

Platform Manage GUI

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About Manage

The Cisco DNA Center platform GUI provides a **Manage** drop-down menu option that provides access to the following features:

• **Bundles**: Access to bundles that you can use to integrate Cisco DNA Center with your own applications or to enhance the performance of Cisco DNA Center itself. Bundles are comprised of groupings of APIs, DNA Events, integration flows, data services, or applications.



Note

You can use the Cisco DNA Center platform GUI to view the bundle components (APIs and integration flows) by clicking the Menu icon (≡) > Platform > Developer Toolkit > APIs or Platform > Developer Toolkit > Integration Flows.

• **Configurations**: Access to a window to configure global settings for a single bundle or across multiple bundles for a custom platform experience.

About Bundles

Cisco DNA Center platform provides access to bundles that you can use to integrate Cisco DNA Center with your own applications or to enhance the performance of Cisco DNA Center itself.

The following Cisco DNA Center platform information is accessible using the GUI:

- Bundle name, vendor, version, version release date, and tags
- Status of the bundle:

- **NEW**: Bundle that is available through Cisco DNA Center platform, but has not yet been enabled. Click the **Enable** button to enable the bundle for configuration and subsequent activation.
- **ENABLED**: Bundle that has been enabled, but not yet configured. Once enabled, the bundle's integration flows and API code can be viewed under the **Contents** tab. Click the **Configure** button to configure at the bundle level.

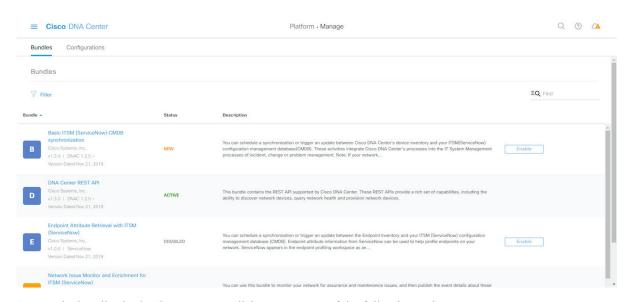
The enablement and configuration of bundles are two separate steps, since a business manager will usually enable a particular bundle as a business decision. The follow-up configuration of the bundle will usually be performed by an IT or network administrator.

- **DISABLED**: The bundle has been stopped from executing any further.
- **ACTIVE**: After either reviewing and/or configuring the bundle (configuring bundle-specific values), you can activate the bundle in your network by clicking the **Activate** button.
- **UPDATE**: When you upgrade from one version of Cisco DNA Center platform to a higher version of Cisco DNA Center platform.
- **ERROR**: There is an issue with the bundle and it cannot be activated within your network.
- Description of the bundle.
- Buttons to Enable, Disable, or Configure the bundle.

Bundle Features

You can review, enable, and configure bundles using the Bundles window in the Cisco DNA Center GUI.

Figure 1: Cisco DNA Center Platform Bundles Window



Access the bundles in the GUI to accomplish one or more of the following tasks:

• Review and try out supported Cisco DNA Center APIs. See Work with APIs for additional information.

- Enable Rogue Management and the Cisco Advanced Wireless Intrusion Prevention System (aWIPS) to detect wired and wireless threats, including rogue access points. See Work with APIs for additional information.
- Configure a destination (Event Management or REST API Endpoint) to receive events for ServiceNow. See Configure Bundles: Destination to Receive Events, on page 3 for information on using the GUI to configure a destination.
- Configure access settings for Cisco DNA Center to ServiceNow (hostname, username, password, and so on). See Configure Bundles: ServiceNow Access Settings, on page 6 for information on using the GUI to configure access settings to ServiceNow.
- Configure data synchronization between Cisco DNA Center and ServiceNow (including the option to configure operational and source identifiers). See Configure Bundles: CMDB Data Synchronization for ServiceNow, on page 9 for information on using the GUI to configure data synchronization.

Configure Bundles: Destination to Receive Events

Perform this procedure to configure a destination to receive events (network and SWIM) for ServiceNow within a bundle. You can review, enable, and configure bundles using the **Bundles** window in the Cisco DNA Center GUI.

