Enterprise Application

Configuration Manual

Version 4.5

Part Number: XXXX

Publication: XXXX

Release Date: XX/XX/XXXX

SICK
Sensor Intelligence.

SICK

150 Royall St

Suite 104

Canton, MA 02021

Software Versions

Software / Tool	Function	Version
Enterprise Application	• Extended compatibility to all SICK products and external applications using a new heartbeat JSON and MQTT topic for dynamic data integration. • Introduced a multi-level Tree View dashboard with zoom, pan, breadcrumb navigation, dynamic data-type selection, and a draggable Summary & Filters panel. • Added a dedicated page to display and manage offline products with search and refresh capabilities. • Added a dedicated page for downloading PDF reports directly from the EA server. • Added OpenID authentication with JWT assertion support alongside Database and LDAP options. • Added a Notification Logs page to track notifications for troubleshooting and auditing. • Improved facility configuration with bulk add/edit/delete, inline edits, and MQTT connections via IP-address lists. • Enhanced List View with data-type filters, health/performance pagination, and a draggable Summary & Filters panel. • Enhanced Map View with a redesigned cluster-info modal, autocomplete for region/country,	4.5

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Software / Tool	Function	Version
	dynamic product-state display, and a Summary & Filters panel. • Increased maximum notification frequency to one hour.	

Contents

1. About This Manual

1.1 Purpose of the Configuration Manual

This Enterprise Application (EA) 4.5 Configuration Manual provides comprehensive instructions for administrators and technical users to set up and configure the EA 4.5 software for Analytics functionality. It covers all necessary steps to install, configure, and maintain the system, including product management, MQTT connectivity, authentication, notifications, and license application. This manual is designed to ensure that EA 4.5 is properly deployed to aggregate and process real-time data from SICK products and facility servers, enabling robust analytics for enterprise operations.

1.2 Add a New Group

Use the Create Group dialog to define a new user group. Groups control which users have access to specific roles and privileges, such as equipment monitoring, maintenance management, or production reporting.

1. In the Manage Groups interface, select the Add icon  in the top-right corner. The Create Group dialog appears.

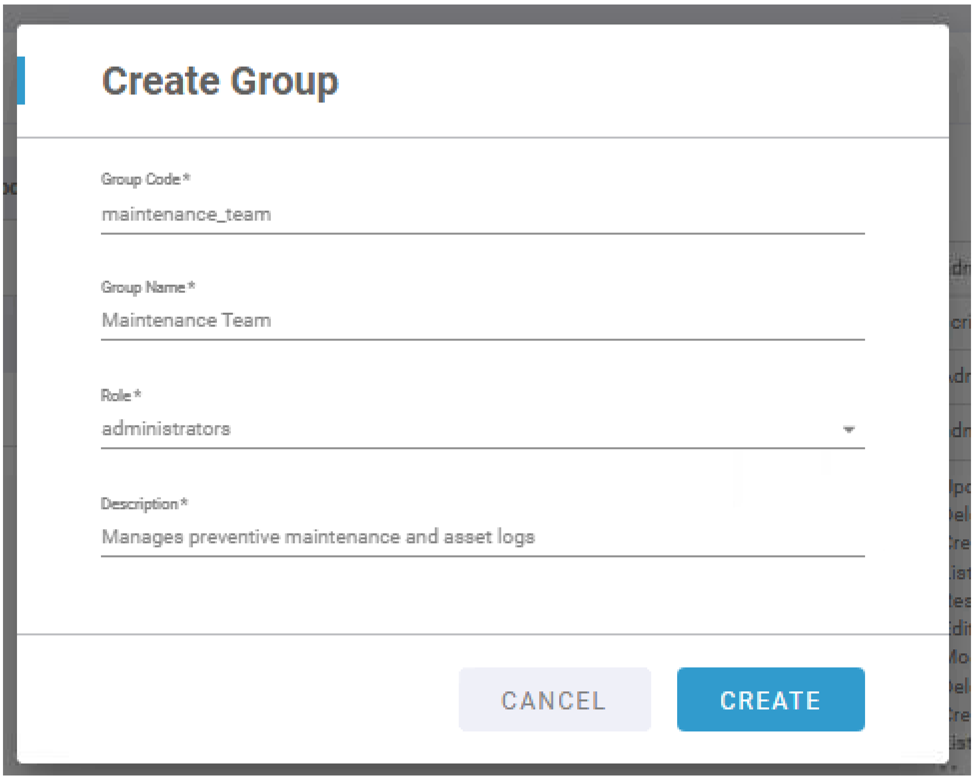

Figure 1: Create Group dialog

2. Fill in the required fields:

Field	Description	Example Input
Group Code	Unique system-friendly identifier (use lowercase and underscores).	maintenance_team
Group Name	Display name that users will see.	Maintenance Team
Role	The role to assign to the group (choose from the existing list).	administrators

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Field	Description	Example Input
Description	A short explanation of the group’s responsibilities.	Manages preventive maintenance and asset logs

3. Select Create to add the group or Cancel to close the dialog without saving.
4. A snackbar message confirms the result:
   "Group created successfully."
5. The new group now appears in the Group Table, and its details are available in the Group Details Panel.

1.3 Related Documentation

For information on using EA 4.5 features, such as navigating the dashboard, viewing product data, or performing enterprise searches, refer to the EA 4.5 User Manual. The User Manual complements this Configuration Manual by detailing how to interact with the EA 4.5 interface and leverage its analytics capabilities.

1.4 SICK Support Contact Information

For assistance with EA 4.5 installation, configuration, or troubleshooting, contact SICK support:

- Sales and Product Support: Visit www.sick.com
- Technical Support: Access the SICK Support Portal at https://supportportal.sick.com/
- Address: 150 Royall St suite 104, Canton, MA 02021, United States

2. System Components

SICK EA works together with the existing key components in your Facility to collect and report on system data. These are:

- The EA software
- PC/server to host EA
- Client computers
- Active Facilities

2.1 EA software

EA software receives and processes data received from Facilities, captured from SICK sensors and controllers. All data sent from connected systems is stored in the Facility database EA receives data from Facility using MQTT publish-subscribe-based messaging protocol. The host PC supports the EA client dashboard requests. All user access to the database is provided through the EA dashboard.

2.2 PC/server host

EA software is installed on your host PC/server. All collected system data from the Facility is requested in the host PC. EA configuration data is saved in this PC.

2.3 Client computers

The client computer is any PC connected to the EA network. EA's client dashboards are HTML5 web applications. The client dashboards connect to the EA to access

Facility data and provide a powerful user experience. Client computers provide a platform for the EA interface ("dashboard"), to provide access to Facility information and database information stored on the host PC. The dashboard makes it possible to quickly search, view, and export information obtained from the auto identification solution.

2.4 Active Facilities

EA retrieves Facility data using MQTT publish-subscribe-based messaging protocol. To view Facility state and data for each Facility linked to EA application, we need an active Facility,

3. System Architecture

The illustration below provides a visual representation of EA architecture, and illustrates how the system components work together to provide a robust and comprehensive analytical tool for your auto ID systems.

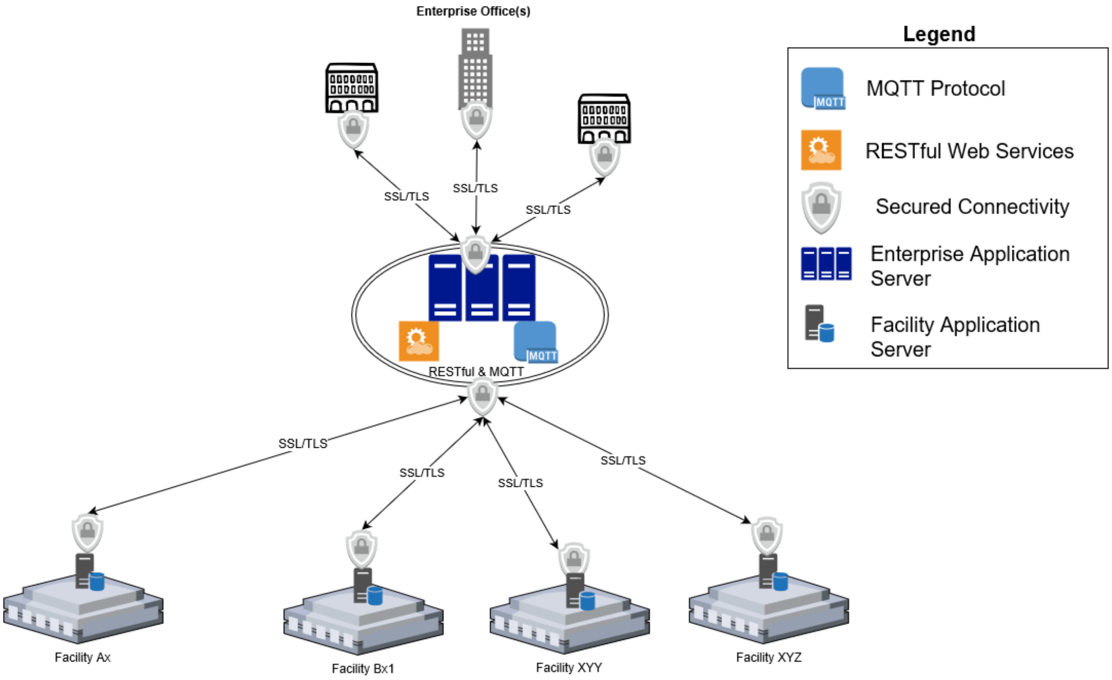

Figure 1: System Architecture

4. Hardware Requirements

The following minimum system hardware requirements must be met prior to installation. Note that these are minimum requirements; final hardware configuration is application dependent. Data and storage duration is application dependent.

Component	Specification
Operating System	Windows 7 (64 bit), Windows 10 (64 bit), Windows Server 2012 R2 (64 bit), Windows Server 2016 (64 bit), Windows Server 2008 R2 Standard
Required Disk Space	Depends on application. Minimum 500 MB. Key factors include number of systems and sensors connected, number of objects per day, number of days for storage.

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Component	Specification
Processor	Depends on application. Minimum Intel Core i7-6700TE (quad-core 2.40 GHz)
Monitor Resolution	1920 x 1080 pixels, 16:9 aspect ratio for best results
Supported Browsers	Google Chrome, Mozilla Firefox, Internet Explorer 11, Microsoft Edge
Note	This software can be integrated with most anti-virus software. Certain user-defined ports need to be exempted from file scanning: • 2008 (TCP communications) • 8441, 8442, 8443 (HTTPS) • 8080, 8081, 8181 (REST and WebSocket communications) • 8406, 3306 (Database communications) The software is available with installation packages Java 8 (JRE) and MySQL 5.7.

5. Installation

This section provides instructions for installing the SICK Enterprise Application (EA) to enable real-time monitoring and analytics of SICK products.

5.1 To Launch the Installer on Windows

1. Double-click the executable file (for example, SICK_Enterprise-4.5.exe).

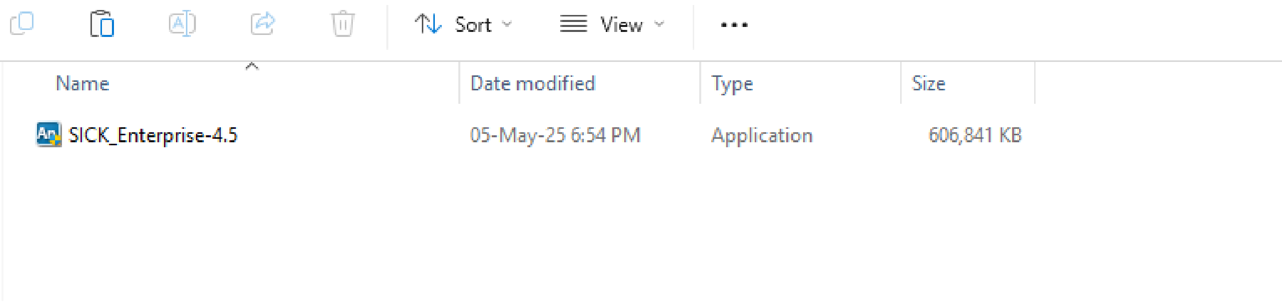

Figure 2.1:1: Enterprise Application Exe

2. The InstallAnywhere dialog will be displayed, showing a progress bar as the installer prepares.

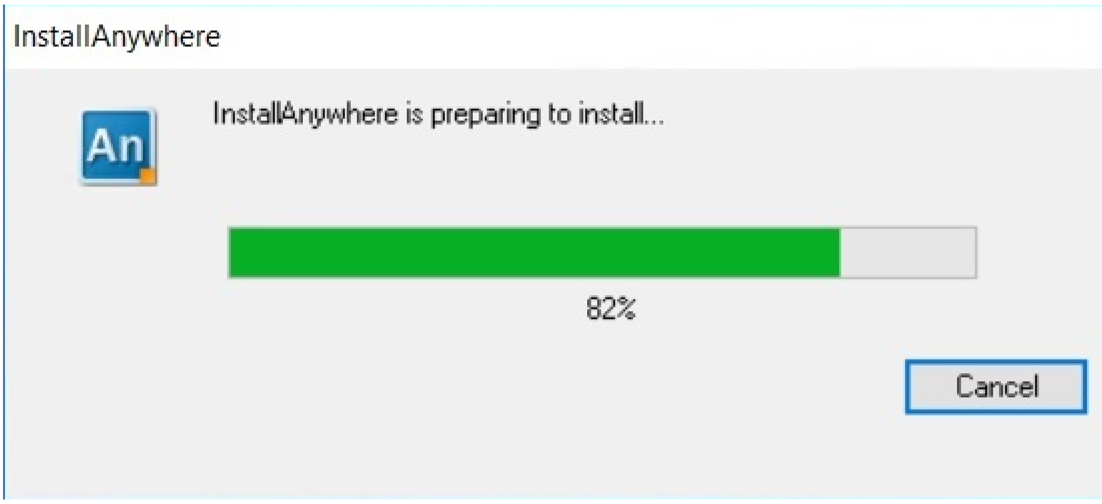

Figure 2.1:2: InstallAnywhere Screen

3. Once the progress on the InstallAnywhere dialog reaches 100%, the Enterprise Application Installation Wizard will launch with the Introduction screen. Click Next to proceed.

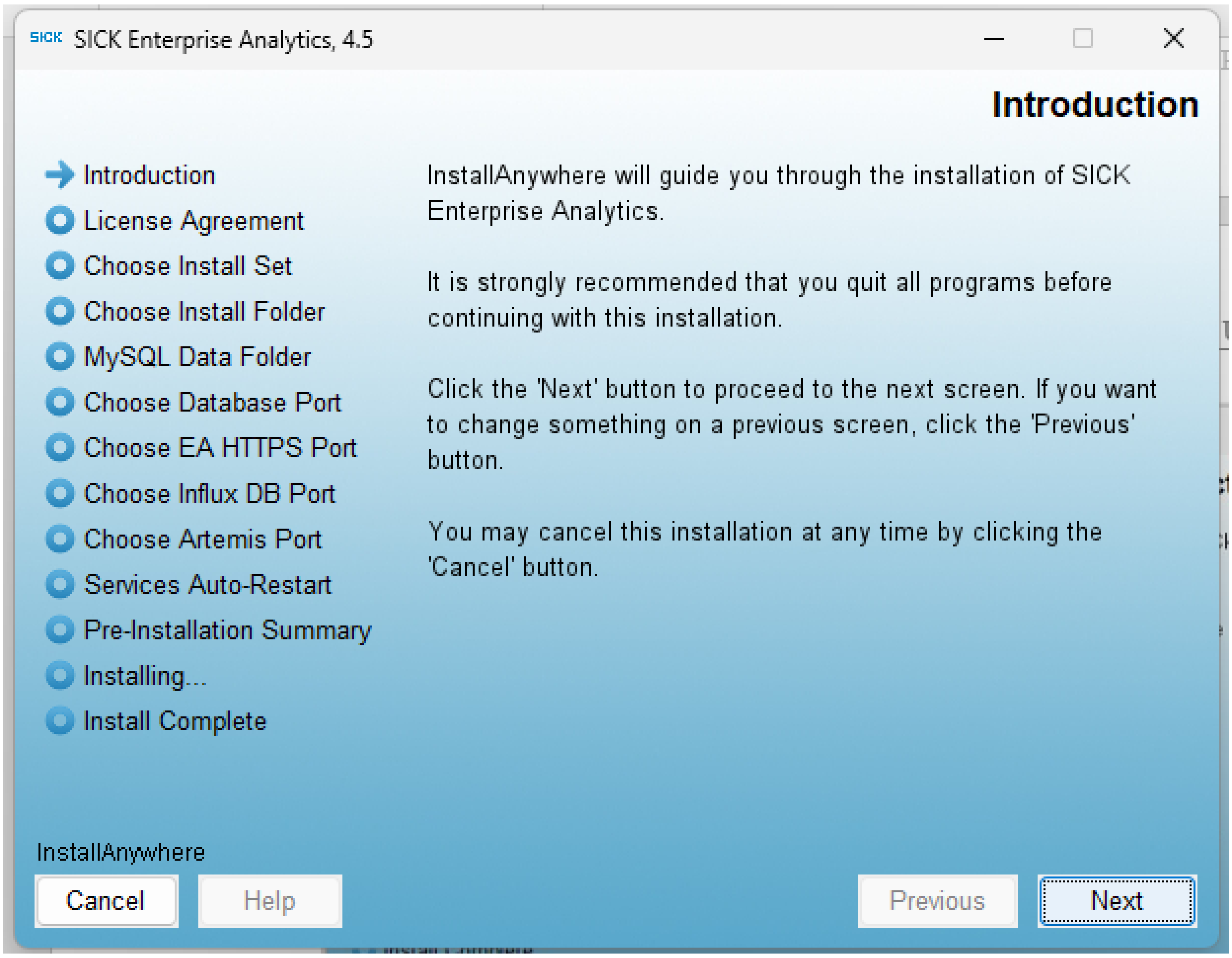

Figure 2.1:3: Introduction Screen

4. The License Agreement screen prompts you to read the End User License Agreement (EULA) and agree to its terms. Review the terms, select the checkbox to acknowledge agreement, and click Next.

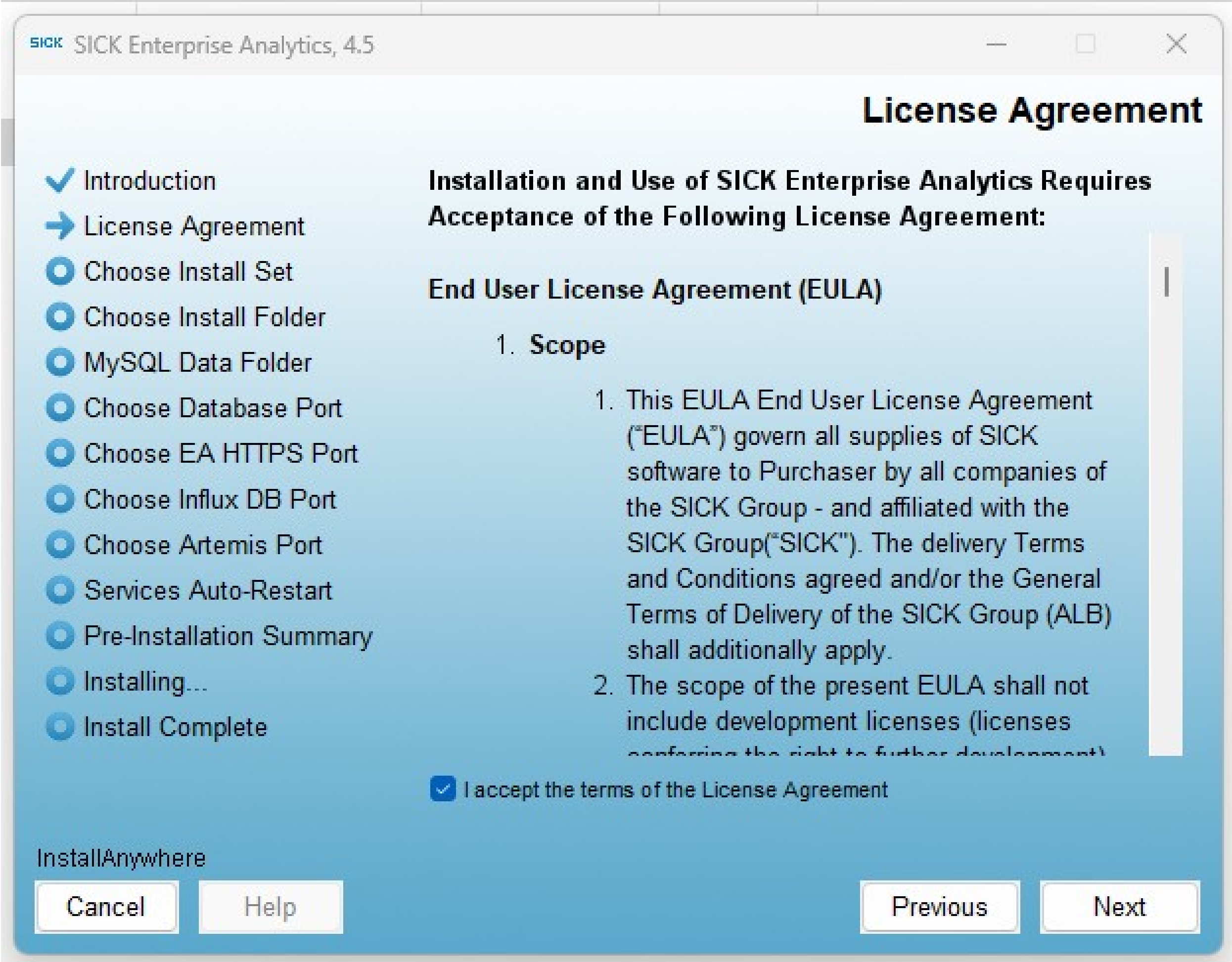

Figure 2.1:4: License Agreement

5. The Choose Install Set screen appears:
   - Full Installation: Installs all features for the SICK Enterprise Analytics (EA) application.
   - Custom Installation: Allows you to customize which features to install. Select the desired option and click Next.

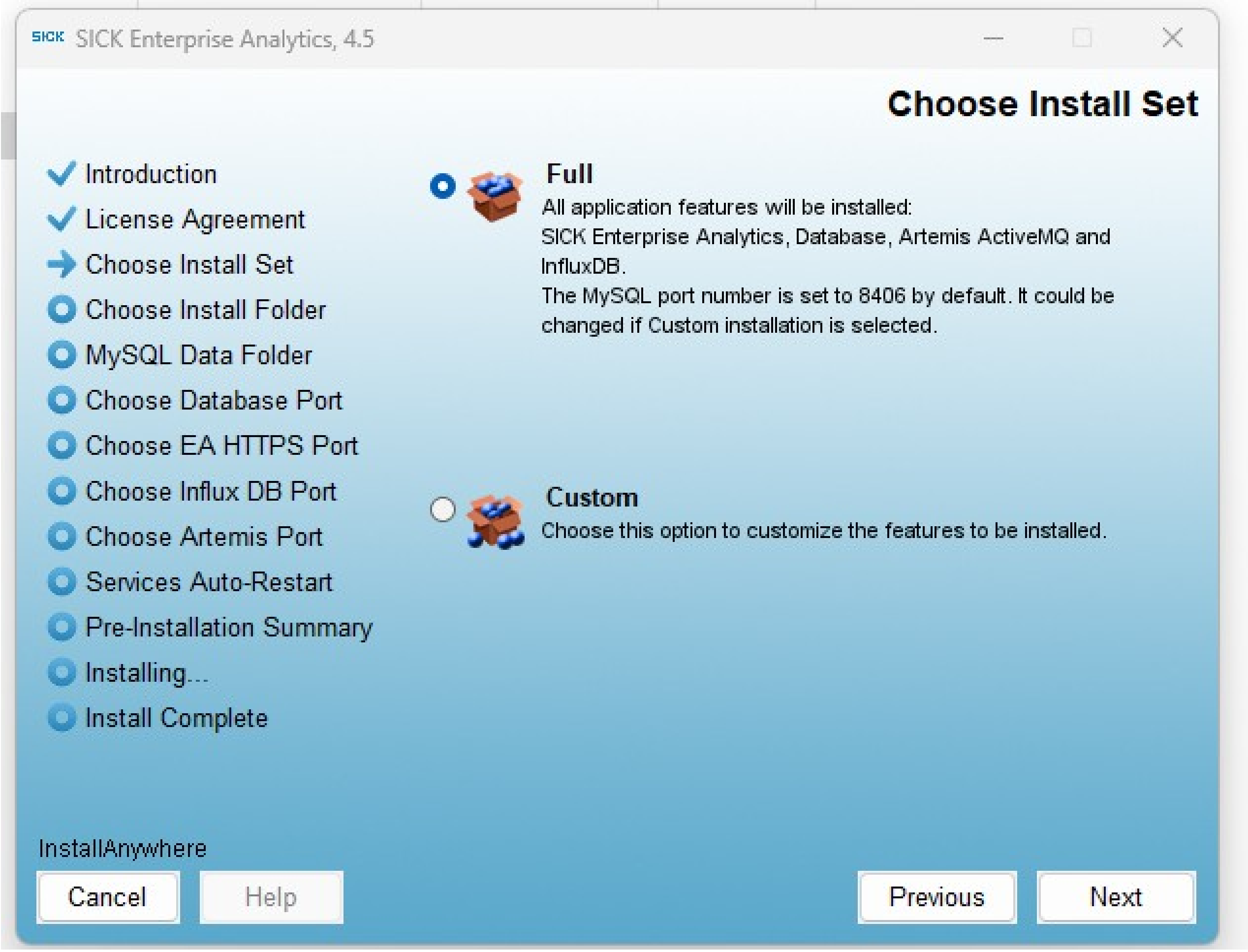

Figure 2.1:5: Choose Install Set

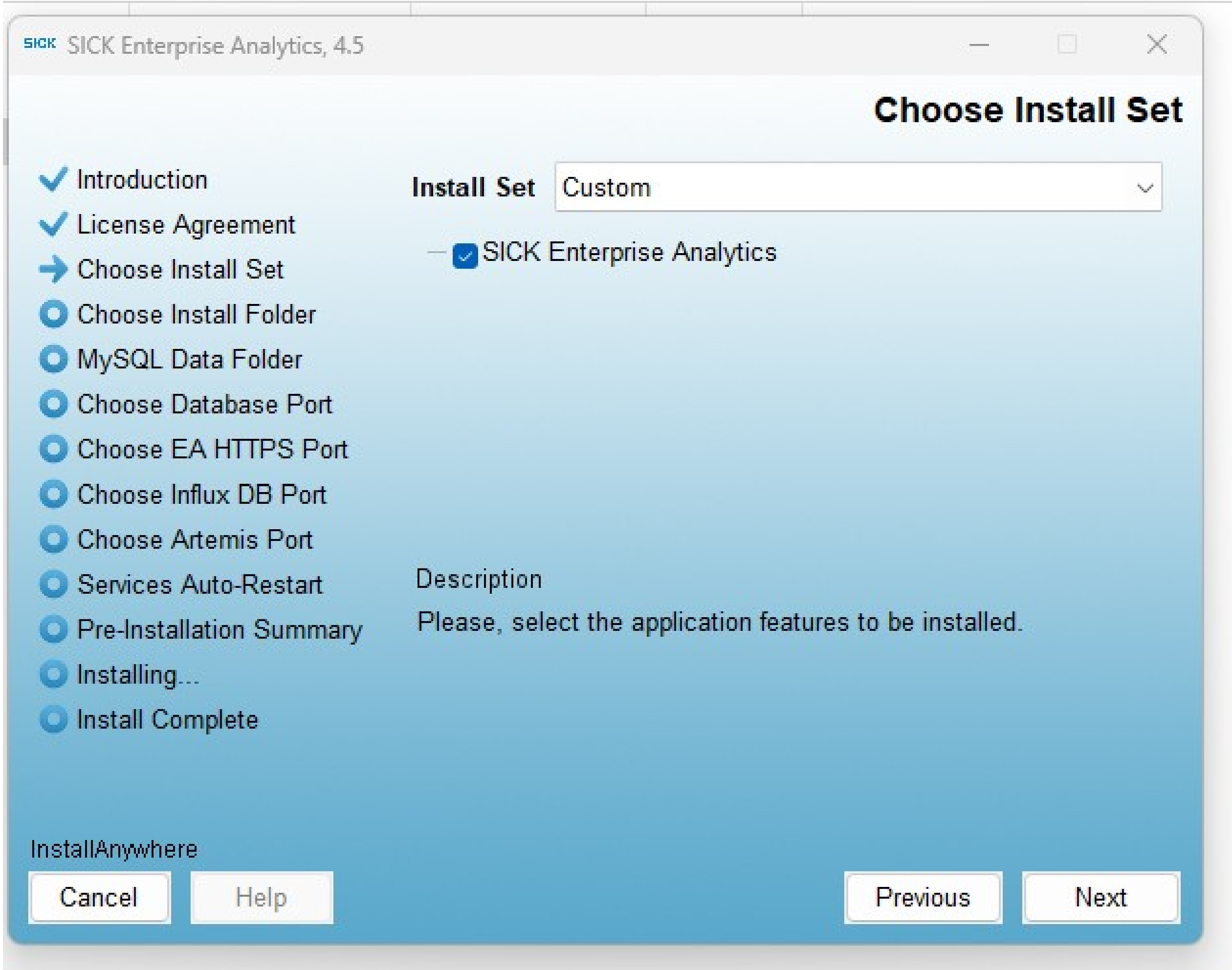

Figure 2.1:6: Install Set – Custom Installation Option

6. The Choose Install Folder screen appears:
    - The default path is C:\Program Files\SICK\Enterprise Application. Click Next to use this location.
    - To change the directory, click Choose..., or Restore Default Folder.

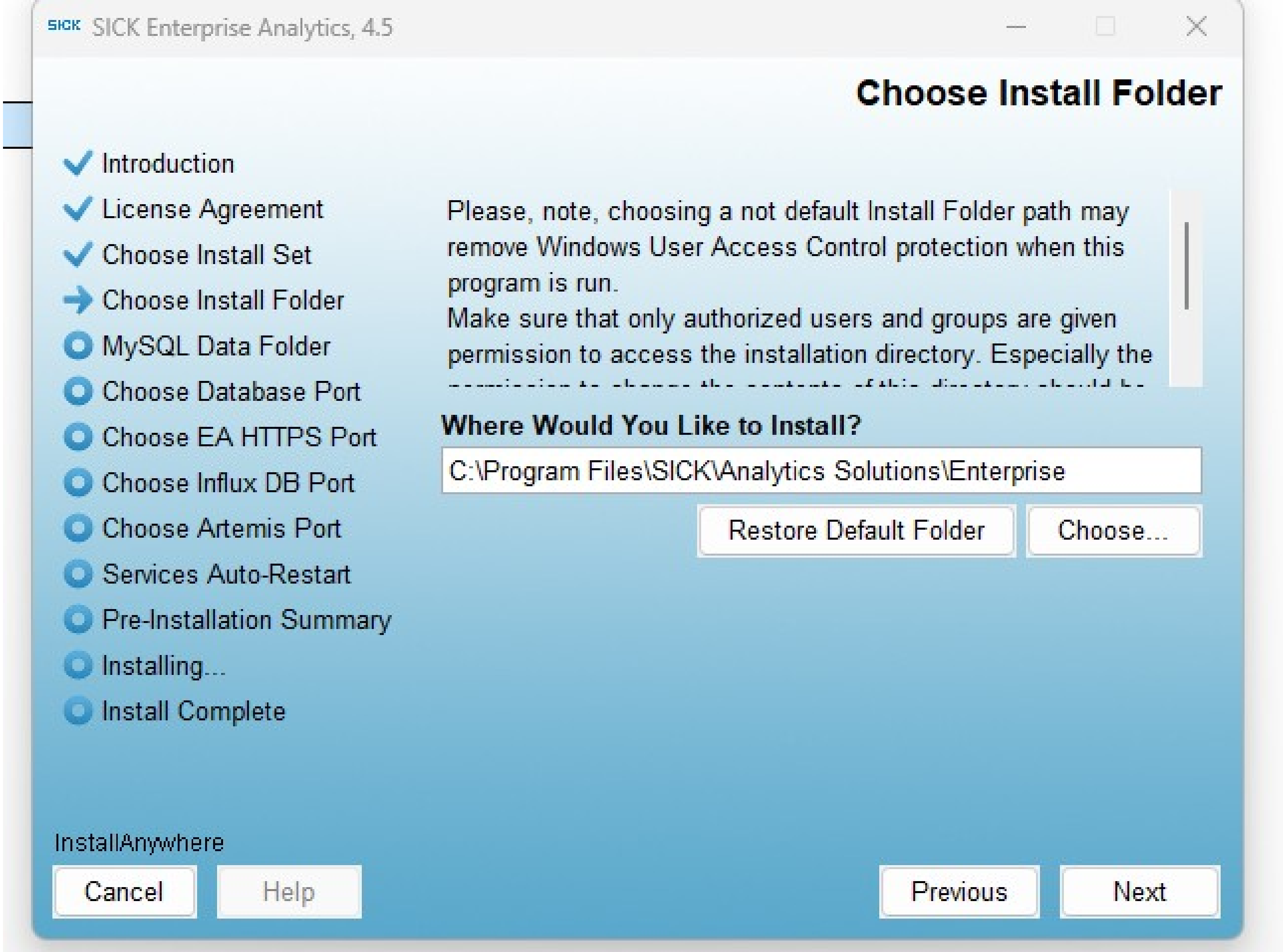

Figure 2.1:7: Choose Install Folder

7. The MySQL Data Folder screen appears:
   - The default path is C:\Program Files\SICK\Enterprise Application\MySQL. Click Next to use this location.
   - To change, click Choose..., or Restore Default Folder.

