ServiceNow Service Graph Connector
Integration Guide

SGC v1.4.4 — 2024-09-13

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Contents

Chapter 1. Introduction

Overview

*This documentation describes the **ServiceNow Service Graph Connector for Nozomi Networks (Service Graph Connector)** integration with the Nozomi Networks platform.*

This integration includes the following information:

- What information is being exchanged and the direction of flow
- How to configure the **Service Graph Connector** application in a ServiceNow instance

The integration is a one-way integration from the Nozomi Networks platform to the ServiceNow instance. Data is pulled from the Nozomi Networks connected instance on a schedule that the administrator of the **Service Graph Connector** application sets.

Chapter 2. Requirements

Requirements

*A description of the requirements for the use of the **Service Graph Connector** application.*

ServiceNow requirements

ServiceNow Tokyo, or later.

Supported Nozomi Networks platforms

- *Central Management Console (CMC)* - release 21.7, or higher
- Vantage

Connectivity

Make sure that the ServiceNow instance has connectivity to your Nozomi Networks appliance. The Nozomi Networks appliance will send queried data to the ServiceNow instance so connectivity must be established.

Make sure that there is a path from the Nozomi Networks appliance to your ServiceNow instance.

> **Note:**
> Connectivity through the ServiceNow *Management, Instrumentation, and Discovery (MID)* server does not require additional configuration items in the application. Make sure that the connectivity from all on-premises ServiceNow instances is correctly configured to connect with the Nozomi Networks instance via the *MID* server. For more details, see Configure an MID server (on page 51).

Package dependencies

In the instance that will run the **Service Graph Connector**, you **MUST** install these packages:

- Integration Commons for *Configuration Management Database (CMDB)*, minimum version 2.4.1
- System import Sets, minimum version 1.0.0
- *Information Technology Operations Management (ITOM)* Discovery License
- *ITOM* Licensing
- IntegrationHub *Extract Transform Load (ETL)* (2.1.0)
- *CMDB Configuration Item (CI)* Class Models (1.32.0)
- Data Stream Actions (com.glide.hub.action_type.datastream)

If a plug-in is missing in your ServiceNow instance it **MUST** be installed as it is a dependency that the Service Graph Connector for Nozomi Networks requires. For help with plug-ins, see the ServiceNow documentation.

Note:
If you are using an on-premises (self-hosted) instance of ServiceNow, you will need to contact ServiceNow support to get the necessary credentials to perform the activation of the required plug-ins.

Chapter 3. Configuration

Local user integration in CMC

To connect to Nozomi Networks, you need to configure a local user.

When you integrate a local user in *CMC*, make sure that the user belongs to a group that has these permissions:

- Queries and exports
- Assets
- Alerts, and
- Sensors

> **Note:**
> If you use the Vulnerability Response application, you also need to provide the Vulnerabilities permission.

Add a local user

*The **Users** page lets you add a new user.*

Procedure

1. In the top navigation bar, select ⚙

   Result: The administration page opens.

2. In the **Settings** section, select **Users**.

   Result: The **Users management** page opens.

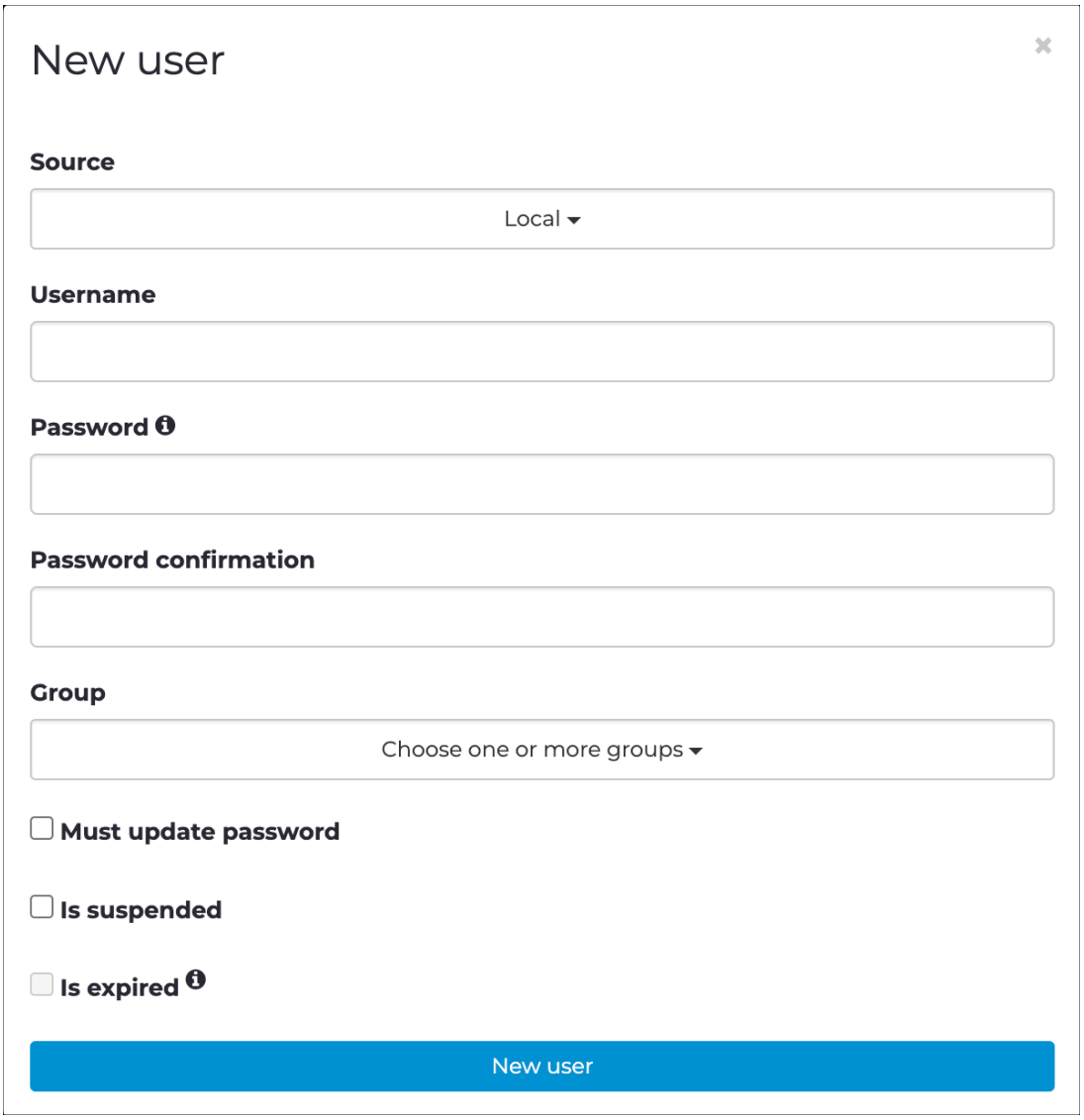
3. In the top right section, select **Users**.

   Result: The **Users** page opens.

4. In the top right section, select **+Add**.

   Result: A dialog shows.

5. From the **Source** dropdown, select **Local**.



6. In the **Username** field, enter a value.
7. In the **Password** field, enter a password.
8. In the **Password confirmation** field, enter the password again.
9. From the **Group** dropdown, select a group for the user.
10. Select **New user**.

Results

The user has been added.

Local user integration in Vantage

To connect to Nozomi Networks, you need to configure a local user.

When you integrate a local user in Vantage, make sure that the user belongs to a group that has these permissions:

- Assets
- Alerts

> **Note:**
> If you use the Vulnerability Response application, you also need to provide the Vulnerabilities permission.

Invite a user

*You can use the **Users** page to send an email invite to someone to add them as a new user in Vantage.*

Procedure

1. In the top navigation bar, select ⚙

   Result: The administration page opens.

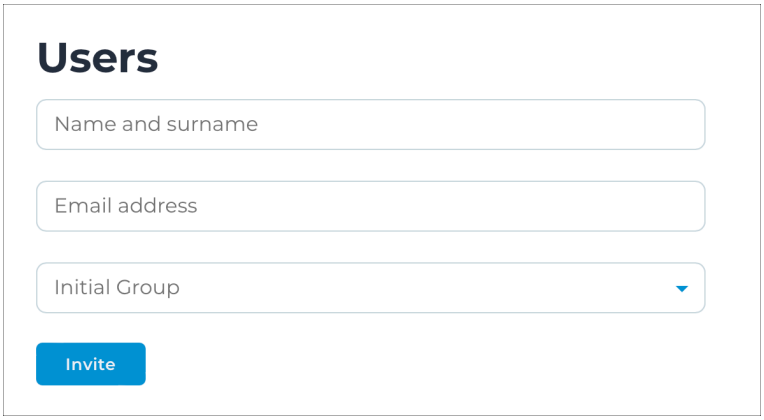
2. In the **Teams** section, select **Users**.

   Result: The **Users** page opens.

3. Select **Invite**.

   Result: Data entry fields show.

4. In the **Name and surname** field, enter the details as necessary.



5. In the **Email address** field, enter an email address for the user.
6. Select the **Initial Group** dropdown, and select an option.
7. Select **Invite**.

Results

The email invitation has been sent.

Service Graph Connector configuration

*A description of the necessary procedures that you need to do to configure the **Service Graph Connector** application.*

To configure the **Service Graph Connector** application, do these procedures:

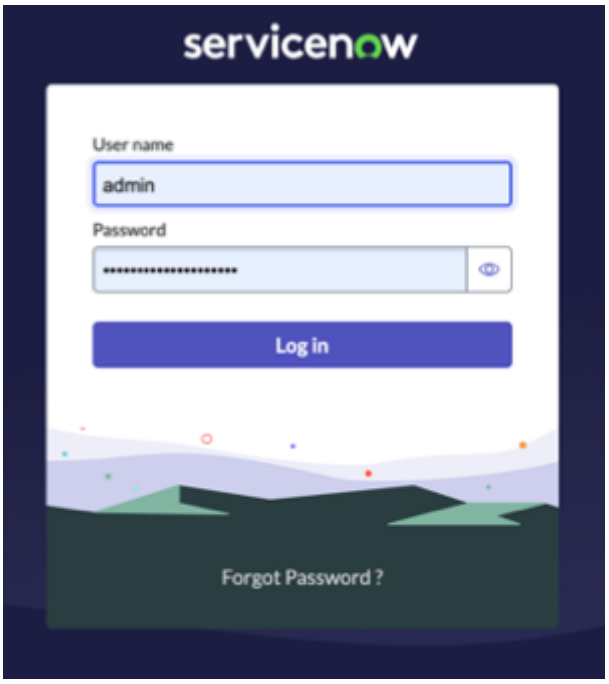
- Install the Service Graph Connector application (on page 20)
- Guided Setup for the Service Graph Connector (on page 22)

Install the Service Graph Connector application

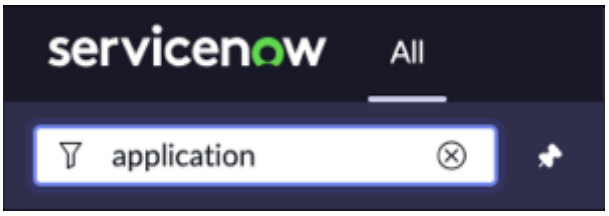
Learn how to install the Service Graph Connector application on your ServiceNow instance, to enable integration with the Nozomi Networks software.

Procedure

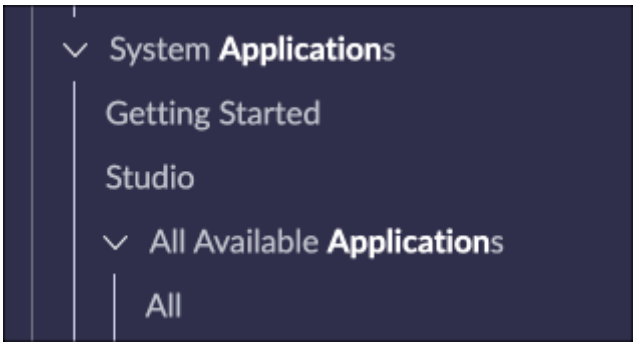
1. Log in to the ServiceNow instance.



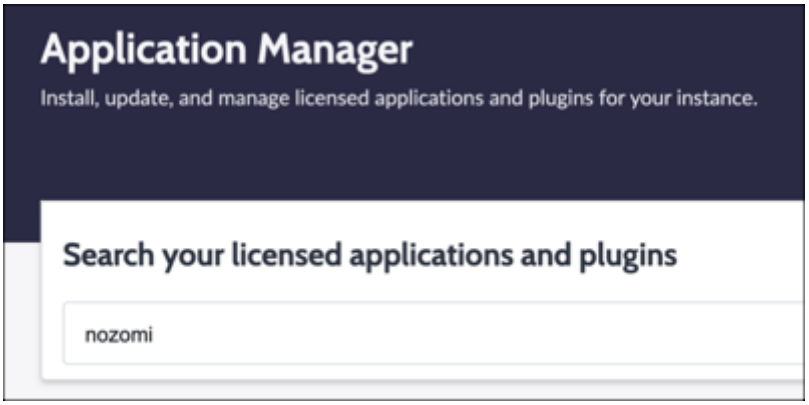
2. In the left sidebar, search for application.



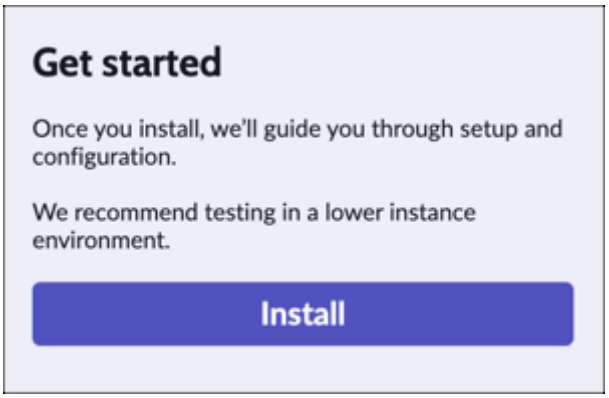
3. In the left sidebar, look for **All Available Applications**.