For this release, you configure a destination to receive events for ServiceNow within the following bundles:

- Network Issue Monitor and Enrichment for ITSM (ServiceNow)
- Cisco DNA Center Automation events for ITSM (ServiceNow)

Before you begin

See the latest Cisco DNA Center ITSM Integration Guide to understand how this procedure fits within a larger workflow when configuring a Cisco DNA Center-to-ServiceNow integration.

- **Step 1** Click the menu icon (\equiv) and choose **Platform** > **Manage** > **Bundles**.
- **Step 2** Review the displayed bundles and their status.

The following bundles are available with this release:

• Basic ITSM (ServiceNow) CMDB synchronization: Triggers or schedules a synchronization between Cisco DNA Center devices and your ServiceNow[®] CMDB system. The ServiceNow CMDB provides a single system of record for IT.

Note For an example of an integration flow and ServiceNow, see ServiceNow Integration.

- Cisco DNA Center REST API: Contains the REST API supported by Cisco DNA Center. This API provides a
 rich set of capabilities to query network knowledge, as well as to initiate network programming.
- Endpoint Attribute Retrieval with ITSM (ServiceNow): This bundle retrieves detailed endpoint information and publishes it once or on a recurring schedule to Cisco DNA Center. This activity does not modify or delete any CIs on the existing ITSM (ServiceNow) tool.

- Network Issue Monitor and Enrichment for ITSM (ServiceNow): Contains Cisco DNA Center components that monitor the network for assurance and maintenance issues, and publishes the event details to a ServiceNow system. It also contains APIs to access rich network context data.
- Rogue and aWIPS: Contains the REST API supported by Cisco DNA Center for Rogue Management and the Cisco Advanced Wireless Intrusion Prevention System (aWIPS). This API is used to detect wired and wireless threats, including rogue access points.
- Cisco DNA Center Automation events for ITSM (ServiceNow): Monitor and publish events requiring software image updates (for compliance, security, or other operational triggers) to a ServiceNow system.
- **Disaster Recovery API**: This bundle contains the REST APIs supported by disaster recovery and provide support to monitor the disaster recovery system.
- AI Endpoint Analytics: This bundle allows you to access various services provided by AI endpoint analytics application. You must install AI Endpoint Analytics package in Cisco DNA Center to use this bundle.

You can adjust the bundles that are displayed in the GUI by clicking the **Filter** icon and using the filter, or by entering a keyword in the **Find** field.

Step 3 Click either the Network Issue Monitor and Enrichment for ITSM (ServiceNow) or the Cisco DNA Center Automation events for ITSM (ServiceNow) bundle link or icon.

The following information is provided:

- General information: Vendor, version, platform, tags displayed under the square icon.
 - **Note** Tags indicate what the Cisco DNA Center component is used for or is affected by the bundle.
- **Information**: Tab that displays general information (purpose of bundle and how bundle works in the network), sample schemas, mapping notes, configuration notes, and other data about the bundle.
- **Contents**: Tab that accesses information about the integration flows within the bundle.
- Release Notes: Tab that displays latest release information about the bundle, including its version.
- **Step 4** Click each of the above tabs and review the information about the bundle.
- **Step 5** Click the **Enable** button to enable the bundle.

An **Information** field appears in the window.

Step 6 In the **Information** field, click the **Enable** button to confirm enabling the bundle.

After clicking the **Enable** button to confirm, a Success message appears.

- **Step 7** Click **Okay** in the Success message.
- **Step 8** Click the **Configure** button to configure at the bundle level.
- **Step 9** In the configuration slide-in pane, click **Destination to receive events** to configure a Destination instance.