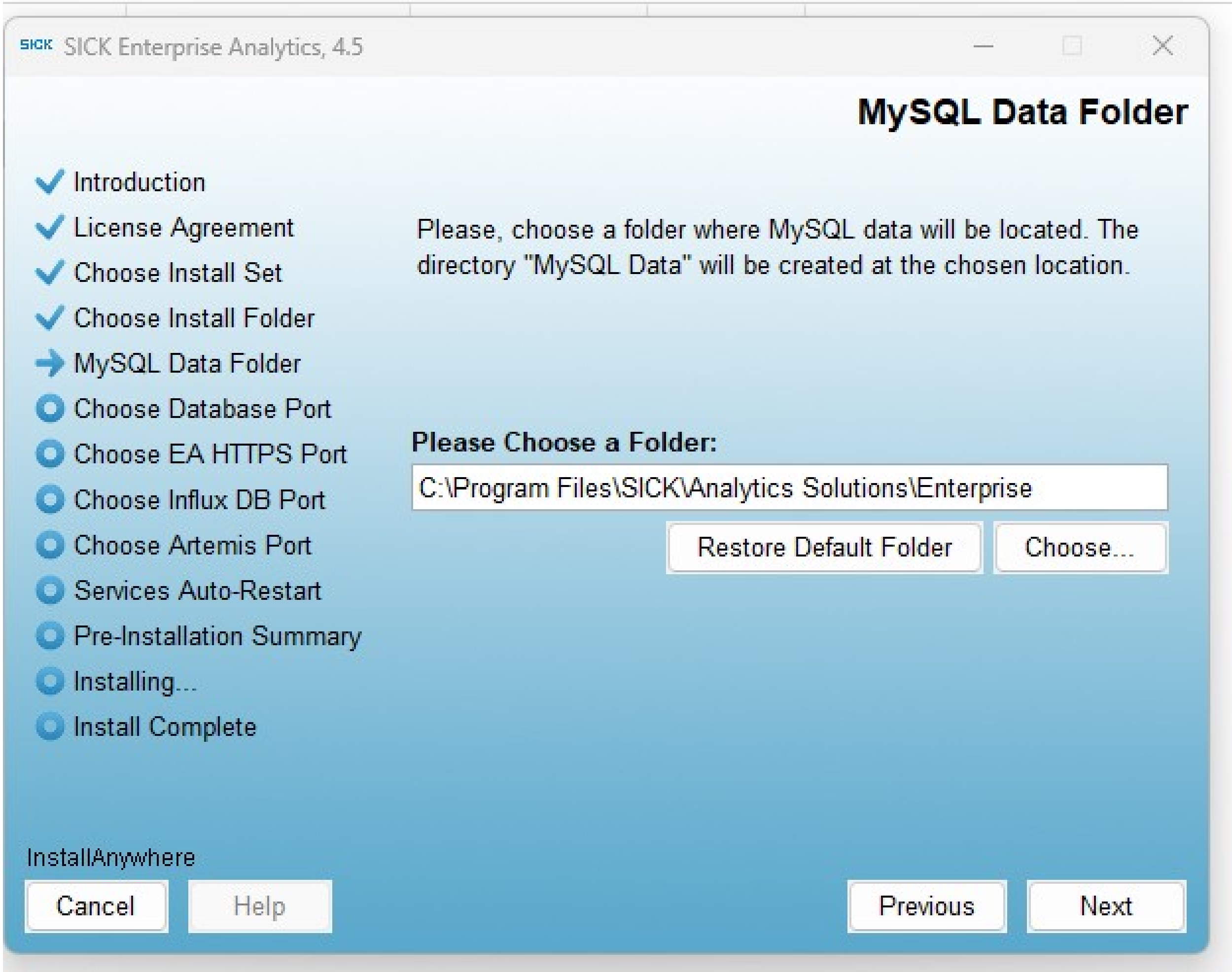

Figure 2.1:8: Choose MySQL Data Folder

8. The Choose Database Port screen appears, prompting you to enter a valid port number for the MySQL database connection:
    - The default port is 8406.
    - Valid Range: 1024 to 65535. Ensure the selected port is not in use by another application.
    - Click Next to proceed or Previous to return to the previous screen.

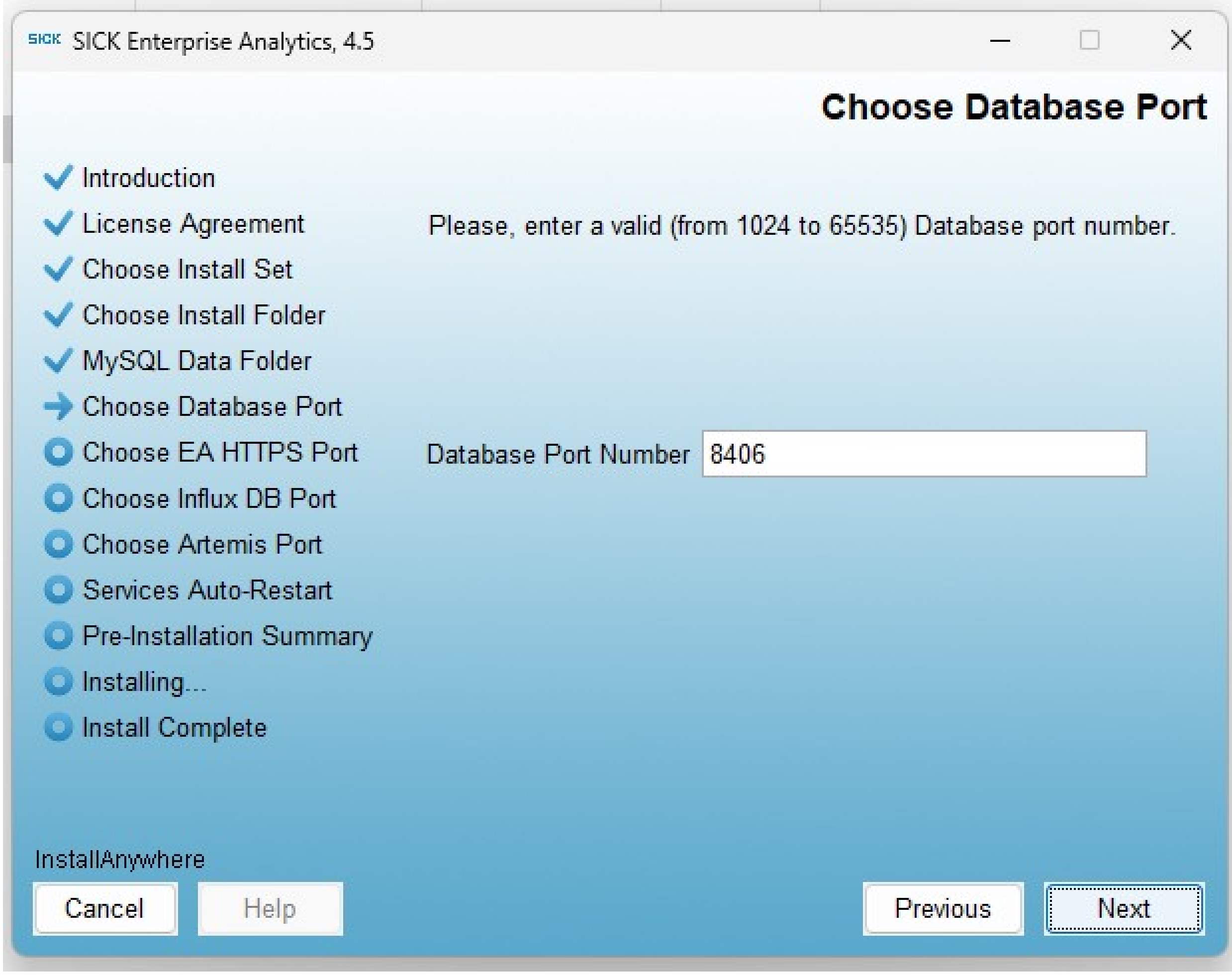

Figure 2.1:9: Choose Database Port

9. The Enable Services Auto-Restart on Failure screen appears:
    - Checked (default): The system restarts services automatically.
    - Unchecked: Use this if services are managed manually.

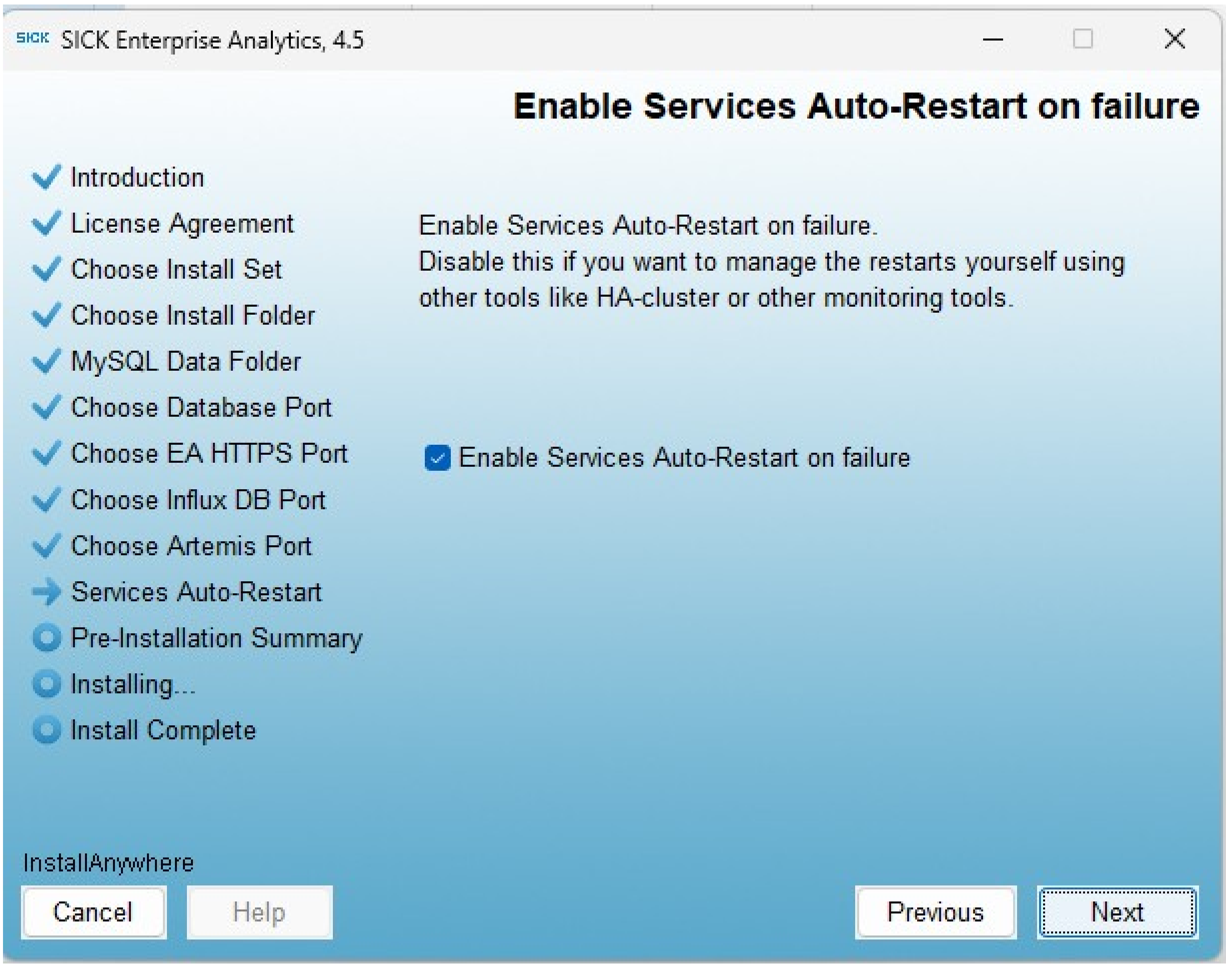

Figure 2.1:10: Enable Services Auto-Restart on Failure

10. The Manage Product Windows Services as a User screen appears:
    - Check the Manage Product Windows Services as a User checkbox to enable the fields.
    - In the Domain field, enter the domain (e.g., RPCDOMAIN).
    - In the User Name field, enter the username (e.g., gMSA03).
    - For a Group Managed Service Account (gMSA), append $ to the username (e.g., gMSA03$).
    - Click Next to proceed.

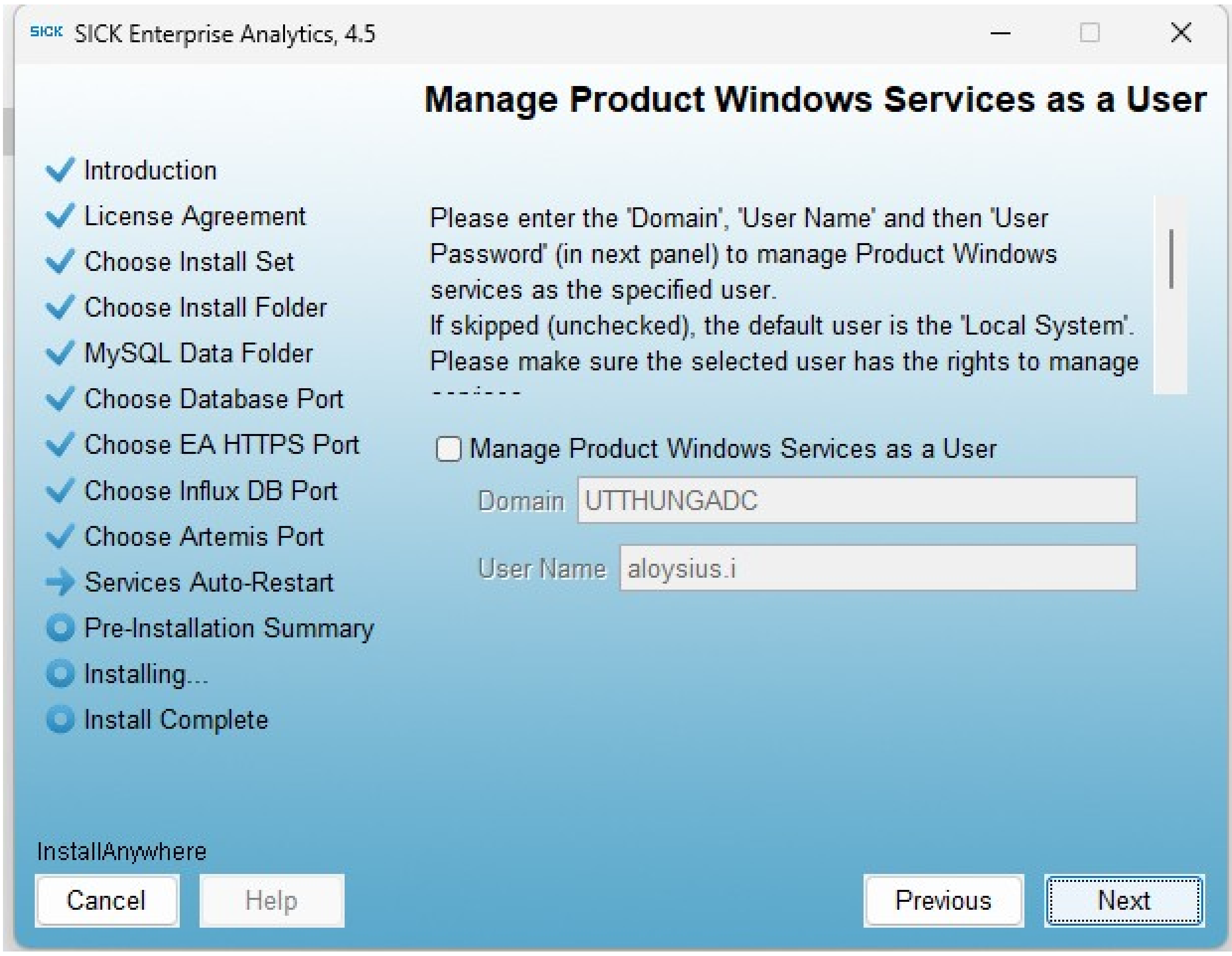

Figure 2.1:11: Manage Product Windows Services as a User

11. The Certificate Properties File screen appears:
    - **Choose...**: Browse to and select the required `cert.properties` file (for example, `C:\certupdates\cert.properties`).
    - Restore Default File: Use the default certificate properties file if no custom file is provided.

    Click Next to proceed.

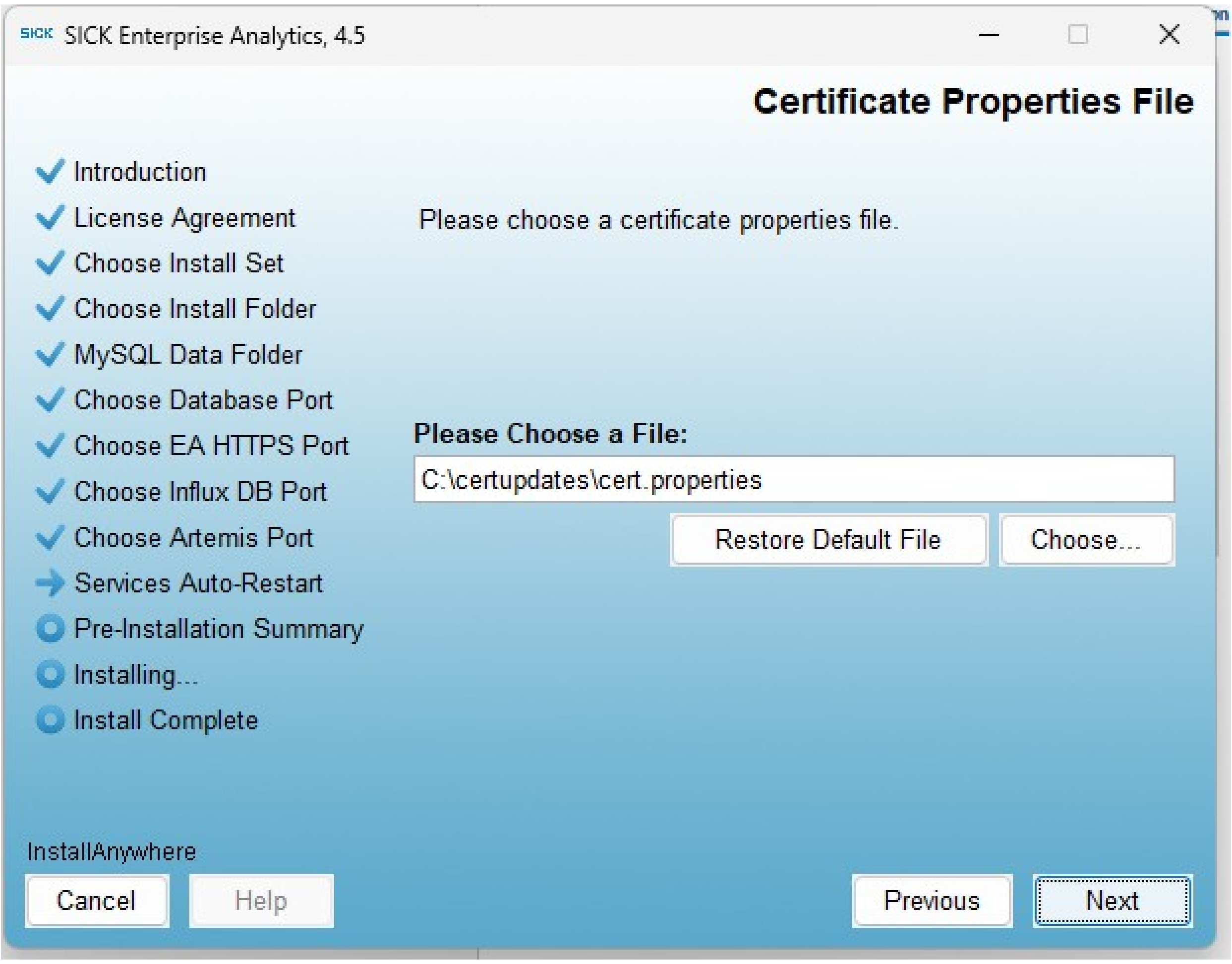

Figure 2.1:12: Certificate Properties File

12. Review all details on the Pre-Installation Summary page and click Install to begin the installation.

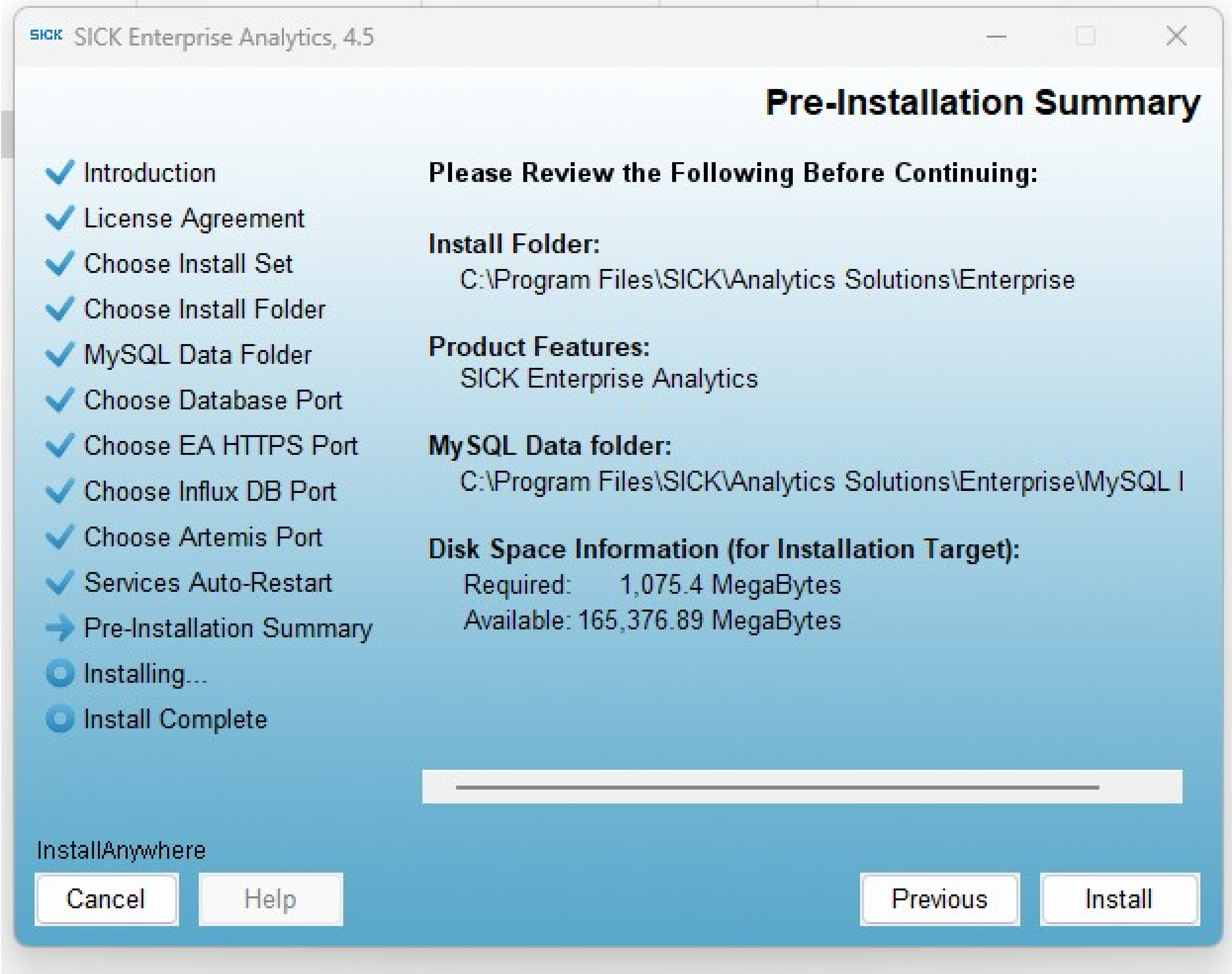

Figure 2.1:13: Pre-Installation Summary

13. The installation begins. You can track progress using the progress bar at the bottom of the screen.

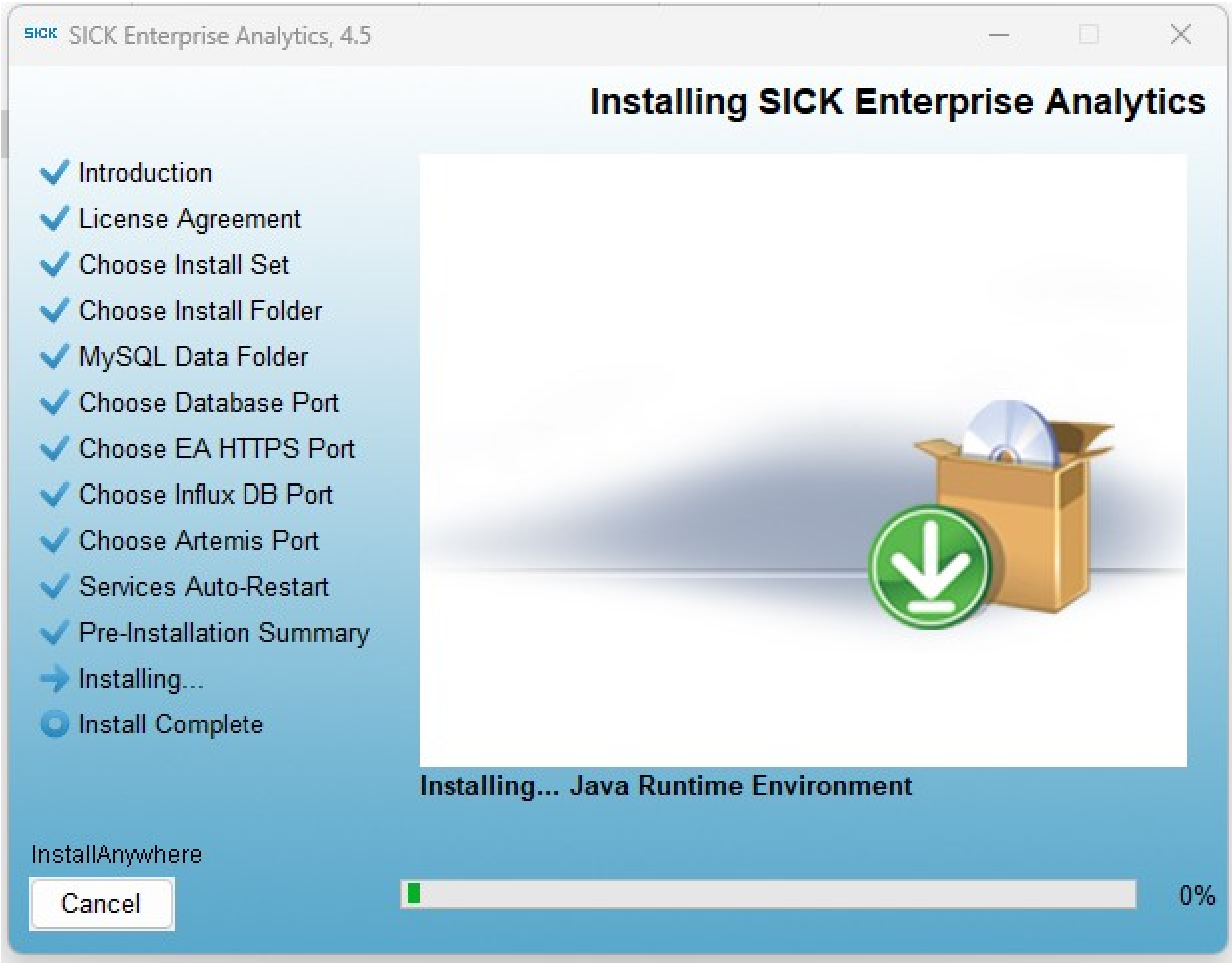

Figure 2.1:14: Installation in Progress

14. Once installation is complete, the Install Complete window appears. Click Done to finish.

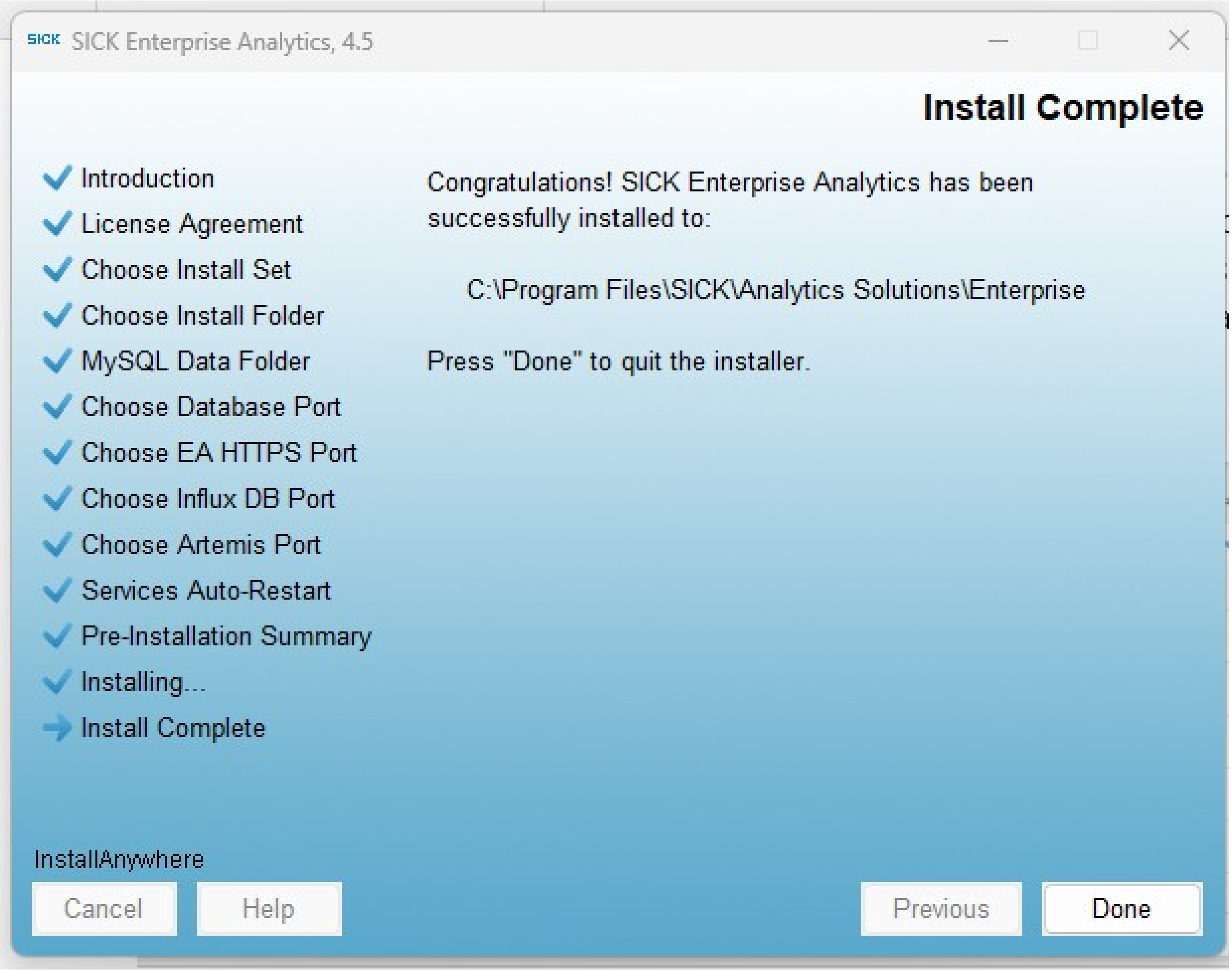

Figure 2.1:15: Install Complete

5.2 To Launch the Installer on Linux

This section explains how to install SICK Enterprise Application (EA) on a Linux system.

1. The Launch Installer step:
   - Navigate to the folder where the installer `.bin` file is located.
   - Open a Terminal in that location.
   - Make the file executable: `chmod +x SICK_Enterprise_Application-4.5.bin`
   - Launch the installer with sudo: `sudo ./SICK_Enterprise_Application-4.5.bin`
   - Wait for the InstallAnywhere installer to start.

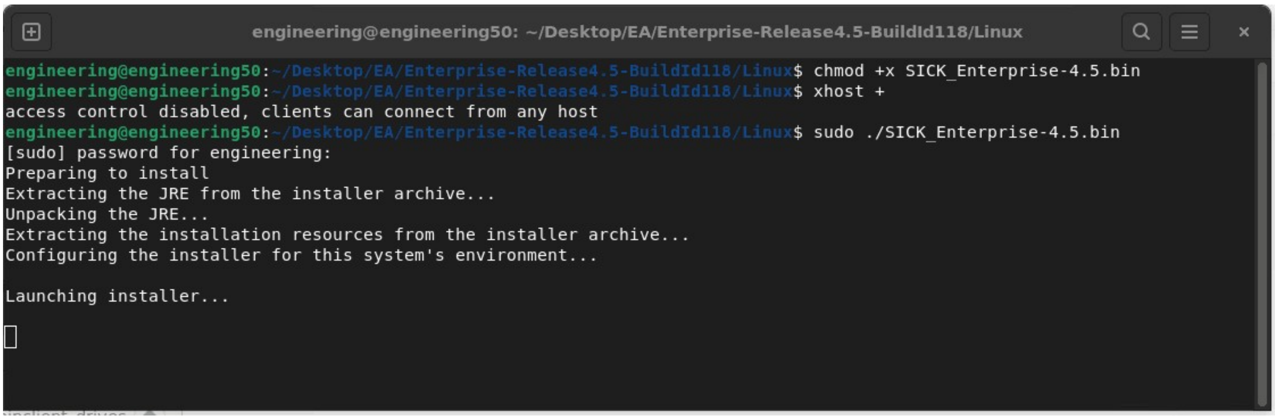

Figure 1.2:1: Installation Executable

2. The Introduction screen appears:
   - Provides an overview of the installation process.
   - Close all running applications before continuing.
   - Click Next to proceed.