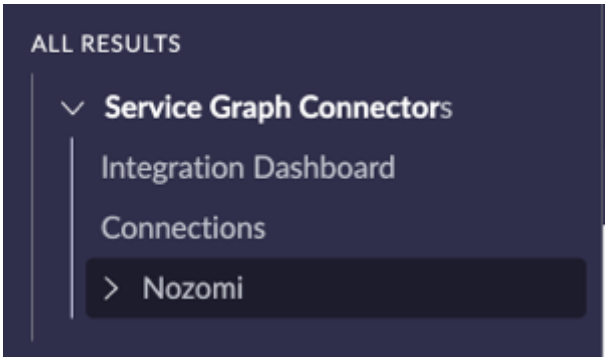
4. Select **All**.
5. In the search field, enter **nozomi** and press enter.



6. Select the application and in the top right section, select **Install**.



7. Wait for the installation procedure to finish.
8. Refresh the instance.
   After installing and refreshing your instance, you should see the **Nozomi** application under **Service Graph Connectors** in the left side bar.

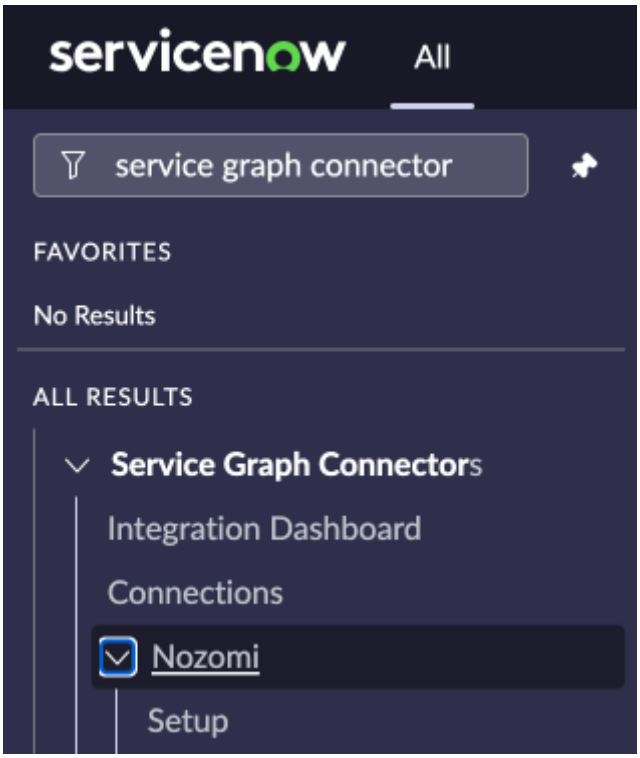


Guided Setup for the Service Graph Connector

*Follow the step-by-step guided setup process to configure the **Service Graph Connector for Nozomi** application within your ServiceNow instance. There are three sections to the guided setup: Table permissions, Incidents, and Assets. This procedure takes you through each of these sections.*

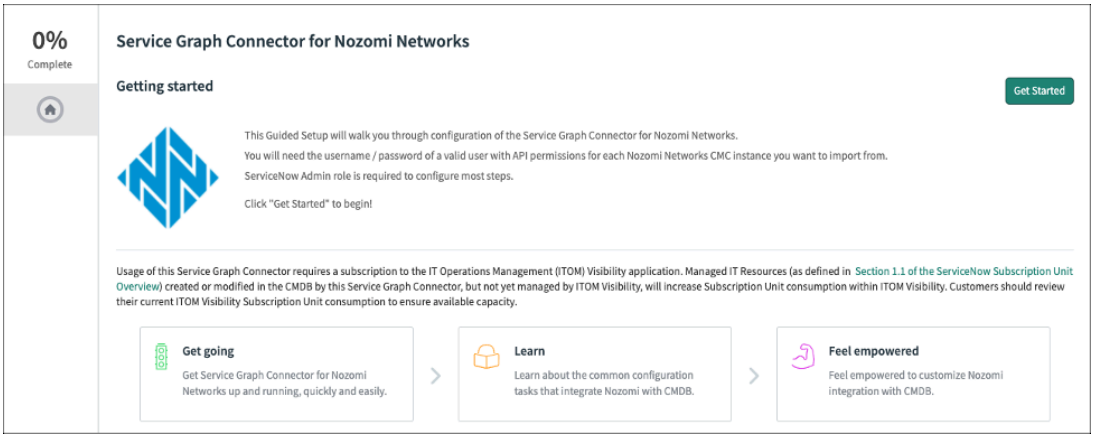
Procedure

1. In the left sidebar, under **Nozomi**, select **Setup**.



This takes you to the Guided Setup page for the **Service Graph Connector**.

2. In the top right section, select **Get Started**.



Configure table permissions

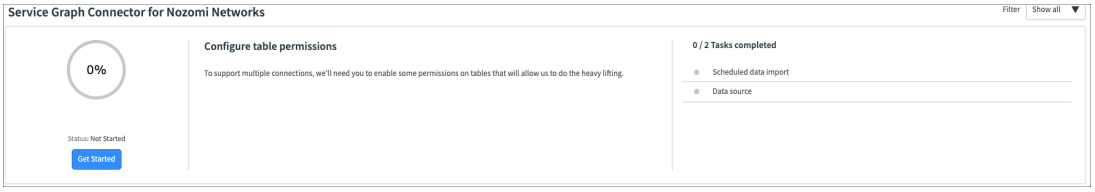
*Learn how to configure table permissions within the **Service Graph Connector for Nozomi** application.*

About this task

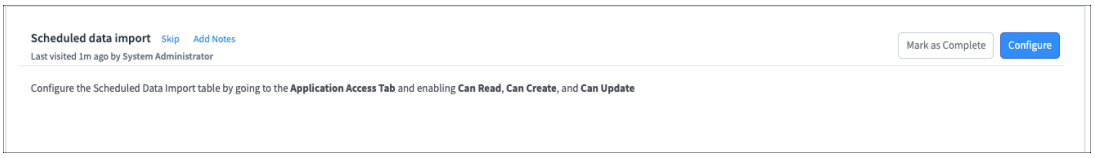
You should have the ServiceNow Admin role to install and configure table permissions.

Procedure

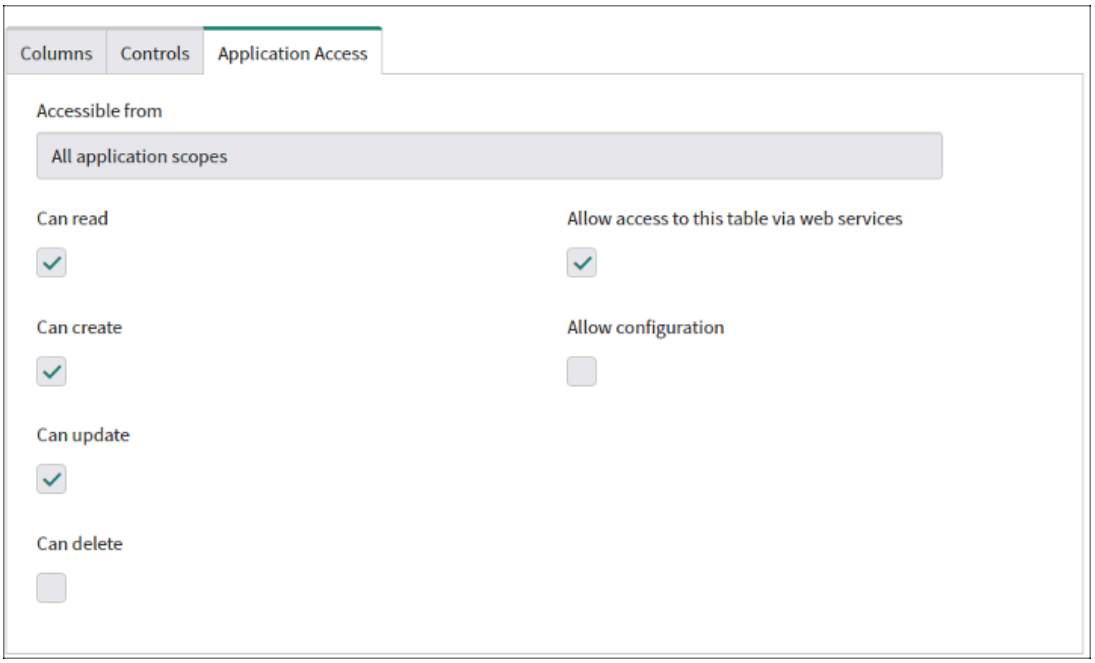
1. In the filter navigator, go to **Service Graph Connector for Nozomi > Setup**
2. Select **Get Started**.
3. Select **Configure table permissions**
4. Select **Get Started**.
5. In the **Configure table permissions** section, select **Scheduled data import**.



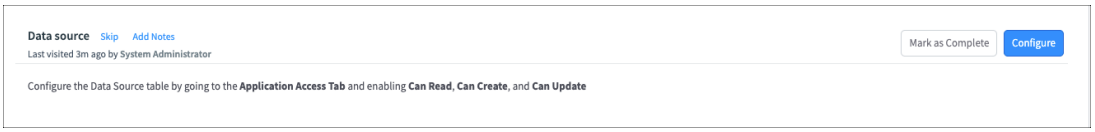
6. In the **Scheduled data import** section, select **Configure**.



7. Select **Application Access**.



8. Select these options:
    - **Can read**
    - **Can create**
    - **Can update**
9. Select **Mark as Complete**.
10. In the **Data source** section, select **Configure**.



11. Do steps 8 (on page 24) and 9 (on page 24) again.

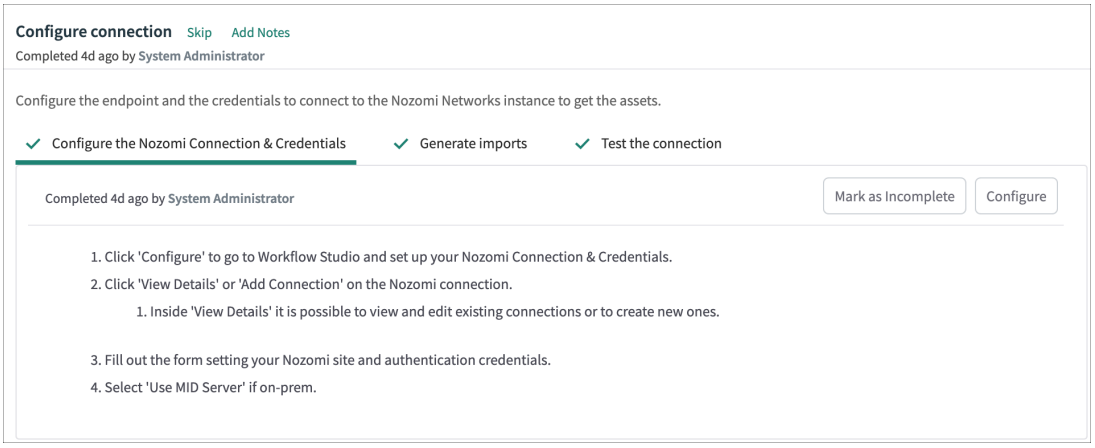
Configure assets import

*Discover the detailed process of configuring asset imports within the **Service Graph Connector** application. This includes setting up connections, validating sensors, configuring schedules, and executing data imports, to ensure seamless integration and data synchronization for efficient network asset management.*

Procedure

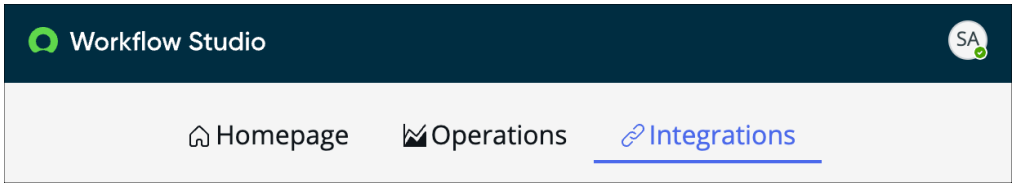
1. In the **Configure Assets Import** section, select **Get Started**.

2. Select **Configure connection**
3. In **Configure The Nozomi Connection & Credentials**, select **Configure**.

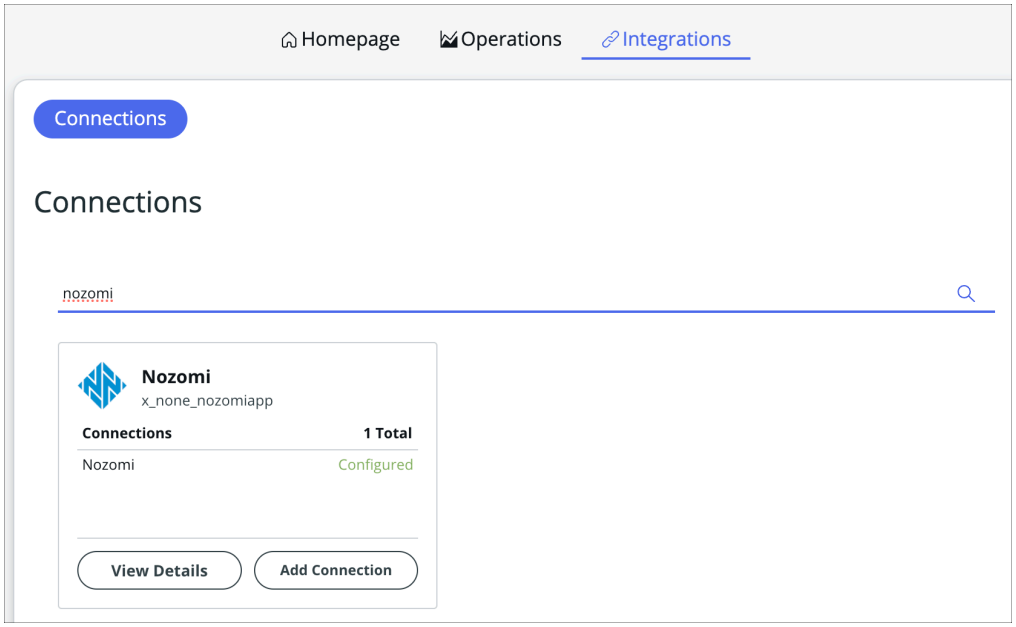


Result: A new tab opens.

