

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*

=	Cisco DNA Center		Platform - Manage		Q	0	CA.	
Bun	dles Configurations							
Bur	dles							
71	liter			≣Q , Find				
Bundle -		Status	Description					
В	Basic ITSM (ServiceNow) CMDB synchronization Osco Systems, Inc. v1.3.0 [DMC 1:2.5 + Version Dated Nov 21, 2019	NEW	You can schedule a synchronization or trigger an update between Cisco DNA Center's device inventory and your (TSM(ServiceNow) configuration management database(CM08). These activities integrate Cisco DNA Center's processes into the IT System Management processes of incident, change or problem management. Note: If your network	Enable				
D	DNA Center REST API Cisco Systems, Inc. v1.3.0 DNAC 1.2.5 - Version Dated Nov 21, 2019	ACTIVE	This bundle contains the REST API supported by Cisco DNA Center. These REST APIs provide a rich set of capabilities, including the ability to discover network devices, query network health and provision network devices.					
E	Endpoint Attribute Retrieval with ITSM (ServicenYow) Cisco Systems, Inc. v1.0.0 ServiceNow Version Dated Nov 21, 2019	DISABLED	You can schedule a synchronization or trigger an update between the Endpoint Inventory and your ITSM (ServiceNow) configuration management database (CMDB). Endpoint attribute information from ServiceNow can be used to help profile endpoints on your network. ServiceNow appears in the endpoint profiling workspace as an	Enable				
_	Network Issue Monitor and Enrichment for ITSM (ServiceNow)		You can use this bundle to monitor your network for assurance and maintenance issues, and then publish the event details about these					

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 detailed information.

- Enable Rogue Management and the Cisco Adaptive Wireless Intrusion Prevention System (aWIPS) to detect wired and wireless threats, including rogue access points. See Work with APIs for additional detailed 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 detailed information on using the GUI to configure a destination.
- Configure access settings for Cisco DNA Center to ServiceNow (host name, username, password, and so on). See Configure Bundles: ServiceNow Access Settings, on page 6 for detailed 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 10 for detailed 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.

=	Cisco DNA Center		Platform • Manage		Q	0	CA	
Bund	lles Configurations							
Bun	dles							
V F	lter			EQ Find				
Bundle 🔺		Status	Description					
в	Basic ITSM (ServiceNow) CMDB synchronization Osco Systems, inc. v1.3.0 DNAC 1.2.5 + Version Dated Nov 21, 2019	NEW	You can schedule a synchronization or brigger an update between Cisco DNA Center's device inventory and your ITSM(ServiceNow) configuration management database(CM08). These activities integrate Cisco DNA Center's processes into the IT System Management processes of incident, change or problem management. Note: if your network	Enable				2
D	DNA Center REST API Cisco Systems, Inc. v13.0 DNAC 1.2.5 + Version Dated Nov 21, 2019	ACTIVE	This bundle contains the REST API supported by Cisco DNA Center. These REST APIs provide a rich set of capabilities, including the ability to discover network devices, query network health and provision network devices.					
E	Endpoint Attribute Retrieval with ITSM (ServiceNow) Oisco Systems, Inc. v1.0.0.1 ServiceNow Version Dated Nov 21, 2019	DISABLED	You can schedule a synchronization or brigger an update between the Endpoint Inventory and your (TSM (ServiceNow) configuration management database (CMDB). Endpoint attribute information from ServiceNow can be used to help profile endpoints on your network. ServiceNow appears in the endpoint profiling workspace as an	Enable				
_	Network Issue Monitor and Enrichment for ITSM (ServiceNow)		You can use this bundle to monitor your network for assurance and maintenance issues, and then publish the event details about these					

Figure 2: Cisco DNA Center Platform Bundles Window

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

- Network Issue Monitor and Enrichment for ITSM (ServiceNow)
- SWIM Events for ITSM (ServiceNow)

Before you begin

Ensure that you have installed or upgraded to Cisco DNA Center 2.2.1. For information about installing the latest Cisco DNA Center release, see the *Cisco Digital Network Architecture Center Installation Guide*.

You must have the appropriate permissions to perform the tasks as described in this procedure. For information about Role-Based Access Control for the Cisco DNA Center platform, see Role-Based Access Control Support for Platform.

See the latest *Cisco DNA Center ITSM Integration Guide* on the Cisco DNA Center End-User Guides web page to understand how this procedure fits within a larger workflow when configuring a Cisco DNA Center to ServiceNow integration.

