active Users	Provides a list of application users that have logged in to the console in X number of days. This is helpful in determining the active user count for licensing purposes, as well as for general housekeeping to disable accounts not being used. It also provides a total for the number of groups a user belongs to, which has a drillthrough option to see the group names.
	BeyondInsight Entitlement by Group	Provides a detailed real-time view of group membership and permissions.
	Smart Rule Details	Provides a list of Smart Rules and details by type and category.
	User Audits	Shows the activity of BeyondInsight users by action, user name, IP address, and more, including ability to drill down into each row to view specific details.
Console Reports > Asset	Port Delta	Shows the delta for ports between two date ranges grouped by assets.
	Service Delta	Shows the delta for services between two date ranges grouped by assets.
	Software Delta	Shows the delta for software between two date ranges grouped by assets.
	User Account Delta	Shows the delta for user accounts between two date ranges grouped by assets.
	Assets	Shows the asset details for the selected host machines.
	Operating System	Shows the operating systems for the selected host machines.
	Port	Shows the ports for the selected host machines.
	Service	Shows the services for the selected host machines.
	Software	Shows the software for the selected host machines.
	User Account	Shows the user accounts for the selected host machines.
	Windows Events	Shows collected Windows events.
Console Reports > Endpoint Privilege Management	Applications ActiveX Details	Provides a summary of Endpoint Privilege Management ActiveX details.
	Applications By Computer	Provides a summary ofEndpoint Privilege Management applications by computer.
	Applications By Hash	Provides a summary ofEndpoint Privilege Management applications by hash details.
	Applications By Path	Provides a summary ofEndpoint Privilege Management applications by path details.
	Dashboard Report	Displays an Endpoint Privilege Management dashboard.
	File Integrity By Asset	Provides a summary of Endpoint Privilege Management file integrity by asset.
	File Integrity By Rule	Provides a summary of Endpoint Privilege Management file integrity by rule.

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Report Folder	Report Name	Report Description
	Rule Justification	Provides a summary of Endpoint Privilege Management file integrity by rule justification.
	Shell Rule Executions	Provides a summary of Endpoint Privilege Management shell rule executions.
Console Reports > Licensing	Password Safe User Licensing	Shows Password Safe logins by month, week, or day for a specified time period.
Console Reports > Scan	Discovery	Provides details for the list of targets scanned.
	Network Discovery	Provides details for the list of targets scanned across multiple scans.
Endpoint Privilege Management	Privileged Rule Impact Dashboard	Displays a dashboard that breaks down theEndpoint Privilege Management shell rule and custom rule applied events.
	Requested Elevation Impact Dashboard	Displays a dashboard that breaks down theEndpoint Privilege Management application requested elevation and ActiveX events.
	UAC Impact Dashboard	Displays a dashboard that breaks down the Endpoint Privilege Management UAC prompt events.
	Agent Heartbeat Check Report	Provides a list of Endpoint Privilege Management agents that have not updated.
	Event Details Report	Provides a list of Endpoint Privilege Management event data listed by occurrence, filterable, and available for export in common for export in common formats.
	Event Rollup Report	Provides a list of Endpoint Privilege Management events grouped by occurrence, with user sort and custom filtering options.
	Events by Hour	Provides a weekly break down of Endpoint Privilege Management events by hour of the day.
	Events by Month	Shows Endpoint Privilege Management events trending by month.
	Events by User and Rule	Shows Endpoint Privilege Management events by user and rule.
	File Integrity Monitoring by Rule	Provides detailed reporting by asset and rule to determine file system changes.
	Lateral Movement and Suspicious Activity by User	Displays Endpoint Privilege Management activities, by user, common in lateral movement attacks.
	Shell Rule Usage	Shows shell rule events frequency and count by user.
Licensing	BeyondInsight Product Usage Details by Organization	Provides a list of assets by organization for BeyondInsight license usage details.
	Endpoint Privilege Management License Usage Report by User	Provides user event driven Endpoint Privilege Management license usage summary by month.
	Endpoint Privilege Management Product Usage Details by Organization	Provides a list of assets by organization for Endpoint Privilege Management license usage details.

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Report Folder	Report Name	Report Description
	Password Safe Product Usage Details by Organization	Provides a list of assets and cloud accounts by organization for Password Safe license usage details.
	Usage Summary by Product and Organization	Shows the asset count by product and organization for license usage summary.
	Workforce Passwords Usage Summary	Provides a list of users with the ability to access the Workforce Passwords feature.
Password Safe	Account Password Age by Last Scan	Provides a list of users along with the accounts they have access to.
	Smart Rule Details	Provides a list of Smart Rules and details by type and category.
	Activity	Contains a detailed history of all Password Safe changes made to the appliance by any user.
	Admin Session Activity	Provides a detailed view of Password Safe admin session activities.
	Application Audit	Provides a list of who has administrative access to managed applications, by application name, Smart Group, user group, Password Safe role, username, and managed account.
	Application Inventory	Provides a list of application inventory details.
	Entitlement by Group	Provides a detailed view of Password Safe group membership and permissions.
	Entitlement by User	Provides a list of users along with the accounts they have access to.
	Inactive Managed Accounts	Provides a list of accounts that are inactive or not accessed by a requester in a specified number of days. The default number of days is **30**. This can be modified.
	Managed Account Password Age	Lists all accounts managed by Password Safe along with the password age details.
	Managed vs Unmanaged Account Details	Provides a list of asset user accounts and their details, and indicates which are under Password Safe management.
	Password and Session Activity	Provides a detailed transactional view limited to top 50,000 Password Safe password and session activities.
	Password Release Activity	Provides a list of Password Safe password release activity details.
	Password Reset-on-Release Reconciliation	Provides auditable evidence that managed account passwords have been reset appropriately at session end, for any account configured with the **Change Password after any release** option.
	Password Update Activity	Lists details of Password Safe password update activity, showing which user initiated a manual password change by either UI or API.
	Password Update Schedule V2	Lists details of upcoming scheduled password updates.
	Remote Session Activity	Provides a detailed view of Password Safe remote session activities.