4. If your ServiceNow instance have been updated to Washington, do these extra steps:
    a. When **Workflow studio** opens in a new page, select **Integrations**.

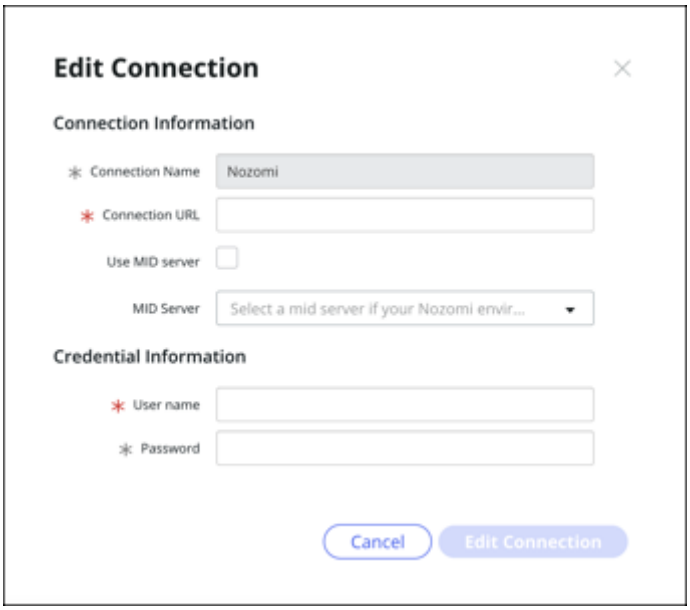


    b. In the search field, search for **Nozomi**.



5. Select **Add Connection**.

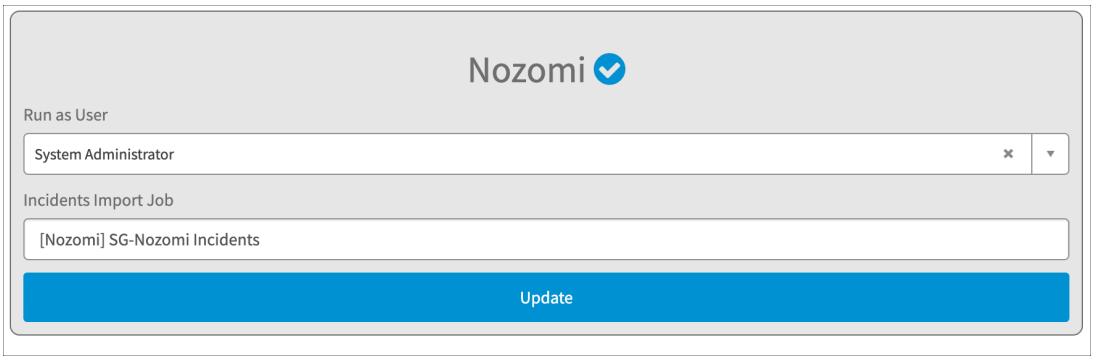
6. Enter your site information.



7. **Optional:** If necessary, select **Use MID server**.
   CMC: Use the username and password for the local user account
   Vantage: Use an *application programming interface (API)* Key Name and *API* Key Token for **User name** and **Password**, respectively. For more details on how to generate an *API* key, see the Vantage documentation.
8. If you have other Nozomi Networks instances that you would like to connect to, add additional connections.
9. Go back to the **Configure connections** section in the guided setup, and select **Mark as Complete**.
10. In the **Configure connections** section, select **Generate imports**.
11. Select **Configure**.

12. On the **Custom UI** page, review each connection that you just created. If necessary, change the details for names.

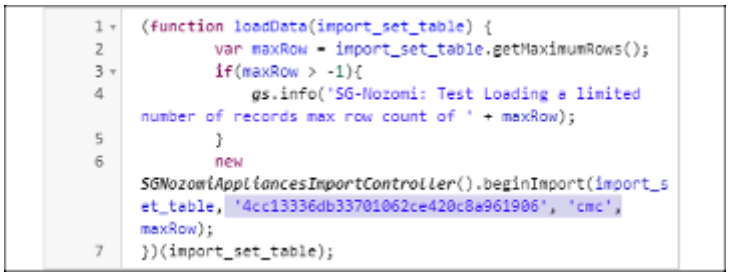
13. For each connection, select **Generate**.



14. If the connection is successful, a blue checkmark shows next to the connection name.

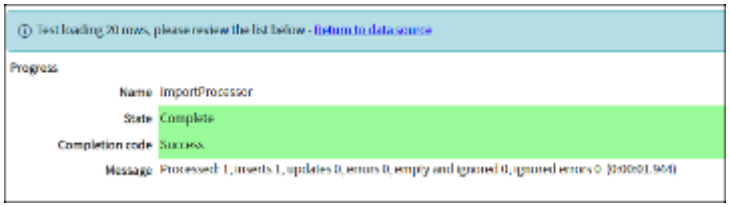
    You can update these values to make changes in the future.
15. Select **Mark as Complete**.
16. Go back to the guided setup.
17. Select **Test the connection**.
18. Select **Configure**.

    For each connection there should be two different data sources. One for **Appliances** and one for **Assets**.
19. Open each data source and review the data loader script.



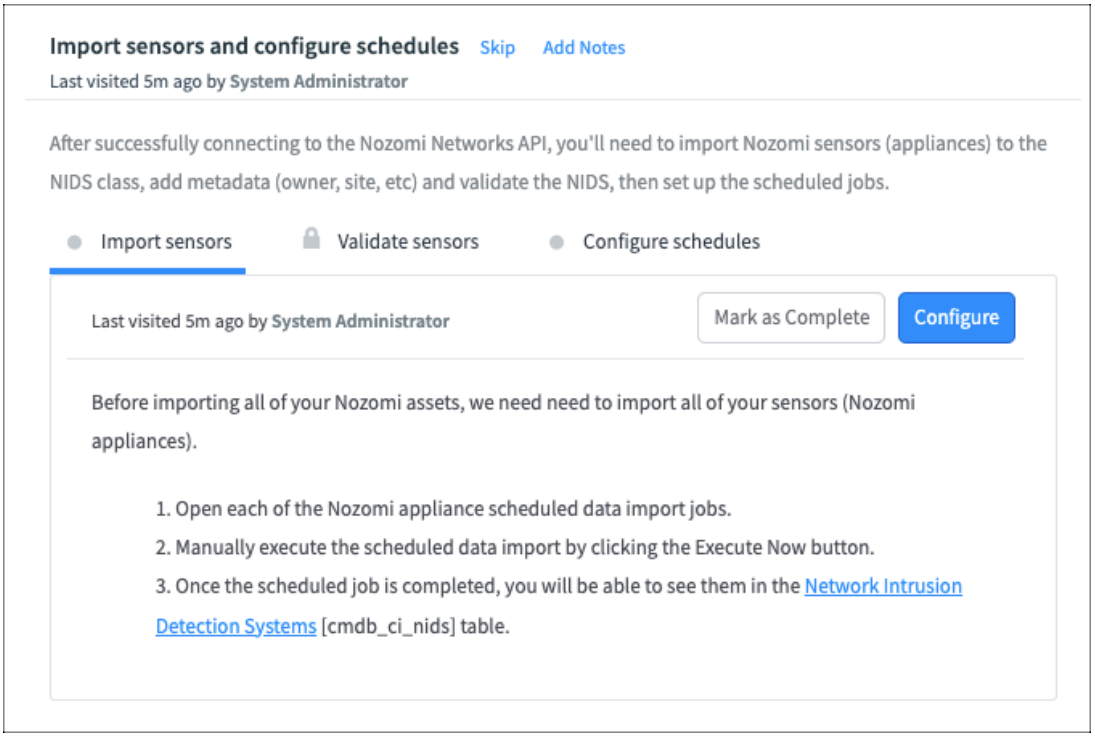
```
(function loadData(import_set_table) {
        var maxRow = import_set_table.getMaximumRows();
        if(maxRow > -1){
            gs.info('SG-Nozomi: Test Loading a limited number of records max row count of ' + maxRow);
        }
        new SGNozomiAppliancesImportController().beginImport(import_set_table, '4cc13336db33701062ce420c8a961906', 'cmc', maxRow);
})(import_set_table);
```

    The connection alias `sys_id` and connection name should be listed as parameters.
20. To test the connection, in the related links, select **test load 20**.
21. You should see a successful connection like shown below. If you get a connection error, review your connection and credentials from previous steps.

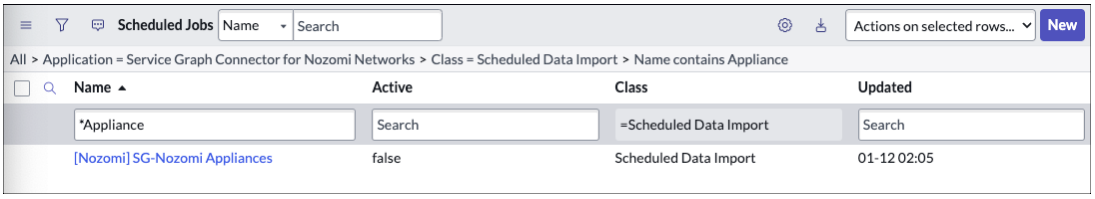


22. Go back to the guided setup, select **Mark as Complete**.

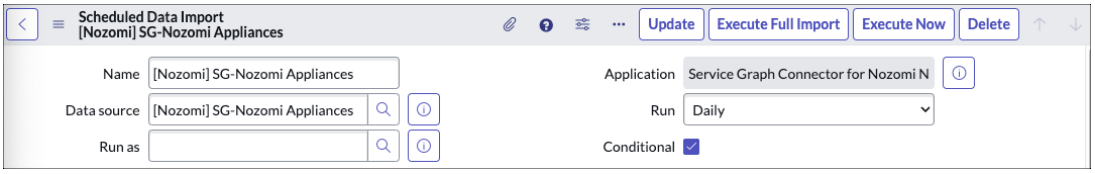
23. Select **Import sensors and configure schedules**.
24. Select **Import sensors**.



25. Select **Configure**.
26. For each connection there should be one scheduled data import related to Appliances, select it.



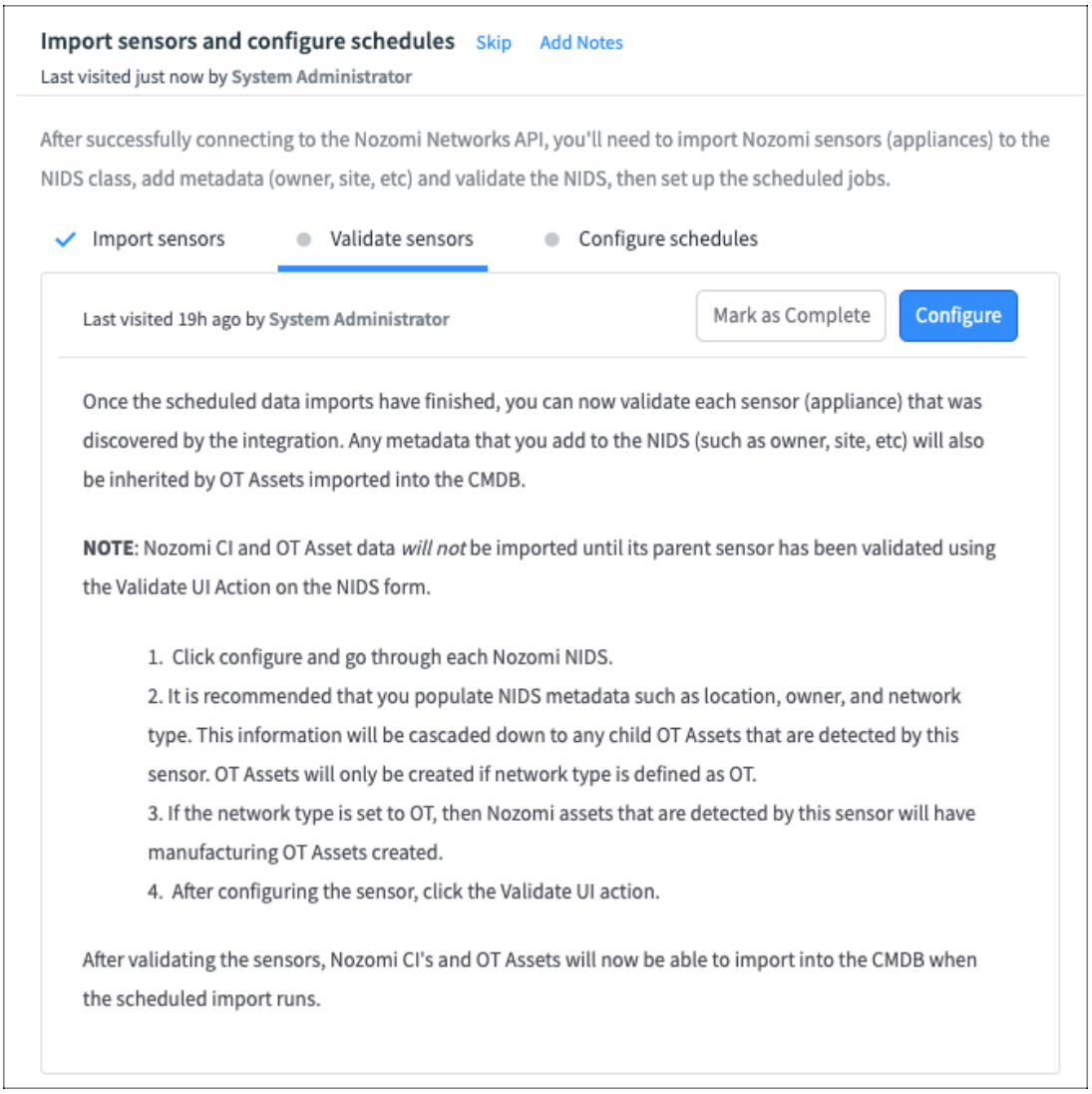
27. To manually execute the scheduled data import, select **Execute Now**.