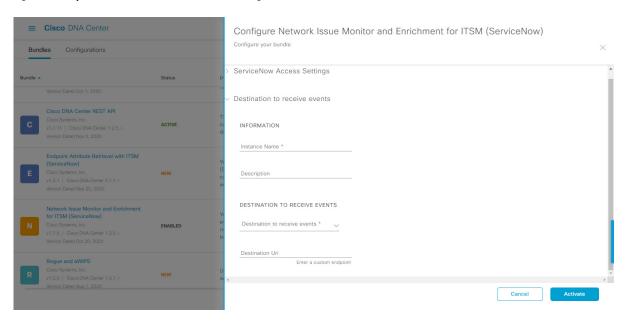


Figure 2: Example of Destination to Receive Events Configuration Fields

- **Step 10** Click the radio button to configure either an existing Destination instance or configure a new instance.
 - For configuring an existing Destination instance, choose it from the drop-down list in the window and click Activate
- **Step 11** For configuring a new Destination instance, the following additional information must be entered.
 - Instance Name: Name of the instance.
 - **Description**: Descriptive text of the instance.
 - **Destination to receive events**: Choose one of the following:
 - Event Management: When setting up Cisco DNA Center integration with ServiceNow without using the Cisco DNA App, choose the Event Management option. The Event Management option also requires that you have the Event Management plugin configured within the ServiceNow instance.
 - **REST API Endpoint**: The **REST API Endpoint** option can be used with the Cisco DNA App. Data is sent to a REST API endpoint within the Cisco DNA App with the **REST API Endpoint** option.
 - Generic REST Endpoint in ServiceNow: For the Generic REST Endpoint in ServiceNow option, you can send the data to a different staging table in ServiceNow.

For detailed information about integrating Cisco DNA Center with ServiceNow, see the *Cisco DNA Center ITSM Integration Guide* for this release.

• **Destination URI**: Enter a destination URI (Uniform Resource Identifier) for the **Generic REST Endpoint in ServiceNow** option. This field is mandatory for this option.

After entering this information, proceed to the next step.

Step 12 Click Activate to save your changes and activate the bundle or click Cancel to cancel the configuration and close the slide-in pane.

Note

By clicking **Activate**, you enable the changes that are made to the bundle and the changes take effect immediately. Additionally, the bundle's status changes from **ENABLED** to **ACTIVE**.

What to do next

To review your configuration, click the menu icon (=) > Manage > Configurations > General Settings and use the Filter or Find tools to locate the specific destination instance configured in this procedure.

Configure Bundles: ServiceNow Access Settings

Perform this procedure to configure access settings for ServiceNow within a bundle. You can review, enable, and configure bundles using the **Bundles** window in the Cisco DNA Center GUI.

For this release, you configure ServiceNow access settings within the following bundles:

- Endpoint Attribute Retrieval with ITSM (ServiceNow)
- Network Issue Monitor and Enrichment for ITSM (ServiceNow)
- Cisco DNA Center Automation events for ITSM (ServiceNow)

Before you begin

See the latest Cisco DNA Center ITSM Integration Guide to understand how this procedure fits within a larger workflow when configuring a Cisco DNA Center to ServiceNow integration.

- Step 1 Click the menu icon (\equiv) and choose Platform > Manage > Bundles.
- **Step 2** Review the displayed bundles and their current status.

The following bundles are available with this release:

• Basic ITSM (ServiceNow) CMDB synchronization: Triggers or schedules a synchronization between Cisco DNA Center devices and your ServiceNow® CMDB system. The ServiceNow CMDB provides a single system of record for IT.

Note For an example of an integration flow and ServiceNow, see ServiceNow Integration.

- Cisco DNA Center REST API: Contains the REST API supported by Cisco DNA Center. This API provides a
 rich set of capabilities to query network knowledge, as well as to initiate network programming.
- Endpoint Attribute Retrieval with ITSM (ServiceNow): This bundle retrieves detailed endpoint information and publishes it once or on a recurring schedule to Cisco DNA Center. This activity does not modify or delete any CIs on the existing ITSM (ServiceNow) tool.
- Network Issue Monitor and Enrichment for ITSM (ServiceNow): Contains Cisco DNA Center components that monitor the network for assurance and maintenance issues, and publishes the event details to a ServiceNow system. It also contains APIs to access rich network context data.