Report Folder	Report Name	Report Description
	Reviewed Sessions	Provides details on when and who reviewed sessions, and provides a filter to show sessions that have not been reviewed.
	Scheduled Password Change Configuration	Provides details of Password Safe upcoming scheduled password changes.
	Service Account Usage	Provides a detailed list of what systems are using a Password Safe service account to start one or more services.
	Smart Rule Overlap	Shows assets or managed accounts that are selected for management in Password Safe by multiple Smart Rules. Overlapping Smart Rules cause an increase in database updates for account settings, which degrades system performance.
	Synchronized Accounts	Provides a list synchronized accounts.
Privilege Management UNIX Linux	Dashboard Report	Displays a quick graphic and text overview of the most active Privilege Management for Unix & Linux hosts and users.
	Event List	Shows a user-filtered list of Privilege Management for Unix & Linux events.
	Events By Hour	Shows a list of Privilege Management for Unix & Linux events by hour.
	Events by Status and Timeframe	Shows Privilege Management for Unix & Linux events trending report by month.
	Usage Statistics	Shows Privilege Management for Unix & Linux event statistics in graph form: top 10 hosts, commands, users, and accept and reject breakdown.
Scan	Authentication Summary Alert	Provides a summary of authentication alerts for selected Smart Groups.
	Authentication Alerts by Smart Group	Shows assets listed for each authentication alert for a selected Smart Group.
	Scan Job History by Day	Shows job execution history grouped by day.
	Scan Job History by Month	Shows job execution history grouped by month.
	Scan Job Metrics	Shows job execution metrics by scan agent.
Secrets Safe	Secrets Safe Entitlement Report	Provides a list of user groups and the secrets they are entitled to.
Sudo Manager	Dashboard Report	Displays a Sudo events dashboard showing a quick graphic and text overview of the most active hosts and users.
	Event List	Provides a Sudo event list showing a user-filtered list of events.
	Events by Hour	Shows Sudo events by hour.
	Events by Status and Timeframe	Provides a Sudo events trending report by month.
	Usage Statistics	Shows Sudo event statistics in graph form: top 10 hosts, commands, users, accept and reject breakdown.

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Report by Category in BeyondInsight Cloud

The table below provides a list of reports, with their descriptions, found in each report folder in BeyondInsight Analytics & Reporting Cloud.

Report Folder	Report Name	Report Description
Scan	Discovery	Provides details for the list of targets scanned.
	Network Discovery	Provides details for the list of targets scanned across multiple scans.
Asset	Assets	Shows the asset details for the selected host machines.
	Service	Shows the services for the selected host machines.
	Software	Shows the software for the selected host machines.
	User Account	Shows the user accounts for the selected host machines.
	Operating System	Shows the operating systems for the selected host machines.
	Port	Shows the ports for the selected host machines.
	Windows Events	Shows collected Windows events.
Licensing	Password Safe User Licensing	Shows Password Safe logins by month, week, or day for a specified time period.
	Workforce Passwords Usage Summary	Provides a list of users with the ability to access the Workforce Passwords feature.
Configuration	User Audits	Shows the activity of BeyondInsight users by action, user name, IP address, and more, including ability to drill down into each row to view specific details.
Password Safe	Activity	Contains a detailed history of all Password Safe changes made to the appliance by any user.
	Password Release Activity	Provides a list of Password Safe password release activity details.
	Password Update Activity	Lists details of Password Safe password update activity.
	Password Update Schedule	Lists details of upcoming scheduled password updates.
	Managed Account Password Age	Lists all accounts managed by Password Safe along with the password age details.
	Account Password Age by Last Scan	Provides a list of users along with the accounts they have access to.
	Service Account Usage	Provides a detailed list of what systems are using a Password Safe service account to start one or more services.
	Scheduled Password Change Configuration	Provides details of Password Safe upcoming scheduled password changes.
	Password and Session Activity	Provides a detailed transactional view limited to top 50,000 Password Safe password and session activities.
	Admin Session Activity	Provides a detailed view of Password Safe admin session activities.

Report Folder	Report Name	Report Description
	Entitlement by User	Provides a list of users along with the accounts they have access to.
	Entitlement by Group	Provides a detailed view of Password Safe group membership and permissions.
	Inactive Managed Accounts	Provides a list of accounts that are inactive or not accessed by a requester in a specified number of days. The default number of days is **30**. This can be modified.
	Application Inventory	Provides a list of application inventory details.
	Smart Rule Details	Provides a list of Smart Rules and details by type and category.
	Remote Session Activity	Provides a detailed view of Password Safe remote session activities.
	Smart Rule Overlap	Shows assets or managed accounts that are selected for management in Password Safe by multiple Smart Rules. Overlapping Smart Rules cause an increase in database updates for account settings, which degrades system performance.
	Reviewed Sessions	Provides details on when and who reviewed sessions, and provides a filter to show sessions that have not been reviewed.
	Application Audit	Provides a list of who has administrative access to managed applications, by application name, Smart Group, user group, Password Safe role, username, and managed account.
Secrets Safe	Secrets Safe Entitlement Report	Provides a list of user groups and the secrets they are entitled to.

Run Reports in BeyondInsight

Using Edge, Firefox, or Chrome browsers, you can view all reports from the **Analytics & Reporting** page in BeyondInsight. Set your browser's pop-up blocker to allow pop-ups from your BeyondInsight management console.