> **Note:**
> You can also select **Execute Full Import** which will force a full import of Nozomi Networks data, regardless of the last import execution time.

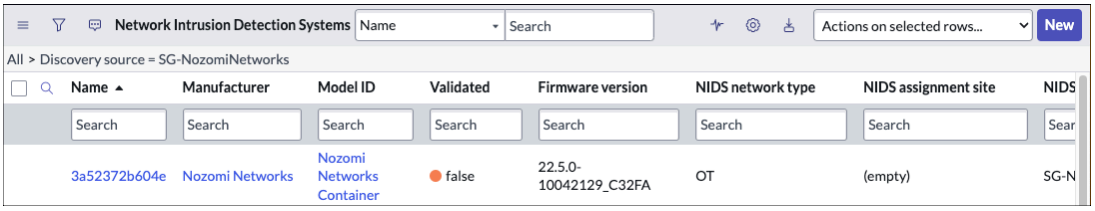
28. Go back to the guided setup and select **Mark as Complete**.

29. Select **Validate sensors**.



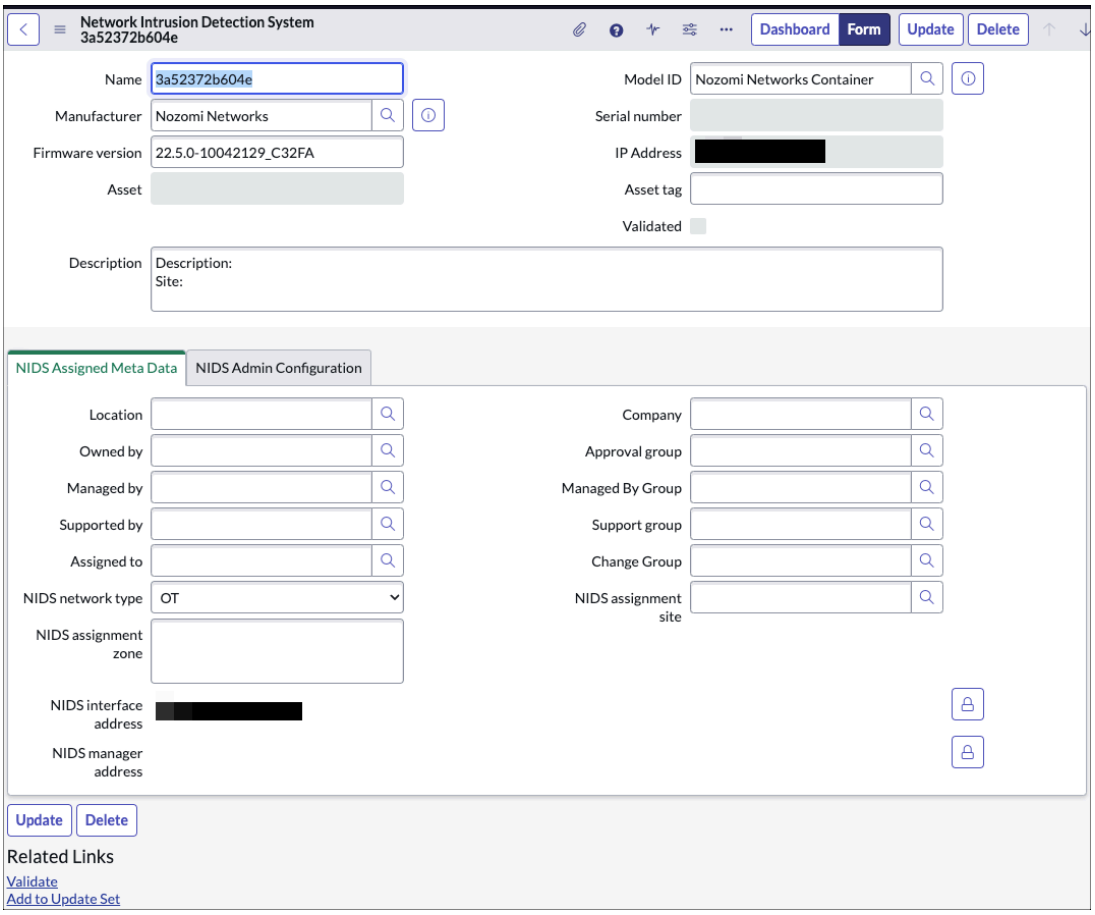
30. Select **Configure**.

31. It will open the *Network Intrusion Detection Systems (NIDS)* showing all the appliances the integration has discovered.



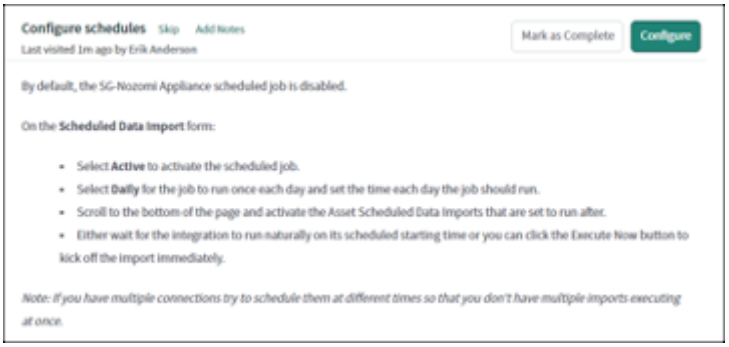
Here is where you can also configure the assignment site and all metadata.

32. Once you have completed the configuration, select **Validate** on the related link at the bottom of the form.



33. After all the *NIDS* have been validated, select **Mark as Complete**.

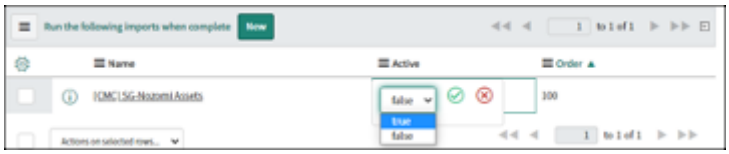
34. Select **Configure schedules** and select **Configure**.



35. Open each appliance import scheduled job.
36. The run as user should be set based on what you selected during the **Generate imports** step.

37. Set the Active checkbox to true and adjust the runtime frequency.

38. Scroll to the bottom of the form and confirm that the Assets import job is listed child job. Set this job to active as well.



39. Once you have completed configuring all the jobs, you can either wait for the scheduled job to run, or you can select **Execute Now** to manually execute the job on the **Appliance Scheduled Data Import Job**.

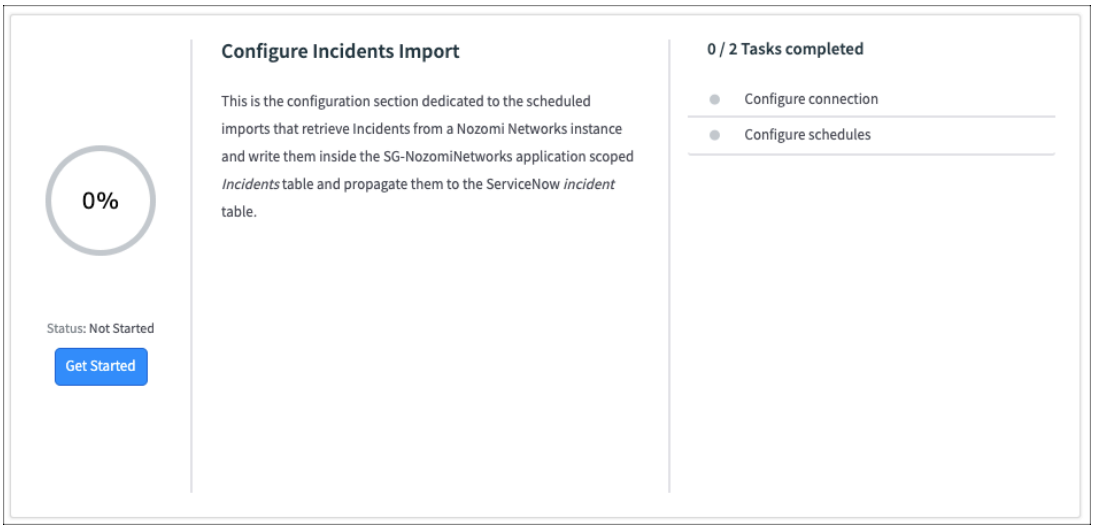
> **Note:**
> You can also select **Execute Full Import**, which will force a full import of Nozomi Networks data, regardless of the last import execution time.

Configure incidents import

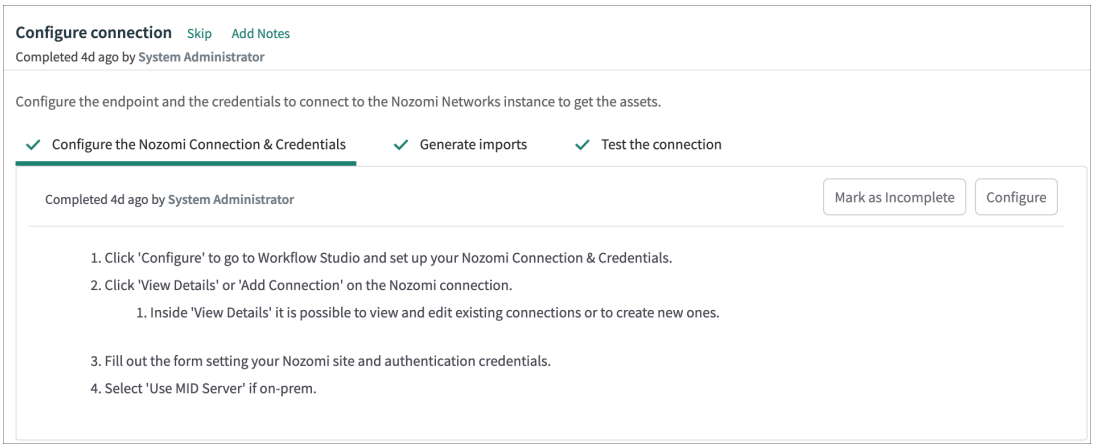
*Explore the step-by-step process of configuring incident imports within the **Service Graph Connector for Nozomi** application. This procedure covers connection setup, validation, schedule configuration, and manual execution, to ensure seamless integration and management of incident data for enhanced operational efficiency.*

Procedure

1. In the **Configure Incidents Import**, select **Get Started**.

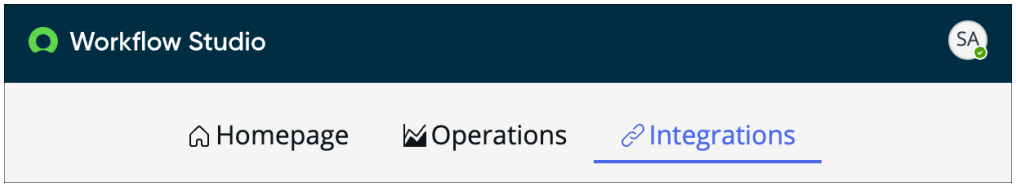


2. Select **Configure connection**.
3. In **Configure The Nozomi Connection & Credentials**, select **Configure**.

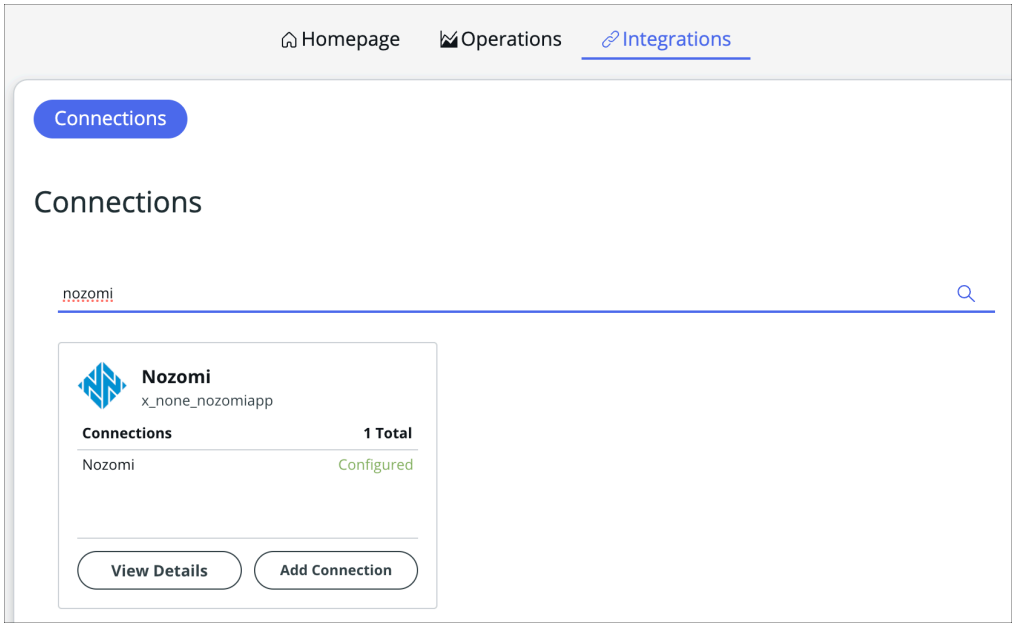


Result: A new tab opens.

4. If your ServiceNow instance have been updated to Washington, do these extra steps:
    a. When **Workflow studio** opens in a new page, select **Integrations**.