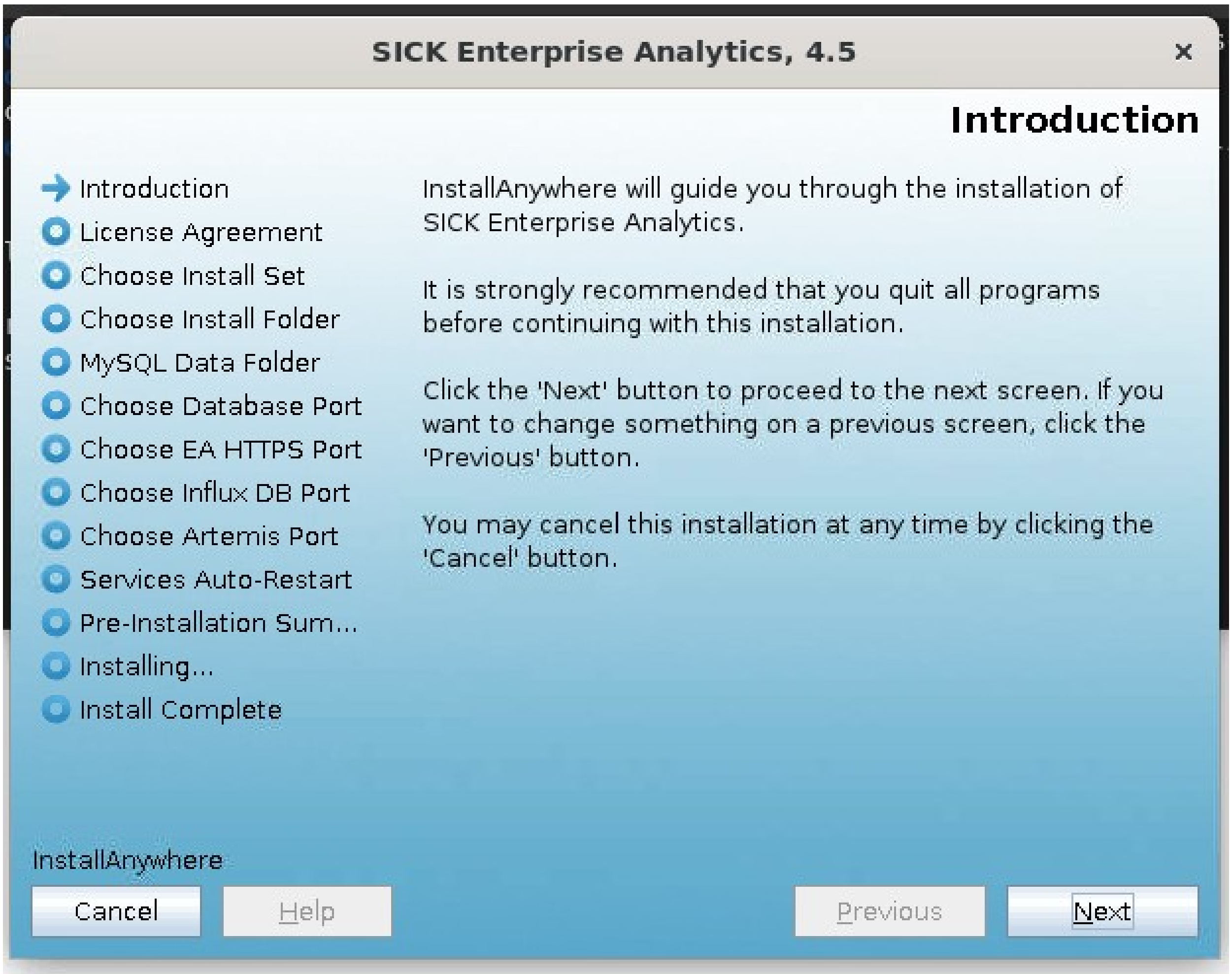

Figure 1.2:2: Introduction Screen

3. The License Agreement screen appears:
   - Displays the End User License Agreement (EULA).
   - Read the terms and select the checkbox to acknowledge agreement.
   - Click Next to proceed.

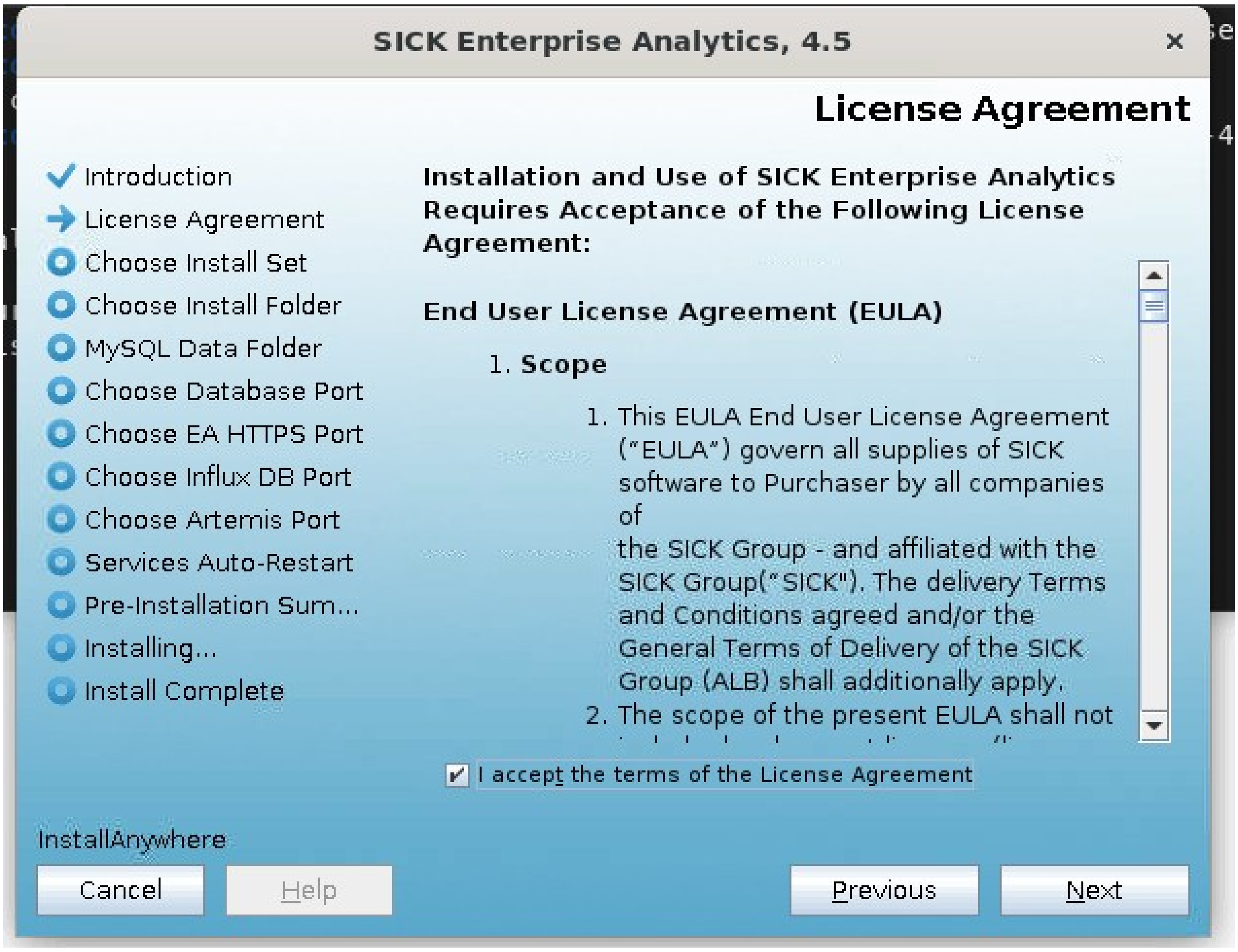

Figure 1.2:3: License Agreement

4. The Choose Install Set screen appears:
   - Full: Installs all EA features.
   - Custom: Allows selective installation of components.
   - Click Next to proceed.

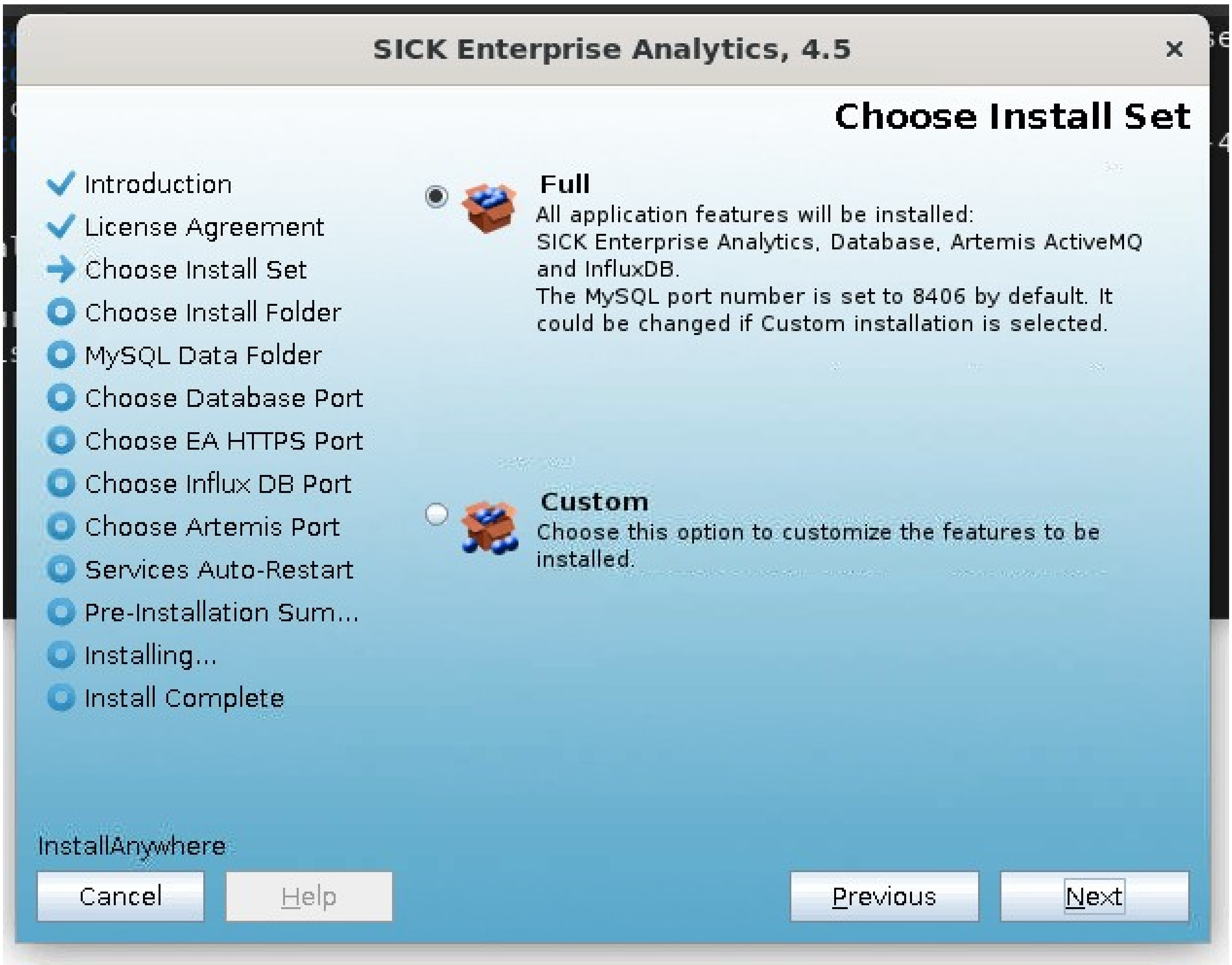

Figure 1.2:4: Install Set – Default View

5. The Choose Install Folder screen appears:
    - Select the installation directory (for example, `/opt/SICK/EnterpriseApplication`) or provide a custom path.
    - Click Next to continue.

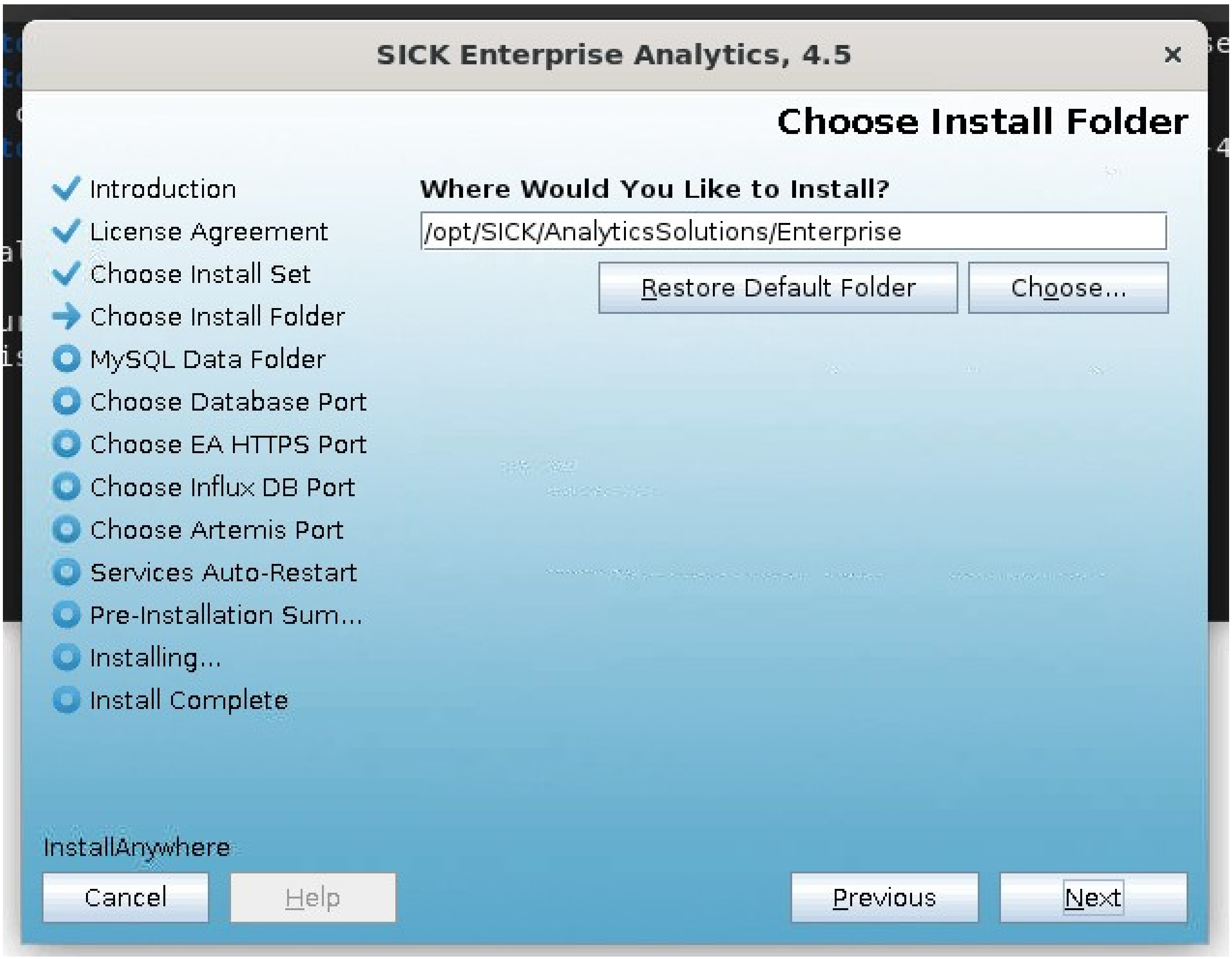

Figure 1.2:5: Choose Install Folder

6. The Specify MySQL Data Folder screen appears:
    - Choose a folder for MySQL data storage (for example, `/var/lib/mysql`).
    - Click Next to proceed.

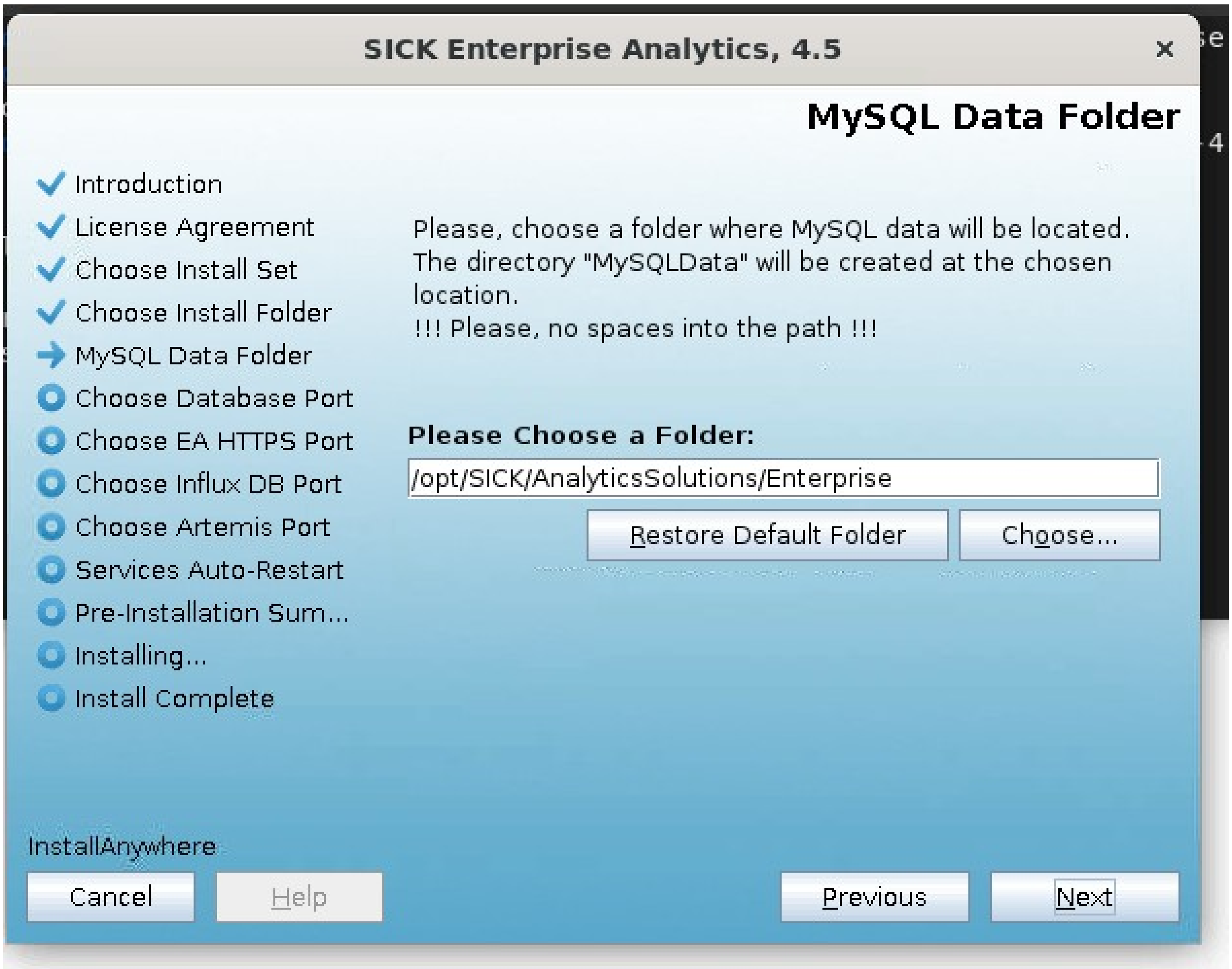

Figure 1.2:6: MySQL Data Folder

7. The Pre-Installation Summary screen appears:
    - Product Name (Enterprise Application 4.5)
    - Install Folder
    - Disk Space (Required & Available)
    - Verify the details and click Install to begin.

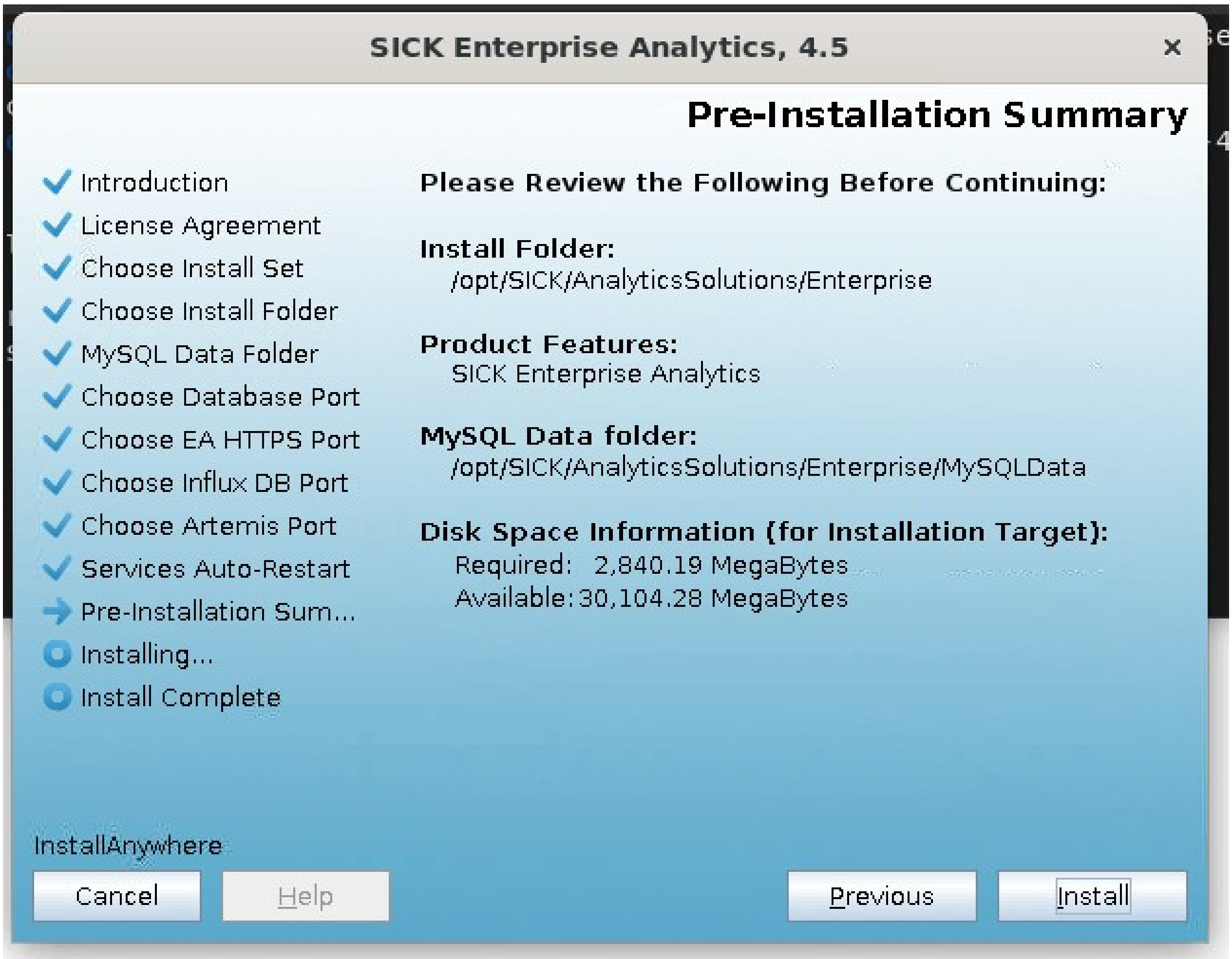

Figure 1.2:7: Pre-Installation Summary

8. The installation begins:
    - The installer copies files and configures services.
    - A progress bar shows the installation status.
    - Wait until it reaches 100%.

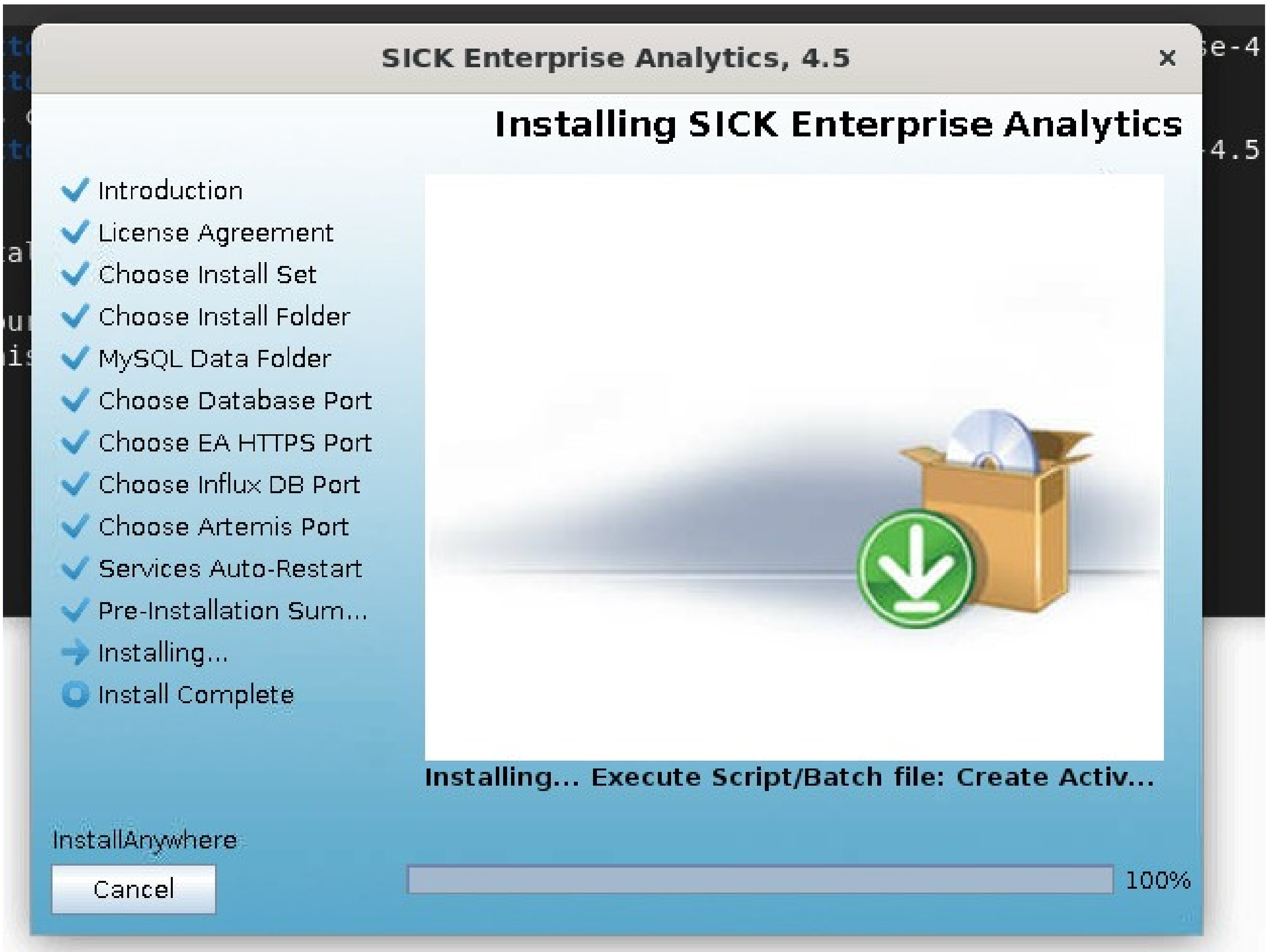

Figure 1.2:8: Installation in Progress

9. The Install Complete screen appears:
    - Confirms successful installation of EA.
    - Displays the installation directory for reference.
    - Click Done to exit the installer.

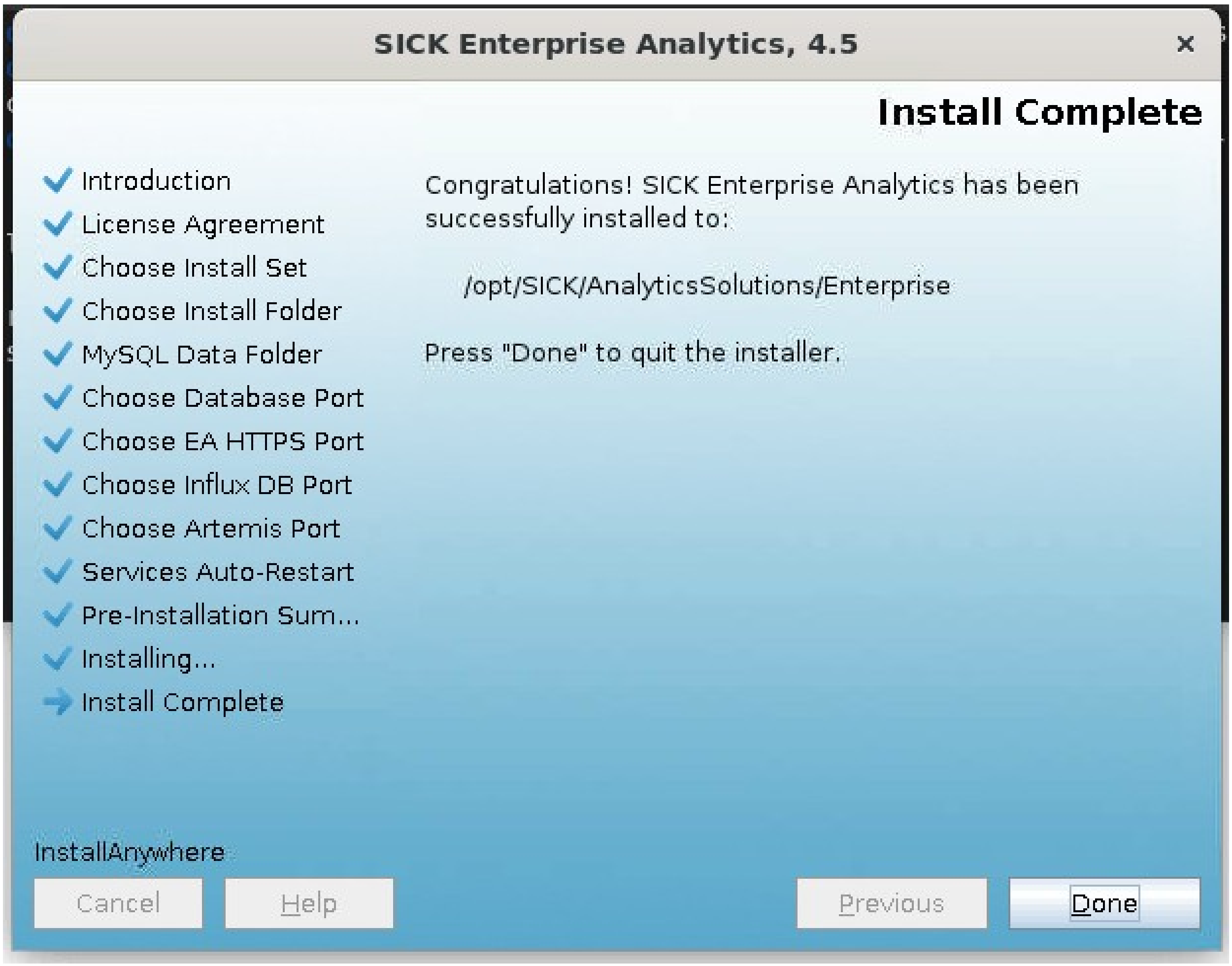

Figure 1.2:9: Installation Complete

5.3 To Launch the Patch Installer on Windows

This section explains how to apply a software patch to update or fix SICK Enterprise Application (EA).

1. Double-click the patch executable file (for example, SICK_Enterprise-4.5-Patch.exe).

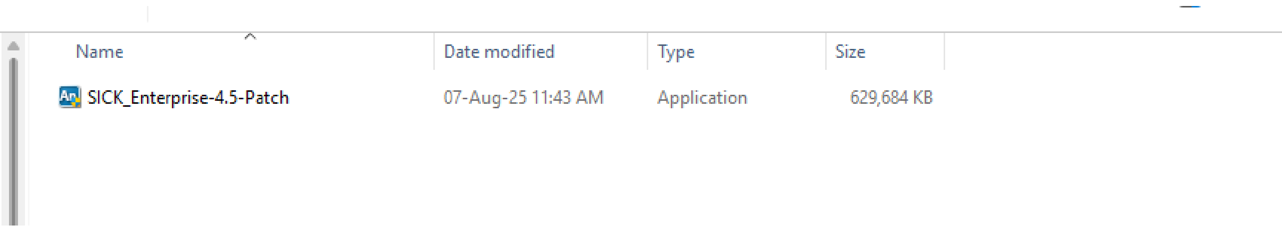

Figure 1.3:1: Patch Executable

2. The InstallAnywhere dialog will be displayed, showing a progress bar as the patch installer prepares.

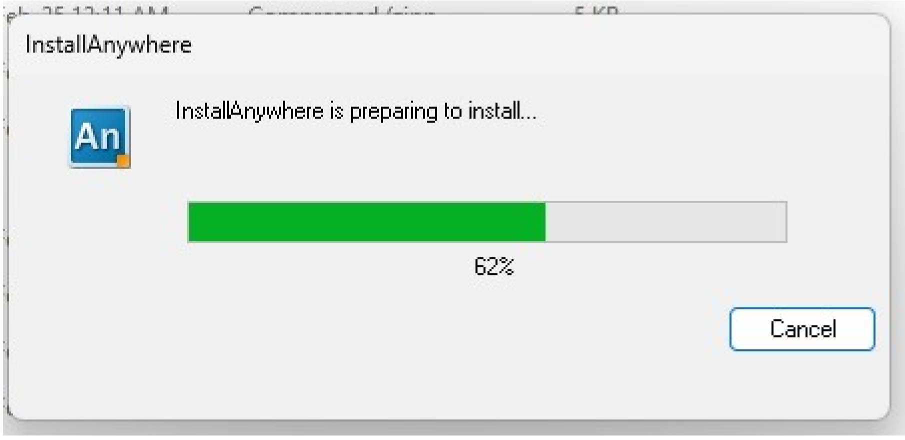

Figure 1.3:2: InstallAnywhere Loading Screen

3. Once the progress on the InstallAnywhere dialog reaches 100%, the Patch Installation Wizard will launch with the Introduction screen. Click Next to proceed.