To run a report in BeyondInsight, take the following steps:

> 📌 **Note:** *A drill-through action that opens a new report is limited to 10,000 rows of data by design.*

1. From the left menu, click **Menu > Analytics & Reporting**.
2. From the **All Reports** pane, expand the report folders to locate your desired report, or search for a report using title or description keywords.
3. Click the report to open it.
4. From the **Configure Report** pane, select report parameters, and then click **View Report**.
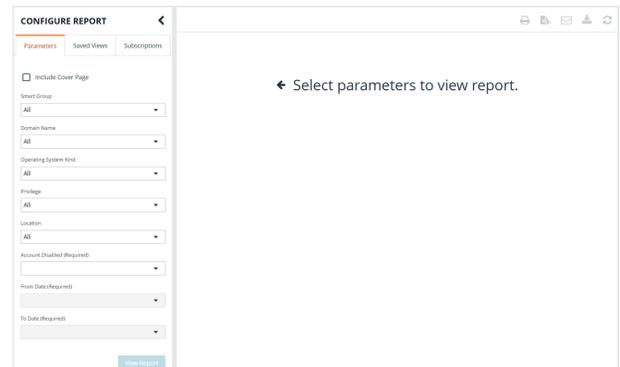
> 💡 **Tip:** *While viewing the report, you can save it as a view, add a subscription to it, and download it to a file by clicking the buttons at the top of the report.*
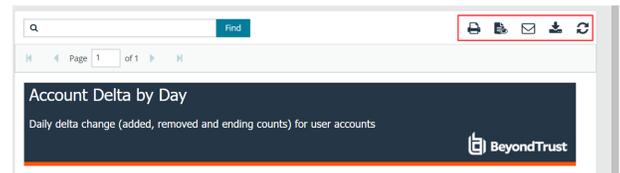
> 📌 **Note:** *Saved Views and Snapshots are available only in BeyondInsight on-premises deployments.*

> ℹ️ *For more information on report subscriptions, please see* "Manage Report Subscriptions in BeyondInsight" on page 14.

Save a Report View in BeyondInsight On-Premises

For reports you generate frequently using the same parameters, in a BeyondInsight on-premises deployment, you can save time by creating a saved view. A saved view loads the report automatically using saved parameters. Create a saved view as follows:

1. Select a report to open it.
2. Select the report parameters.

3. Click the **Save View** button at the top of the report.
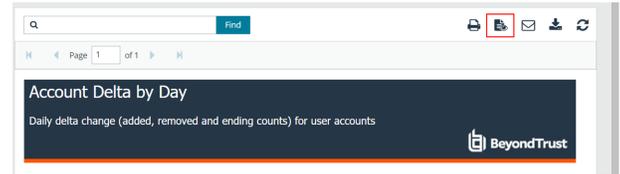
4. Enter a name and description for the report view, select an **Organization** from the list, and then click **Save Report View**. The name must be unique.

5. You can now access the saved view from the **Configure Report > Saved Views** pane, or from the **All Reports > Saved Report Views** folder.

Save a Report Snapshot in BeyondInsight On-Premises

When generating a report from a saved view, you can save the report data in a snapshot. A snapshot is a capture of the saved report and results as they were at the time the snapshot was created. Time and date information is displayed with the snapshot.

1. Open a saved report view.

2. Once the report displays, click the **Save Snapshot** button (camera icon) at the top of the report.

3. You can view snapshots from the **Saved View > Snapshots** panel.
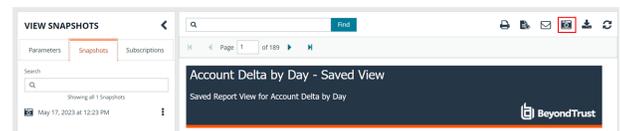
Manage Report Subscriptions in BeyondInsight

In addition to running reports on demand, you can set up a subscription to reports. For BeyondInsight on-premises deployments, subscribing to reports allows you to set a schedule to automatically run the report and have it delivered through email or saved to a shared folder. For BeyondInsight Cloud deployments, subscribing to reports allows you to set a schedule to automatically run the report and have it available for download from the subscription on the Analytics & Reporting homepage.

Create a Report Subscription Using BeyondInsight On-Premises

Subscribe to a report while viewing a report or a saved report view, as follows:

1. From the left menu, click **Menu > Analytics & Reporting**.
2. From the **All Reports** pane, expand the report folders to locate your desired report or saved report view, or search for a report using title or description keywords.
3. Click the report to open it.
4. Once the report displays, click the **Subscribe to Report** button (envelope icon) above the report.
5. Select a delivery method: **Deliver the report through email** or **Deliver the report to a shared folder**, and set the following parameters:
   - For email delivery:
     - Enter the email addresses for where to send the report.
     - Provide a subject line for the email.
     - Select the type of file for the report.
   - For delivery to a shared folder:
     - Provide the file name for the subscription.
     - Enter the UNC path to the share.
     - Select the file format for the report.
     - Select your desired option for overwriting the file.
     - Enter credentials to access the share.
     - Click **Test Access** to verify that files can be copied to the UNC share with the given settings.

> 📌 ***Note:*** *The email option is not available if SMTP is not configured in the **Reporting Services Configuration Manager**.*

6. Click **Next**.
7. Select a delivery schedule frequency from the list, depending if you want the report generated once or on a recurring schedule.
8. If you selected a **One Time** schedule type, specify a start date and time for the report.
9. If you selected a **Recurring** schedule type:
   - Optionally specify an end date.
   - Specify a start date and time for the report.
   - Select **Daily**, **Weekly**, or **Monthly** for the frequency.
   - Set the cadence for the selected frequency.

10. Click **Finish**.

11. The subscription is listed on the **New** tab of the **Subscriptions** pane.

📌 **Note:** *If you choose to deliver the report output to a network share and the SSRS host server resides outside the domain, you must install a reporting services delivery extension file.*

   1. *Install the following MSI file on the server hosting the SSRS server:*

      C:\Program Files (x86)\eEye Digital Security\Retina CS\Support\BeyondInsight-ReportingServicesExtensionsSetup.msi

   2. *Configure **Analytics & Reporting** with the SSRS server that is hosted on a server that is not a member of the domain.*

   3. *Create a subscription that writes to a domain network share using domain credentials. The subscription is saved to the network share.*

Create a Report Subscription Using BeyondInsight Cloud

Subscribe to a report while viewing a report or a saved report view, as follows:

1. From the left menu, click **Menu >Analytics & Reporting**.

2. From the **All Reports** pane, expand the report folders to locate your desired report, or search for a report using title or description keywords.