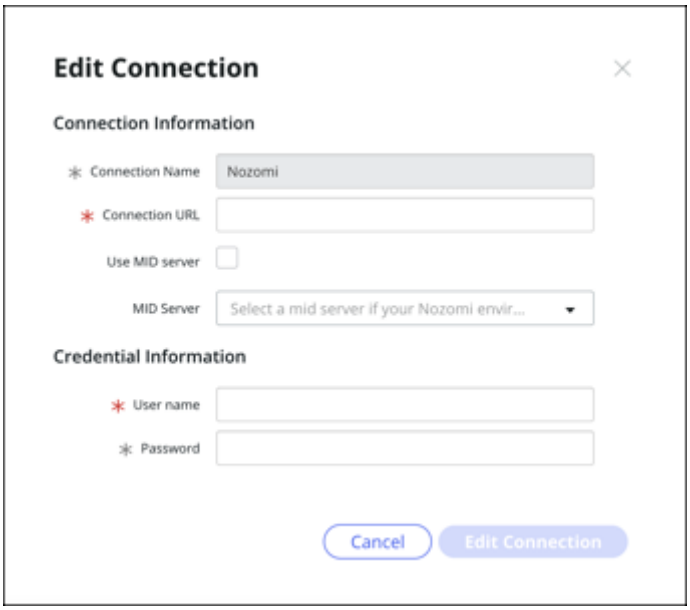


    b. In the search field, search for **Nozomi**.

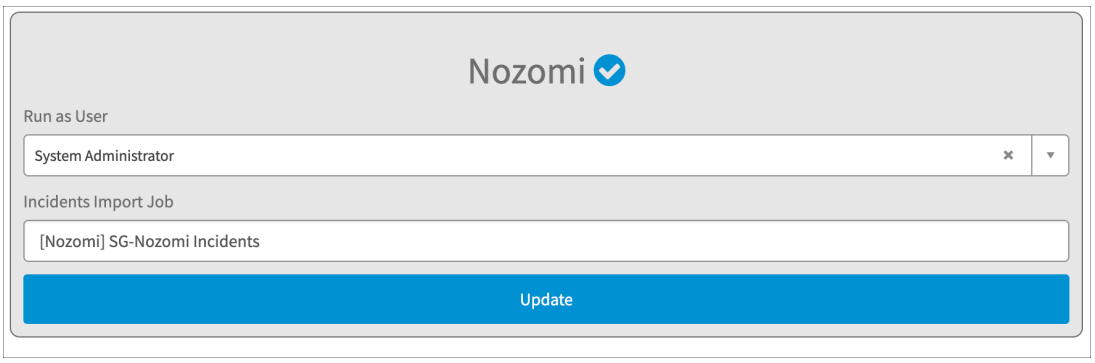


5. Select **Add Connection**.

6. Enter your site information.



7. Select **Configure**.
8. On the **Custom UI** page, review each connection that you just created. If necessary, change the details for names.
9. For each connection, select **Generate**.
10. If the connection is successful, a blue checkmark shows next to the connection name.



You can update these values to make changes in the future.

11. Select **Mark as Complete**.
12. Go back to the guided setup.
13. Select **Test the connection**.
14. Select **Configure**.

For each connection there should be an Incidents data source.

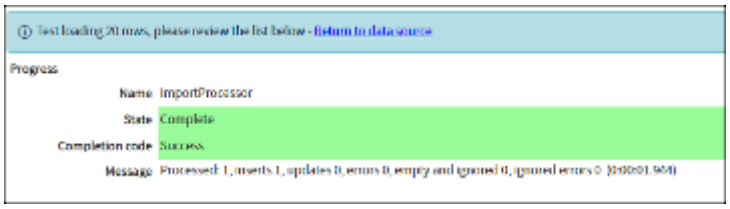
15. Open each data source and review the data loader script.

```
(function loadData(import_set_table) {
        var maxRow = import_set_table.getMaximumRows();
        if(maxRow > -1){
            gs.info('SG-Nozomi: Test Loading a limited number of records max row count of ' + maxRow);
        }
        new SGNozomiAppliancesImportController().beginImport(import_set_table, '4cc13336db33701062ce420c8a961906', 'cmc', maxRow);
})(import_set_table);
```

The connection alias `sys_id` and connection name should be listed as parameters.

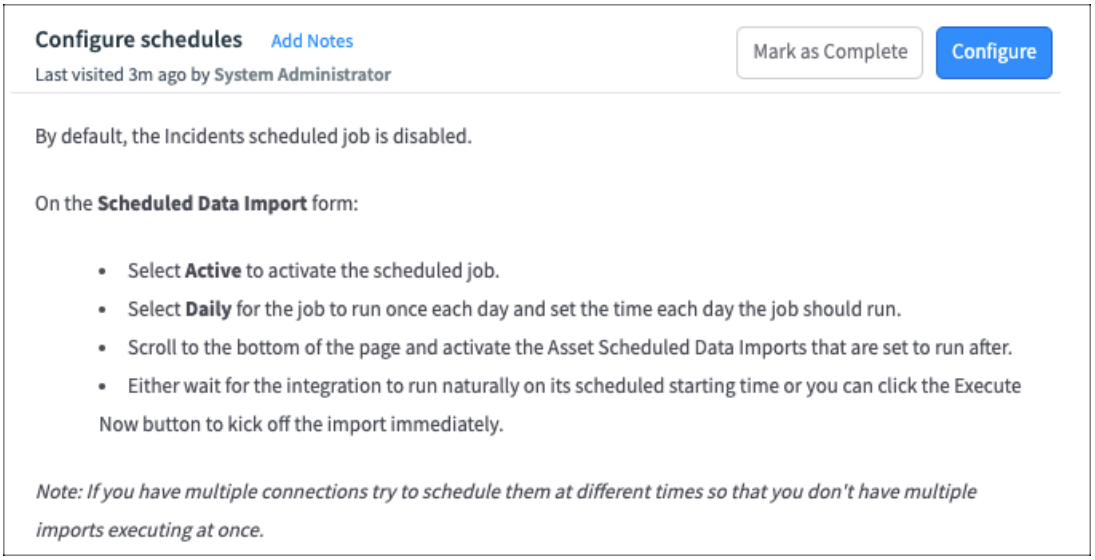
16. To test the connection, in the related links, select **test load 20**.

17. You should see a successful connection like shown below. If you get a connection error, review your connection and credentials from previous steps.



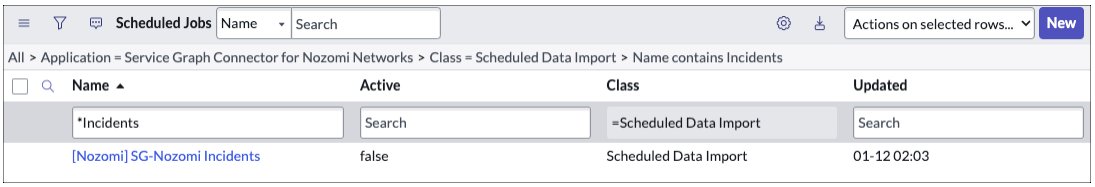
18. Go back to the guided setup, select **Mark as Complete**.

19. Select **Configure schedules**.



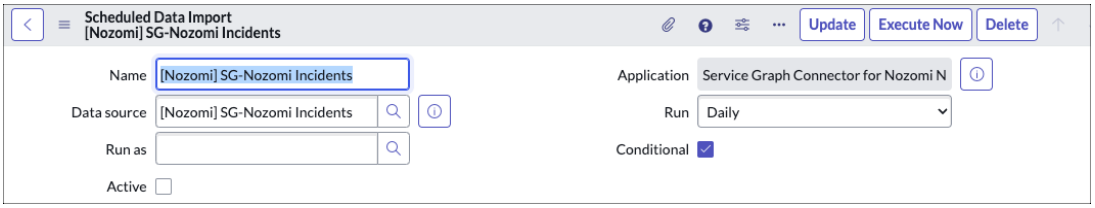
20. Select **Configure**.

21. Open each incident import scheduled job.



22. The run as user should be set based on what you selected during the **Generate imports** step.

23. Select the **Active** checkbox, and adjust the runtime frequency.



24. Once you have completed configuring all the jobs, you can either wait for the scheduled job to run, or you can select **Execute Now** to manually execute the job on the **Incidents Scheduled Data Import Job**.

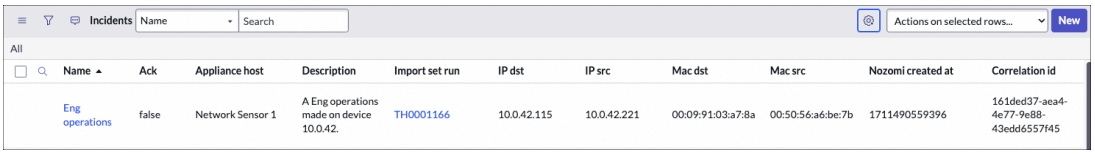
Validate data flow

You now need to validate that the data is flowing from the configured Nozomi Networks instance to the ServiceNow instance. To do this, you need to look at the applicable tables in ServiceNow.

Procedure

1. On the left side bar, in the main **ServiceNow** search box, search for the **Incidents** table.

2. View the **Nozomi created at** column.



This indicates that the **Service Graph Connector** application is retrieving incident information that Nozomi Networks has generated.

3. On the left side bar, in the main ServiceNow search box, search for the Nozomi Networks hardware.

When data is visible in this table, it indicates that the **Service Graph Connector** application is retrieving asset information from Nozomi Networks.

You can open the asset to show the related *NIDS*.

Mapping to custom CMDB tables in ServiceNow

A description of how to customize Configuration Management Database (CMDB) tables in ServiceNow with your own data model.

If you have created bespoke *operational technology (OT)* tables to represent your *OT* assets, they might not match the Nozomi Networks model. If this is the case, you will need to map this into your framework.

The recommended method for mapping newly integrated Nozomi Networks data into custom *CMDB* tables is to use the IntegrationHub *ETL* functionality. This lets you:

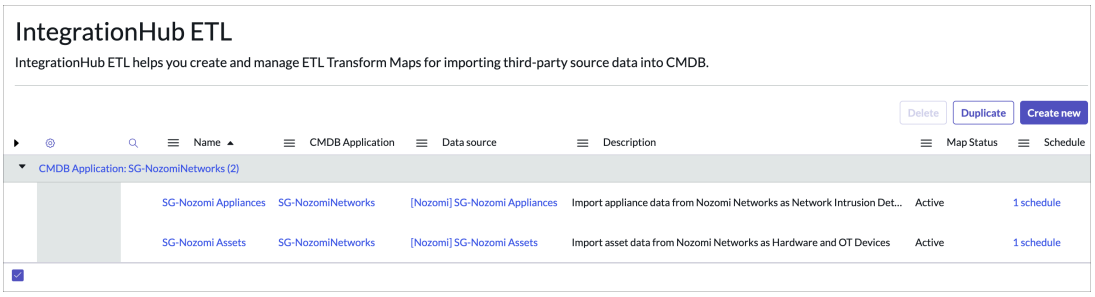
- Map the fields of the Nozomi Networks source tables with your custom tables
- Conditionally Import data into your custom tables
- Transform imported data, if required

Map Nozomi Networks data with IntegrationHub ETL

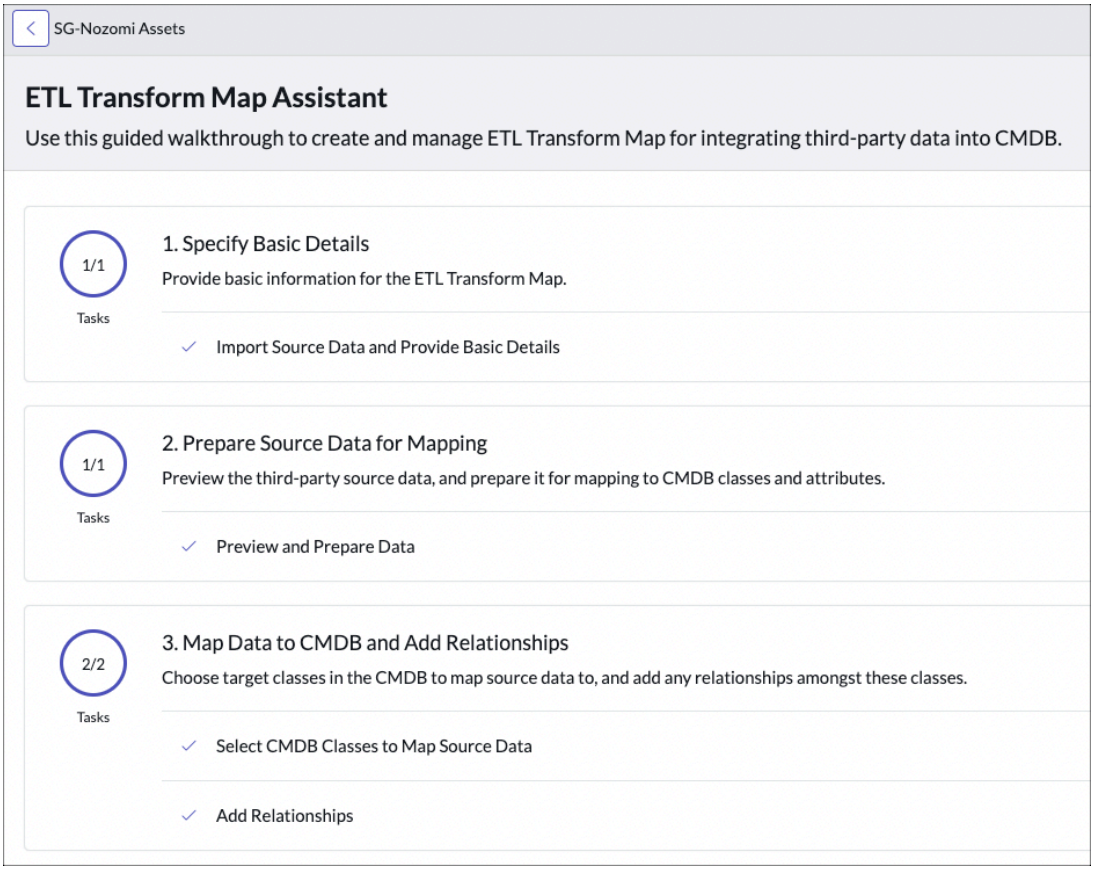
*Discover how to use IntegrationHub ETL to map data from the **Service Graph Connector** application. to custom tables in ServiceNow.*

Procedure

1. Search for **IntegrationHub ETL** in the navigation bar, to make sure that it is installed in your ServiceNow instance.