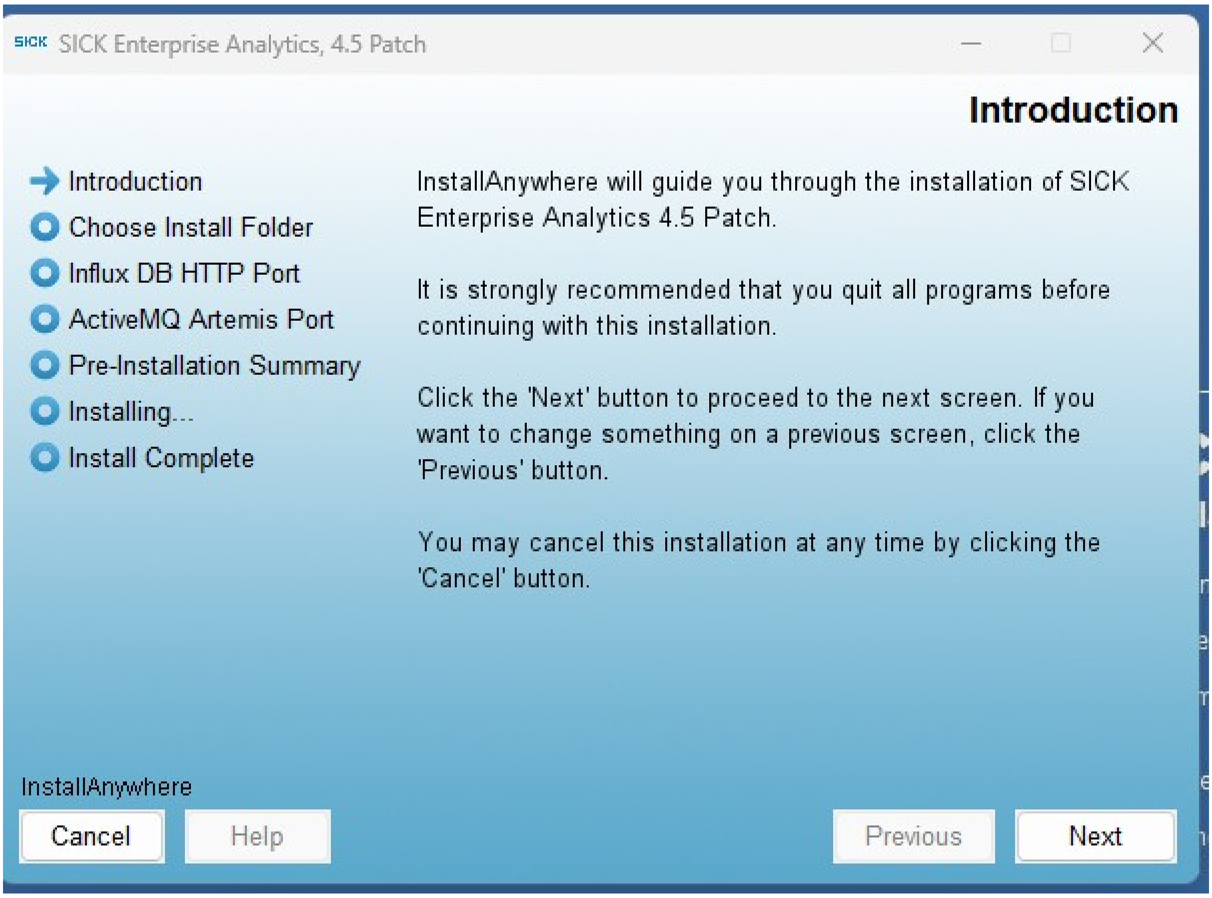

Figure 1.3:3: Introduction Screen

4. The Pre-Installation Summary screen appears. Review the following information:
   - Product Name (Enterprise Application 4.5)
   - Install Folder
   - Disk Space Information (Required & Available Space)

   Verify the details and click Install to begin.

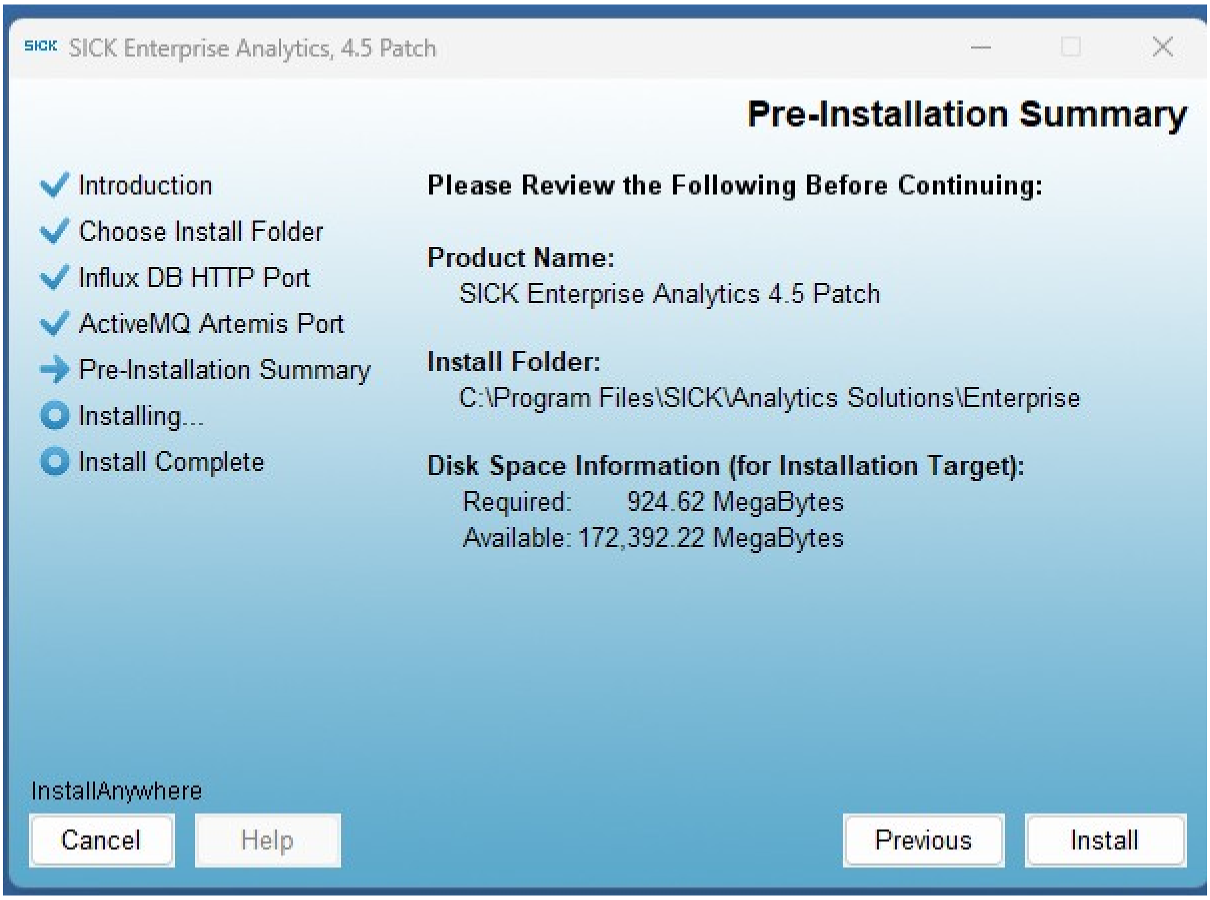

Figure 1.3:4: Pre-Installation Summary

5. The patch installation begins. A progress bar at the bottom of the screen shows the status. JRE and dependent libraries may also be updated if required.

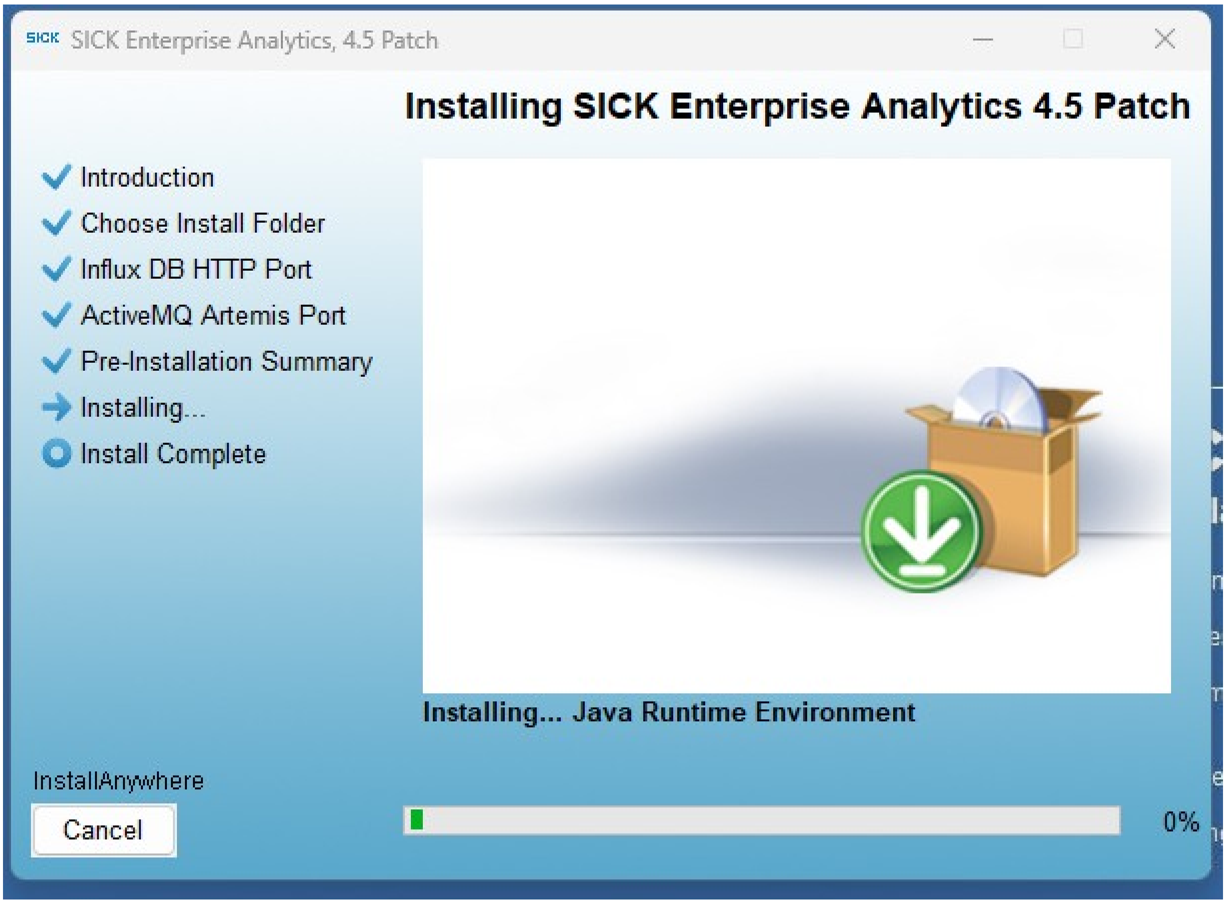

Figure 1.3:5: Patch Installation in Progress

6. Once patch installation is complete, the Install Complete screen appears. The installation directory is displayed for reference. Click Done to exit the installer.

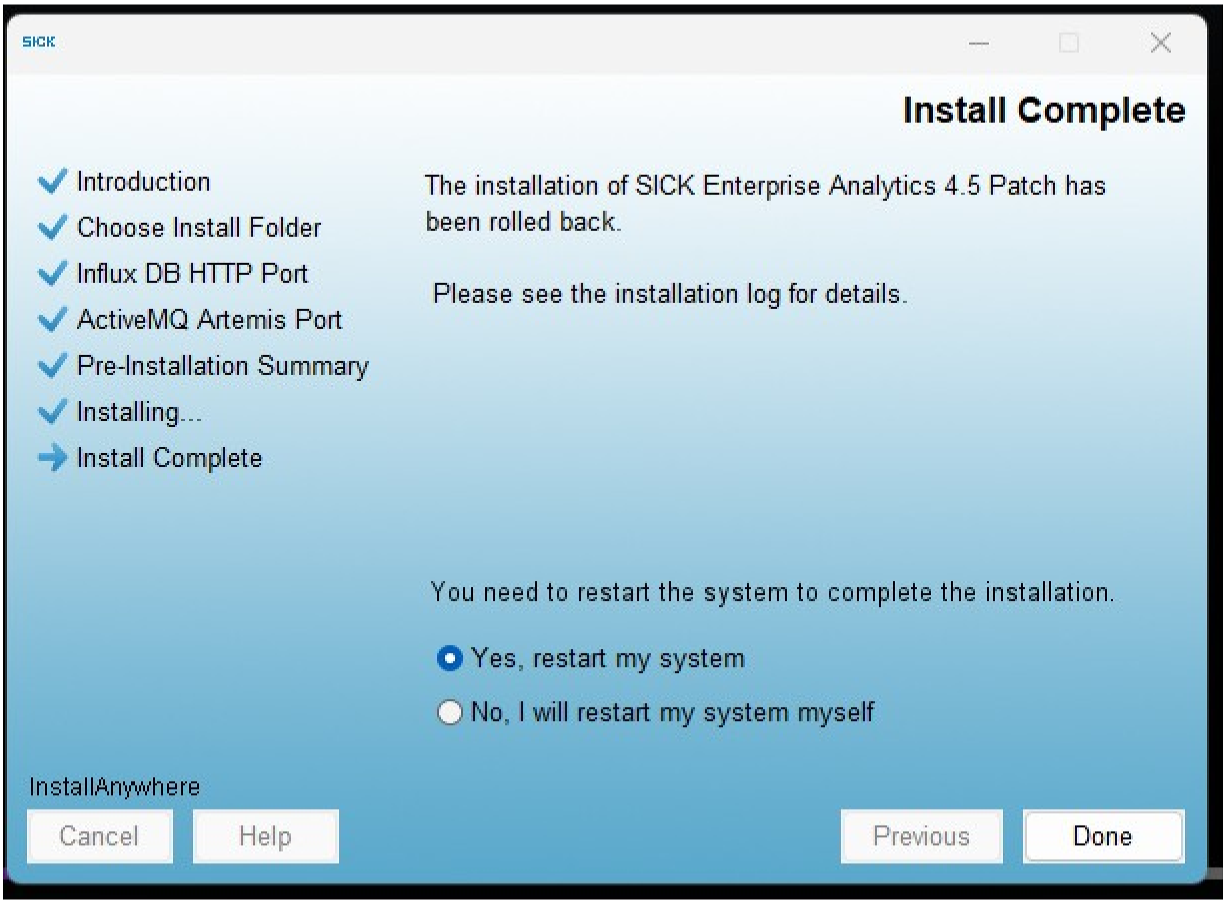

Figure 1.3:6: Install Complete

5.4 To Uninstall on Windows

1. Open the Control Panel.

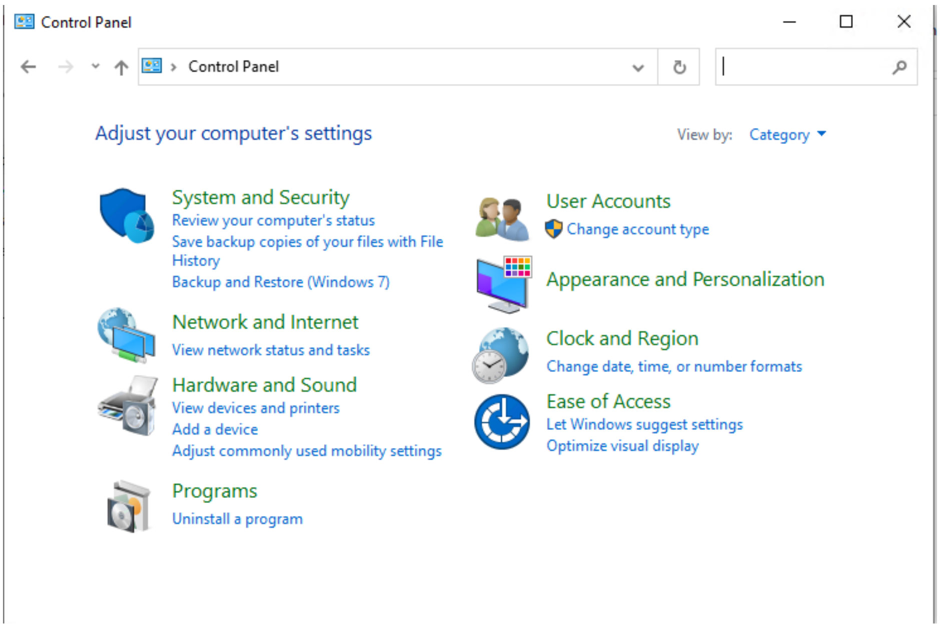

Figure 2.2:1: Control Panel

2. Click Programs.

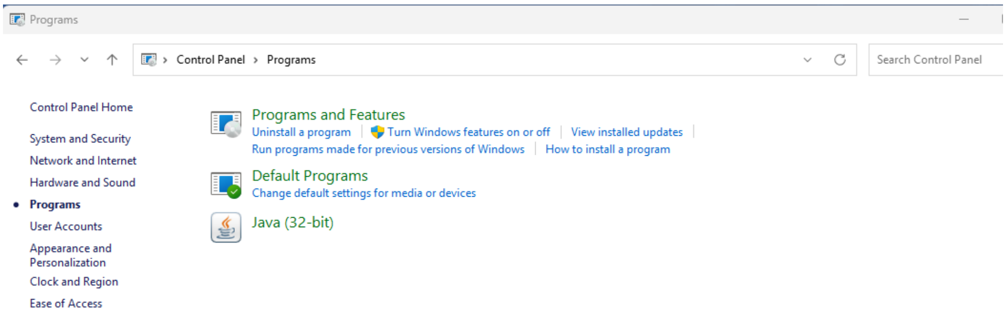

Figure 2.2:2: Programs

3. Click Uninstall a Program under Programs and Features.

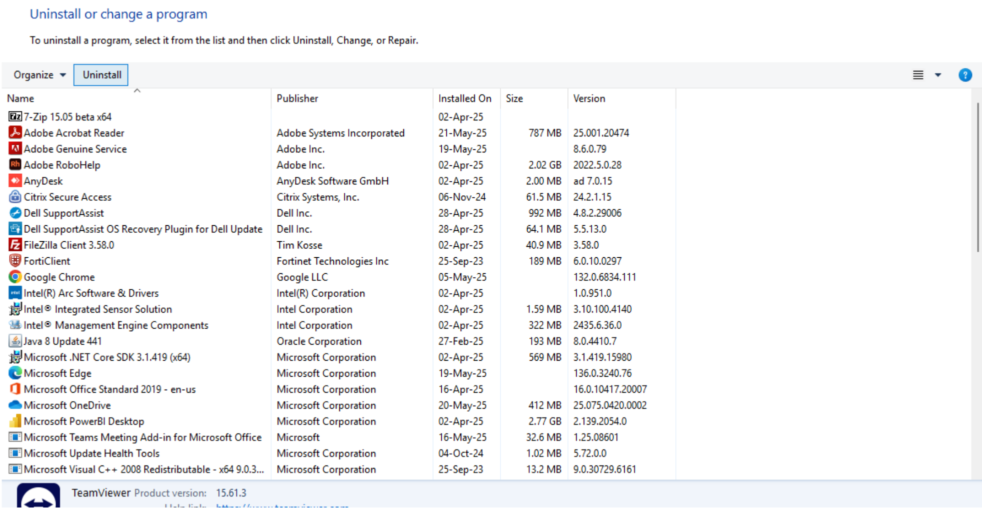

Figure 2.2:3: Uninstall a Program

4. Select SICK Enterprise Analytics from the list. Click Uninstall to launch Maintenance Mode.

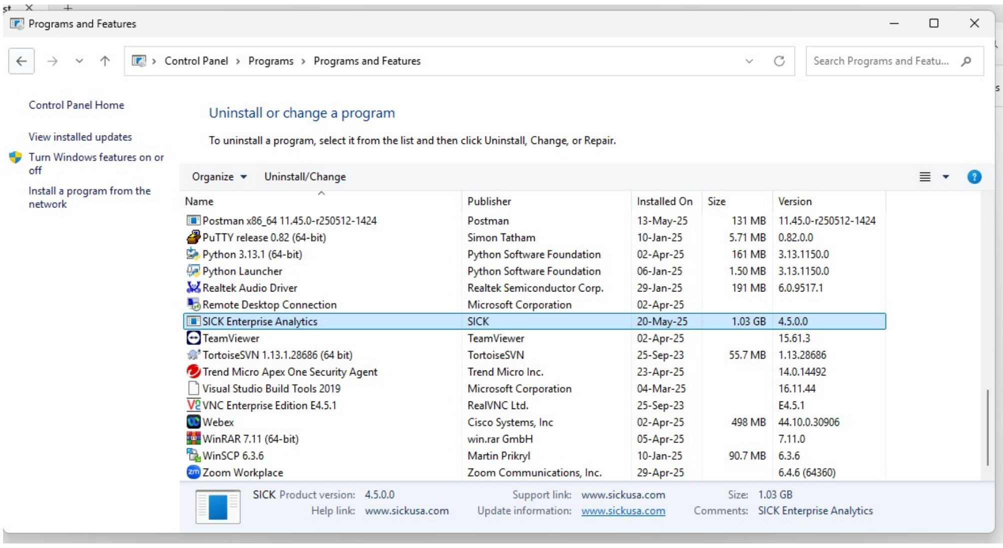

Figure 2.2:4: SICK Enterprise Analytics Application

5. On the Maintenance Mode screen, select Uninstall Product and click Next.

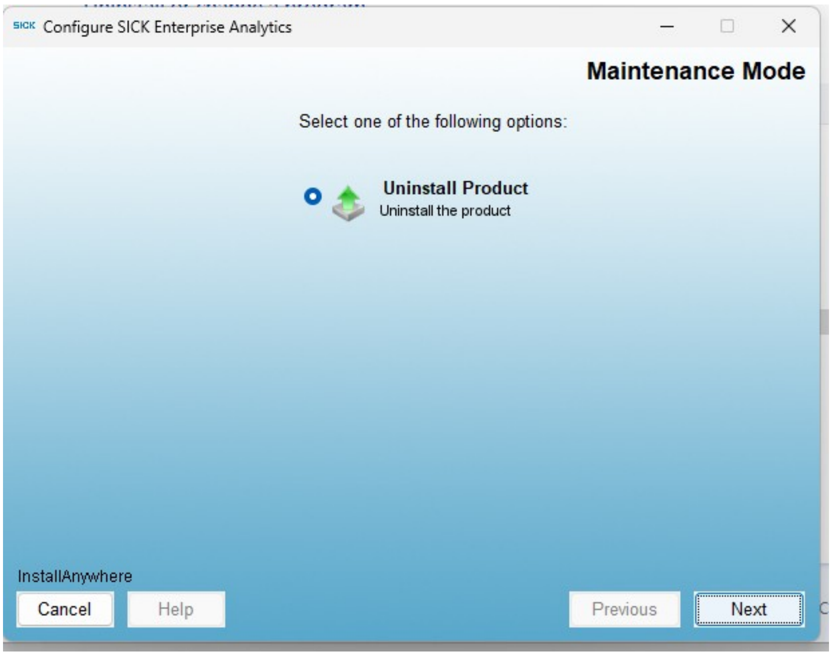

Figure 2.2:6: Uninstaller Maintenance Mode

6. On the Uninstall SICK Enterprise Analytics screen, a warning will appear stating that the uninstaller will remove features installed by InstallAnywhere but will not remove files and folders created after the installation. Click UNINSTALL to proceed, or click CANCEL to stop.

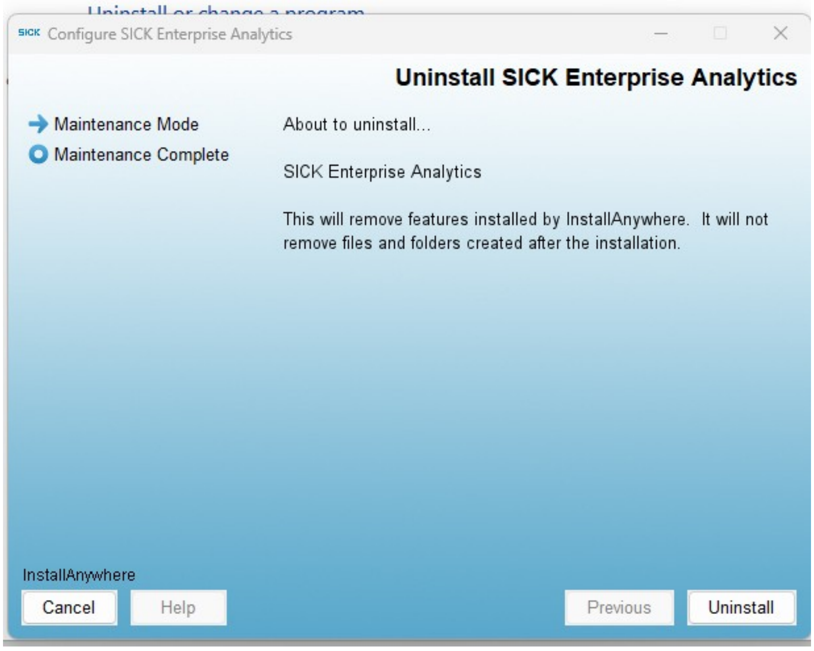

Figure 2.2:6a: Uninstall Confirmation Screen

7. A progress bar starts at 0%, removing Files, LaunchAnywheres, Shortcuts/Links/Aliases, Registry Entries, Folders, and Others Category. Wait until 100%. Click Cancel to stop if needed.

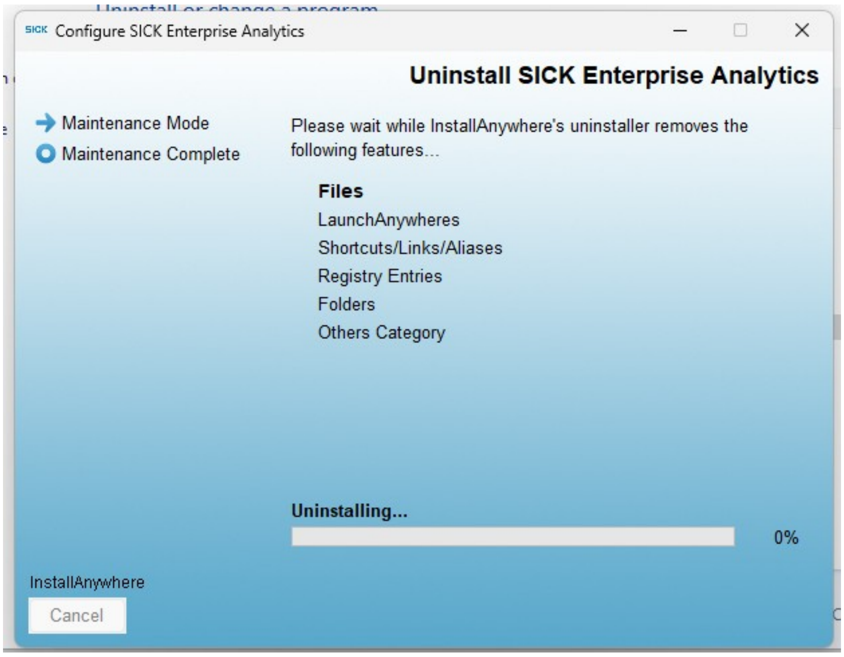

Figure 2.2:7: Uninstallation In-progress

8. The Uninstall Complete screen confirms success. Click Done to exit.

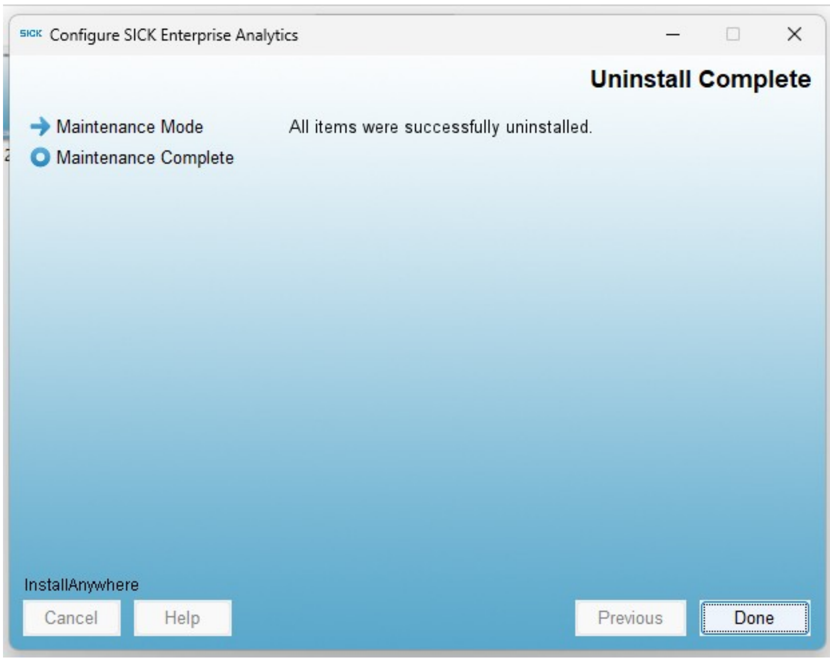

Figure 2.2:8: Uninstall Complete

6. User and Access Management

This section describes how to configure user accounts, groups, and roles to manage access to the SICK Enterprise Application (EA) Analytics. Authorized administrators can create and manage user accounts, define groups to assign roles, and configure roles with specific privileges to ensure secure access to Analytics data and system functionality. These tasks are performed through the EA Dashboard's administrative interfaces, with actions restricted by role-based privileges.

6.1 Manage Users

The Manage Users interface lets authorized administrators view and manage user accounts. You can create, edit, delete, or reset passwords for user accounts.

Go to Manage Users

1. In the top-right corner of the EA Dashboard, select your profile icon 
.

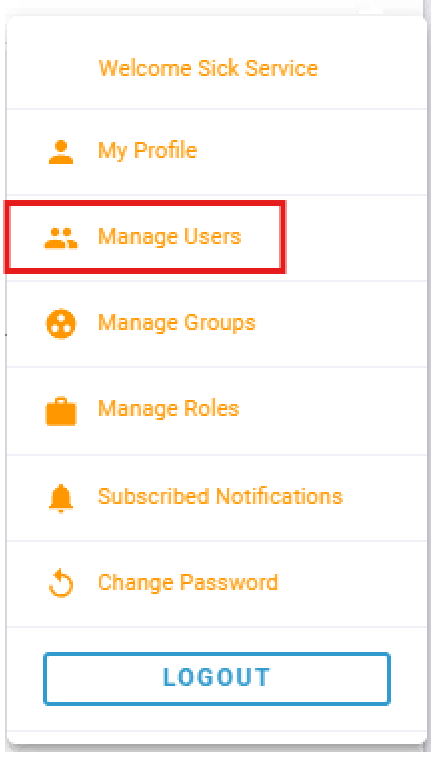

Figure X: Profile Menu

2. From the dropdown menu, select Manage Users.

The Manage Users interface opens, showing:

- User Table (left panel): A table listing all user accounts.
- User Details Panel (right panel): Details and privileges for a selected user.

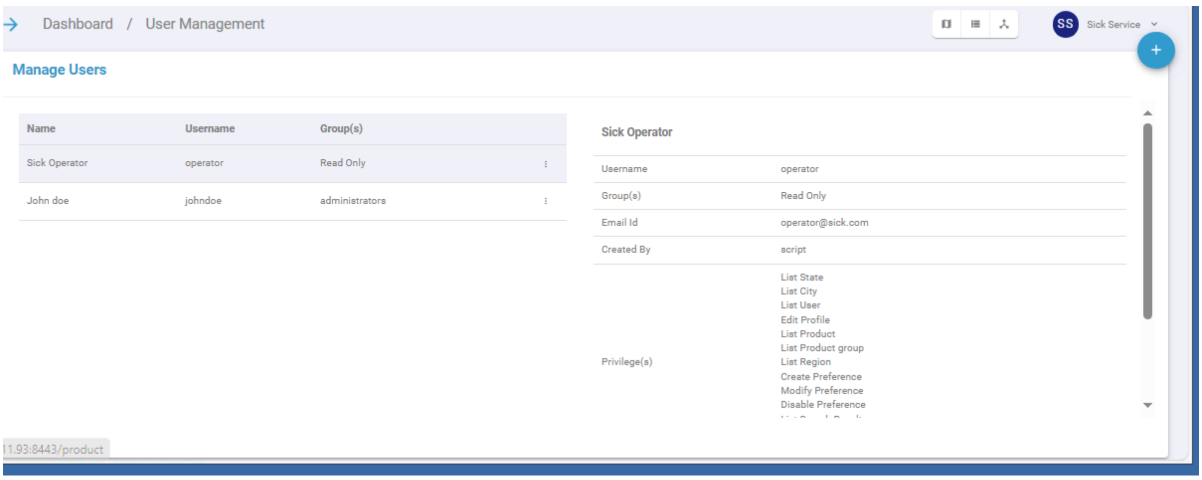

Figure 1: Manage Users Interface

User Table

The table includes these columns:

Column	Description
Name	The user’s full name, like John Doe or Sick Operator.
Username	The unique login ID, like johndoe or operator.
Group(s)	The user’s assigned role or group, like Administrators or Read Only.
Actions	A menu (⋮) with options to edit, delete, or reset the user’s password.

To view a user’s details, select their row in the table.

User Details Panel

When you select a user, the right panel shows:

The Profile Information section displays key details about the selected user in a table.