3. Click the report to open it.

4. Once the report displays, click the **Subscribe to Report** button (envelope icon) above the report.

5. Click **Next**.

6. Provide the file name for the subscription.

7. Select the file format for the report.

8. Enter a comment to display in the **Download Reports** grid.

9. Select a delivery schedule frequency from the list, depending if you want the report generated once or on a recurring schedule.

10. If you selected a **One Time** schedule type, specify a start date and time for the report.

11. If you selected a **Recurring** schedule type:

   - Optionally specify an end date.
   - Specify a start date and time for the report.
   - Select **Daily**, **Weekly**, or **Monthly** for the frequency.
   - Set the cadence for the selected frequency.

12. Click **Finish**.

13. The subscription is listed on the **New** tab of the **Subscriptions** pane.

14. You can now download the reports generated for the subscription:

   - Click the vertical ellipsis for the subscription.
   - Select **Download Reports**.
   - The **Download Reports** window displays.

- To download a single report:
    - Click the **Download** icon for that row in the grid.
    - OR select the row, and then click **Download Selected** above the grid.
- To download multiple reports:
    - Select the rows in the grid.
    - Click **Download Selected** above the grid.

> *Tip:* Add the **Processing Elapsed Time** and **File Format** *values for the listed reports by clicking* **Column Chooser** *above the grid and selecting those columns to display in the grid. To narrow down the reports listed, use the* **Filter by** *dropdown to filter the list by* **Date Generated** *and* **File Format**.

> *Note:* Reports generated from subscriptions are stored for 7 days. Reports older than 7 days are purged from the database on a nightly basis. This is not configurable.

Manage Report Subscriptions

For both BeyondInsight on-premises and cloud deployments, you can view, edit, and delete subscriptions from the **Subscriptions** pane on the **Analytics & Reporting** homepage and also from the **Subscriptions** pane while viewing the report where the subscription was created.

For BeyondInsight on-premises only, you can manage your report subscriptions using the following two additional methods:

- From the **Subscriptions** pane while viewing a **Saved View** for a report where the subscription was created.
- From **Configuration > Analytics & Reporting > Configuration**.

> *Note:* Only subscription owners and administrators can edit and delete subscriptions.

Manage Subscriptions Directly from the Analytics & Reporting Page

Manage report subscriptions directly from the **Analytics & Reporting** homepage, or from a specific report or saved report view (on-premises only), as follows:

1. From the left menu in BeyondInsight, click **Menu > Analytics & Reporting**.

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2. All subscriptions for all reports are listed on the **Subscriptions** pane and you can manage them directly from there.

3. Alternatively, select a report from the folders or a saved view from the **Saved Report Views** (on-premises only) under **All Reports**, and then click **Subscriptions** from the left pane.

4. All subscriptions for the specific report or saved view are listed in the **Subscriptions** pane and you can manage them from there.

5. Whether viewing subscriptions directly from the **Analytics & Reporting** page, or from a report or saved view, the **Subscriptions** pane defaults to the **All** filter. To find a subscription quickly:

   - Click **Failed** or **New** to filter the subscriptions.
   - Search for a specific subscription by typing keywords in the **Search** box.
   - Sort the list of subscriptions using the **Sort By** dropdown.

6. To view details for a subscription:

   - Click the vertical ellipsis for the subscription.
   - Select **View Subscription Status**.
   - A window displays showing the owner of the subscription, the delivery type, the email recipient if applicable, the date the subscription was last modified, and the date it was last executed.

7. To edit a subscription:

   - Click the vertical ellipsis for the subscription.
   - Select **Edit Options**. The same wizard displays as does for creating a subscription.
   - Change the settings as needed, and then click **Finish** to complete wizard.

8. To delete a subscription:

   - Click the vertical ellipsis for the subscription.
   - Select **Delete**.
   - Click **Delete** on the confirmation message.

Manage Subscriptions from the Analytics & Reporting Configuration Page (BeyondInsight On-Premises Only)

1. From the BeyondInsight home page, click **Configuration**.
2. Under **Analytics & Reporting**, click **Configuration**.
3. Enter the administrative username and password to log in to the **Analytics & Reporting Configuration** pages.
4. Click **Report Subscriptions**.
5. To edit a subscription:

   - Click the report name or saved report view to expand its subscriptions.
   - On the subscription, click the **Edit** button. The same wizard displays as displays when you create a subscription.
   - Change the settings as needed, and then click **Save Changes**.

6. To delete a subscription, click the **Delete** button for the subscription.

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Override the Owner of a Subscription

If the creator of the subscription no longer has a BeyondInsight account, administrators can override a subscription owner, as follows:

1. Edit the subscription for which you wish to take ownership.
2. An **Override** check box displays on the first page of the subscription wizard if the administrator is not currently the owner. Check this box to set your user account as the owner of the subscription.

Work with Pivot Grids in an On-Premises BeyondInsight Deployment

Using pivot grids, you can interact with multidimensional data from the BeyondInsight cube and can create custom views of the data. Pivot grids use standard analytical cube features:

- **Measures:** Provide the calculated data values that you want to view.
- **Dimensions:** Provide the filters, groups, and labels for the view.

> 📌 **Note:** Pivot grids are available only for BeyondInsight and Password Safe on-premises deployments.

Create a Pivot Grid

Using the measures and dimensions provided in the BeyondInsight Analytics & Reporting Pivot Grid feature, you can build comprehensive pivot grid views to analyze your data, as detailed below.

1. From the left menu, navigate to **Menu > Analytics & Reporting > Pivot Grid**.

2. From the **Configure** panel, under **Filters**, select a **View**, a **Cube**, and **Measures**. You can perform a keyword search to find measures and attributes that contain specific words.

3. Drag and drop measures and dimensions on indicated drop zones: **Measure Fields**, **Column Fields**, and **Row Fields**.