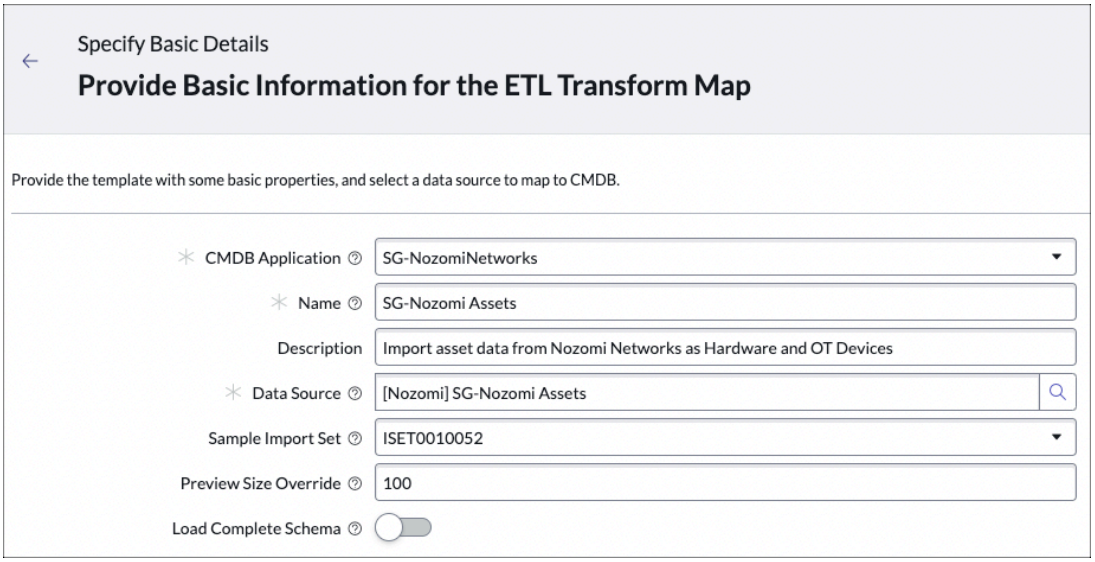
2. To start the configuration procedure to import data from the Nozomi Networks Service Graph connector to your custom tables, select **SG-Nozomi Assets**.



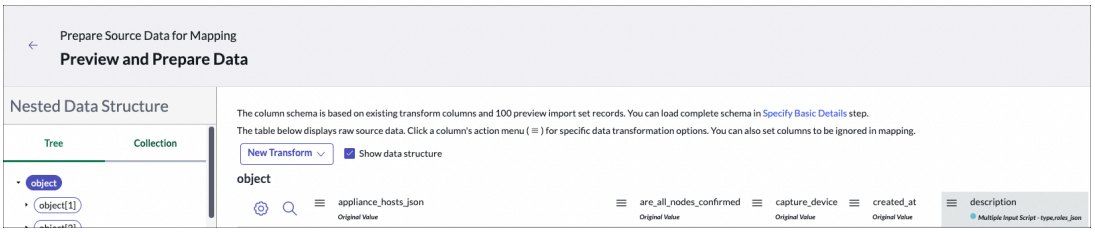
3. To specify a sample import set to be used to edit the ETL Transform Map, select **Import Source Data and Provide Basic Details**.

> **Note:**
> This requires the application to be run at least once.

4. To go back to the previous menu, select the back arrow.

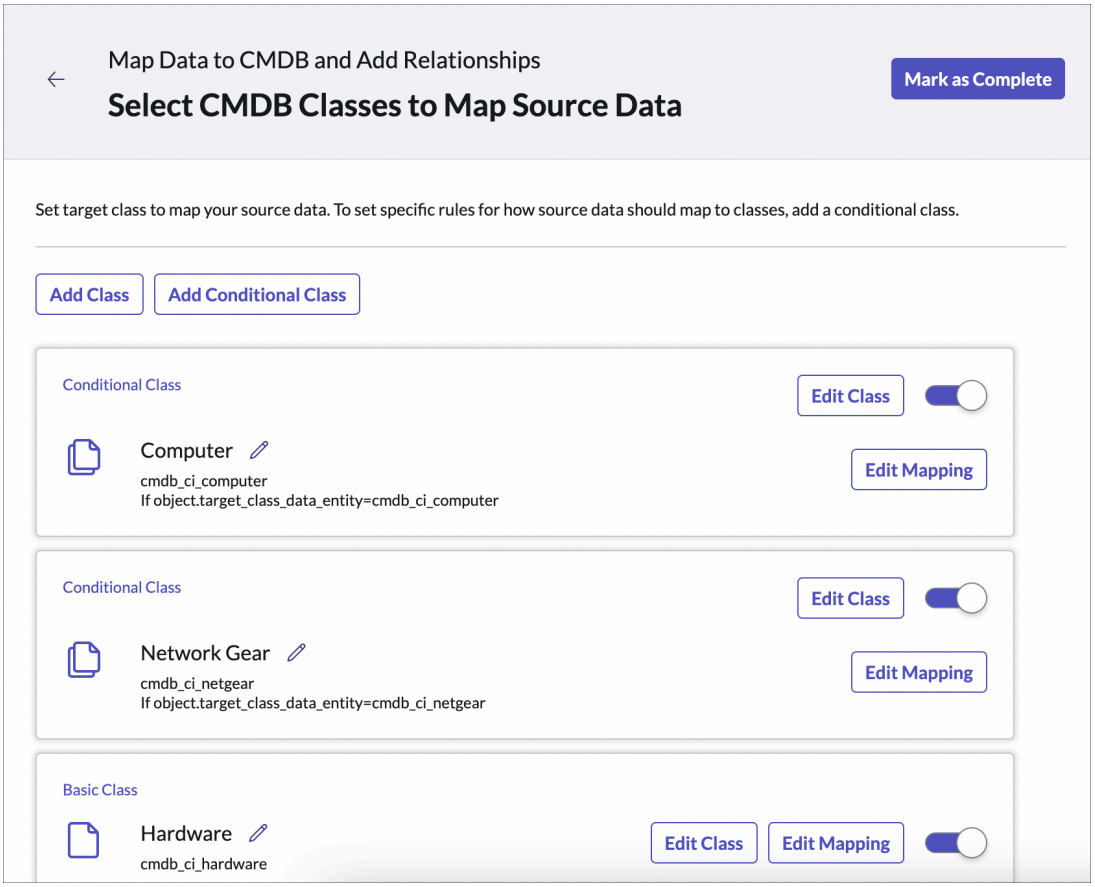


5. Select **Preview and Prepare Data**.



Here you can see existing transformations, and edit or create new ones.

6. To go back to the previous menu, select the back arrow.
7. Select **CMDB Classes to Map Source Data**.



Here you can see existing mapping from staging tables data to your custom *CMDB* tables. It is possible to modify:

- Existing mapping
- Create mapping to new classes
- Create mapping to new conditional classes

Map Nozomi Networks data with IntegrationHub ETL - example

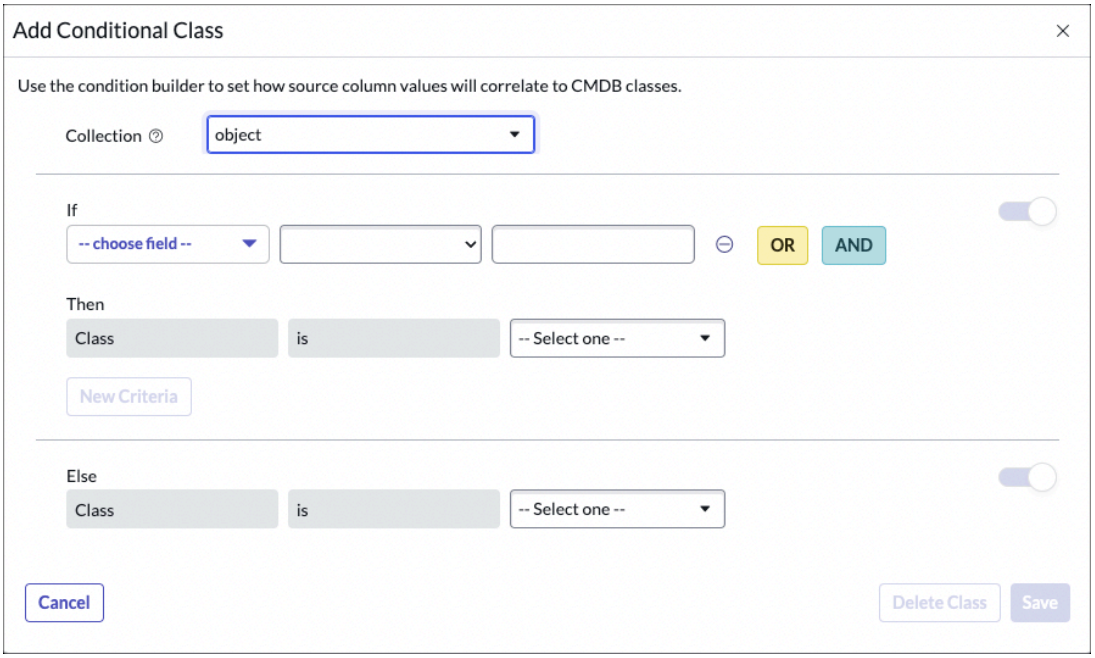
*An example of Nozomi Networks discovered Voice over Internet Protocol (VoIP) phones. These devices will be categorized in the **SG-Nozomi Assets** import set table as `voip_phone` under the `type` field. We will then map these devices into the ServiceNow Internet of Things (IoT) Device Configuration Management Database (CMDB) table.*

About this task

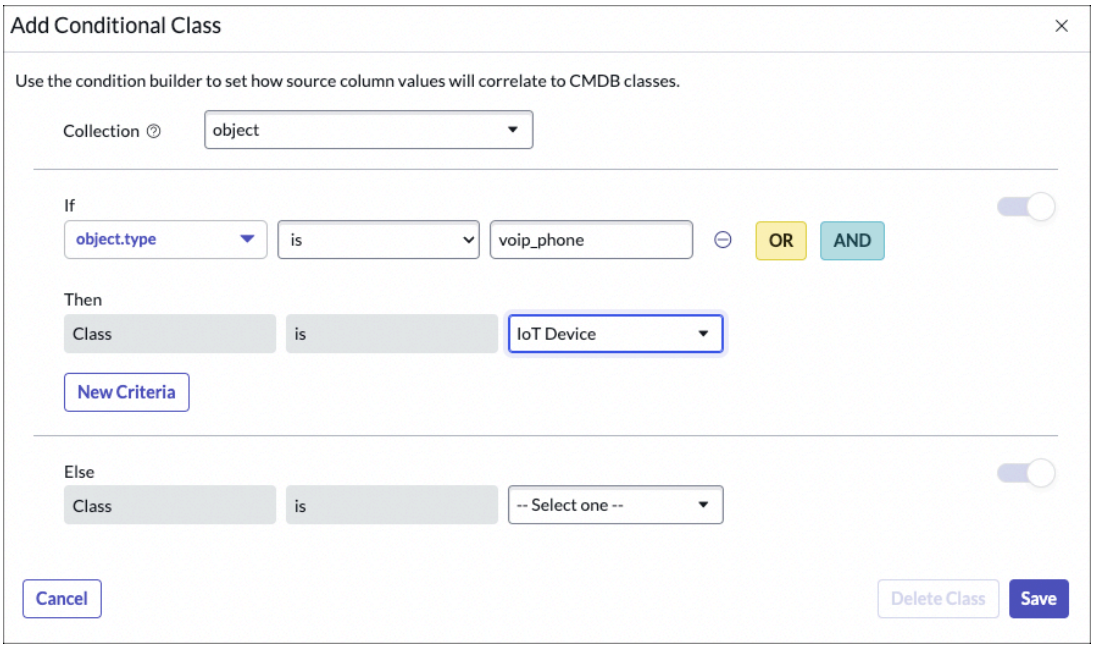
You can add whatever conditions are required to correctly map the Nozomi Computers data to your own custom ServiceNow *CMDB* tables on this screen.

Procedure

1. Follow the Map Nozomi Networks data with IntegrationHub ETL (on page 40) procedure up to and including step 7 (on page 42)
2. Select **Add Conditional Class**.



3. Add conditions as necessary to correctly map the SG-Nozomi Assets data to your own custom ServiceNow *CMDB*.



4. When you have finished, select **Save**.

   The new Conditional Class table shows as **IoT Device 1**.

Now, when the **Service Graph Connector** does a scheduled run, the data from the **SG-Nozomi Assets** table will be mapped into the ServiceNow *CMDB* **IoT Device** table.

System properties configuration

A description of how you can adjust additional settings through the system properties.

You can adjust additional settings through the system properties module in **Service Graph Connector for Nozomi > Admin > System Properties**. This is where you can make various adjustments to the Service Graph Connector import behaviors.