- Rogue and aWIPS: Contains the REST API supported by Cisco DNA Center for Rogue Management and the Cisco Advanced Wireless Intrusion Prevention System (aWIPS). This API is used to detect wired and wireless threats, including rogue access points.
- Cisco DNA Center Automation events for ITSM (ServiceNow): Monitor and publish events requiring software image updates (for compliance, security, or other operational triggers) to a ServiceNow system.
- **Disaster Recovery API**: This bundle contains the REST APIs supported by disaster recovery and provide support to monitor the disaster recovery system.
- AI Endpoint Analytics: This bundle allows you to access various services provided by AI endpoint analytics application. You must install AI Endpoint Analytics package in Cisco DNA Center to use this bundle.

You can adjust the bundles that are displayed in the GUI by clicking the **Filter** icon and using the filter, or by entering a keyword in the **Find** field.

- Step 3 Click the Network Issue Monitor and Enrichment for ITSM (ServiceNow), Cisco DNA Center Automation events for ITSM (ServiceNow), or Endpoint Attribute Retrieval with ITSM (ServiceNow) bundle link or icon.
 - Note For this procedure and as an example, the **Endpoint Attribute Retrieval with ITSM (ServiceNow)** is selected.

The following information is provided:

- General information: Vendor, version, platform, tags displayed under the square icon.
- **Note** Tags indicate what the Cisco DNA Center component is used for or is affected by the bundle.
- **Information**: Tab that displays general information (purpose of bundle and how bundle works in the network), sample schemas, mapping notes, configuration notes, and other data about the bundle.
- Contents: Tab that provides access to information about the integration flows within the bundle.
- Note For the Endpoint Attribute Retrieval with ITSM (ServiceNow) bundle, access is provided to the Scheduler for ServiceNow Asset Sync integration flow.
- Release Notes: Tab that displays latest release information about the bundle, including its version.
- **Step 4** Click each of the above tabs and review the information about the bundle.
- **Step 5** Click the **Enable** button to activate the link.

An **Information** field appears in the window.

Step 6 In the **Information** field, click the **Enable** button to confirm enabling the bundle.

After clicking the **Enable** button to confirm, a success message appears.

- **Step 7** Click **Okay** in the success message.
- **Step 8** Click the **Contents** tab.

For the **Endpoint Attribute Retrieval with ITSM (ServiceNow)** bundle, a link to the **Scheduler for ServiceNow Asset Sync** integration flow appears. Click the link to perform the following tasks:

- Review the **Description**, **Tags**, **How to Use this Flow**, and scheduler.
- Click **Run Now** (to run the scheduler now), **Run Later** (to schedule for a later time), or **Recurring** (to set up a recurring schedule).

For **Run Later**, you must select a date, time, and time zone. For **Recurring**, you must set a repeating interval (daily or weekly), an interval duration (minutes or hours), and a start and end date.

• Click **Schedule** to enable the scheduler.

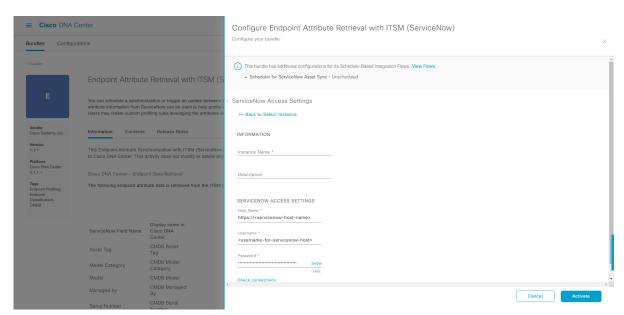
Important

Only configure and enable an integration flow schedule, after you have finished configuring the bundle itself as described in the following steps. You can configure and enable an integration flow schedule by returning to this view and clicking **Schedule** or by accessing the view by clicking the ,menu icon (=) > **Platform** > **Developer Toolkit** > **Integration Flows** > **Scheduler for ServiceNow Asset Sync**.

For the other two bundles, **Network Issue Monitor and Enrichment for ITSM (ServiceNow)** and **Cisco DNA Center Automation events for ITSM (ServiceNow)**, there is no link to an integration flow. Only information about integration flows is displayed.