- **Step 1** In the Cisco DNA Center GUI, 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 Adaptive Wireless Intrusion Prevention System (aWIPS). This API is used to detect wired and wireless threats, including rogue access points.
- SWIM Events for ITSM (ServiceNow): Monitor and publish events requiring software image updates (for compliance, security, or other operational triggers) to a ServiceNow system.

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 SWIM 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 3: Example of Destination to Receive Events Configuration Fields

Eisco DNA Center			Configure Network Issue Monitor and Enrichment for ITSM (ServiceNow)	
Bun	dles Configurations		Configure your bundle	×
Bundle -		Status D	> ServiceNow Access Settings	•
			 Destination to receive events 	- 1
C	Cisco DNA Center REST API Cisco Systems, Inc. v1.7.11 Cisco DNA Center 1.2.5 + Version Dated Nov 4, 2020	Ti ACTIVE Ci de	INFORMATION	
E	Endpoint Attribute Retrieval with ITSM (ServiceNow) Caso Systems, Inc. v1.3.1 Caso DNA Center 2.1.1 + Version Dated Sep 25; 2020	Yi NEW (S Ci W	Instance Name * Description	
N	Network Issue Monitor and Enrichment for ITSM (ServiceNow) Clace Systems, Inc. v17.5 Clace DNA Center 12.5 + Version Dated Oct 20, 2020	Yi ENABLED ri Di	DESTINATION TO RECEIVE EVENTS Destination to receive events *	
R	Rogue and aWIPS Cisco Systems, Inc. v1.2.0 Cisco DNA Center 1.4.1 + Version Bated Aug 7, 2020	NEW U	Destination Uri Enter a custom endpoint	×

- **Note** Use the **Destination to receive events** configuration options for ServiceNow to receive network event and SWIM event details in a REST API endpoint and create an incident, problem, or change ticket, based on the configuration chosen by the user in Cisco DNA Center. For additional information about setting this up with ServiceNow, see the *Cisco DNA Center ITSM Integration Guide*.
- **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.
- If necessary, later on you can edit, update, or delete the instance in the **General Settings** window. For additional information, see Configure General Settings: Edit an Instance.

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.

=	Cisco DNA Center		Platform · Manage		Q	0	
Bund	lles Configurations						
Bun	dles						
V F	ilter			EQ Find			
Bundle 🔺		Status	Description				
В	Basic ITSM (ServiceNow) CMDB synchronization Osco Systems, Inc. v13.0 DAKC 12.5 + Version Dated Nov 21, 2019	NEW	You can schedule a synchronization or trigger an update between Cisco DNA Center's device inventory and your (TSM(ServiceNow) configuration management database(CMDB). These activities integrate Cisco DNA Center's processes into the IT System Management processes of incident, change or problem management. Note: If your network	Enable			Î
D	DNA Center REST API Cisco Systems, Inc. v1.3.0 DNAC 1.2.5 + Version Dated Nov 21, 2019	ACTIVE	This bundle contains the REST API supported by Cisco DNA Center. These REST APIs provide a rich set of capabilities, including the ability to discover network devices, query network health and provision network devices.				
E	Endpoint Attribute Retrieval with ITSM (ServiceNow) Oisco Systems, Inc. v1.0.0.1 ServiceNow Version Dated Nov 21, 2019	DISABLED	You can schedule a synchronization or trigger an update between the Endpoint Inventory and your ITSM (ServiceNow) configuration management database (CMDB). Endpoint atribute information from ServiceNow can be used to help profile endpoints on your network. ServiceNow appears in the endpoint profiling workspace as an	Enable			
_	Network Issue Monitor and Enrichment for ITSM (ServiceNow)		You can use this bundle to monitor your network for assurance and maintenance issues, and then publish the event details about these				

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)
- SWIM Events for ITSM (ServiceNow)

Before you begin

Ensure that you have installed or upgraded to Cisco DNA Center 2.2.1. For information about installing the latest Cisco DNA Center release, see the *Cisco Digital Network Architecture Center Installation Guide*.

You must have the appropriate permissions to perform the tasks as described in this procedure. For information about role-based access control for the Cisco DNA Center platform, see Role-Based Access Control Support for Platform.

See the latest *Cisco DNA Center ITSM Integration Guide* on the Cisco DNA Center End-User Guides web page to understand how this procedure fits within a larger workflow when configuring a Cisco DNA Center to ServiceNow integration.