Field	Description	Example
Username	The unique identifier the user enters to log in.	johndoe

Continued on page 46

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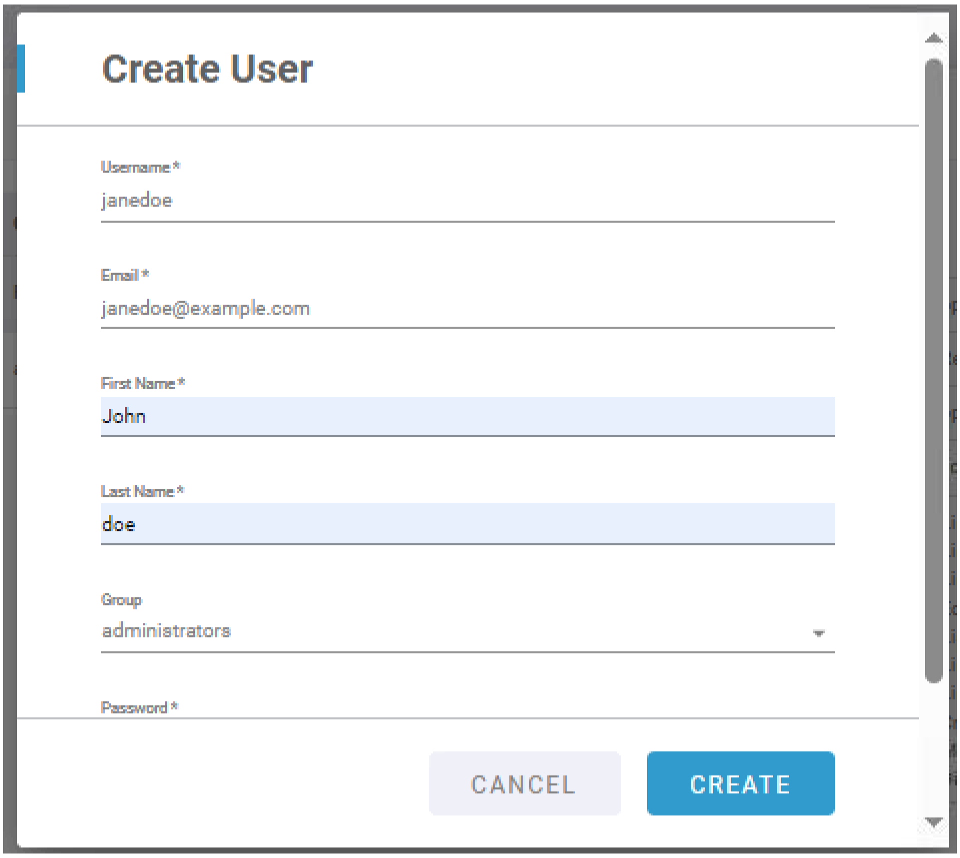
Field	Description	Example
Group(s)	The role or group assigned to the user, defining their permissions.	Administrators
Email	The email address associated with the user's account.	johndoe@example.com
Created By	The account or service that created the user's profile.	sickservice
Privileges	The actions the user is authorized to perform, based on their group. For example, an Administrator might be able to update search queries, create users, reset passwords, etc.	

Add a New User

To add a new user:

1. In the Manage Users interface, select the Add icon in the upper-right corner of the user table.
   The Create User dialog opens.



Create User dialog

2. In the Create User dialog, enter the following details:

Field	Example Input
Username	janedoe
Email	janedoe@example.com
First Name	Jane

Continued on page 48

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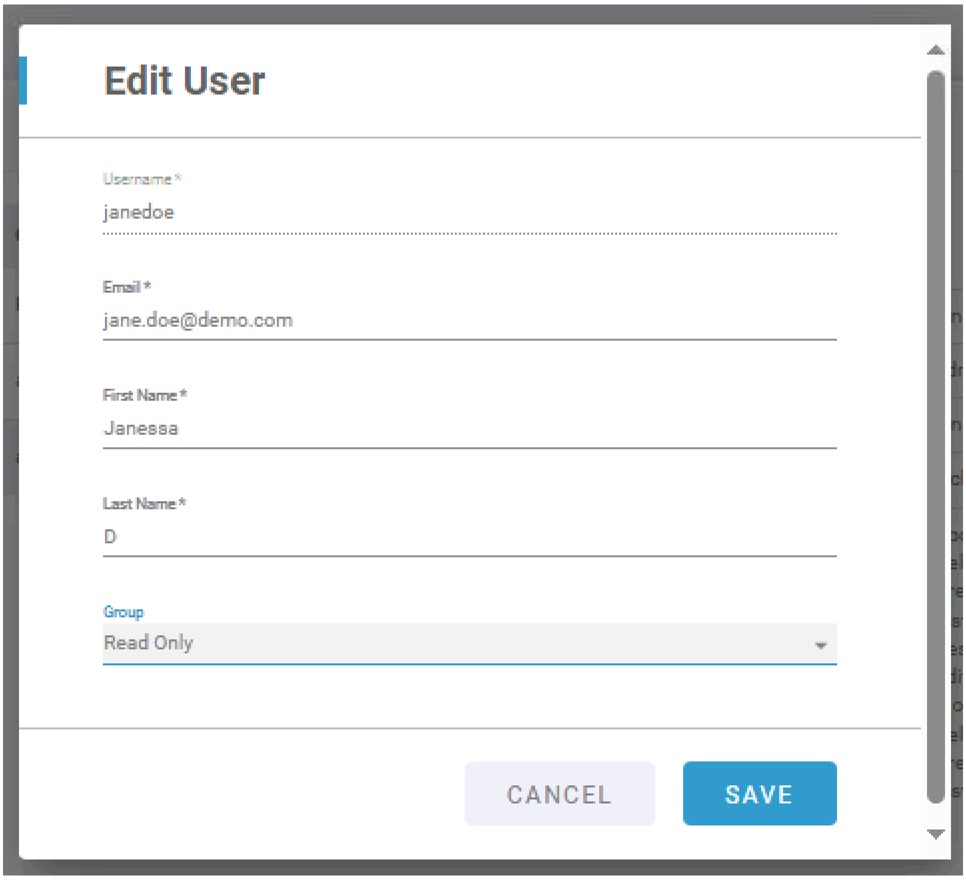
Field	Example Input
Last Name	Doe
Password	JaneDoe123
Group	administrators

3. Select Create to add the user, or select Cancel to discard changes.
4. A snackbar message appears confirming the action—for example: *"User created successfully."*
5. The new user is added to the User Table.

Edit a User

To edit an existing user:

1. In the Manage Users interface, locate the user you want to update.
2. In the Actions column, select the More options icon (⋮) for that user.
3. Select the ✏ Edit option. The Edit User dialog opens.



Edit User dialog

4. Update the Email, First Name, Last Name, and Group fields with the new values as required.

Note: The Username field is not editable.

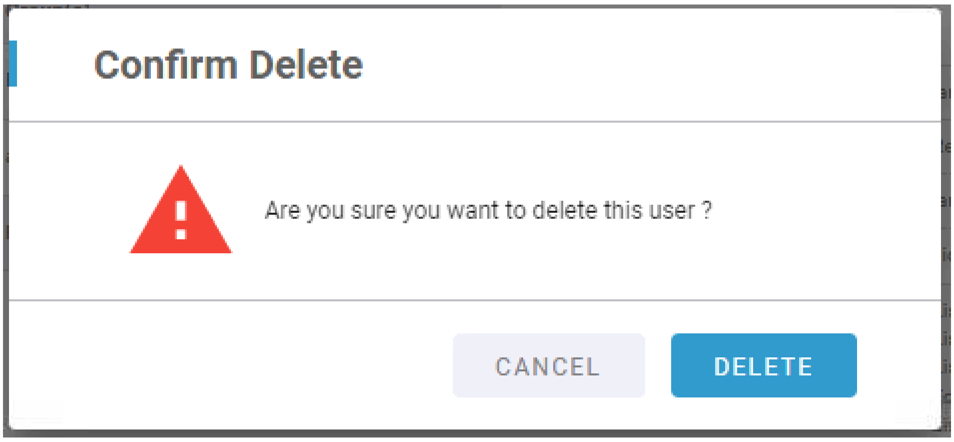
5. Select Save to apply changes, or select Cancel to discard.
6. A snackbar message appears confirming the update—for example: "User updated successfully."

Delete a User

To delete an existing user:

1. In the Manage Users interface, locate the user you want to remove—for example, janedoe.
2. In the Actions column, select the More options icon (⋮) for that user.

3. Select Delete from the dropdown menu.
   A confirmation dialog appears.



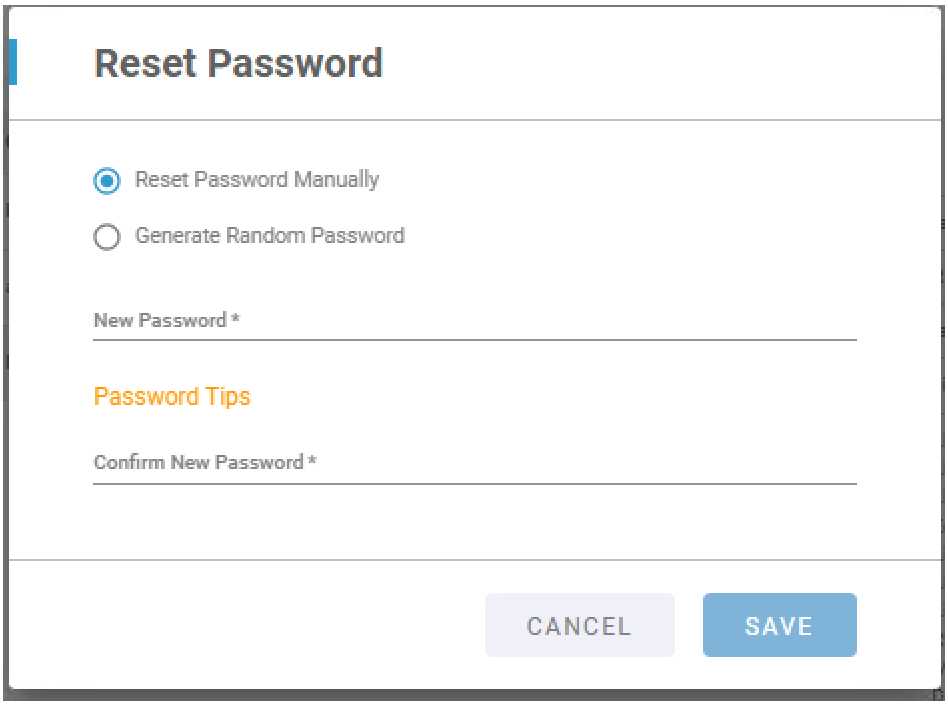
Delete User confirmation dialog

4. In the confirmation dialog, select Delete to permanently remove the user, or select Cancel to return without deleting.
5. A snackbar message appears confirming the action—for example:
   "User deleted successfully."
   An Undo option may also be available to restore the user.

Reset a User’s Password

To reset the password for an existing user:

1. In the Manage Users interface, locate the user whose password you want to reset—for example, janedoe.
2. In the Actions column, select the More options icon (⋮).
3. Select Reset Password from the dropdown menu. The Reset Password dialog opens.



Reset Password dialog

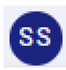
4. Choose one of the following options:

- Reset Password Manually: Enter a new password and confirm it.
- Generate Random Password: The system creates a secure password automatically.

6.2 Manage Groups

The Manage Groups interface lets administrators view and manage user groups. Groups define access by assigning roles and privileges to users. Each user must belong to one group.

Go to Manage Groups

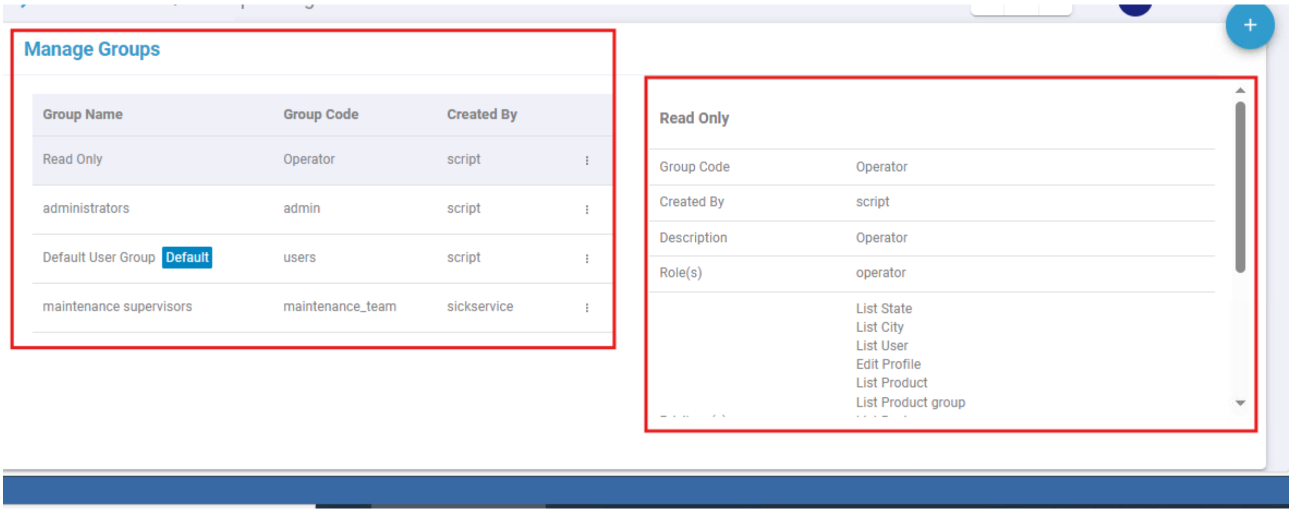
1. In the top-right corner of the EA Dashboard, click your profile icon 

.
2. From the dropdown menu, select Manage Groups.

The Manage Groups interface opens, showing:

- Group Table (left panel): A table listing all user groups.

- Group Details Panel (right panel): Detailed information and privileges for the selected group.



Manage Groups interface

Group Table

The table includes these columns:

Column	Description
Group Name	The name of the group, such as Read Only or Administrators.
Group Code	A unique identifier for the group, such as Operator or admin.
Created By	The user or service that created the group, such as script.
Actions	A menu (⋮) with options to Edit, Delete, or Set Default.

To view a group's details, select its row in the table.

Group Details Panel

When you select a group, the right panel displays key information and associated privileges for that group.

Field	Description	Example
Group Code	The unique identifier used internally for the group.	Operator
Created By	The account or service that created the group.	script
Description	A brief summary of the group's purpose or function.	Operator
Role(s)	The role assigned to the group, which determines user access.	operator
Privileges	The actions users in the group are authorized to perform, based on their role. For example, the Operator group may have the following privileges: List State, List City, List User, Edit Profile, List Product, List Product Group, List Region, Create Preference, Modify Preference, Disable Preference	

Add a New Group

Use the Create Group dialog to define a new user group. Groups control which users have access to specific roles and privileges, such as equipment monitoring, maintenance management, or production reporting.

1. In the Manage Groups interface, select the Add icon  in the top-right corner.
   The Create Group dialog appears.

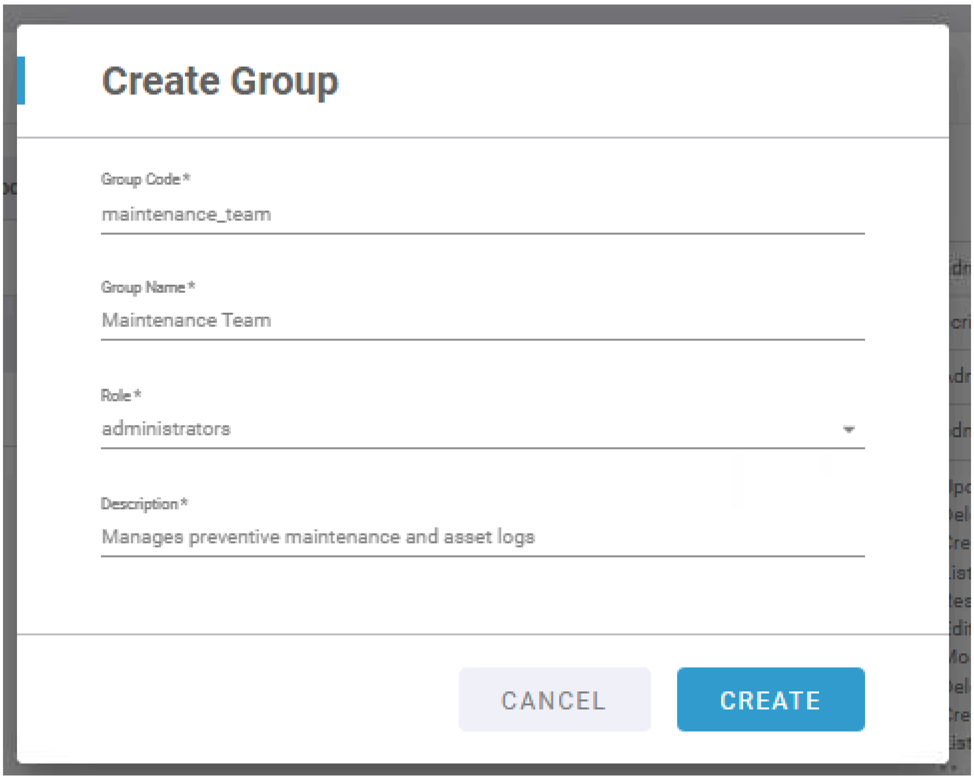


Figure 1: Create Group dialog

2. Fill in the required fields:

Field	Description	Example Input
Group Code	Unique system-friendly identifier (use lowercase and underscores).	maintenance_team
Group Name	Display name that users will see.	Maintenance Team
Role	The role to assign to the group (choose from the existing list).	administrators

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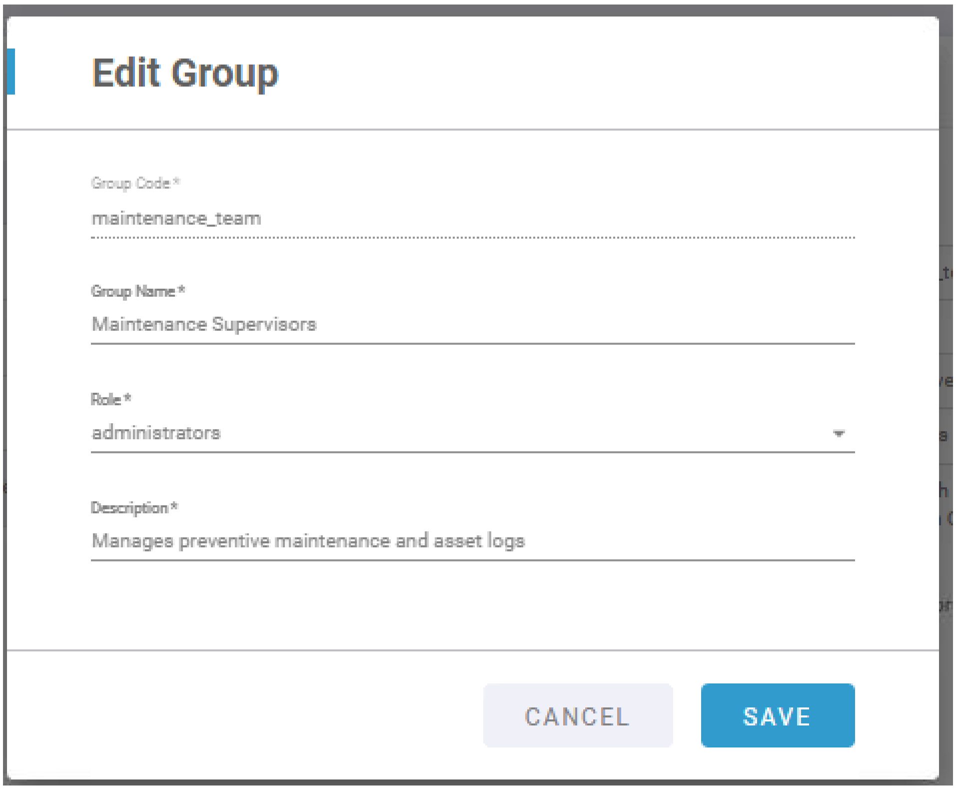
Field	Description	Example Input
Description	A short explanation of the group's responsibilities.	Manages preventive maintenance and asset logs

1. Select Create to add the group or Cancel to close the dialog without saving.
2. A snackbar message confirms the result:
   "Group created successfully."
3. The new group now appears in the Group Table, and its details are available in the Group Details Panel.

Edit a Group

You can edit the name, role, and description of an existing group. The group code is fixed and cannot be changed.

1. In the Manage Groups interface, locate the group you want to update—for example, maintenance team.
2. In the Actions column, select the More options icon (⋮) next to the group.
3. Select the ✏ Edit option. The Edit Group dialog opens.



Edit Group dialog

4. Update the Group Name, Role, and Description fields with the new values as required.

Note: The Group Code field is not editable.

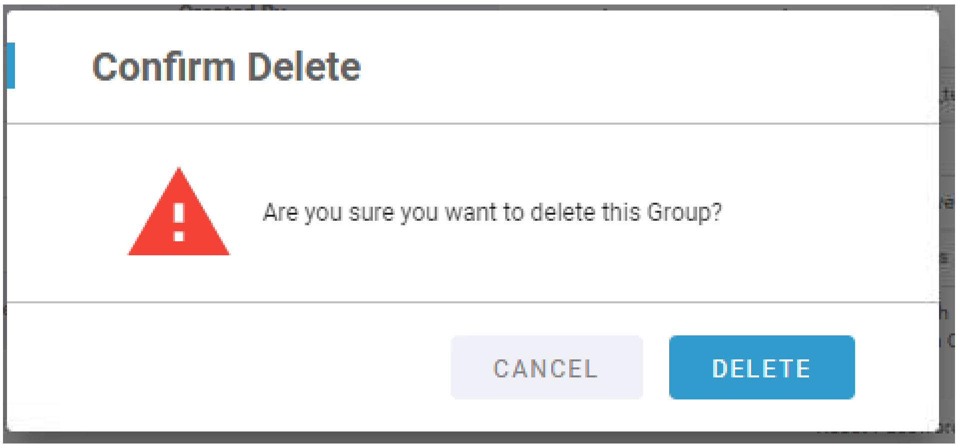
5. Select Save to apply the changes or Cancel to discard them.
6. A snackbar message appears confirming the update:
   "Group updated successfully." An Undo link may be shown to revert the changes.

Delete a Group

You can delete a group if it is not set as the default and is not assigned to any active users.

1. In the Manage Groups interface, locate the group you want to delete—for example, maintenance team.
2. In the Actions column, select the More options icon (⋮) next to the group.

3. Select Delete from the menu.
   A confirmation dialog appears.



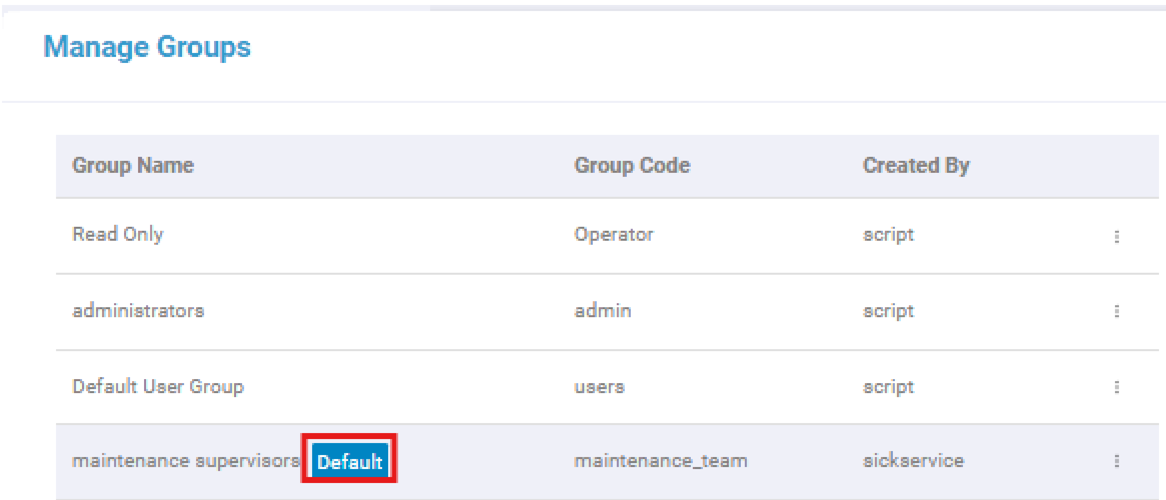
Delete Group confirmation dialog

4. Select Delete to confirm the deletion, or Cancel to abort.

Set a Group as Default

You can set a group as the default to automatically assign it to new LDAP users or system-created accounts. Only one group can be the default at a time.

1. In the Manage Groups interface, locate the group you want to set as default—for example, maintenance team.
2. In the Actions column, select the More options icon (⋮) next to the group.
3. Select Set Default from the menu. The group is now marked as the default.



Default group label shown in the Group Table

6.3 Manage Roles

Roles define collections of privileges that are assigned to groups. These privileges control what actions users within a group can perform. Common system roles include operator, users, and administrators.

Go to Manage Roles

1. In the top-right corner of the EA Dashboard, click your profile icon .

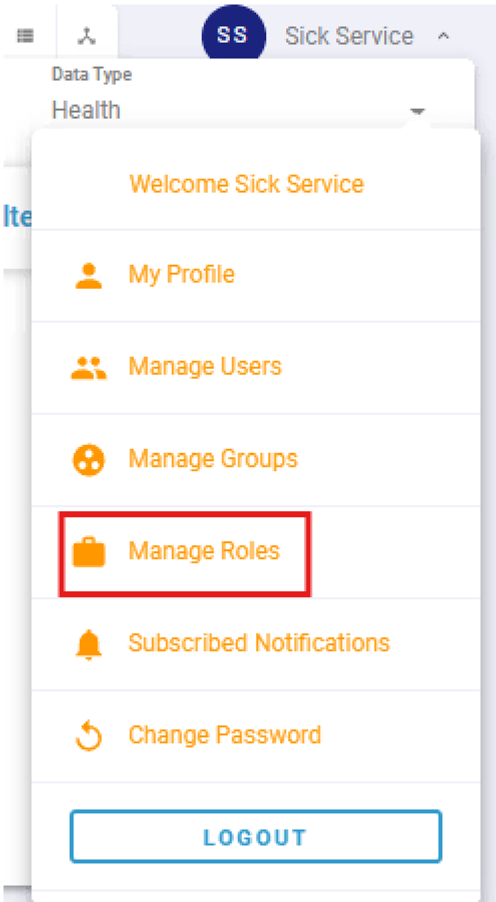


Figure X: Profile Menu

2. From the dropdown menu. Select Manage Roles.

The Manage Roles interface opens, displaying:

- Role Table (left panel): A list of existing roles.
- Role Details Panel (right panel): Details and privileges for a selected role.

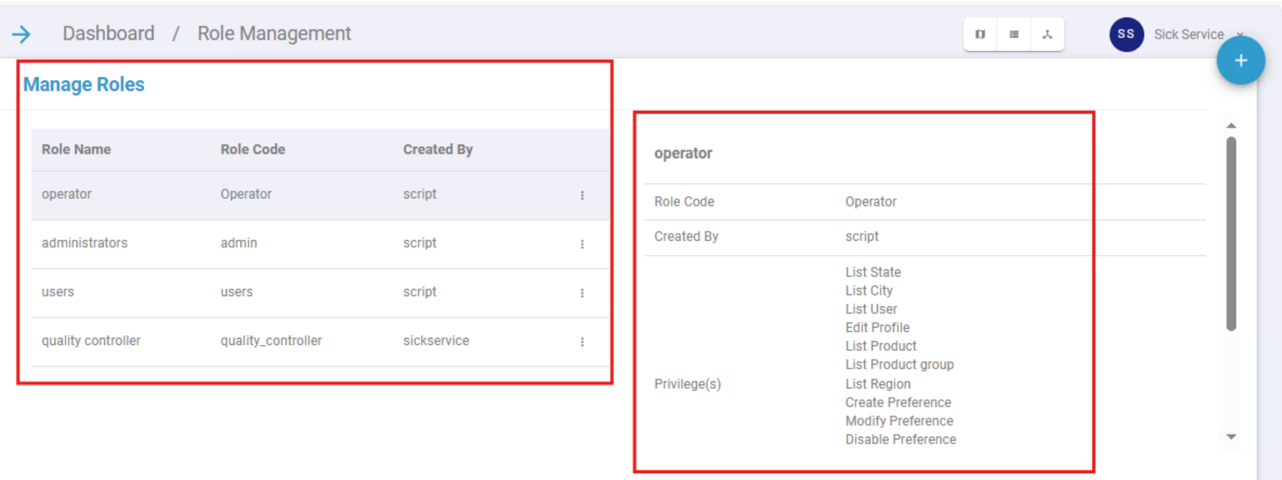


Figure 1: Manage Roles Interface

Role Table

Column	Description
Role Name	Display name of the role (e.g., operator, users).
Role Code	Unique internal code used to reference the role.
Created By	The account or system process that created the role.
Actions	A menu (⋮) to edit or delete the role.

Role Details Panel

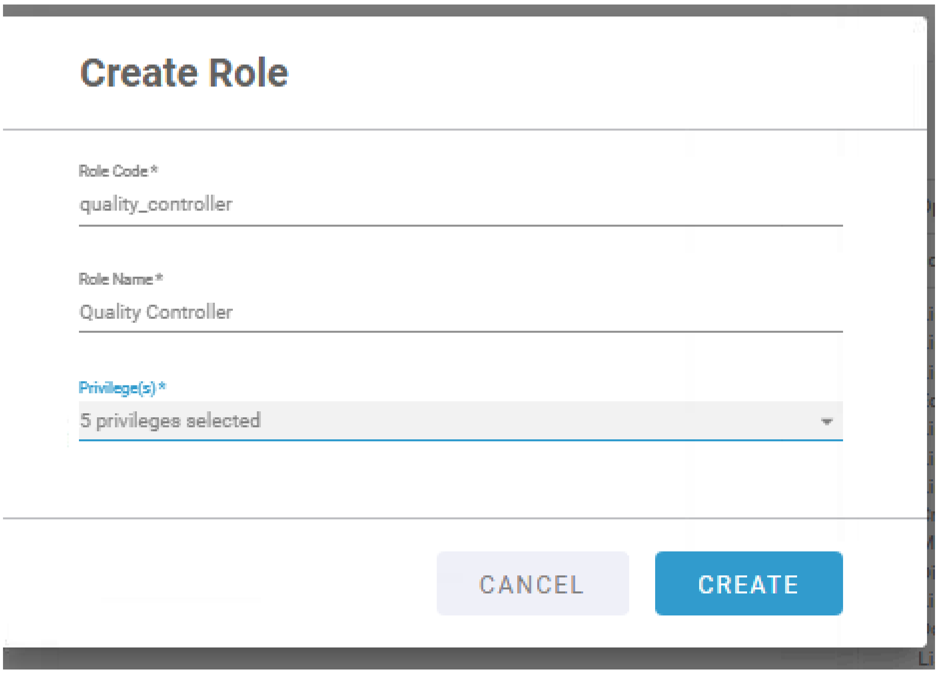
When a role is selected from the table, its details are displayed on the right.

Field	Description	Example
Role Code	Unique system identifier for the role.	Operator
Created By	The account that created the role.	script
Privilege(s)	List of actions users with this role can perform.	List State, List City, List User, Edit Profile, List Product, List Product Group, List Region, Create Preference, Modify Preference, Disable Preference, List Search Result, Download Search Result, List Country

Add a New Role

Use the Create Role dialog to define a custom role and assign specific privileges. Roles control what actions users in corresponding groups can perform.

1. In the Manage Roles interface, select the Add icon:
   The Create Role dialog opens.



Create Role dialog

2. In the Create Role dialog, enter the following details:

Field	Description	Example Input
Role Code	A unique identifier used internally by the system (no spaces or capitals).	quality_controller
Role Name	The display name of the role shown in the UI.	Quality Controller
Privilege(s)	Select from the available privileges list.	5 privileges selected: • Delete Global Preference

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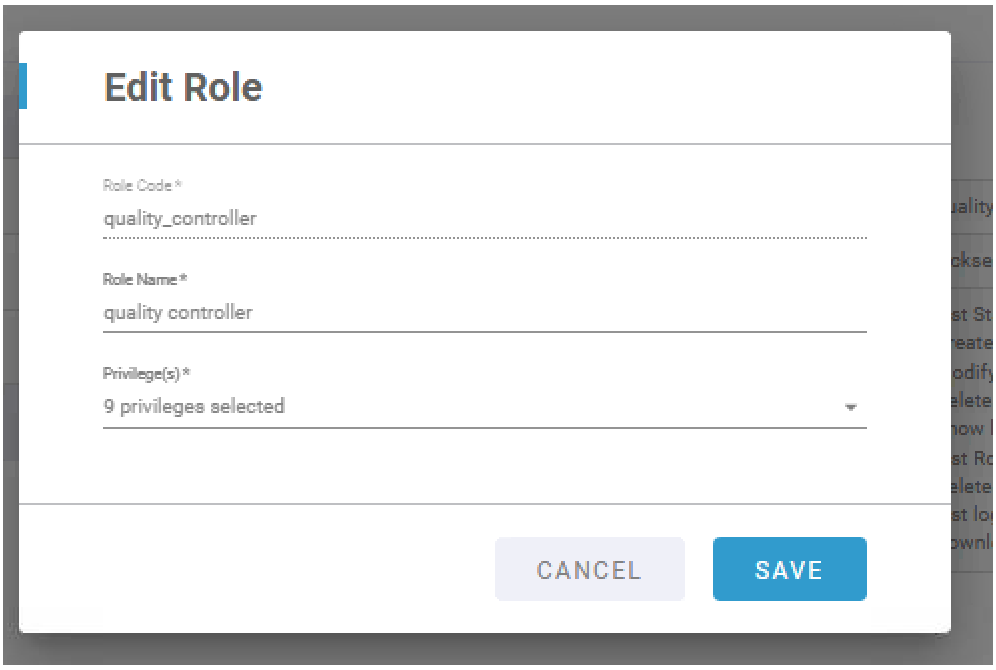
Field	Description	Example Input
		• Create Global Preference • List State • Download log files • Delete Role

3. Select Create to save the role, or Cancel to discard the changes.
4. A snackbar message appears:
   "Role created successfully."
5. The new role appears in the Roles Table, and its full set of privileges is shown in the Role Details Panel when selected.

Edit a Role

You can update the name and privileges of an existing role. The Role Code is fixed and cannot be changed.