- **Step 9** Click the **X** icon at the upper right of the window to close it and return to the previous bundle window.
- **Step 10** Click the **Configure** button to configure at the bundle level.
- **Step 11** In the configuration slide-in pane, click **ServiceNow Access Settings** to configure a ServiceNow instance.
- **Step 12** Click the radio button to configure either an existing ServiceNow instance or configure a new instance.

Figure 3: Example of ServiceNow Instance Configuration Fields



For configuring an existing ServiceNow instance, choose it from the drop-down list in the window and click Activate.

- **Step 13** For configuring a new ServiceNow instance, the following additional information must be entered.
 - Instance Name: Name of the instance.
 - **Description**: Descriptive text of the instance.
 - Host name: Hostname for the ServiceNow system.
 - **Username**: Username required to access the ServiceNow system.
 - Password: Password required to access the ServiceNow system.

Step 14 Click **Check Connectivity** to test whether you can connect to the server where the endpoint is located.

After a successful test of connectivity to the server, proceed to the next step.

Step 15 Click Activate to save your changes and activate the bundle or click Cancel to cancel the configuration and close the slide-in pane.

Note

By clicking **Activate**, you enable the changes that are made to the bundle and the changes take effect immediately. Additionally, the bundle's status changes from **ENABLED** to **ACTIVE**.

What to do next

To review your configuration, click the menu icon (=) > Manage > Configurations > General Settings and use the Filter or Find tools to locate the ServiceNow instance configured in this procedure.

Configure Bundles: CMDB Data Synchronization for ServiceNow

Perform this procedure to configure data synchronization between Cisco DNA Center and ServiceNow (including the option to configure operational and source identifiers) within a bundle.

You configure data synchronization and set the operational limit and identifier for ServiceNow within the **Basic ITSM (ServiceNow) CMDB synchronization** bundle.

Before you begin

See the latest Cisco DNA Center ITSM Integration Guide to understand how this procedure fits within a larger workflow when configuring a Cisco DNA Center-to-ServiceNow integration.

- Step 1 Click the menu icon (\equiv) and choose Platform > Manage > Bundles.
- Step 2 Click the Basic ITSM (ServiceNow) CMDB synchronization bundle link or icon.

The following information is provided:

• General information: Vendor, version, platform, tags displayed under the square icon.

Note Tags indicate what the Cisco DNA Center component is used for or is affected by the bundle.

- **Information**: Tab that displays general information (purpose of bundle and how bundle works in the network), sample schemas, mapping notes, configuration notes, and other data about the bundle.
- **Contents**: Tab that accesses the integration flows that make up the bundle, or provides information about the integration flows that make up the bundle.
- Release Notes: Tab that displays latest release information about the bundle, including its version.
- **Step 3** Review the bundle data in the **Information** tab and click the **Contents** tab.
- **Step 4** Click the **Integration Flows** header.

Review the list of available integration flows (links) under the header. For detailed information about integration flows and their purpose, see Work with Integration Flows.

- **Step 5** Click **Enable** to activate the links.
- **Step 6** In the **Information** field, click **Enable** to confirm enabling the bundle.
- **Step 7** In the success message, click **Okay**.
- **Step 8** Click the integration flow link to perform the following tasks:
 - Review the Description, Tags, How to Use this Flow, and scheduler.
 - Click **Run Now** (to run the scheduler now), **Run Later** (to schedule for a later time), or **Recurring** (to set up a recurring schedule).

For **Run Later**, you need to select a date, time, and time zone. For **Recurring**, you need to set a repeating interval (daily or weekly), an interval duration (minutes or hours), and a start and end date.

Click Schedule to enable the scheduler.