4. Drag and drop multiple dimensions to enable more options that you can drill down through.

5. The available information populates the grid once the fields are selected. Click the **Collapse All** button in the toolbar above the grid to hide all available data. Click **All** in the column or row to expand the data.
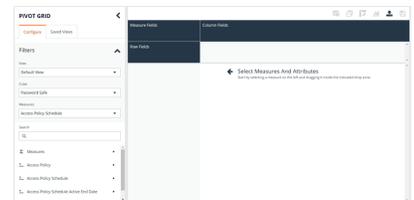
6. To completely clear the pivot grid and start over, click **Clear Pivot Grid** in the toolbar.

7. To pivot your data in the grid, click **Pivot** in the toolbar. This converts the rows to columns and the columns to rows.
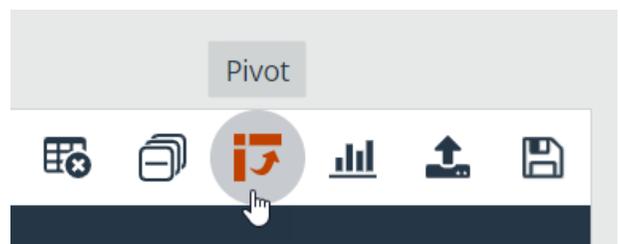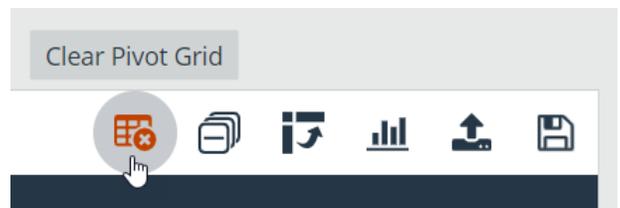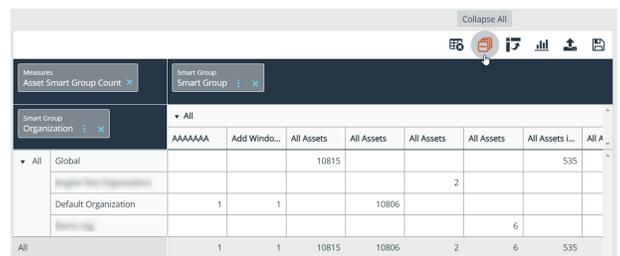
Save Pivot Grid Views

Once you have created a pivot grid, you can save the selected filters, measures, and dimensions as a view for later use.

1. In the pivot grid toolbar, click **Save**, and then select **Save as View**.
2. Enter a **Name** and **Description**.
3. Select the appropriate group for **Allowed Access**.
4. Choose whether other BeyondInsight users can see the saved pivot grid.
5. Click **Save As View**.

6. Your saved view is now listed under **Saved Views** in the left panel. You can also search to find views that contain the keyword.
7. To view most current information for that pivot grid, click the vertical ellipsis for the saved view, and then click **Display**. The data is retrieved from the cube each time you display the saved view.
8. To delete the saved view:
   - Click the vertical ellipsis button for the saved view, and then click **Delete**.
   - Click **Delete** on the confirmation message.
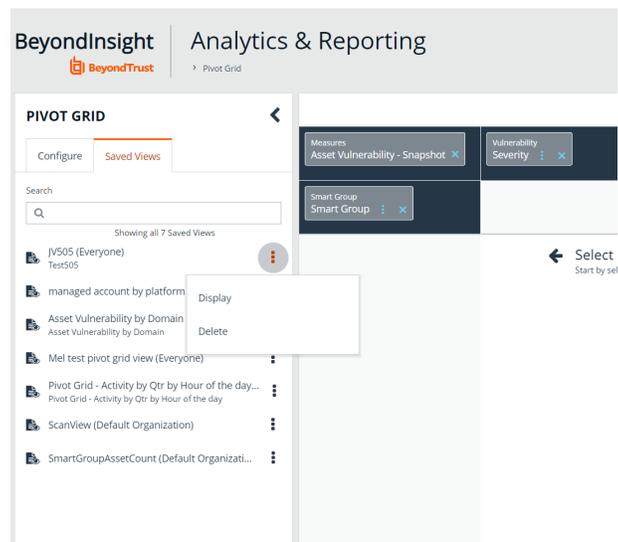
Note: *You can collapse and expand the **Filters** section of the **Configure** panel using the arrow toggle. Each time you open a saved view, the **Filters** section is either closed or open, depending on its state when it was saved.*
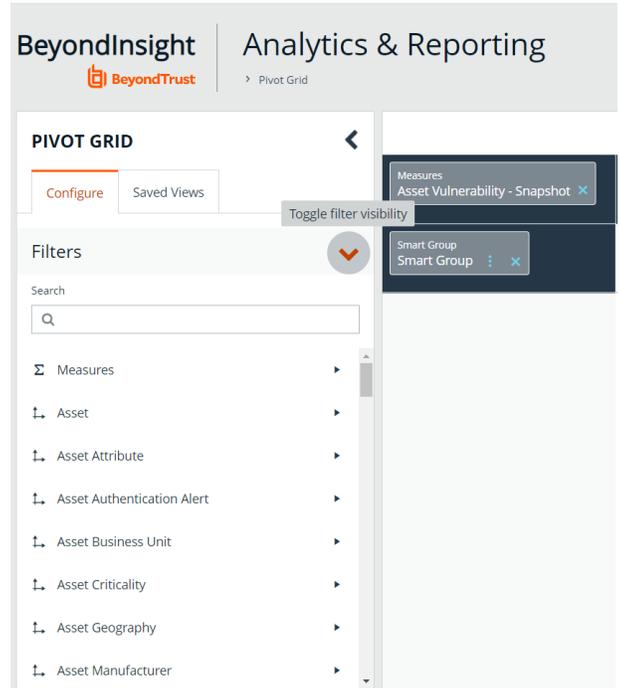

Save Data to a File

You can save the pivot grid data in JSON format and reload the data at a later time.