1. In the Manage Roles interface, locate the role you want to update—for example, quality_controller.
2. In the Actions column, select the More options icon (⋮) next to the role.
3. Select the ✏ Edit option. The Edit Role dialog opens.



Edit Role dialog

4. Update the Role Name and Privileges fields with the new values as required.

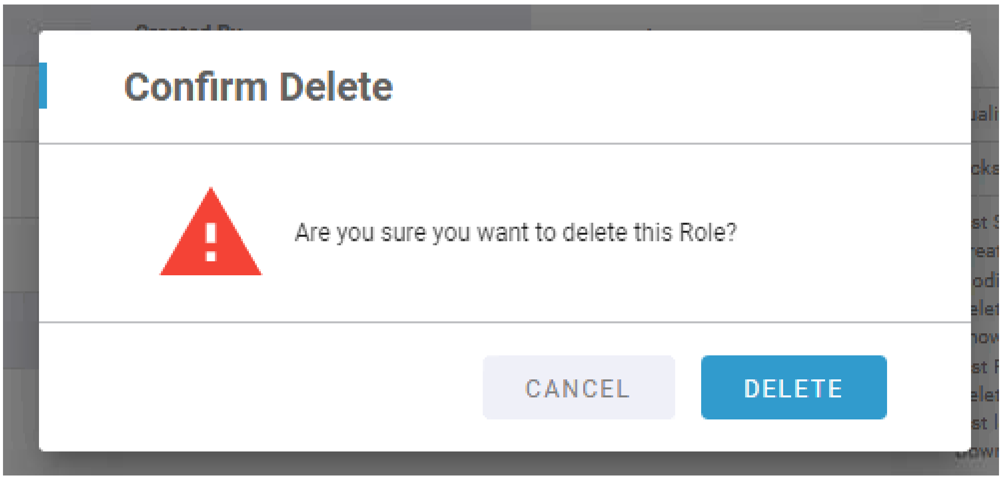
> Note:
>
> The Role Code field is not editable.

5. Select Save to apply changes, or Cancel to discard.
6. A snackbar message appears confirming the update:
   “Role updated successfully.” An Undo link may also be available.

Delete a Role

You can delete a role if it is not assigned to any group. Deleting a role removes its associated privileges from the system.

1. In the Manage Roles interface, locate the role you want to delete—for example, quality_controller.
2. In the Actions column, select the More options icon (⋮) next to the role.
3. Select Delete from the dropdown menu.
   A confirmation dialog appears.



Confirm Delete dialog

4. Select Delete to confirm the deletion, or Cancel to abort.

7. Configuration Overview

The Configuration tab enables administrators to manage software settings, update or upload the enterprise license, and configure application settings such as adding/editing products, product groups, regions, and authentication methods.

7.1 Accessing the Configuration Tab

1. In the left navigation menu, locate the Configuration icon.
2. Click the Configuration icon to open the Configuration tab.

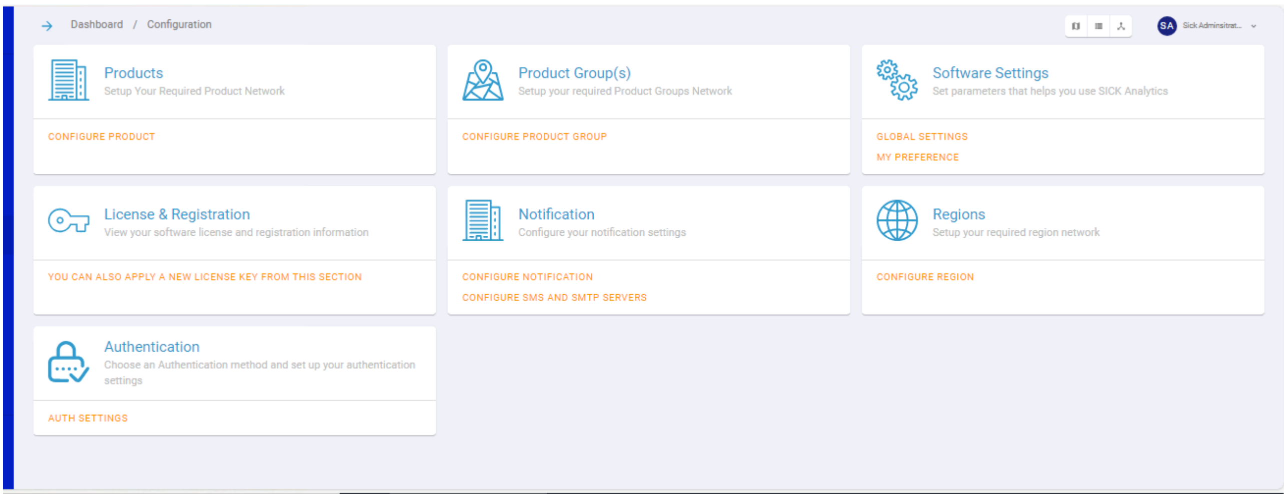


Figure 15: Configuration Screen

The Configuration tab includes the following sections, each dedicated to specific setup tasks for EA Analytics:

Configuration Section	Purpose	Key Configuration Tasks
Products	Manage SICK products (e.g., Package Analytics, Field Analytics) for Analytics data collection.	• Add products (single or bulk with IP-address lists). • Configure MQTT connections (URLs, HTTP/HTTPS ports). • Edit product details (inline edits). • Delete products.
Product Groups	Organize products into groups for streamlined Analytics reporting and management.	• Create product groups. • Add/remove products from groups. • Edit group details. • Delete groups.
Software Settings	Configure global and user-specific settings to customize EA behavior and data handling.	• Set global settings (date/ time format, locale, unit system, log retention up to 30 days). • Configure user preferences (personalized date format, locale, units).

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Configuration Section	Purpose	Key Configuration Tasks
License & Registration	Apply and manage the EA enterprise license to enable full functionality.	• Upload the enterprise license. • Verify license status.
Notification	Set up alerts for product status and system events to support Analytics monitoring.	• Configure email/SMS servers (host, port, credentials). • Create notification rules (up to one-hour frequency).
Regions	Define geographic regions for product organization and map-based Analytics.	• Add regions with autocomplete for countries. • Edit region details (name, associated countries). • Delete regions.
Authentication	Configure secure access methods for EA users.	• Set up LDAP authentication (URL, Distinguished Name). • Configure OpenID authentication (Client Secret, JWT Assertion). • Configure database authentication (host, port).

8. License/Registration

When logged into Enterprise application, select, "Apply License" on the license configuration page and upload the enterprise license.

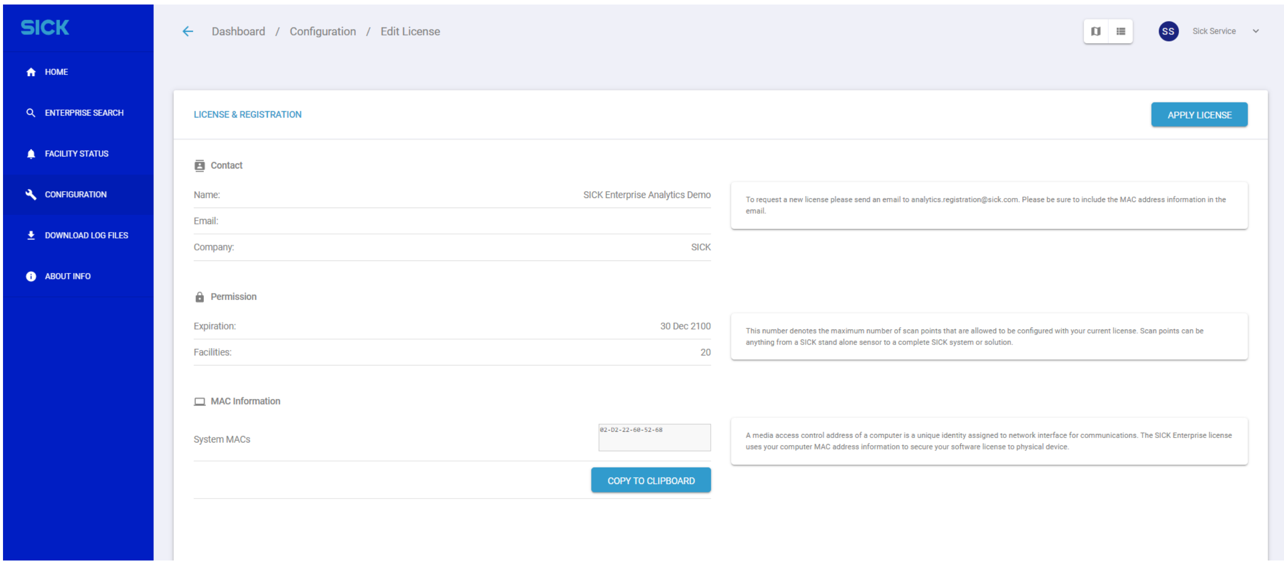


Figure 16: License Configuration Screen

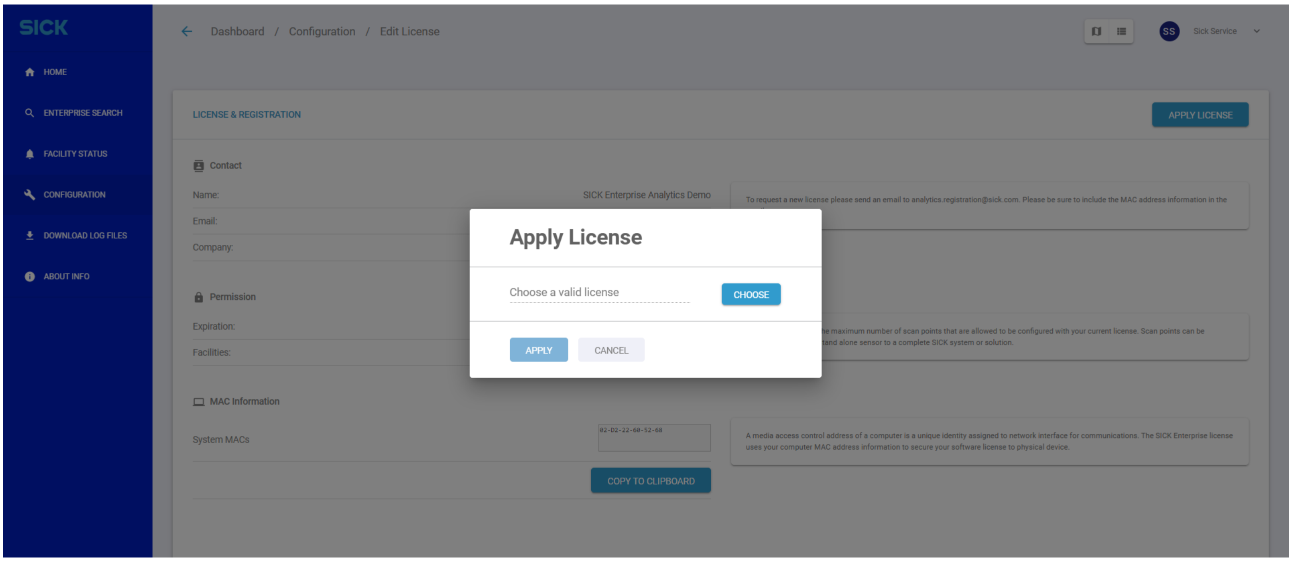


Figure 17: Apply License

Enterprise application allows users to personalize their experience with a few parameters and settings according to their geographical location and personal needs.

9. Product Management

9.1 Configure Products

You can add, edit, and delete products from the Configure Product page under the Configuration tab.

Navigate to the Configure Product Page

1. In the left navigation pane, select Configuration.

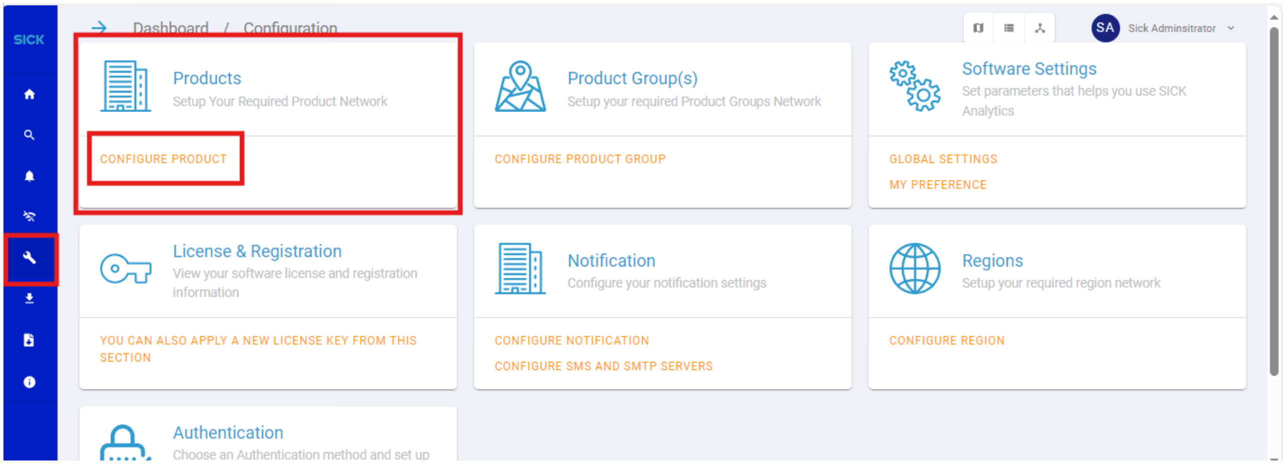
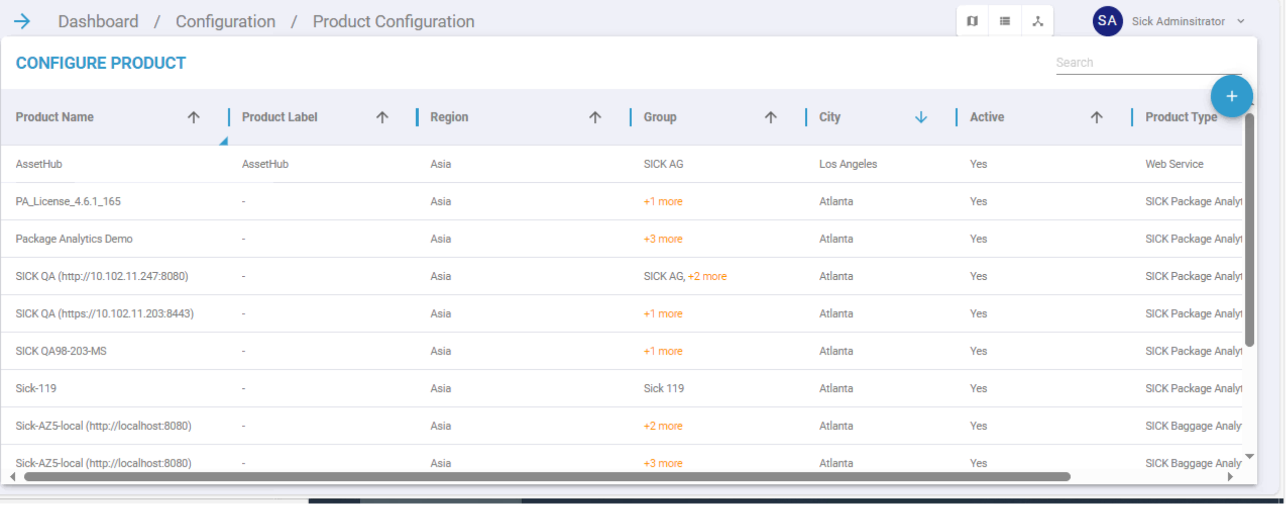


Figure 1: Products Section on Configuration Page

1. On the Configuration page, locate the Products section.
2. Select Configure Product to open the product management interface.

- The Configure Product page displays a table listing all configured products with columns for Product Label, Region, Group, City, Active, Product Type, and Actions (Edit/Delete icons).
- You can sort the table by selecting any column header arrow .



3. To filter the list of products, enter a keyword in the Search field at the top-right corner of the page and press Enter.

The table updates to show only the products that match the search keyword.

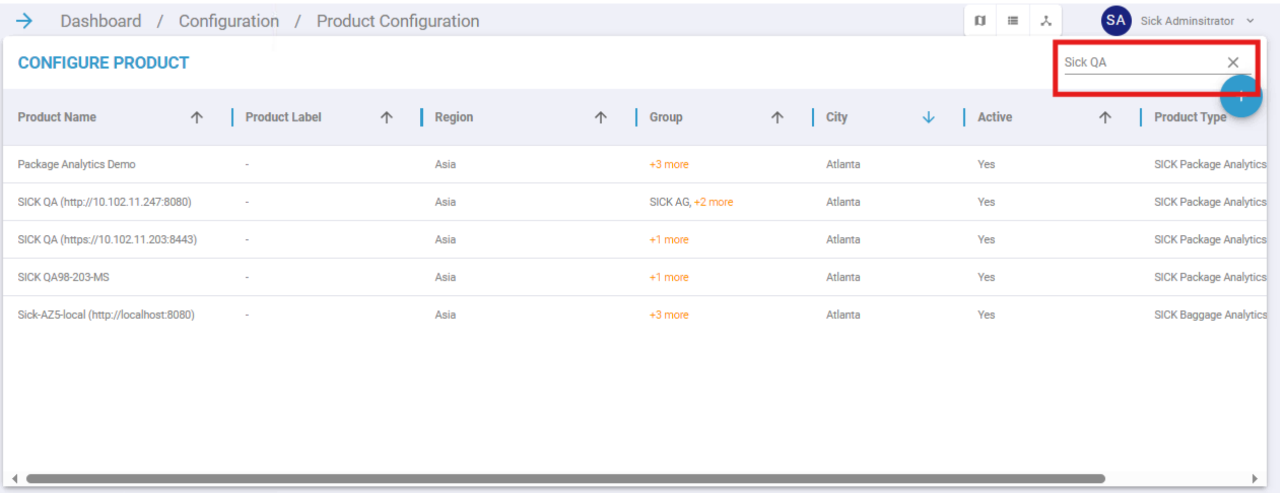
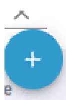


Figure 3: Configure Product Page with Search Functionality

Add a New Product

To add a new product:

1. On the Configure Product page, select the  icon in the top-right corner.
2. In the Enable MQTT Connection for Products form, complete the following steps:

Step 1: Add URL Info

1. In the Add URL Info tab, enter the following:
    - Facility Section:
        - Facility URL(s): Enter the URL where the product is installed. You can include or omit the protocol. To add multiple URLs, separate them with commas.
        - Default Protocol: Select HTTP or HTTPS.
        - Default HTTP Port: Pre-filled with the default HTTP port. You can edit this.
        - Default HTTPS Port: Pre-filled with the default HTTPS port. You can edit this.
    - Enterprise Section:
        - Enterprise Address: Displays the address of the EA application (pre-filled).
2. Select Cancel to abort, or Next to proceed.

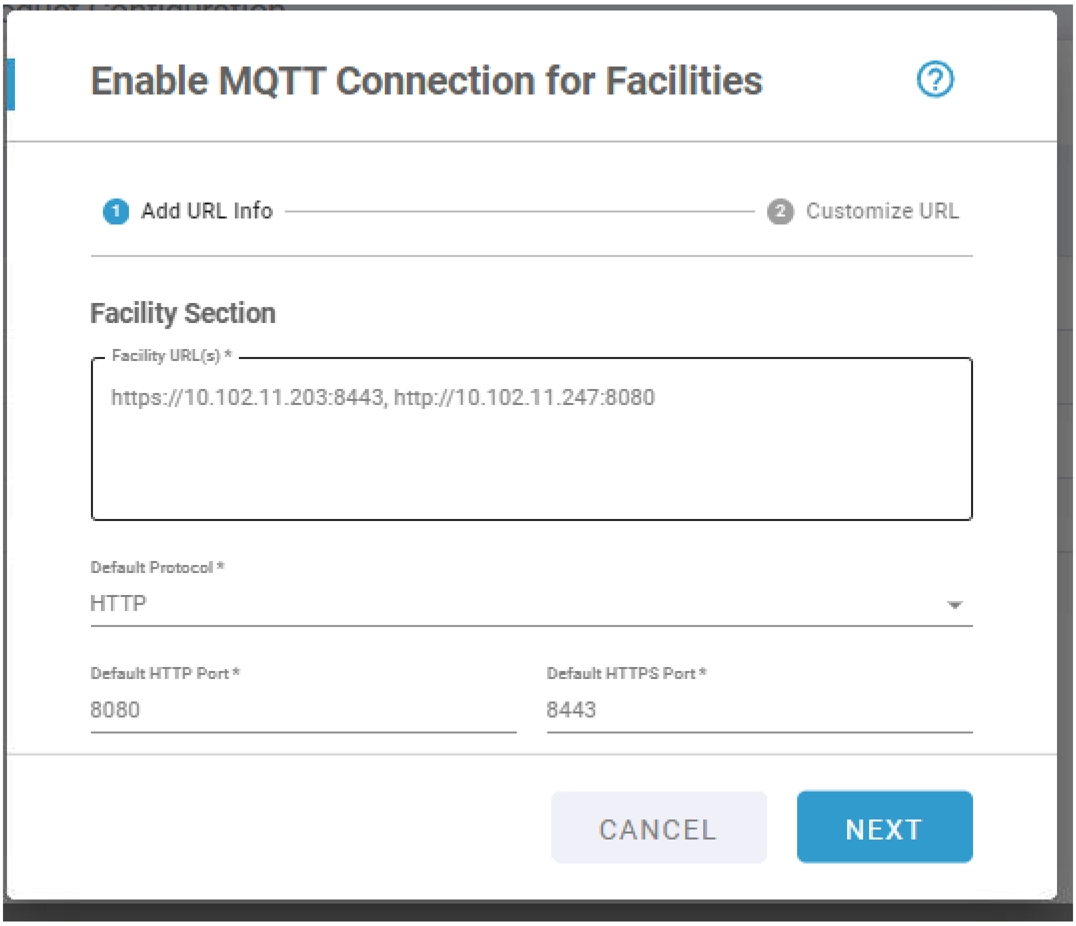


Figure 4: Enable MQTT Connection for Products – Add URL Info

Step 2: Customize URL

1. In the Customize URL tab, review the entered URL(s). A message indicates the number of valid URLs.
2. Select Back to modify the URL or settings, or Save to proceed.

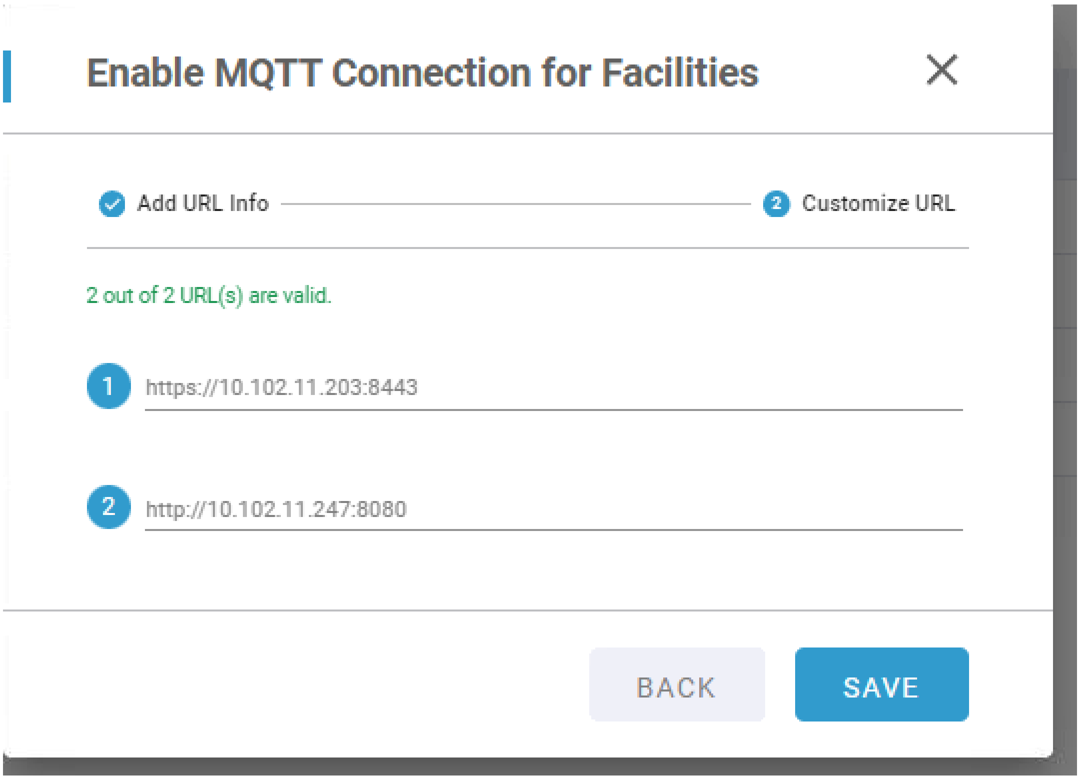


Figure 5: Enable MQTT Connection for Products – Customize URL

Step 3: Confirm MQTT Connection Settings

1. A confirmation pop-up titled "Products Configuration Summary" appears, listing the saved URL(s).
2. A message confirms: "Enterprise connection settings saved successfully."
3. Select Close to proceed.

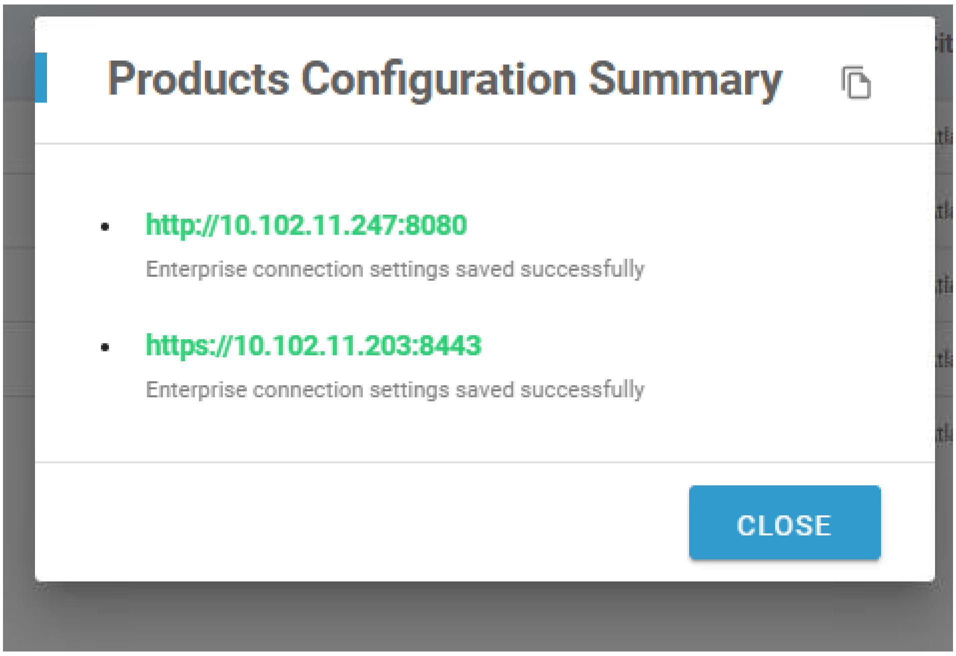


Figure 6: Products Configuration Confirmation Pop-up

Step 4: View the Updated Product List

1. The Configure Product page refreshes, and the new product appears in the product list.
2. Verify the new product in the table.

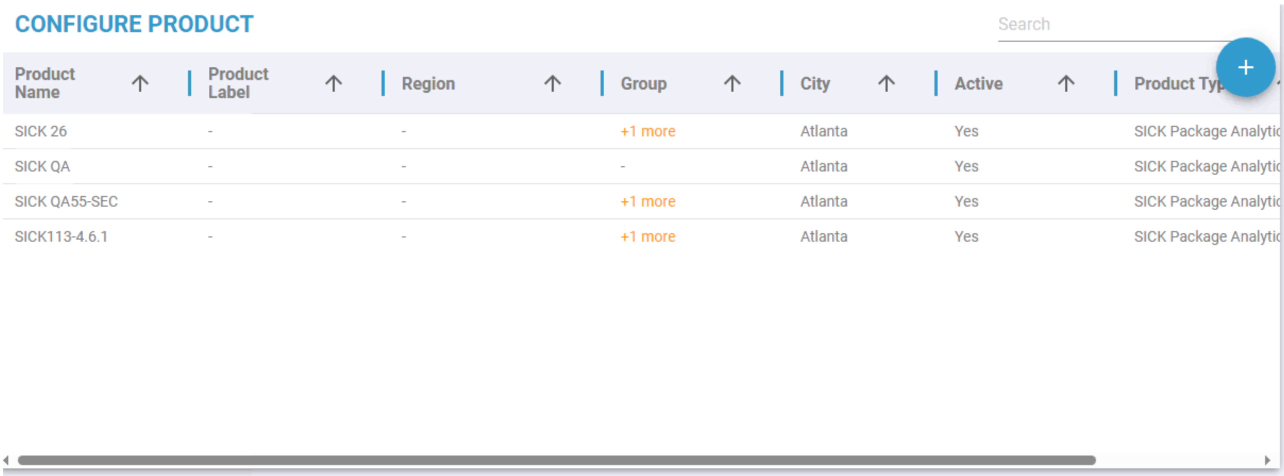


Figure 7: Updated Product List on Configure Product Page

Edit a Product

To edit a product:

1. On the Configure Product page, locate the product in the table.
2. In the Actions column, select the Edit icon 

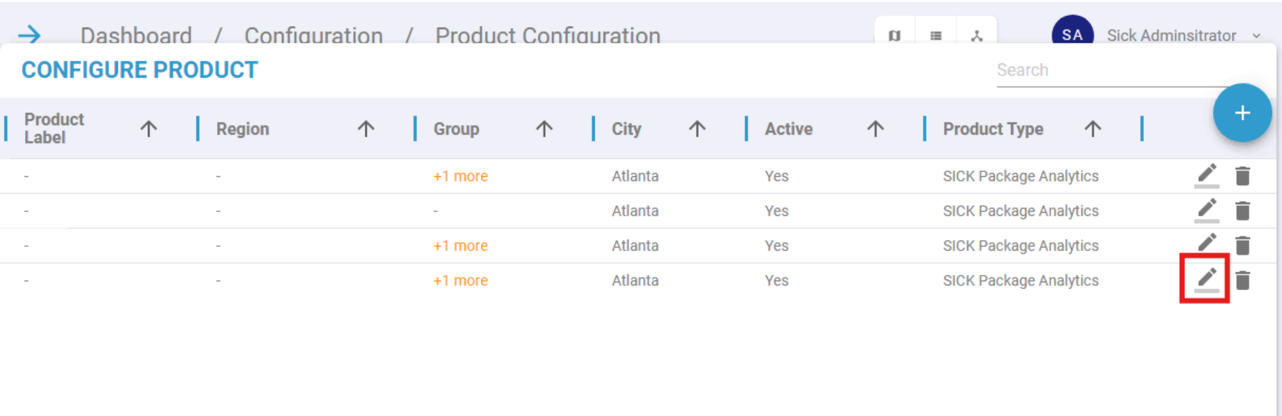


Figure 8: Configure Product Page with Edit Option

In the Edit Product form, update the following fields as needed:

Field	Description
Product Type	Displays the type of SICK product.
Name	The product name.
URL	The URL where the product is installed. You can modify the protocol (HTTP/HTTPS) and port.
ID	The product ID.
Label	The product label.

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Field	Description
Add Group	The linked product group.
Polling Frequency (mins)	The polling frequency in minutes.
Country	The country.
State	The state or province.
City	The city.
Active	A checkbox to set the product’s visibility. When checked, the product is active and appears in the EA Dashboard views (e.g., Map View, Tree View, List View); when unchecked, the product is inactive and does not appear in these views.

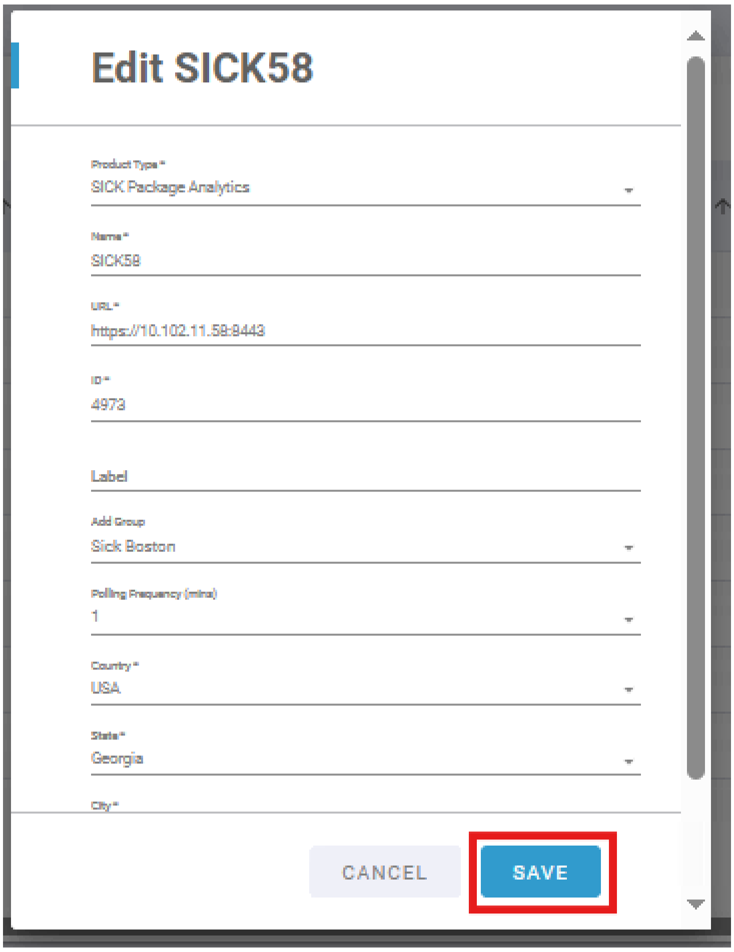


Figure 9: Edit Product Form

3. Select Save to apply changes, or Cancel to discard them.
4. The Configure Product page updates. A notification with an UNDO link appears, allowing you to revert the deletion if needed.