Important

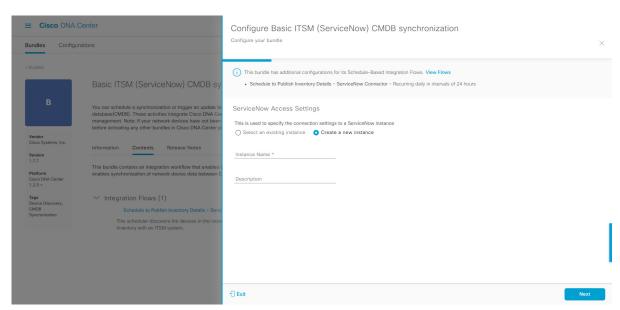
Only configure and enable an integration flow schedule, after you have finished configuring the bundle itself as described in this procedure. You can configure and enable an integration flow schedule by returning to this view and clicking **Schedule**, or by clicking the **View Flows** link in the **Configure Basic ITSM (ServiceNow) CMDB synchronization** slide-in pane (see following steps), or by accessing the view by clicking the menu icon (=) > **Platform** > **Developer Toolkit** > **Integration Flows** > **Schedule to Publish Inventory Details-ServiceNow Connector**.

- **Step 9** Click the **X** icon at the upper right of the window to close it and return to the previous bundle window.
- **Step 10** Click **Configure** to configure at the bundle level.

A configuration slide-in pane appears. Review the CMDB synchronization information.

Step 11 Click the radio button to configure either existing or new ServiceNow access settings for the CMDB synchronization.

Figure 4: ServiceNow Access Settings



To configure an existing setting, choose it from the drop-down menu in the window and click **Next**.

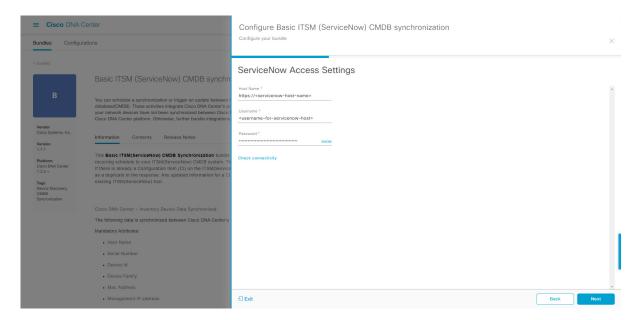
Step 12 To configure a new access setting, enter the following instance information:

- Instance Name: Name of the instance.
- **Description**: Descriptive text of the instance.

Click Next.

Step 13 To configure a new access setting, enter the following additional settings information:

Figure 5: ServiceNow Access Settings



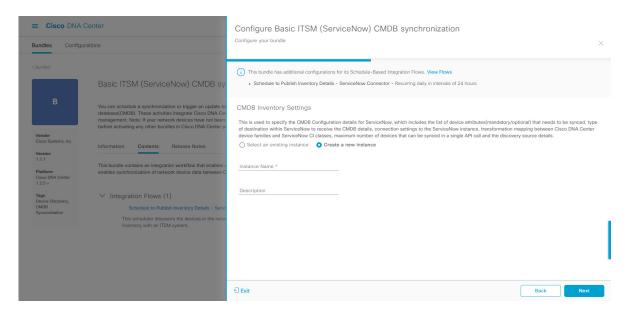
- Hostname: Hostname or IP address of the ServiceNow server.
- Username: Username for access to the ServiceNow server.
- Password: Password for access to the ServiceNow server.

Click Check Connectivity to check access to the ServiceNow server.

Click Next.

Step 14 Click the radio button to configure either an existing instance or configure a new instance for the CMDB inventory settings.

Figure 6: CMDB Inventory Settings



To configure an existing instance, choose it from the drop-down menu in the window and click **Configure**.

- **Step 15** To configure a new instance, enter the following additional information:
 - Instance Name: Name of the instance.
 - **Description**: Descriptive text of the instance.

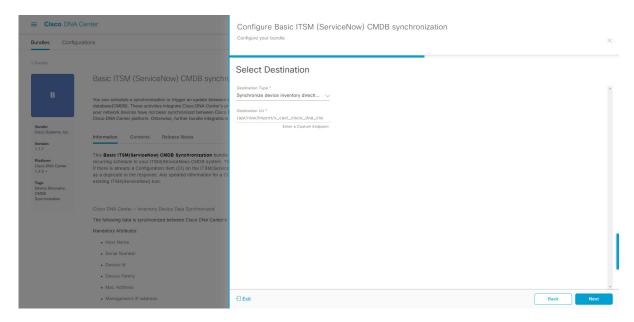
Click Next.