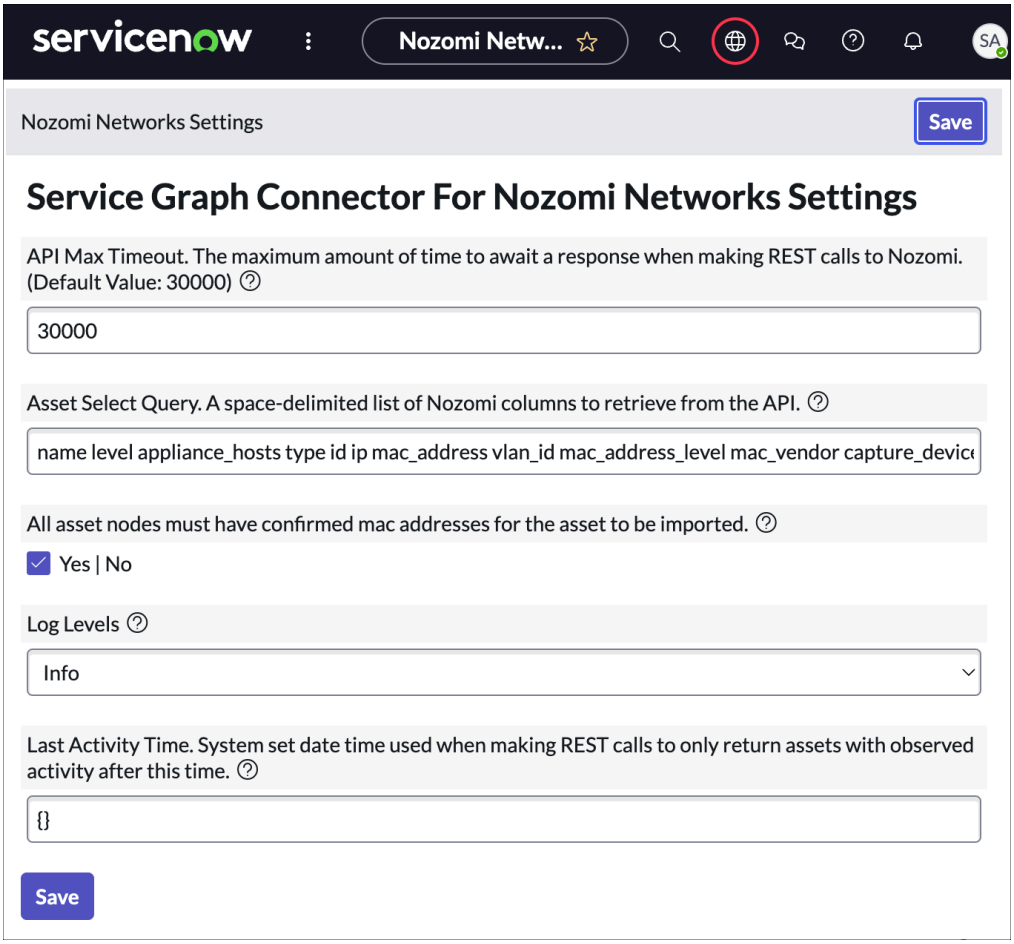


Figure 1. System properties

Add a new column to asset select query

When you add a new column to the asset select query, it is necessary to do some additional steps in order to have the new column available in the system.

About this task

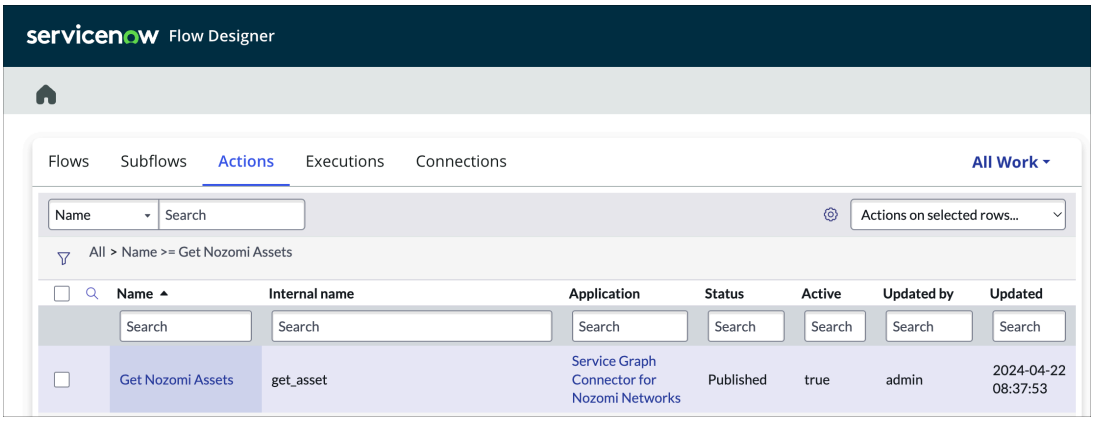
Once a new column, such as **column_foo** has been added, you need to augment the data stream action that imports data into the staging table.

Procedure

1. To open Flow Designer, go to **All > Flow Designer**.

   Result: A new page opens.

2. Select **Actions**.
3. In the **Search** field, search for the term **Get Nozomi Assets**.
4. Open the action and enter the **Script Parser step**.



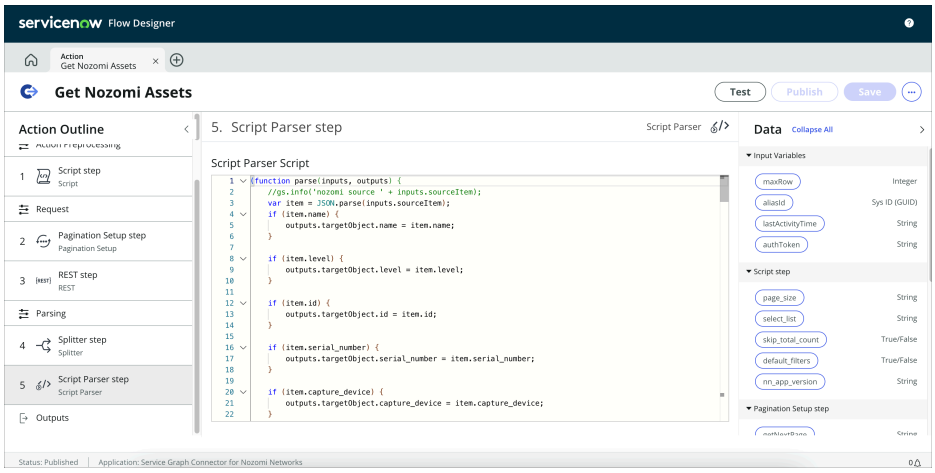


Figure 2. Script Parser step

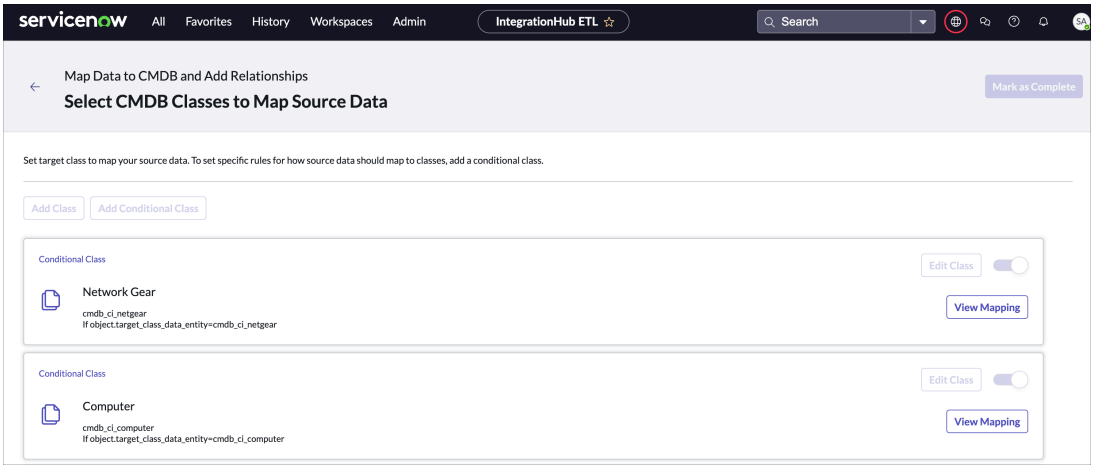
This is where the script that parses the response live.

5. Immediately after `outputs.targetObject.custom_fields = tmpArray;` around line 180, add this code:

```
if (item.column_foo) {
    outputs.targetObject.column_foo = item.column_foo;
}
```

> **Note:**
> Where `column_foo` is the name of the new column. For each new column you will need to add similar code to that shown above.

6. To map our new data field into ServiceNow *CMDB* tables, open the **IntegrationHub ETL**.

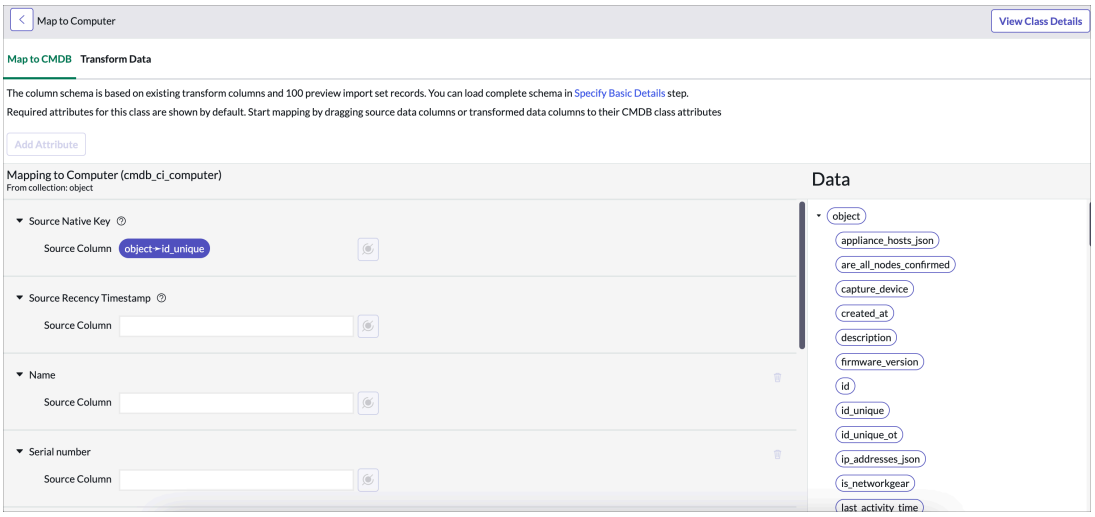


Depending on where you want to map the new data, you might need to change existing classes, such as `Computer`, or add new ones.

7. For example, to add new data to `Computer`, in the right of the **Computer** section, select **View Mapping**.

   Result: A new page opens.

8. On the left, available attributes for the selected class show. On the right, all the data fields available for the specific data source show.



> **Note:**
> Some attributes might be missing. You can select **Add attribute** to add them.

9. For more details on **IntegrationHub ETL** and its possible customizations, see the ServiceNow documentation.

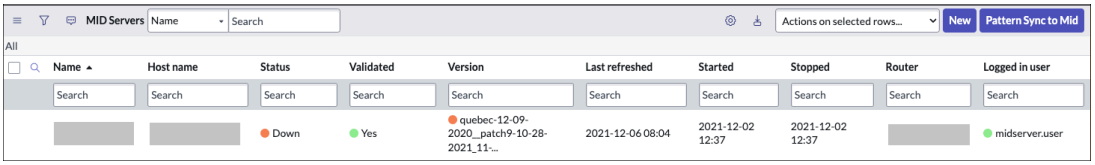
Chapter 4. Additional configuration

Configure an MID server

*To use a Management, Instrumentation, and Discovery (MID) server with the **Service Graph Connector** application, you will need to configure your ServiceNow instance.*

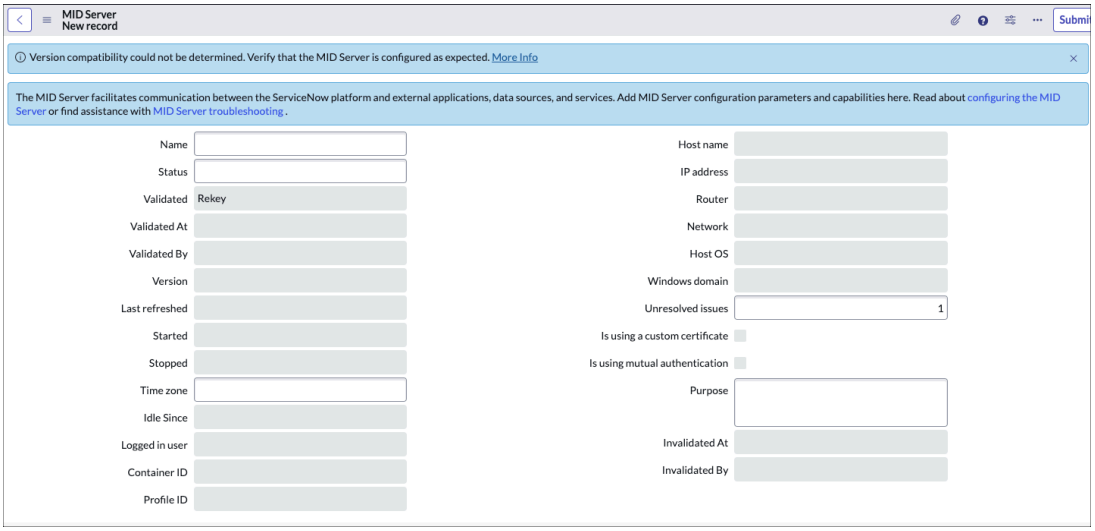
Procedure

1. Go to the filter navigator in the upper left.
2. Search for **MID Server > Servers**.



A list of existing *MID* Servers and their status shows.

3. Select **New**.



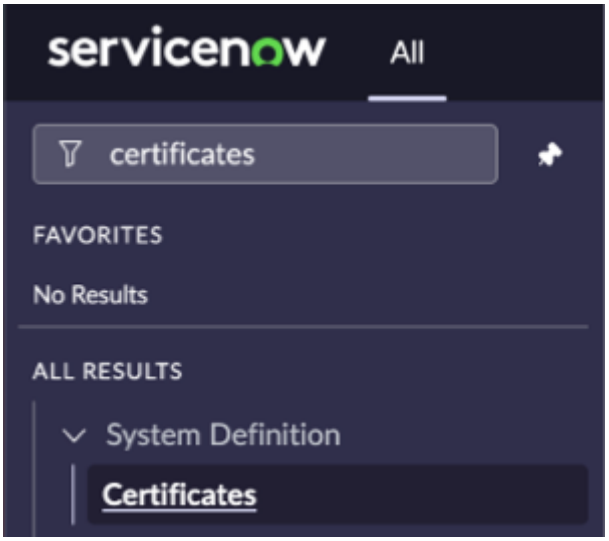
4. Enter the necessary information in the fields as necessary.
5. Select **Submit**.