- **Step 1** In the Cisco DNA Center GUI, 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 Adaptive Wireless Intrusion Prevention System (aWIPS). This API is used to detect wired and wireless threats, including rogue access points.
- SWIM Events for ITSM (ServiceNow): Monitor and publish events requiring software image updates (for compliance, security, or other operational triggers) to a ServiceNow system.

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), SWIM 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 **SWIM 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 5: Example of ServiceNow Instance Configuration Fields

E Cisco DNA Center			Configure Endpoint Attribute Retrieval with ITSM (ServiceNow)	
Bundles Configurations			Configure your bundle X	
			This bundle has additional configurations for its Schedule-Based Integration Flows. View Flows	
	Endpoint Attribut	e Retrieval with ITSM (S	Scheduler for ServiceNow Asset Sync - Unscheduled	l
E	You can schedule a synchro attribute information from S- Users may create custom pr	nization or trigger an update between t arviceNow can be used to help profile t ofiling rules leveraging the attributes st	ServiceNow Access Settings > Back to Select Instance	
Vendor Cisco Systems, Inc.	Information Contents	Release Notes	INFORMATION	l
Version 1.3.1 Platform	This Endpoint Attribute Synchronization with ITSM (ServiceNow) to Cisco DNA Center. This activity does not modify or delete any		Instance Name *	
Cisco DNA Center 2.1.1 +	Cisco DNA Center - Endpo	pint Data Retrieval	Description	l
Tags Endpoint Profiling, Endpoint Classification, CMDB	The following endpoint attri	bute data is retrieved from the ITSM (SERVICENOW ACCESS SETTINGS Host Name * https://servicencev-host-name>	
	ServiceNow Field Name	Display name in Cisco DNA Center	Username *	
	Asset Tag	CMDB Asset Tag	Password *	
	Model Category	CMDB Model Category	Sign Hint	
	Model	CMDB Model	Check connectivity	
	Managed by	CMDB Managed By	< Cancel Activate	1
		CMDB Serial		

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: Host name 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.
- If necessary, later on you can edit, update, or delete the instance in the General Settings window. For additional information, see Configure General Settings: Edit an Instance.

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

=	Cisco DNA Center		Platform - Manage		Q	0	\sim	
Bu	ndles Configurations							
Bu	ndles							ĺ
∇	Filter			EQ Find				
Bundle		Status	Description					
В	Basic ITSM (ServiceNow) CMDB synchronization Csco Systems, Inc. v1.3.0 DNC 1.2.5 + Version Dated Nov 21, 2019	NEW	You can schedule a synchronization or trigger an update between Cisco DNA Center's device inventory and your (TSM(ServiceNow) configuration management database(CM0B). These activities integrate Cisco DNA Center's processes into the IT System Management processes of incident, change or problem management. Note: If your network	Enable				
D	DNA Center REST API Cisco Systems, Inc. v1.3.0 DNAC 1.2.5 + Version Dated Nov 21, 2019	ACTIVE	This bundle contains the REST API supported by Cisco DNA Center. These REST APIs provide a rich set of capabilities, including the ability to discover network devices, query network health and provision network devices.					
E	Endpoint Attribute Retrieval with ITSM (ServiceNow) Cisco Systems, Inc. v1.0.0.1 ServiceNow Version Dated Nov 21, 2019	DISABLED	You can schedule a synchronization or trigger an update between the Endpoint Inventory and your ITSM (ServiceNow) configuration management database (CMDB). Endpoint attribute information from ServiceNow can be used to help profile endpoints on your retwork. ServiceNow appears in the endpoint profiling workspace as an	Enable				
_	Network Issue Monitor and Enrichment for ITSM (ServiceNow)							

Figure 6: Cisco DNA Center Platform Bundles Window

For this release, you configure data synchronization and set the operational limit and identifier for ServiceNow within the following bundle:

Basic ITSM (ServiceNow) CMDB synchronization

Before you begin

Ensure that you have installed or upgraded to Cisco DNA Center 2.2.1. For information about installing the latest Cisco DNA Center release, see the *Cisco Digital Network Architecture Center Installation Guide*.

You must have the appropriate permissions to perform the tasks as described in this procedure. For information about Role-Based Access Control for the Cisco DNA Center platform, see Role-Based Access Control Support for Platform.

See the latest *Cisco DNA Center ITSM Integration Guide* on the Cisco DNA Center End-User Guides web page to understand how this procedure fits within a larger workflow when configuring a Cisco DNA Center to ServiceNow integration.