1. In the toolbar, click **Save**, and then select **Save as JSON**.
2. The file automatically saves to the default download location.
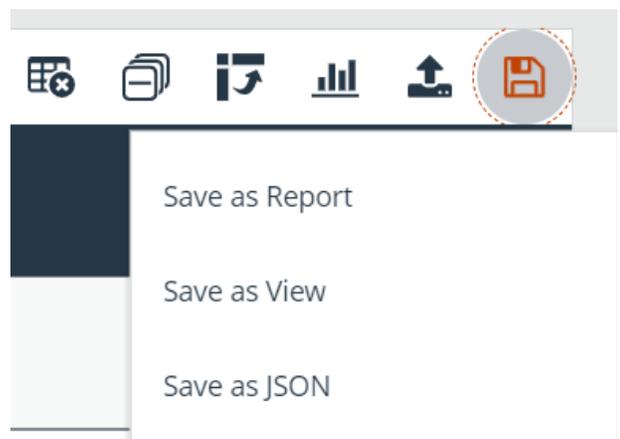
Import the JSON File

1. In the toolbar, click **Import**.

2. Locate the JSON file from the download location and drag the file into the drop box. Alternatively, click within the drop box to open a file browser to navigate to the JSON file to upload it.

3. Click **Apply to Pivot Grid**.
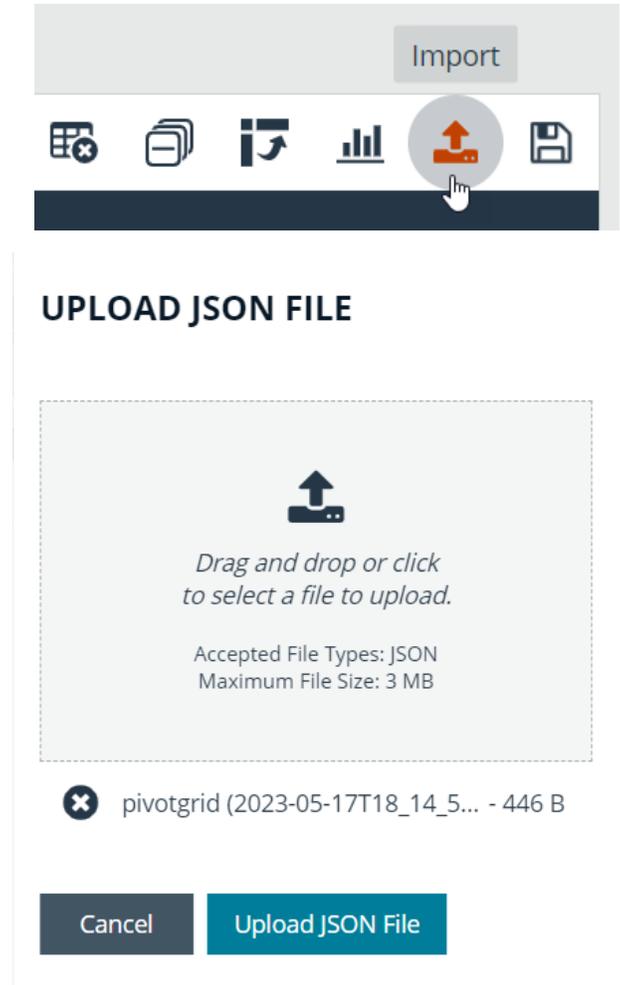
Display Data as a Chart

Once you have created a pivot grid, you can display the data as a chart.

1. To display the data as a chart, click **Display Charts** in the toolbar, and then select a chart type from the menu. The following chart types are available:

   - Area
   - Category
   - Line
   - Spline
   - Spline Area

- Step Area
- Step Line
- Waterfall

2. The chart displays showing data that is currently expanded in the pivot grid.

3. Chart series data can be enabled or disabled by clicking the corresponding data in the legend above the chart.

> 📌 **Note:** *If you save a pivot grid as a view while a chart is displayed, the chart is displayed each time the saved view is loaded.*

4. Click **Save** above the chart, and then select either **Save Chart as PDF**, **Save Chart as PNG**, or **Save Chart as SVG**.

5. The file automatically saves to the default download location.
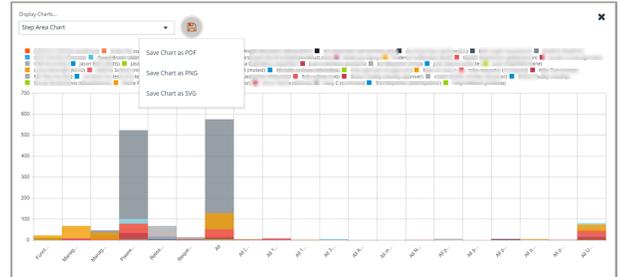
Create a Custom Report

Once you have created a pivot grid, you can save your selected filter, measure, and dimension fields to a custom report that you can then execute, subscribe to, or save as snapshots, just as you can with BeyondInsight in-built reports. Custom reports are saved under the **Custom** folder on the **All Reports** page.

> 📌 **Note:** *If you make changes to the pivot grid layout, any saved custom reports will not update automatically.*

Click on the custom report in navigation tree to run it or create subscriptions and snapshots.

Once you have created a pivot grid, you can create a report based on the fields selected in the grid.

1. In the pivot grid toolbar, click **Save > Save as Report**.

2. Enter a name and description for the report. A name must be unique for the selected category.

3. To attach or change the chart type, select one from the **Include Chart** dropdown.

4. Select the appropriate group for **Allowed Access**.

5. Optionally, select a **Category**. Categories are used to organize reports into folders.

6. Click **Publish as Report**.

PUBLISH PIVOT GRID AS A REPORT

Specify a name, a category, and a description to save the pivot grid layout to a custom report. ❓

Name

My Report

Description

My Report

Include Chart

No Chart

Allowed Access

Everyone

Category

Activity Reports

Cancel   Publish As A Report

Example Measures in the Asset Cube

You can use the following table as a guide for commonly used measures in the **Asset** cube.