Add a trusted certificate

If Nozomi Networks system has a trusted certificate, you have to import it.

Procedure

1. In the left sidebar, enter **certificates** and press enter.



2. Under **System Definition**, select **Certificates**.
3. In the top right corner, select **New**.

   Result: A dialog shows.

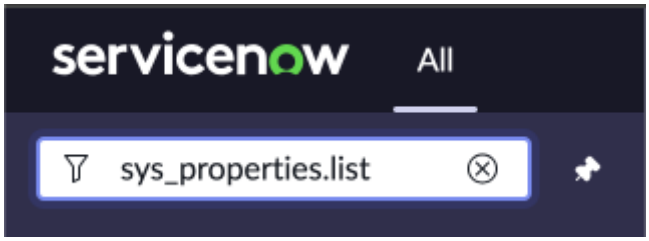
4. Enter the details as necessary.
5. Select **Submit**.

Add a non-trusted certificate

If Nozomi Networks system has a non-trusted certificate, you will need to add two system properties before you can add a certificate.

Procedure

1. Under **System Definition**, select **All**
2. In the left sidebar, enter `sys_properties.list` and press enter.



   Result: A list shows.

3. In the top left section, in the search field, enter `com.glide.communications.httpclient.verify_hostname`
4. Press enter.
5. If the file does not exist, create it.
   a. Select **Create**.
   b. Enter the details as necessary.
   c. Select **Submit**.
6. In the **Value** column, set the value to `false`
7. In the top left section, in the search field, enter `com.glide.communications.httpclient.verify_revoked_certificate`
8. Press enter.
9. If the file does not exist, create it.
   a. Select **Create**.
   b. Enter the details as necessary.
   c. Select **Submit**.
10. In the **Value** column, set the value to `false`
11. **Optional:** In the top left section, in the search field, enter `com.glide.communications.trustmanager_trust_all`
12. Press enter.
13. If the file does not exist, create it.
   a. Select **Create**.
   b. Enter the details as necessary.
   c. Select **Submit**.

14. In the **Value** column, set the value to `true`
15. Do the Add a trusted certificate (on page 52) procedure.

Chapter 5. Frequently Asked Questions

How to change which Nozomi assets get targeted to which ServiceNow classes?

A description of how you can change which Nozomi Networks assets get targeted to which ServiceNow classes.

To determine which ServiceNow class and *OT* asset type best fits each asset, the **Service Graph Connector** integration uses a combination of:

- Type
- Roles
- *operating system (OS)*

This logic is in the **SGNozomiClassCalculator**. To make customizations to the default behavior of the class modeling, you can create an extension point script that lets users make final adjustments to the target class data for each asset before the *ETL* imports the source data.
You can use the filter navigator, to go to **Service Graph Connector for Nozomi > Admin > Extension Points**. You can then open the **SGNozomiClassCalculatorExtension** extension point record.

A built-in example will show with a `getTargetClass` function that the main import flow will execute.

You can select the **create implementation** related link to generate a new script include. Now you can adjust the items that you want to.

How can I add additional or custom fields from the Nozomi API into my integration?

A description of how you can add additional, or custom fields, from the Nozomi Networks application programming interface (API) into your ServiceNow integration.

The integration will pre-process and flatten the *API* data before importing it to the staging table. For both asset and appliance imports, extension points have been provided in which the flattened item that has been processed so far and the raw *API* item returned from the data stream action are passed through. This lets users make additional changes to the data before importing to the staging table.

You can use the filter navigator, to go to **Service Graph Connector for Nozomi > Admin > Extension Points**. You can then open either the records for:

- **SGNozomiAssetsExtension**, or
- **SGNozomiAppliancesExtension**

A built-in example will show that has a process function where the flattened item built by the integration prior and the *API* item returned from the data stream action are passed through.
You can select the **create implementation** related link to generate a new script include. You can now adjust the flattened Item object and return it so that it will be included in the transforms.

Why am I seeing duplicates after the first import?

A description of why it is possible that you will see duplicate items even though the network adapter media access control (MAC) addresses match.

The **Service Graph Connector** application uses the *Identification and Reconciliation Engine (IRE)* to rely on successfully identifying and updating existing *CMDB* data based on identification rules. One of the primary identification rules that the integration relies on is the Network Adapter lookup rule in the **Hardware** table.

You can go to **Under Configuration > CI Class Manager** to search for the hardware class and open the **Identification rule** section. There should be a Network adapter lookup rule.

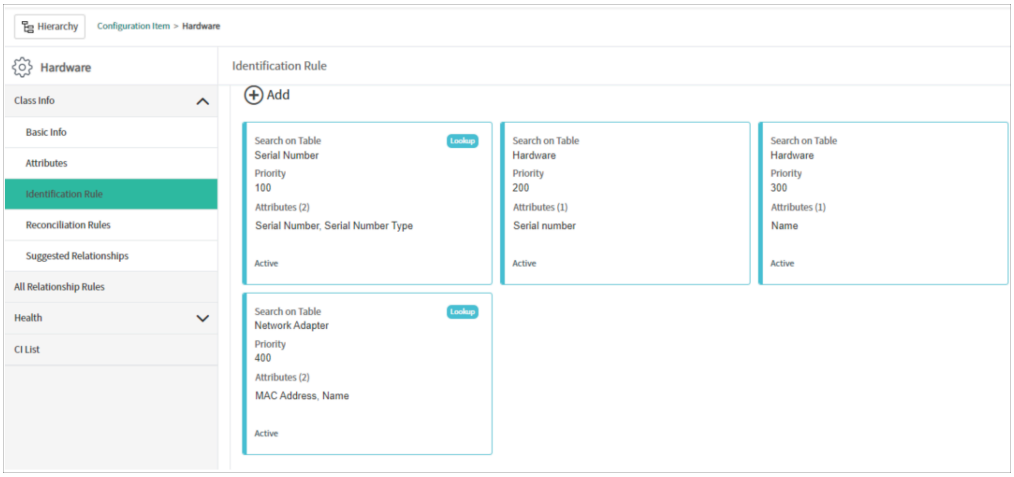


Figure 3. Identification Rule

The network adapter lookup identification rule looks for matching network adapters based on the **Name** and **MAC address** values. Other sources of data populate the network adapter with a name with another value, but *Service Graph Connectors* populate the name value with the *media access control (MAC)* address as well. If this is causing problems with your *CMDB* data, consider removing the **Name** from the network adapter lookup.

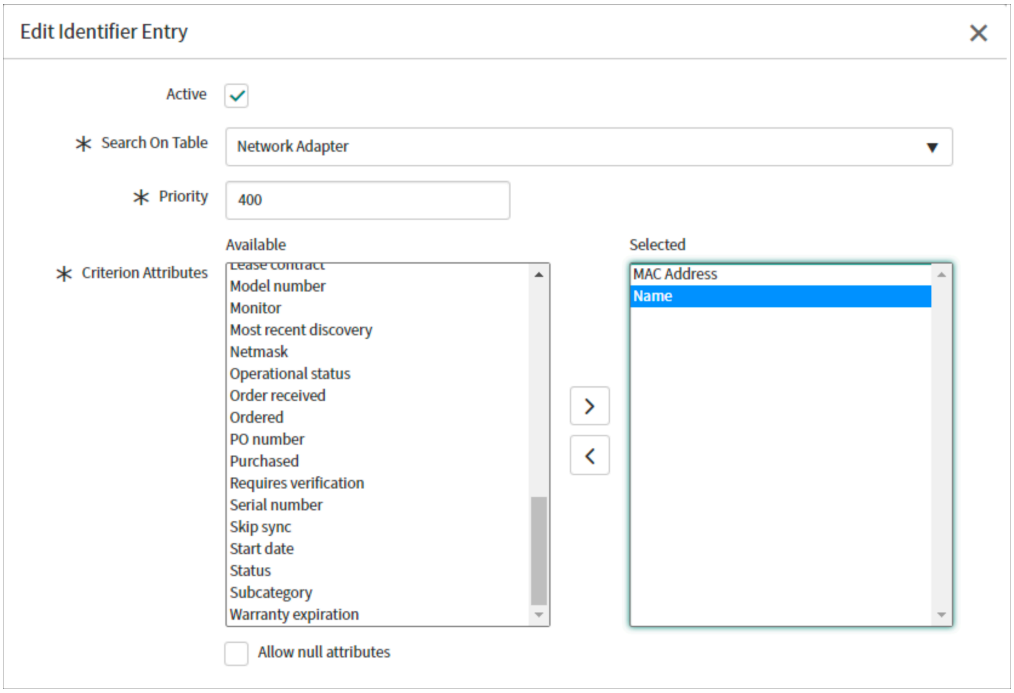


Figure 4. Edit Identifier Entry

The network adapter lookup identification rule by default requires an exact count match of network adapters to pass the check. This means that if the Nozomi Networks asset being imported has two *MAC* addresses and during the lookup only one of the *MAC* addresses matches with an existing *CMDB* record, the check will fail. This will result in a duplicate. To disable this feature, on the network adapter lookup rule, you can open the advanced options and disable the **Enforce exact count match** setting. This will allow identification in the case where a *CI* in ServiceNow only has one *MAC* address, but the Nozomi Networks asset has Multiple.

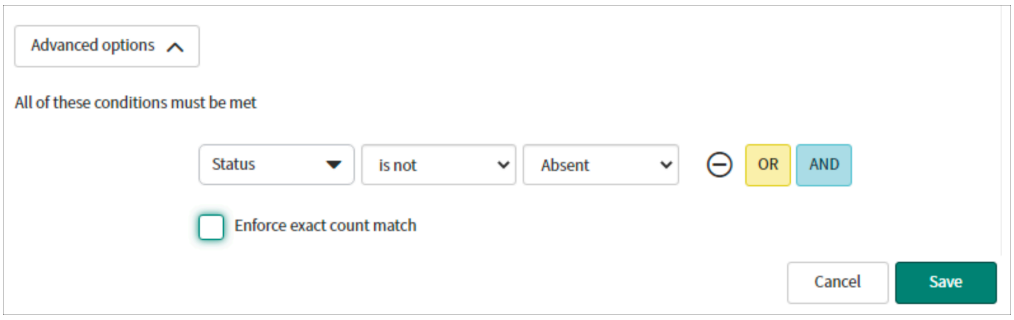


Figure 5. Edit Identifier Entry

Chapter 6. Troubleshooting

Service Graph Connector application is no longer working

Possible cause

A communication, or connectivity, problem has caused the application to stop working.

Procedure

Verify connectivity is permitted from the Nozomi Networks appliance to the ServiceNow instance.

Procedure

Make sure that it there is a *MID* server in use is properly configured to permit communications.

If none of the previous solutions work, please contact our Customer Support team.

Glossary

Application Programming Interface

An API is a software interface that lets two or more computer programs communicate with each other.

Central Management Console

The Central Management Console (CMC) is a Nozomi Networks product that has been designed to support complex deployments that cannot be addressed with a single sensor. A central design principle behind the CMC is the unified experience, that lets you access information in the similar method to the sensor.

Configuration Item

A CI is any computer, device, software, or service in the CMDB. A CI's record will include all of the relevant data, such as manufacturer, vendor, location, etc. Configuration items can be created or maintained either using tables, lists, and forms within the platform, or using the Discovery application.

Configuration Management Database

The CMDB in ServiceNow helps you track not only the configuration items (CIs) within your system, but also the relationships between those items.

Extract Transform Load

ETL definitions extract data from a source table, transform the data as desired, and load the data into one or more target tables. ETL definitions also support nested data structures.

Identification and Reconciliation Engine

IRE is an underlying key component in Identification and Reconciliation, providing a centralized framework to perform identification and reconciliation processes across different data sources. IRE uses identification rules, reconciliation rules, and IRE data source rules when processing incoming data before inserting that data to the CMDB.

Information Technology Operations Management

ServiceNow ITOM is a suite of cloud-based tools and solutions designed to help organizations streamline and optimize their IT operations. It provides capabilities for monitoring, managing, and automating various aspects of IT infrastructure and services. ServiceNow ITOM aims to enhance visibility, improve service delivery, and increase the overall efficiency of IT operations within an organization.

Internet of Things

The IoT describes devices that connect and exchange information through the internet or other communication devices.

Management, Instrumentation, and Discovery

The Management, Instrumentation, and Discovery (MID) Server is a Java application that runs as a Windows service or UNIX daemon on a server in your local network. The ServiceNow® MID Server enables communication and the movement of data between a ServiceNow instance and external applications, data sources, and services.

Media Access Control

A MAC address is a unique identifier for a network interface controller (NIC). It is used as a network address in network segment communications. A common use is in most IEEE 802 networking technologies, such as Bluetooth, Ethernet, and Wi-Fi. MAC addresses are most commonly assigned by device manufacturers and are also referred to as a hardware address, or physical address. A MAC address normally includes a manufacturer's organizationally unique identifier (OUI). It can be stored in hardware, such as the card's read-only memory, or by a firmware mechanism.

Network Intrusion Detection Systems

A NIDS is a security mechanism designed to monitor and analyze network traffic for signs of unauthorized access, misuse, or other malicious activity. NIDS are an integral part of network security infrastructure and are used to protect networks from various threats such as hacking attempts, malware infections, denial-of-service (DoS) attacks, and data breaches.

Operating System

An operating system is computer system software that is used to manage computer hardware, software resources, and provide common services for computer programs.

Operational Technology

OT is the software and hardware that controls and/or monitors industrial assets, devices and processes.

Voice over Internet Protocol

VoIP is a technology for making voice calls using the internet instead of traditional phone lines. VoIP converts voice signals into digital data packets and transmits them over the internet to recipients, offering advantages like cost savings and flexibility.