- **Step 16** In the **Select Destination** window, enter the following information:
 - **Destination Type**: There are two discovery source options to choose from:
 - Synchronize device inventory directly with CMDB
 - Post device inventory details to a staging table

Note With a staging table, you can take the values from the table and map it to a ServiceNow CMDB.

• Destination URI: Uniform Resource Indicator (URI) of the ServiceNow server (CMDB) or staging table.

Figure 7: Select Destination Window

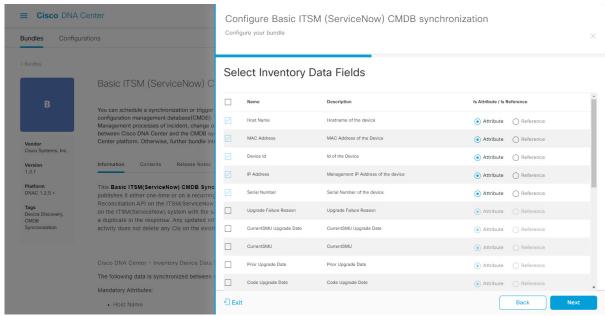


Click Next.

- **Step 17** In the **Select Inventory Data Fields** window, select the inventory data fields to by synchronized.
 - **Note** Inventory data fields are Cisco created data types that can be designated as an attribute or reference to be synchronized into a CMDB or staging table.

Clicking the top check box in the **Select Inventory Data Fields** window will select all of the inventory data fields for synchronization. Click this top check box if you want to sync all of the inventory data fields. Otherwise, review and click a check box at a time to create a smaller subset of inventory data fields for synchronization.

Figure 8: Select Inventory Data Fields Window



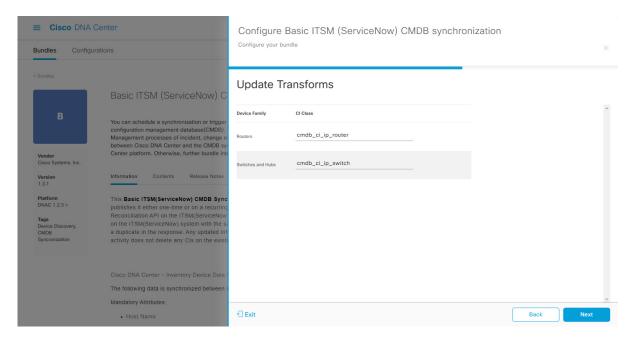
The **Select Inventory Data Fields** window consists of the following columns:

- Name: Name of the inventory data field.
- **Description**: Brief description of the inventory data field.
- Is Attribute/Is Reference: Whether the inventory data field is an attribute or a reference. A reference data field is used to create a relationship between two tables in a database. An attribute data field is used to add more data to a table in a database.
- Step 18 For the data fields selected to be synchronized in the preceding step, review their default designation as either an attribute or reference.To change a data field's default designation, just click the desired data field designation (Attribute or Reference).

After selecting the data fields to be synchronized and whether the data field is an attribute or reference, click **Next**.

Step 19 In the **Update Transforms** window, either accept or update the ServiceNow transformation mapping between the Cisco DNA Center device families and the ServiceNow CI classes.

Figure 9: Update Transforms Window



Device families are the Cisco DNA Center device classifications (for example, Unified AP, Routers, Wireless Controller, Switches, and Hubs), where the inventory attributes/references mapping to ServiceNow is already available in the existing Cisco DNA Center application in ServiceNow. The type and number of device families can vary depending upon the different Cisco devices in the user's network.

Note Cisco DNA Center platform is able to automatically retrieve all of the device families in the user's Cisco DNA Center network and display them in this GUI window.

CI classes are the database tables for ServiceNow (for example, cmdb_ci_wap_network, cmdb_ci_ip_router, cmdb_ci_ip_switch, and x_caci_cisco_dna_wireless_lan_controller). The **CI Class** column in the GUI window above is used to map the CI classes to their respective device families.