To filter on…	Select this measure…
Inventory (rolling count) of discovered assets	Measures > Asset Discovery - Snapshot
Inventory (rolling count) of open ports on assets. Can be used to find which ports are open on which machines	Measures > Asset Port - Snapshot
Inventory (rolling count) of services on assets	Measures > Asset Service - Snapshot
Inventory (rolling count) or shares on assets	Measures > Asset Share - Snapshot
Inventory (rolling count) of software on assets	Measures > Asset Software - Snapshot
Inventory (rolling count) of local user accounts on assets	Measures > Asset User Account - Snapshot

Sample Usage Scenarios

To see the count of assets:

- In **Measure Fields**, place **Measures > Asset Discovery - Snapshot**.
- In **Row Fields**, place **Dimensions > Asset > Asset.Asset**.

To see the count of user accounts on an asset:

- In **Measure Fields**, place **Measures > Asset User Account - Snapshot**.
- In **Row Fields**, place **Dimensions > Asset User Account**.
- In **Column Fields**, place **Dimensions > Asset.Asset**.
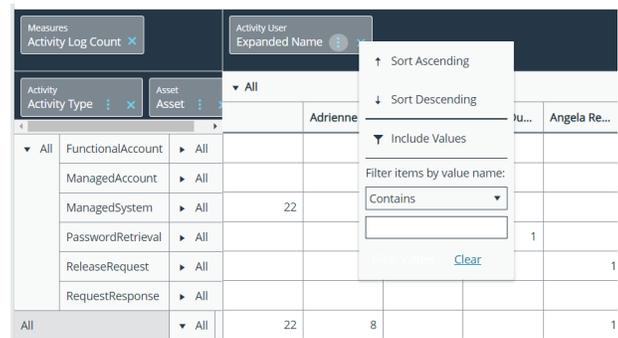
Configure BeyondInsight Analytics & Reporting in an On-Premises Deployment

For on-premises deployments of BeyondInsight, you can configure analysis, integration and reporting services, as well as manage agent jobs, report subscriptions and styling, and threshold ranges.

Configure Report Styles

You can customize the colors of the report, including chart colors, header and description components, and horizontal bar components. You can change the default image to your corporate logo, with a file type of PNG, JPEG, or BMP. The default size is 975x146 pixels.

1. In the console, navigate to **Configuration > Analytics & Reporting > Configuration**.
2. Enter administrative credentials.
3. Click **Report Styling**.
4. To change the report banner logo, drop an image file onto the box in the **Report Logo** section. You can also click inside the box to browse to the image.
5. To change **Report Colors** or **Chart Colors**, click the square you want to change, select the new color, and then click the square again.
6. You can click **Discard Changes** to reverse the most recent change.
7. Once satisfied with the color and logo changes, click **Save All Styling**.
8. To reset all changes to the default, click **Restore to Default**, then click **Reset**.
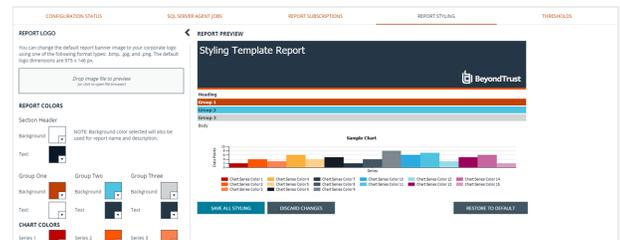
Manage SQL Server Agent Jobs

BeyondInsight uses a SQL Server agent job to retrieve data from sources and process the data into the analysis cube.

1. In the console, navigate to **Configuration > Analytics & Reporting > Configuration**.
2. Enter administrative credentials.
3. Click **SQL Server Agent Jobs**.
4. Select a job type from the left navigation: **Process Daily**, **Process Full**, or **Process Full (OLAP only)**.

📌 *Note: During normal operation, you do not need to manually start the* **Process Daily** *job. The job is designed to run automatically each day during off-peak hours. However, the job can be started from* **SQL Agent Jobs > Analytics & Reporting**.

📌 *Note: For SQL Analysis Services, the Server mode must be set to* **Multidimensional**. *Please refer to Microsoft documentation on how to set or change the SSAS mode.*

> **⚠ IMPORTANT!**
>
> *Running a **Process Full** job erases all historical data and refreshes the Analytics & Reporting database with only active data from the management console. This job should not be run under normal circumstances.*

5. Review the status showing the result of the last run. Expand a job to show the job history and diagnose issues that may prevent the job from running.
6. Click **Download logs** to save diagnostic information and job history details in a zip file.
7. Click **Refresh** to update the view.

Configure Clarity Analytics

To work with BeyondInsight Clarity, you must configure settings in the BeyondInsight management console.

Configure the Analytics Calculation

1. In the console, click **Configuration**.
2. Under **Analytics & Reporting**, click **Clarity Analytics**.
3. From the **Analytics Calculation** section, you can:

   - Enable and disable analytics.
   - Select the hours and minutes for **Time to run at**.
   - Select the frequency for running analysis.
   - Set the **Alert Threshold** for flagging explicit alerts. The higher the value, the higher the sensitivity and the fewer flagged alerts. The range is from **0** to **1**. The default value is **0.65**.
   - Set the **Som Probablity Threshold** for flagging pattern alerts. The lower the value, the higher the sensitivity and the fewer flagged alerts. The range is from **0** to **1**. The default value is **0.05**.
   - Enter an email address to send notifications to.
   - Set the notification subject.
4. Click **Update Analytics Calculation Options**.
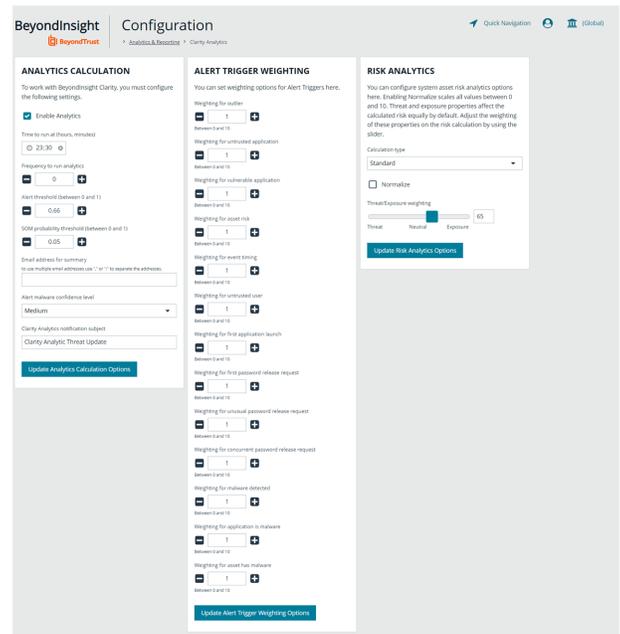
Set Alert Trigger Weighing

From the **Alert Trigger Weighing** section, you can configure Clarity to prioritize or weigh specific alerts. If an alert with a higher weight is triggered, the alert appears more prominently in the Clarity analysis. This allows you to quickly see and react to critical alerts.