Figure 10: Updated Product List with Edit Confirmation Notification

Delete a Product

To delete a product:

1. On the Configure Product page, locate the product in the table.
2. In the "Actions" column, select the Delete icon

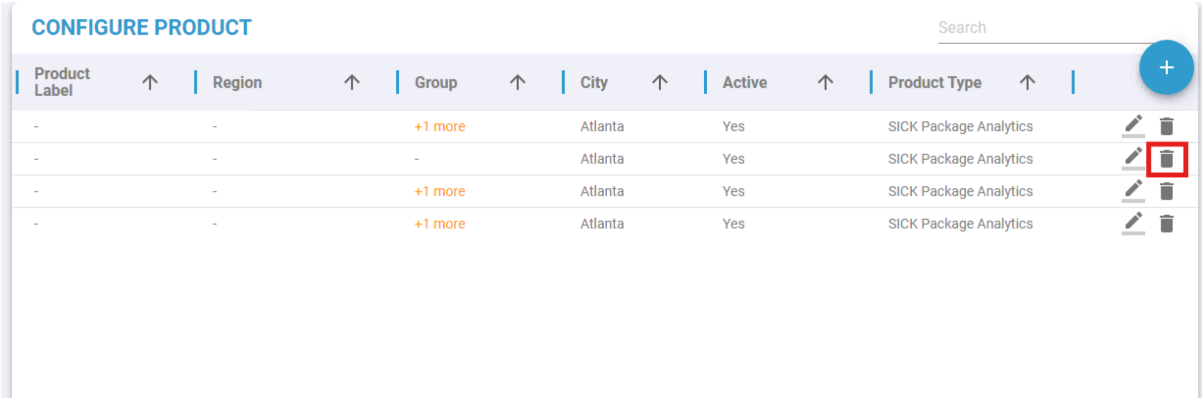


Figure 11: Configure Product Page with Delete Option

3. In the confirmation pop-up, select Delete to confirm, or Cancel to abort.

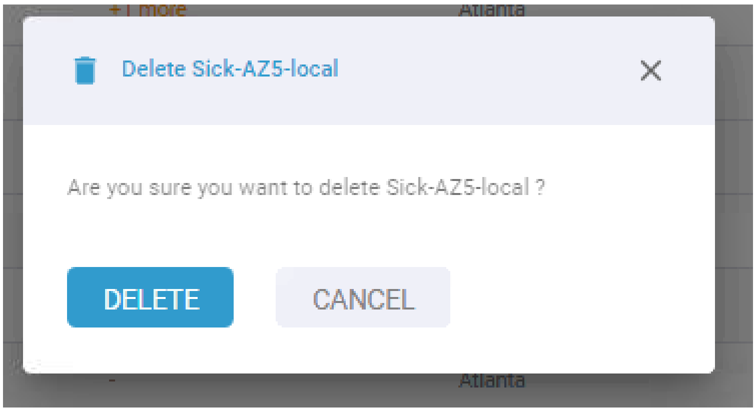


Figure 12: Delete Product Confirmation Pop-up

4. The Configure Product page updates, and the product is removed from the list. A notification with an UNDO link appears, allowing you to revert the deletion if needed.

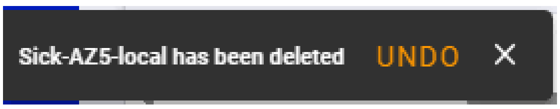


Figure 13: Updated Product List After Deletion

9.2 Configure Product Group

You can add, edit, and delete product groups from the Configure Product Group page under the Configuration tab.

Navigate to the Configure Product Group Page

1. In the left navigation pane, select Configuration.
2. On the Configuration page, locate the Product Groups section.
3. Select Configure Product Group to open the product-group management interface.

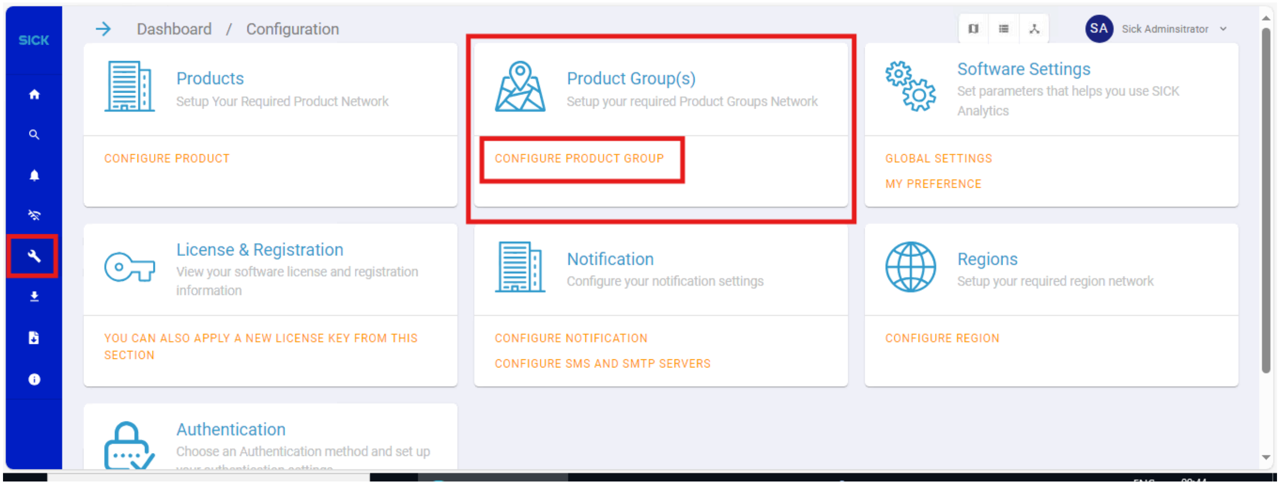


Figure 14: Product Groups Section on Configuration Page

- The Configure Product Group page displays a table listing all configured product groups with columns for Product Group Name, Products, and Actions (Edit/Delete icons).
- You can sort the table by selecting any column header arrow .
- If a product group has multiple products, the Products column shows a partial list with a More link to view the full list.

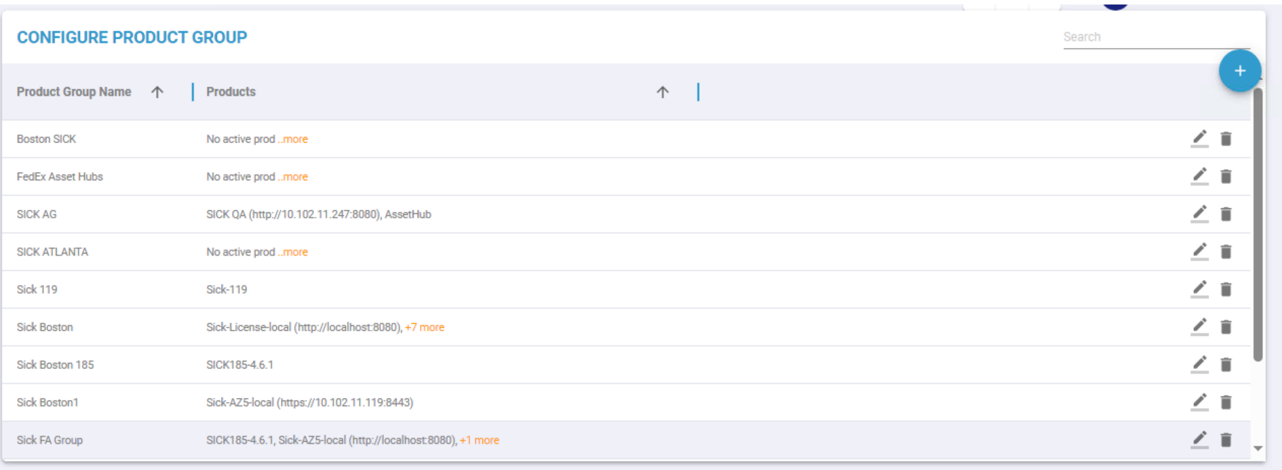


Figure 15: Configure Product Group Page

4. To filter the list of product groups, enter a keyword in the Search field at the top-right corner of the page and press Enter.

   The table updates to show only the product groups that match the search keyword.

5. To view the full list of products in a group, select the More link in the Products column.

The row expands to display the complete list of products associated with the product group.

Add a New Product Group

To add a new product group:

1. On the Configuration Product Group page, select the **Add**  icon in the top-right corner.
2. In the Add Product Group form, enter the following:

- Product Group Name: Enter a unique name for the product group.
- Add Product: Select the products to include in this group from a dropdown list of available products. You can add multiple products, and each selected product will appear with an "X" to remove it if needed.

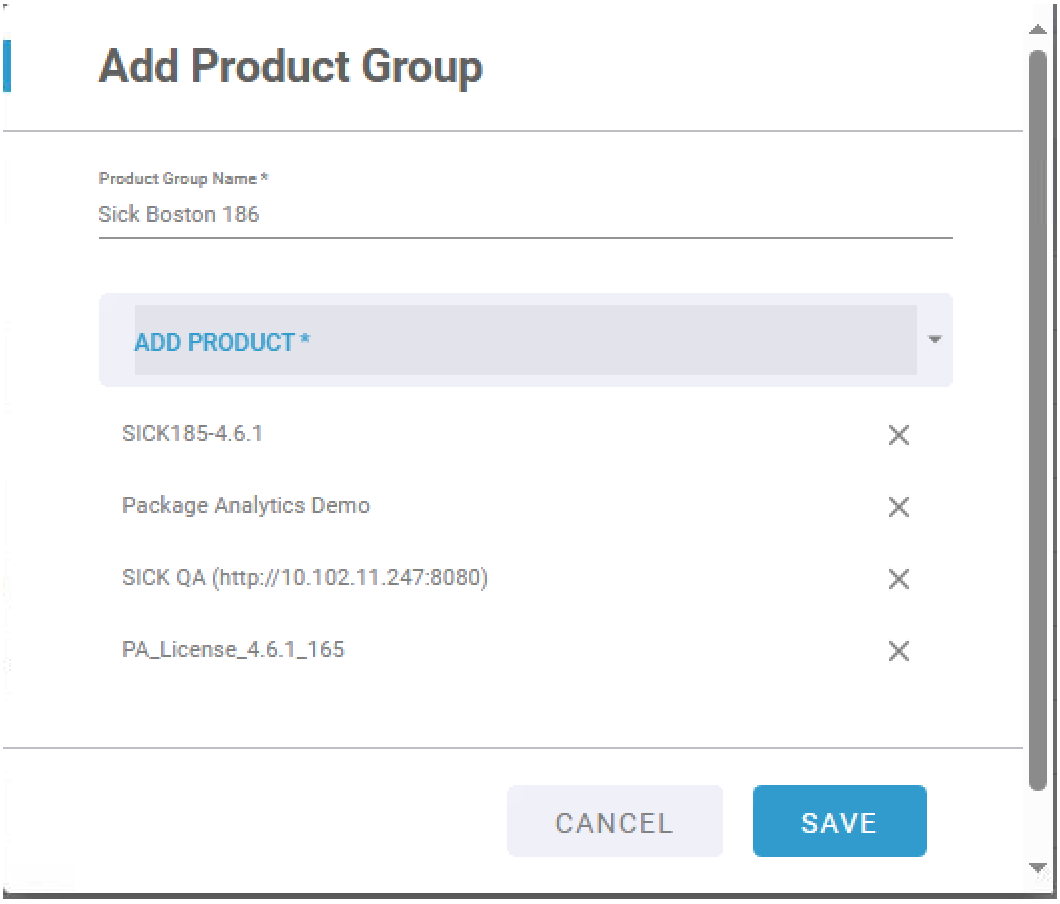


Figure 18: Add Product Group Form

3. Select Save to add the product group, or Cancel to discard the changes.
4. The Configure Product page refreshes, and the product is removed from the list. A notification with an UNDO link appears, allowing you to revert the deletion if needed.

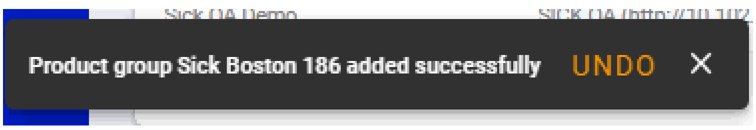


Figure 19: Updated Product Group List with Confirmation Notification

Edit a Product Group

To edit a product group:

1. On the Configure Product Group page, locate the product group in the table.
2. In the "Actions" column, select the **Edit** icon.
3. In the Edit Product Group form, update the following fields as needed:
    - Product Group Name: The name of the product group.
    - Products: The products included in this group.
4. Select Save to apply changes, or Cancel to discard them.

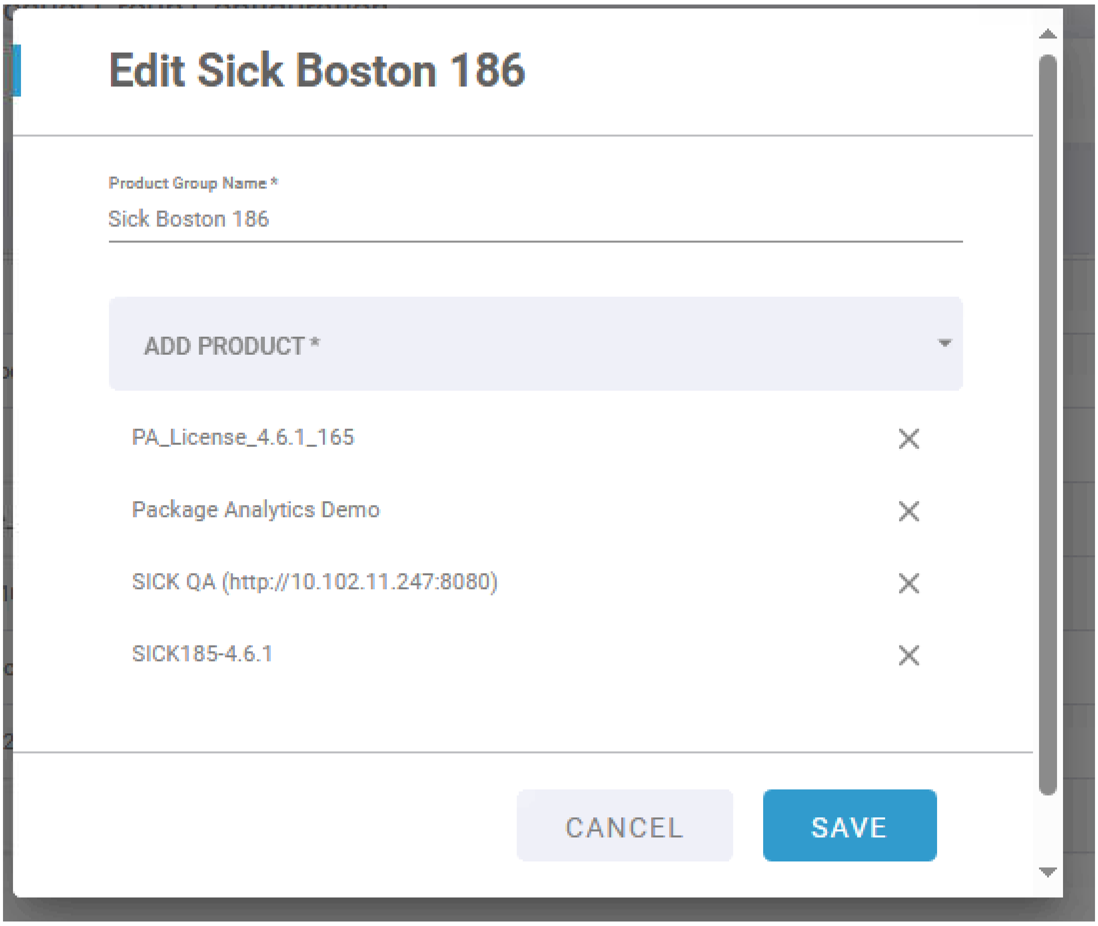


Figure 21: Edit Product Group Form

5. The Configure Product Group page refreshes, and the updated product group appears in the list with a notification confirming the edit (e.g., "Product group [Name] edited successfully") and an UNDO link to revert the action if needed. Verify the updated details in the product group list.

Figure 22: Updated Product Group List with Edit Confirmation Notification

Delete a Product Group

To delete a product group:

1. On the Configure Product Group page, locate the product group in the table.
2. In the "Actions" column, select the Delete icon .

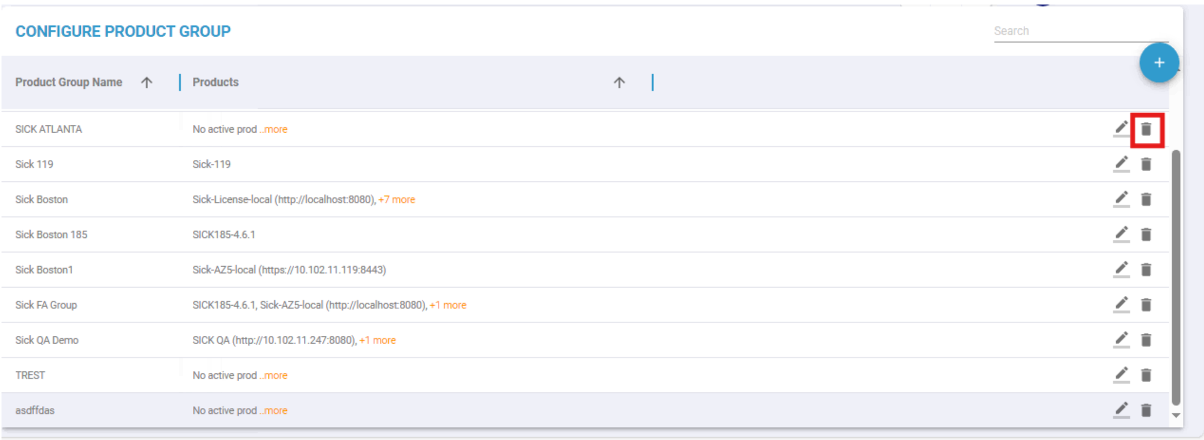


Figure 23: Configure Product Group Page with Delete Option

3. In the confirmation pop-up, select Delete to confirm, or Cancel to abort.

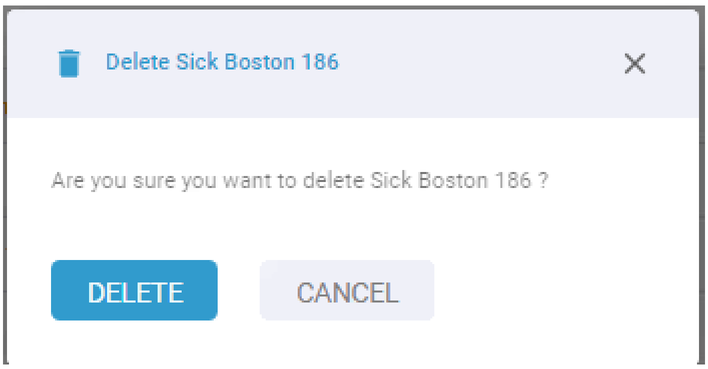


Figure 24: Delete Product Group Confirmation Pop-up

4. The Configure Product Group page refreshes, and the product group is removed from the list. A notification with an UNDO link appears, allowing you to revert the deletion if needed.

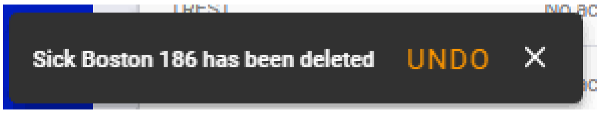


Figure 25: Updated Product Group List After Deletion

9.3 Configure Region

You can add, edit, and delete regions from the Configure Region page under the Configuration tab.

Navigate to the Configure Region Page

1. In the left navigation pane, select  Configuration.

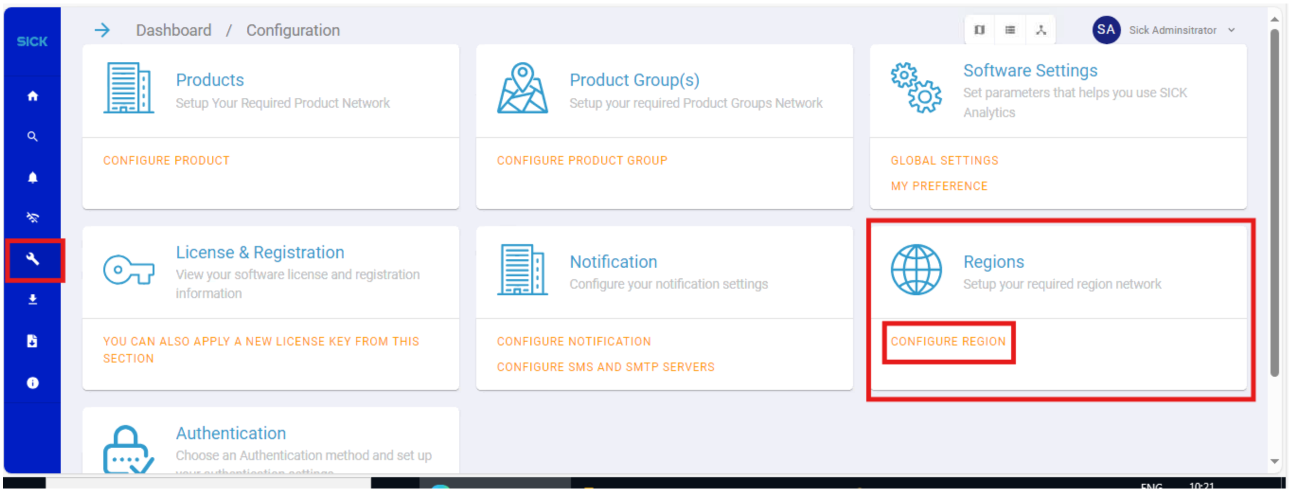


Figure 26: Regions Section on Configuration Page

2. On the Configuration page, locate the Regions section.
3. Select Configure Region to open the region management interface.
4. The Configure Region page displays a table listing all configured regions with columns for Region Name, Countries, and Actions (Edit/Delete icons).

5. You can sort the table by selecting any column header .
6. To filter the list of regions, enter a keyword in the Search field at the top-right corner of the page and press Enter.

- The table updates to show only the regions that match the search keyword.

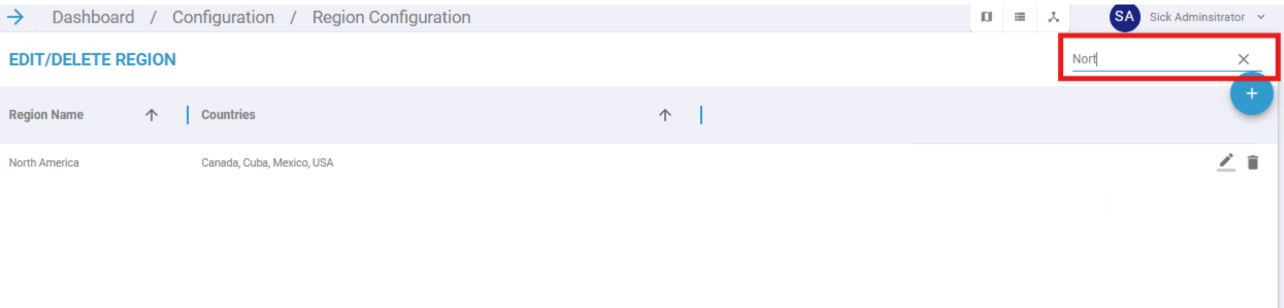


Figure 27: Configure Region Search Field

Add a New Region

To add a new region:

1. On the Configure Region page, select the icon in the top-right corner.
2. In the Add Region form, enter the following:
    - Region Name: Enter a unique name for the region.
    - Add Country: Select at least one Country to associate with the region. At least one location is required.
3. Select Save to add the region, or Cancel to discard the changes.

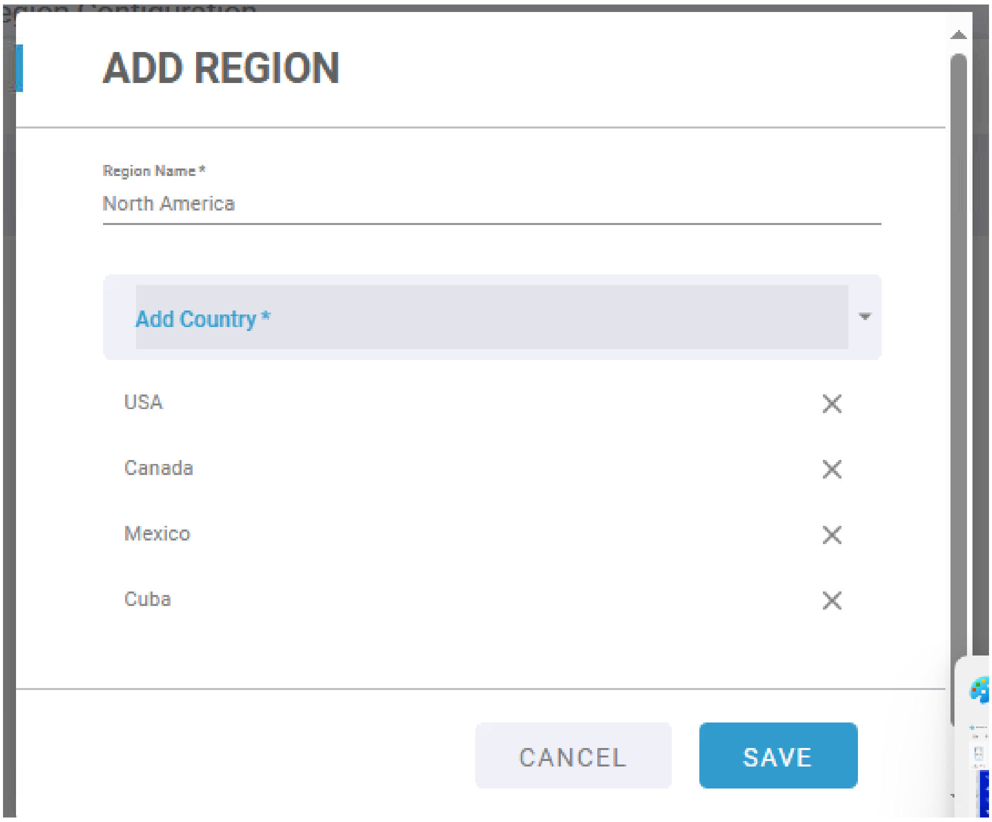


Figure 29: Add Region Form

4. The Configure Region page refreshes, and the new region appears in the list with a notification confirming the addition (for example, "Region [Name] added successfully") and an UNDO link to revert the action if needed. Verify the new region in the table.

Figure 30: Updated Region List with Confirmation Notification

Edit a Region

To edit a region:

1. On the Configure Region page, locate the region in the table.
2. In the "Actions" column, select the Edit icon.

3. In the Edit Region form, update the following fields as needed:
   - Region Name: The name of the region.
   - Add Location: The locations associated with this region. You can add new locations using the dropdown or remove existing ones by selecting the "X" next to each location.
4. Select Save to apply changes, or Cancel to discard them.

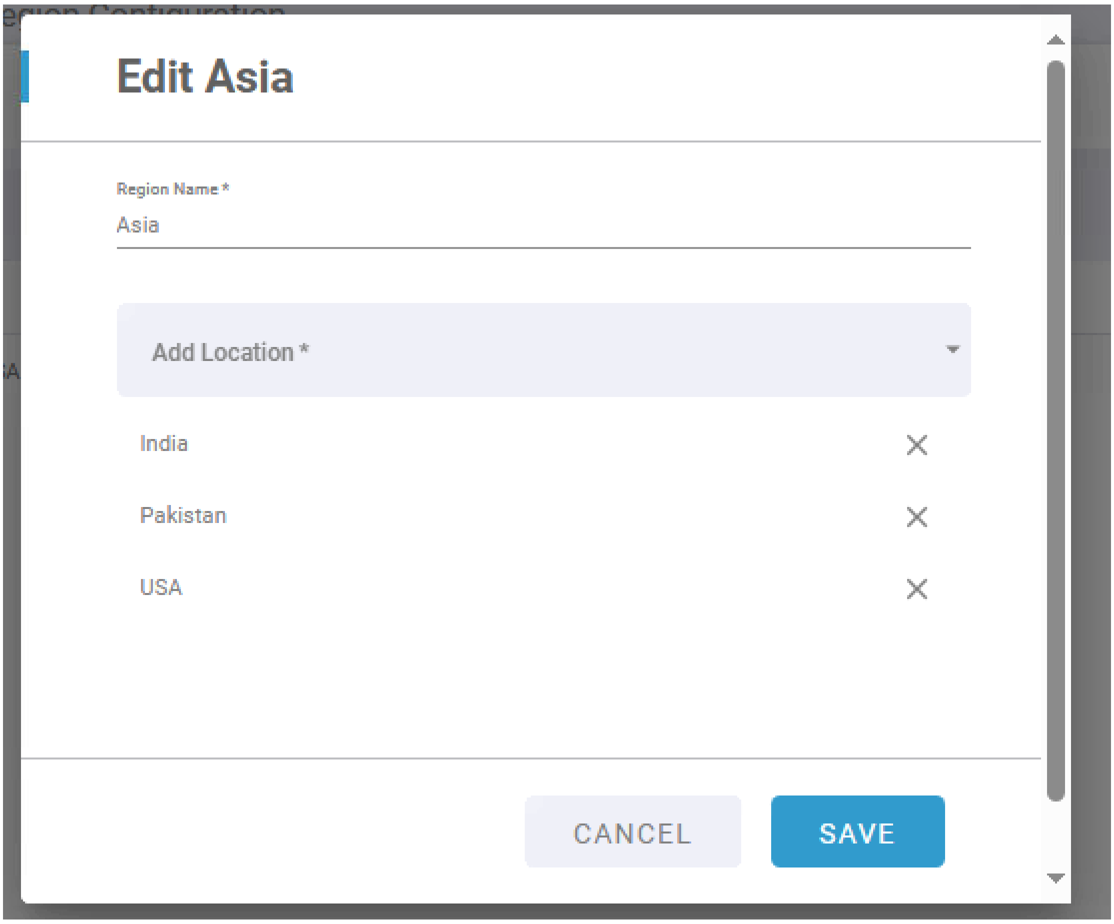


Figure 32: Edit Region Form

5. The Configure Region page refreshes, and the updated region appears in the list with a notification confirming the edit (e.g., "Region [Name] edited successfully") and an UNDO link to revert the action if needed. Verify the updated details in the region list.

Figure 33: Updated Region List with Edit Confirmation Notification

Delete a Region

To delete a region:

1. On the Configure Region page, locate the region in the table.
2. In the "Actions" column, select the Delete icon

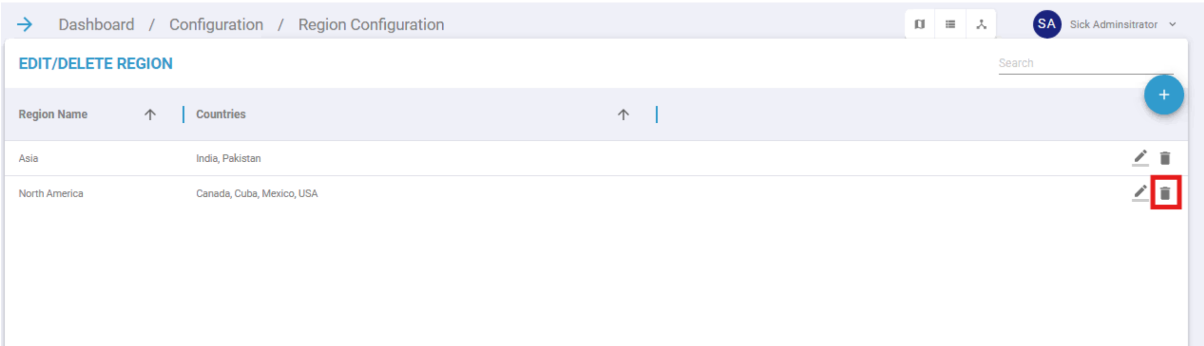


Figure 34: Configure Region Page with Delete Option

3. In the confirmation pop-up, select Delete to confirm, or Cancel to abort.

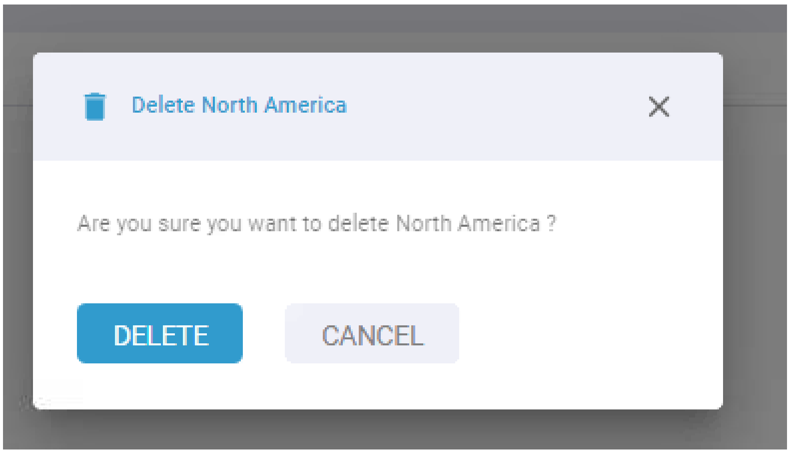


Figure 35: Delete Region Confirmation Pop-up

4. The Configure Region page refreshes, and the region is removed from the list. A notification with an UNDO link appears, allowing you to revert the deletion if needed.

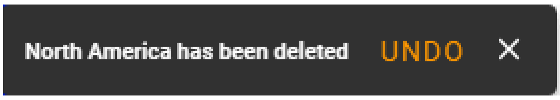


Figure 36: Updated Region List After Deletion

10. Authentication Settings

To navigate to Authentication settings, select "Auth settings" under Authentication section on configuration screen.