The following table displays the Cisco DNA Center default CI classes for each device family. The default CI classes can be modified by the user. In case of other device families not listed below, Cisco will not have any default values specified in the **CI Class** column. The ServiceNow application user needs to either manually create the corresponding CI Classes and attributes/references mapping or use a pre-existing CI class a 'parent' CI class.

Table 1: Default Device Family to Cl Class Mapping List

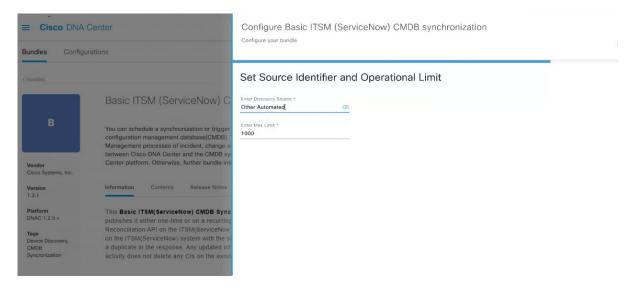
Device Family	Corresponding CI Class
Unified AP	cmdb_ci_wap_network
Wireless Controller	x_caci_cisco_dna_wireless_lan_controller
Routers	cmdb_ci_ip_router
Switches and Hubs	cmdb_ci_ip_switch
Meraki Access Point	cmdb_ci_wap_network
Meraki Cameras	cmdb_ci_netgear

Device Family	Corresponding CI Class
Meraki Dashboard	cmdb_ci_netgear
Meraki Security Appliances	cmdb_ci_netgear
Meraki Switches	cmdb_ci_ip_switch

After accepting or updating the information in this window, click **Next**.

Step 20 In the Set Source Identifier and Operational Limit window, configure the data source and maximum limit.

Figure 10: Set Source Identifier and Operational Limit Window



Configure the following values:

- Enter Discovery Source: Enter the same value as previously selected or keep the value at its default, Other Automated.
 - Synchronize device inventory directly with CMDB
 - Post device inventory details to a staging table

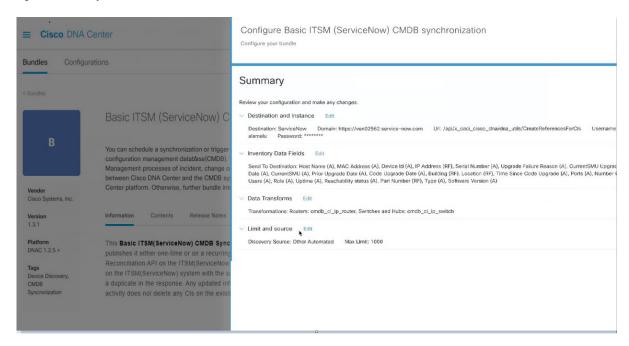
NoteOther Automated is a preconfigured value for the discovery source attribute in an OOB ServiceNow instance. This is the value that indicates the data source from where the ServiceNow CI was discovered. As a default, Cisco uses one of the existing preconfigured values for the integration.

• Enter the Max Limit: Maximum number of devices that can be synchronized in an iteration (single API call).

After entering the above information, click **Next**.

Step 21 In the **Summary** window, review the configuration summary.

Figure 11: Summary Window



After reviewing the information, click Configure.

For a successful configuration, you receive a **Done! Bundle Configured** message.

What to do next

Configure the Integration Flow for this bundle (**Schedule to Publish Inventory Details - ServiceNow Connector**), using one of the preceding methods.

You can test the CMDB synchronization by performing the following tasks:

- In the Cisco DNA Center platform GUI, click the menu icon (≡) and choose Platform > Runtime
 Dashboard > Event Summary. Click Refresh to refresh the GUI view. Click the individual events in
 the window to view the event data and access links to ServiceNow.
- Go to ServiceNow and search for a synchronized device. Check the **Configuration** and **Other Attributes** tabs for the synchronized data in that device's record.

Configure Bundles: CMDB Data Synchronization for ServiceNow