To configure a weight for an alert, click the minus and plus buttons to modify its numeric value, ranging from **0** to **10**. When you are satisfied with your selections, click **Update Alert Triggering Weighing Options** to finalize.

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Configure Risk Analytics

Using the risk analytics values, you can focus the results data on the highest risk assets.

Enabling **Normalize** scales all values between 0 and 10. When you choose to normalize the data, the asset at the highest risk is assigned the highest rating. All other assets are rated and organized below the highest risk asset. Normalizing the results provides a way to distribute the assets in a more meaningful way to analyze the data.

Threat and exposure properties affect the calculated risk equally by default. Adjust the weighting of these properties on the risk calculation by using the slider. You can change the results to emphasize risk levels based on exposures or threats. For example, if you move the slider to **Exposure**, asset exposure risk factors are given greater weighting in the final risk calculation and increase an asset's risk score.

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Connect Excel to the SQL Analysis Cube in an On-Premises BeyondInsight Deployment

For on-premises deployments of BeyondInsight, you can connect Microsoft Excel to your BeyondInsight SQL Analysis Services cube to create custom data views, build custom reports, use Excel filtering and graphing features, and use formulas to calculate custom metrics.

On the server hosting the SQL Analysis Services cube, configure the following:

1. Create a local user account with the same username and password as their domain account.
2. Start SQL Management Studio, and connect to **Analysis Services**.
3. Right-click the server name in the tree and select **Properties**.
4. Click the **Security** tab.
5. Add the new local user created in the first step.

On the computer where Excel is installed, configure the following:

1. Start Excel.
2. Select the **Data** tab.
3. Select **Get Data > From Other Sources > From Analysis Services**.
4. Enter the server name or IP address, making sure **Use Windows Authentication** is selected.
5. Select the **Vulnerabilities** cube.
6. Keep the default values for the remaining pages of the wizard, and then click **Finish**.
7. On the **Import Data** dialog, select to create a pivot table or a pivot chart and pivot table.
8. Click **OK**.
9. From the **Show fields related to** list, select **Asset Vulnerability**.

You can now build reports in Excel based on asset and vulnerability data.

Integrate BeyondInsight and Microsoft SharePoint in an On-Premises Deployment

Using BeyondInsight subscriptions, you can directly integrate into SharePoint either by emailing reports to a SharePoint SMTP mail daemon or by publishing the reports to a Universal Naming Convention (UNC) share for directory-based and file-based publishing.

Begin by creating a new subscription or editing an existing subscription. Continue by choosing an email integration or a UNC share integration.

> ℹ️ *For more information, please see "Manage Report Subscriptions in BeyondInsight" on page 14.*

Email Integration to SharePoint

You can enable the receipt of SMTP email through SharePoint and set the appropriate permissions to receive EML content. To avoid internal spam and misuse, use only security settings that permit postings from BeyondInsight or other security tools.

1. For the subscription delivery method, select **Deliver the report through email**, and click **Next**.
2. Provide the SharePoint email address, subject line for the email, and select the type of file for the report.
3. Click **Next**.
4. Select the delivery schedule type and frequency, and click **Finish**.
5. The subscription generates a new report and emails it to SharePoint for publication.
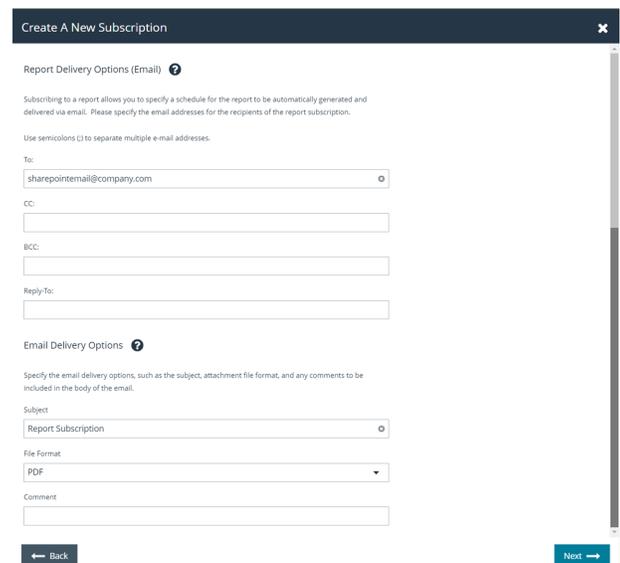
UNC Share Integration to SharePoint

By default, you can access SharePoint document libraries through a UNC share, assuming the system is properly set up. An important consideration for shares is their visibility. For an additional layer of security, you may want to create shares to be hidden by suffixing the share name with a **$**.

> ℹ️ *For more information, please see Connecting Web Sites to UNC Network Shares at https://docs.microsoft.com/en-us/previous-versions/tn-archive/cc768023(v=technet.10).*

1. For the subscription delivery method, select **Deliver the report to a shared folder**, and click **Next**.

2. Provide the file name for the subscription, enter the UNC path to the share, select the file format for the report, select a file overwrite option, and enter credentials to access the share.

3. Click **Test Access** to verify that files can be copied to the UNC share with the given settings.

4. Click **Next**.

5. Select the delivery schedule type and frequency, and click **Finish**.

6. The subscription automatically writes the report to SharePoint for publication.