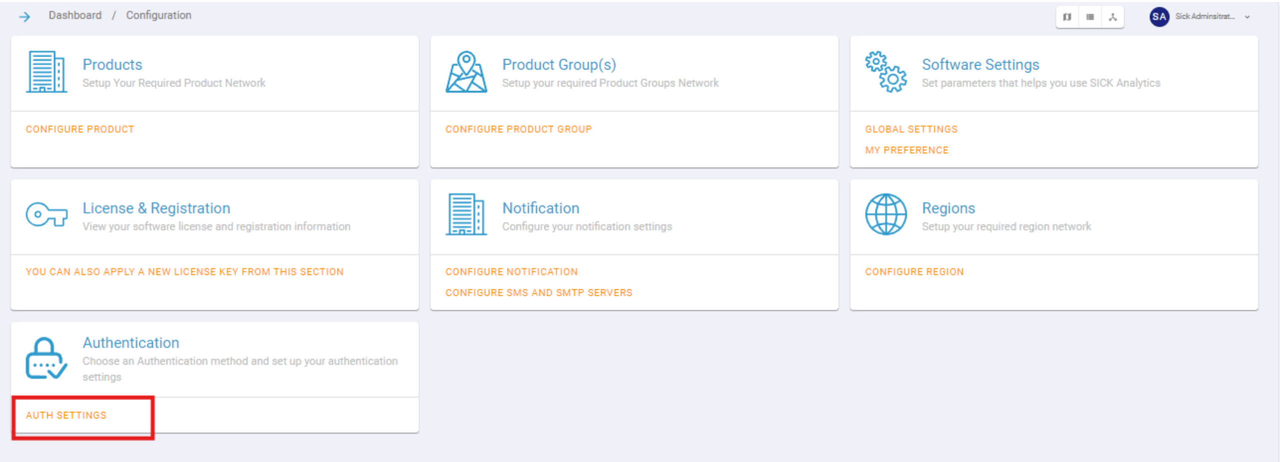


Figure 47: Auth Settings Option

10.1 Configure LDAP Authentication

Auth Settings screen appears with two authentication options that are LDAP and Database.

When LDAP radio button is selected. Following fields appears:

- LDAP Type
- URL
- Distinguished Name
- Search Filter
- Username
- Password

Click on Verify button to verify the details then click on Save button to save the details.

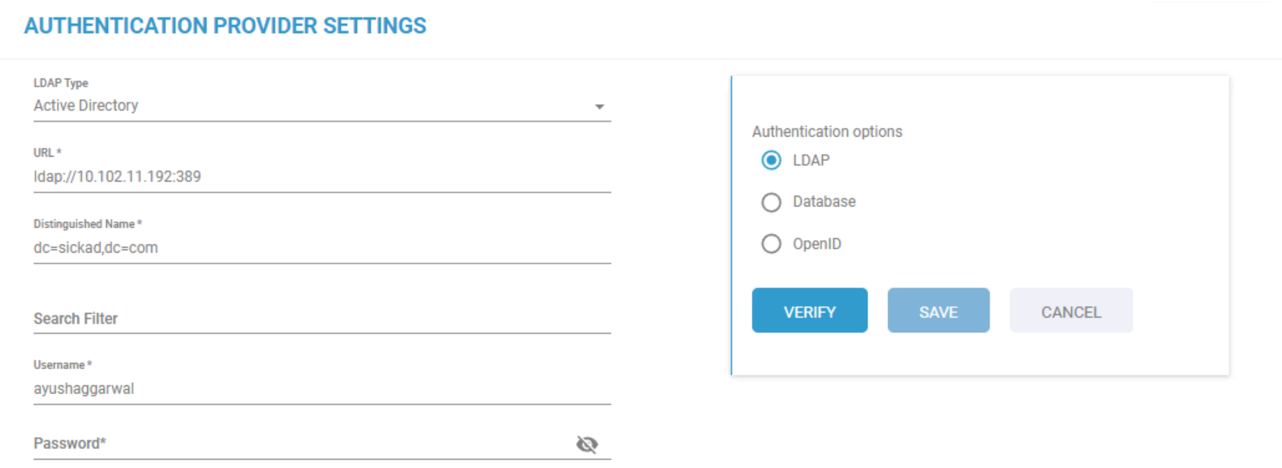


Figure 48: LDAP Option in Auth Settings

10.2 Configure LDAP Authentication

Auth Settings screen appears with two authentication options that are LDAP and Database.

When LDAP radio button is selected. Following fields appears:

- LDAP Type
- URL
- Distinguished Name
- Search Filter
- Username
- Password

Click on Verify button to verify the details then click on Save button to save the details.

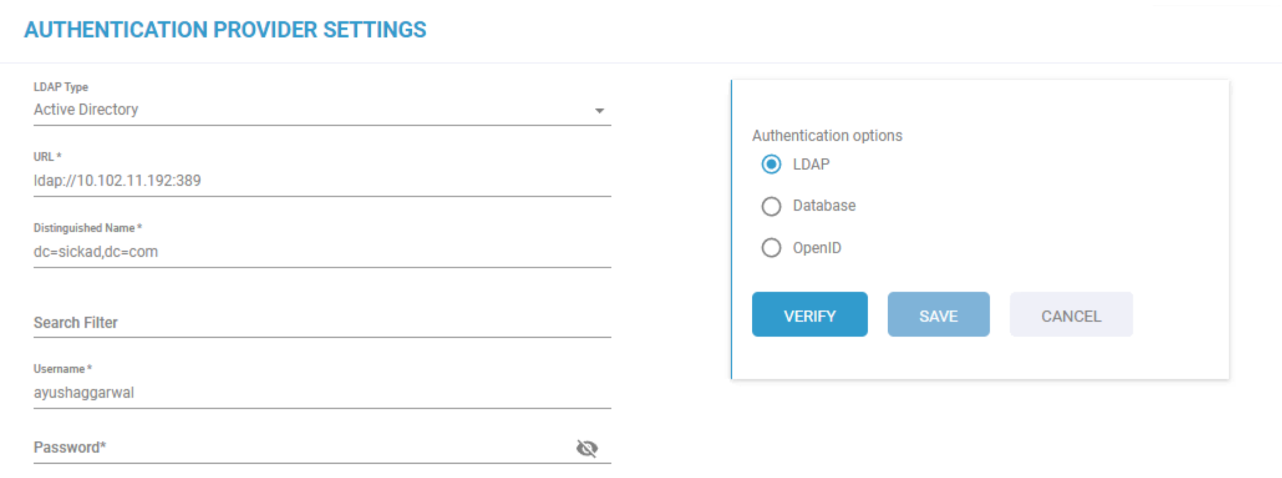


Figure 48: LDAP Option in Auth Settings

10.3 Configure OpenID Authentication

This section provides instructions on how to configure and switch to OpenID authentication, allowing users to log in using OpenID credentials. The OpenID authentication method supports two verification mechanisms: Client Secret and JWT Assertion.

1. Select the OpenID radio button from the right-hand side under Authentication Options.

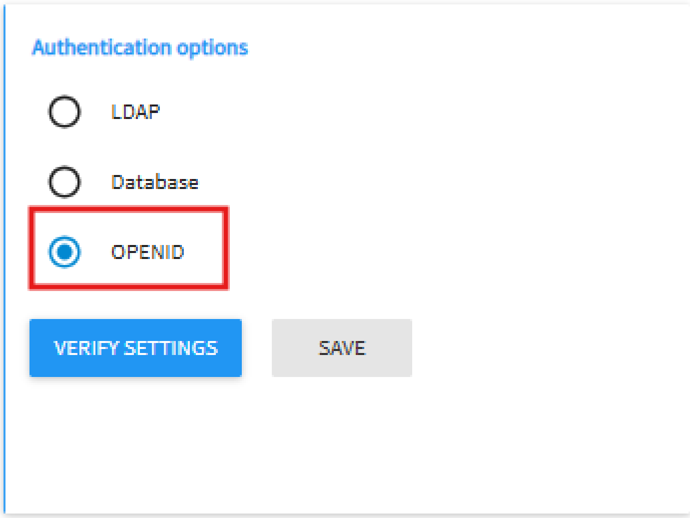


Figure X: Authentication Options with OpenID Selected

2. The OpenID configuration fields are displayed in the middle pane.

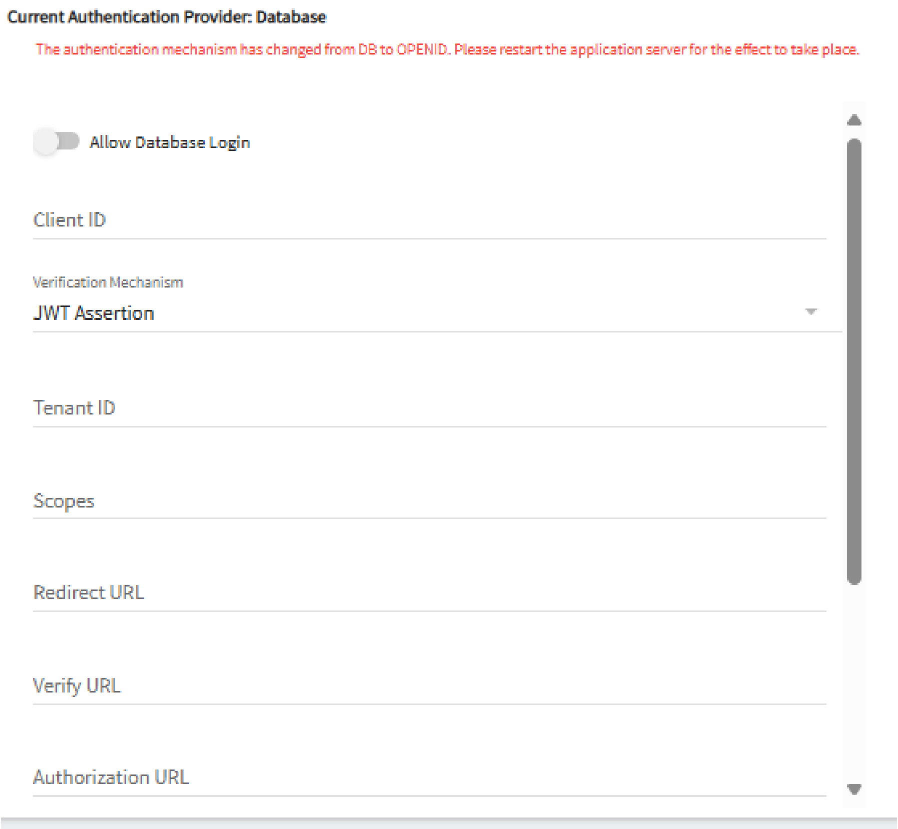


Figure 2: OpenID Configuration Fields

3. Fill in the following fields):

   - Allow Database Login – Turn this on if users should also be allowed to log in using database credentials.
   - Client ID – Enter the client ID provided by your OpenID provider.
   - Verification Mechanism – Choose the appropriate verification method:
     - Client Secret: If selected, the Client Secret field appears. Enter the secret value provided by your OpenID provider.
     - JWT Assertion: If selected, the Tenant ID field appears. Enter the tenant or realm ID as required by your OpenID provider.
   - Scope – Specify the scope required for authentication.
   - Redirect URL – Enter the URL where the OpenID provider will redirect after authentication.
   - Verify URL – Enter the URL for the OpenID provider's configuration endpoint.
   - Authorization URL – Enter the URL for the OpenID provider's authorization endpoint.
   - Token URL – Enter the URL for the OpenID provider's token endpoint.
   - JWK URL – Enter the URL for the OpenID provider's JSON Web Key Set (JWKS) endpoint.
   - Logout URL – Enter the URL for the OpenID provider's logout endpoint.
4. Select VERIFY SETTINGS.

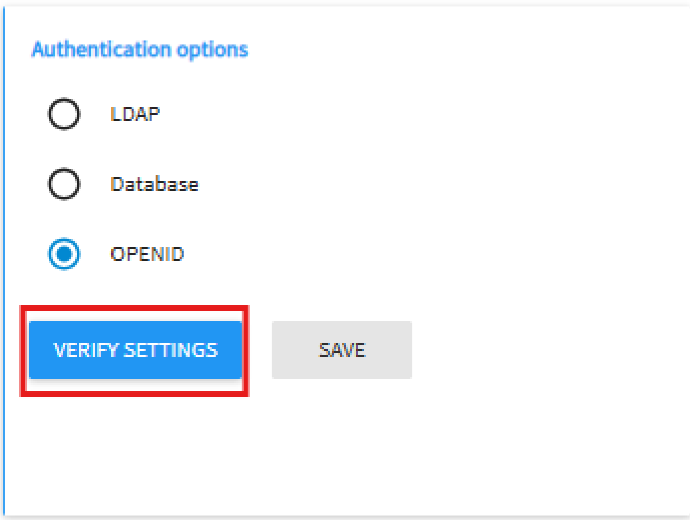


Figure: Verify Settings Button

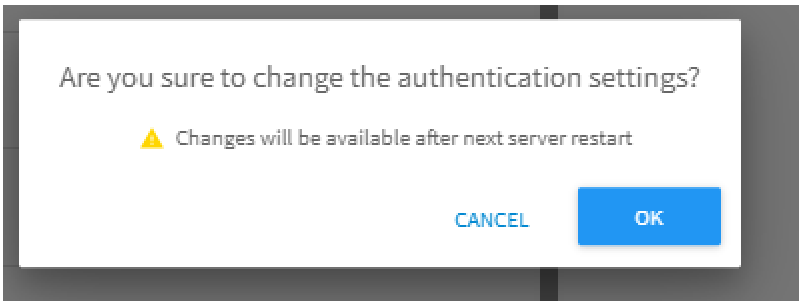
5. If the settings are valid, a snackbar message confirms that the connection is successful. The SAVE button becomes enabled.

6. If any of the entered details are incorrect, a snackbar message is displayed indicating the error.

   In this case, the SAVE button will remain disabled. Correct the input details and select VERIFY SETTINGS again.

7. Select SAVE.
8. A confirmation popup appears with the message:

   Select OK to confirm or CANCEL to exit.



9. A red banner appears at the top of the page, prompting you to restart the services.

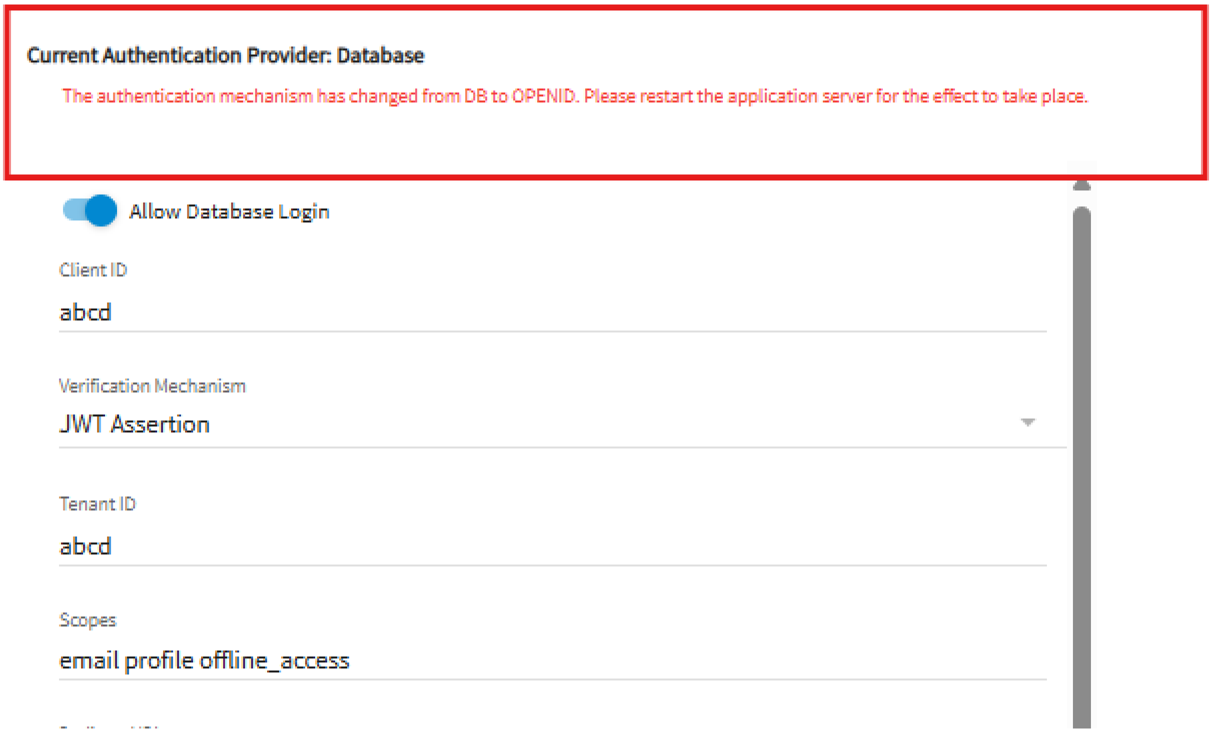
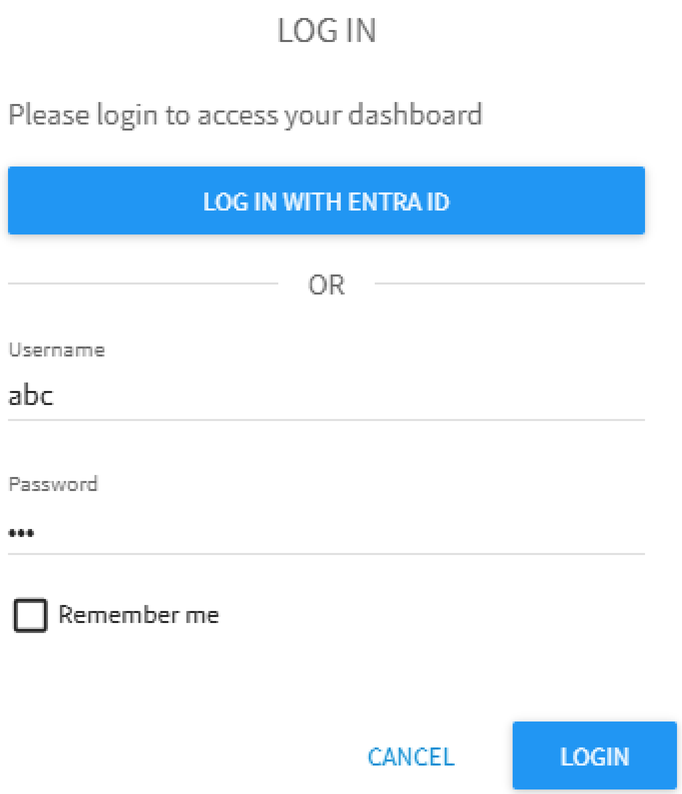


Figure 4: Restart Services Banner

10. Restart the application services. For more information, refer to *How to Restart Services*.
11. After the restart:
    - Users can log in using their OpenID credentials.



11. Software Settings

This option allows the user to configure settings, related to Locale, Date format, and Time format

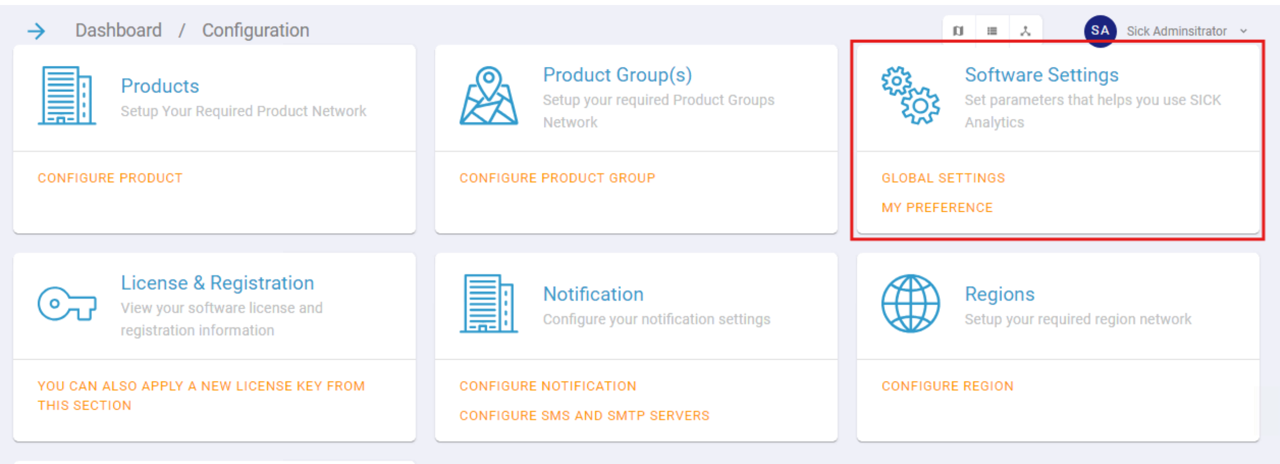


Figure 42: Software Settings

11.1 Global Settings

On the Configuration page, click on the Global Settings under the Software Settings section.

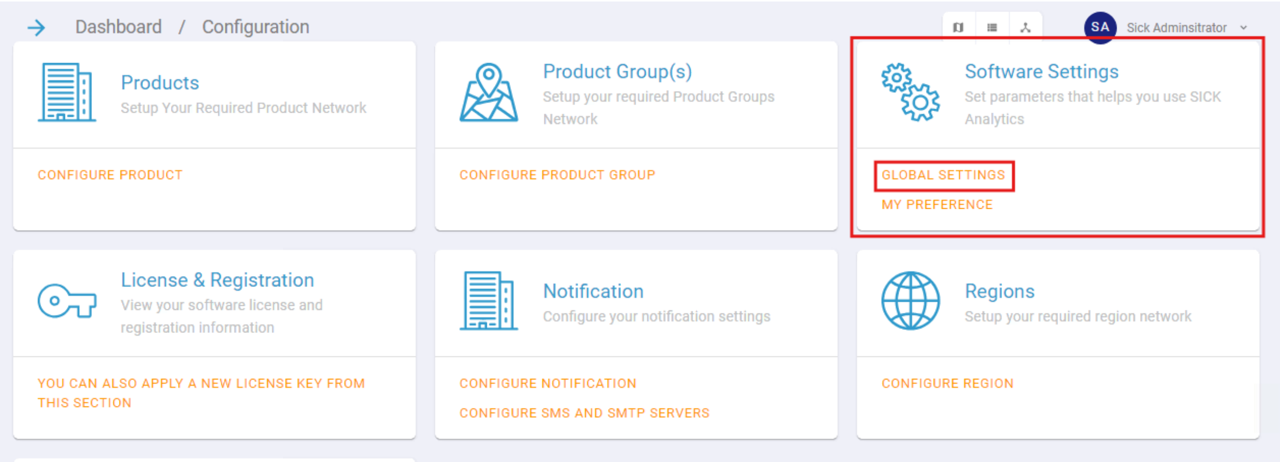


Figure 43: Global Settings Option

When user clicks on Global Settings under Software Settings, Global settings screen appears with following fields:

- Date Format: User can select the format of the date that user wish to appear from the drop-down
- Time Format: User can select the format of the date that user wish to appear from the drop-down
- Week starts on: Displays two options that are Sunday and Monday. Select any of the preferred option from the drop-down
- Locale: Select any of the locale language from the drop-down
- Unit System: Displays three options that are Metric (mm), Metric (cm), and Imperial. Select any of the preferred option from the drop-down
- Number of days to retain log files: Select the number by clicking on arrows  for retaining log files. Maximum number of days a user can retain log files is 30 days.

Click on Save button to save the settings.

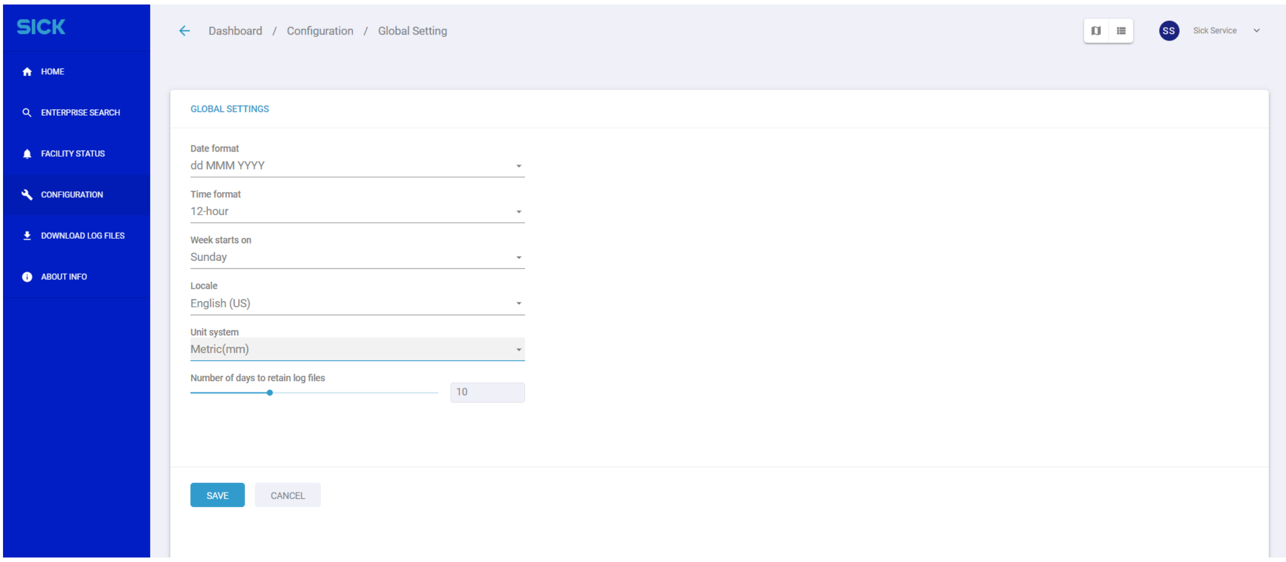


Figure 44: Global Settings Screen

11.2 My Preference

User can select date and time formats, preferred language and unit from My Preference tab. On the Configuration page, click on the My Preference under the Software Settings section.

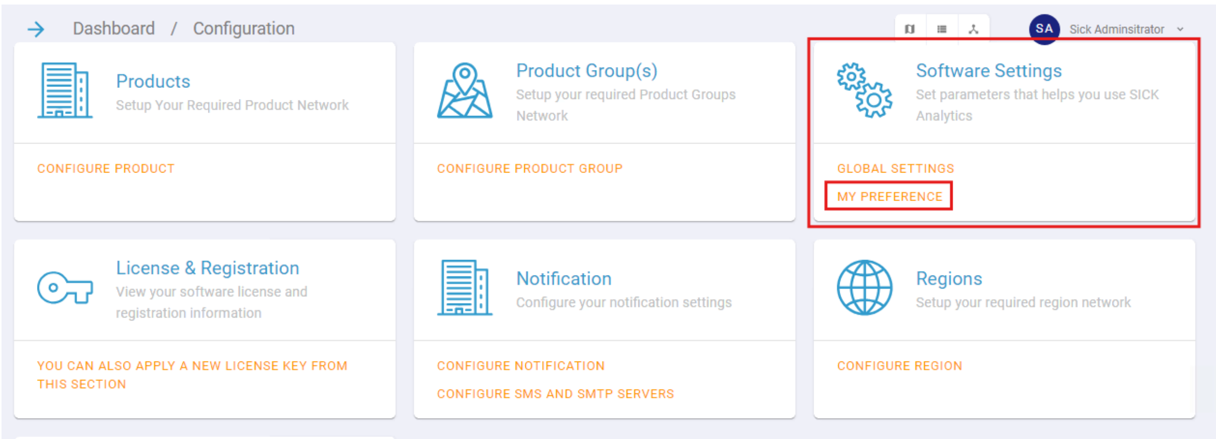


Figure 45: My Preference Option

When user clicks on My Preference under Software Settings, My Preference screen appears with following fields:

- Date Format: User can select the format of the date that user wish to appear from the drop-down
- Time Format: User can select the format of the date that user wish to appear from the drop-down
- Locale: Select any of the locale language from the drop-down
- Unit System: Displays three options that are Metric (mm), Metric (cm), and Imperial. Select any of the preferred option from the drop-down

Click on Save to save the preferences.

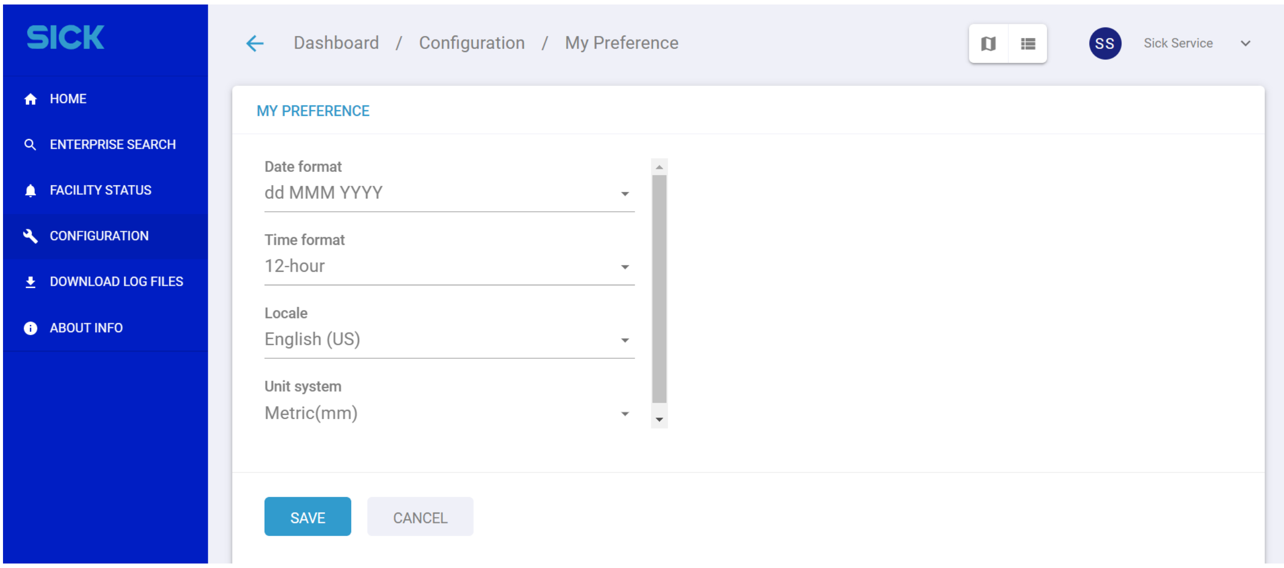


Figure 46: My Preferences Screen

12. Glossary

Code related condition	Evaluation Conditions which are code related monitor conditions for individual barcodes. For example, a code related condition may monitor if a barcode is a 2D barcode type. Because an object may have multiple barcodes, it is possible for a code related condition to have multiple outcomes for any one object. See also object related conditions

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MQTT	Publish-subscribe-based messaging protocol which works on top of the TCP/IP protocol. This protocol is used to retrieve Facility data to EA.
Intelligent Sensor	Intelligent Sensors are devices which collect data and send to a central controller. These sensors include barcode scanners, dimensioners, and cameras, among others. Also referred to as devices
EA	Enterprise Application
auto ID system	All SICK systems which are part of the process of automatic data collection and identification for object processing, for example, camera tunnels and scan systems. Auto ID systems may consist of a network of data collection components, such as cameras, laser scanners, dimensioners, and scales, which work together to provide data on objects being processed through the system.
Device	A system component which collects analytical data which is transmitted to the Facility. Devices include CLVs, ICRs, MSC/SIMs Also referred to as Intelligent Sensor
device group	A logical grouping of devices, for example all CLVs or all ICRs. Devices may be grouped in order to enable collective reporting and analysis of the group.

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Evaluation Condition	Evaluation Conditions are set in the SICK System Controller, which tags objects that meet criteria for a designated condition, for example, no read, or valid read. See also Performance Statistic.
Device [Group] Exclusive	Refers to exclusive reads; when only one device [group] has read a particular condition on an object
ICR	SICK's Image Code Reader, used for finding and detecting barcodes.
MAC	The system Media Access Controller (MAC) is a unique computer ID. It is used by PA to secure your software license to a physical computer.
NORCA	No Read Code Analysis. A quality analysis for all readable and non-readable barcodes and 2D codes. This analysis is provided for the auto ID system's Lector cameras, and configured in the camera firmware. NORCA data is sent to Facility to allow filtering, evaluation and visualization of barcodes.
Object	Objects are items that are scanned by auto ID systems for data points, such as barcodes, weight, dimensions, and more.

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object index	Identifier code for the current object sent from the system controller.
object related condition	Evaluation Conditions which are object related conditions evaluate conditions at the object level. For example, ValidDim or ValidWeight return a single outcome for any given object (e.g. ValidDim= yes or ValidDim= no). See also code related condition.
Performance Statistic	Performance Statistics are filters for pre-defined conditions or devices. Statistics represent a count of how many objects meet the requirements for a certain Evaluation Condition. See also Evaluation Condition.
read cycle	One read cycle is equivalent to the complete processing of an individual object, including the transmission of data from all system devices that recorded data for the object, to the SICK System Controller.
System	See auto ID system
Tunnel	An auto ID system which is configured as a tunnel system, with one or more reading devices mounted to a framework above, below, and to the side of tires, such as a camera tunnel. See also auto ID system.

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web client	The client program which is used to launch EA. The web client opens the EA user interface using the Chrome browser by default.
Longterm Read Rate	Screens which provide a graphical analysis of your Facility's auto ID systems historical performance and operation.
moving average rate	The moving average rate is a succession of averages derived from the entered number of days. It helps smooth out fluctuations in the Primary Statistic read rate, and is an indicator of the current trend.
Current Results	Screens which provide a dynamic view of the real-time performance and heartbeat of an individual system. As objects move through the system and barcodes are read, an entry is added to the object data table on this screen, providing details.
Media Server	Images captured by the image capturing devices (ICR, Lector and IP cams) of the auto ID systems are stored in remote PC/server host where Media server is running.
client computer	The client computer is any PC connected to the EA network. EA's client applications are Rich Internet Applications (RIA). The client applications connect to the EA Application Server to access rich data content and provide a powerful user experience.

Enterprise Application