- **Step 1** In the Cisco DNA Center GUI, 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 Adaptive Wireless Intrusion Prevention System (aWIPS). This API is used to detect wired and wireless threats, including rogue access points.
- SWIM Events for ITSM (ServiceNow): Monitor and publish events requiring software image updates (for compliance, security, or other operational triggers) to a ServiceNow system.

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 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 4** Review the bundle data in the **Information** tab and click the **Contents** tab.
- Step 5 Click the Integration Flows header.

Proceed to 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 6 Click the **Enable** button to activate the links.

An Information field appears in the window.

Step 7 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 8** Click **Okay** in the success message.
- **Step 9** Click the integration flow link to perform the tasks listed below:
 - 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 10** Click the X icon at the upper right of the window to close it and return to the previous bundle window.
- **Step 11** Click the **Configure** button to configure at the bundle level.

A configuration slide-in pane appears. Proceed to review the CMDB synchronization information.

Step 12 Click the radio button to configure either existing or new ServiceNow access settings for the CMDB synchronization.

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Figure 7: ServiceNow Access Settings

Eisco DNA Center		Configure Basic ITSM (ServiceNow) CMDB synchronization	
Bundles Configu	irations	Configure your bundle	×
< Bundles	Basic ITSM (ServiceNow) CMDB sy	This bundle has additional configurations for its Schedule-Based Integration Flows. View Flows Schedule to Publish Inventory Details - ServiceNow Connector - Recurring daily in intervals of 24 hours	
B Vendor Cisco Systems, Inc.	You can schedule a synchronization or trigger an update be database(CMDB). These activities integrate Cisco DNA Cen- management. Note: If your netrotic devices have not been before activating any other bundles in Cisco DNA Center p Information Contents Release Notes	ServiceNow Access Settings This is used to specify the connection settings to a ServiceNow Instance O Select an existing Instance C Create a new Instance	
Version 1.7.7 Platform Cisco DNA Center 1.2.5 +	This bundle contains an integration workflow that enables e enables synchronization of network device data between C	Instance Name * Description	
Tags Device Discovery, CMDB Syncronization	Integration Hows (1) Schedule to Publish Inventory Details - Serv. This scheduler discourse the devices in the network in mTSM system.		
		1 Exit	xt

For configuring an existing setting, choose it from the drop-down menu in the window and click Next.

- **Step 13** For configuring a new access setting, the following instance information must be entered.
 - Instance Name: Name of the instance.
 - Description: Descriptive text of the instance.

Click Next to proceed.

Step 14For configuring a new access setting, the following additional settings information must be entered.Figure 8: ServiceNow Access Settings

Eisco DNA Center		Configure Basic ITSM (ServiceNow) CMDB synchronization	
Bundles Configur	rations	Configure your bundle	×
		ServiceNow Access Settings	
	Basic ITSM (ServiceNow) CMDB synchro		
В	You can schedule a synchronization or trigger an update between (database(CMDB). These activities integrate Cisco DNA Center's pr your network devices have not been synchronized between Cisco D Cisco DNA Contex relation; Otherwise Turber bundle integration	Host Name * receiverow-host-name>	*
Vendor Cisco Systems, Inc. Version	Information Contents Release Notes	Password * SHOW	
Platform Cisco DNA Center 1.2.5 + Tags Device Discovery, CMD8 Syncronization	This Basic ITSM(ServiceNoi) CMOB Synchronization surple learning schedule lo your TISM ServiceNois / CMOB system. The If there is already a Configuration item (C) on the ITSM(Service as a digitate in the response. Any updated information for a CI existing ITSM(ServiceNois) tool:	Check connectivity	
	Cisco DNA Center - Inventory Device Data Synchronized		
	The following data is synchronized between Cisco DNA Center's		
	Mandatory Attributes:		
	Host Name		
	Senai number Device Id		
	Device Family		
	Mac Address		~
	Management IP address	€ Exit	Back Next

- 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 to proceed.

Step 15 Click the radio button to configure either an existing instance or configure a new instance for the CMDB inventory settings.

Figure 9: CMDB Inventory Settings

≡ Cisco DNA C	Center	Configure Basic ITSM (ServiceNow) CMDB synchronization		
Bundles Configur	ations	Configure your bundle X		
< Bundles	Basic ITSM (ServiceNow) CMDB sy	This bundle has additional configurations for its Schedule-Based Integration Flows. View Flows Schedule to Publish Inventory Details - ServiceNow Connector - Recurring daily in intervals of 24 hours		
B Vendor Cisco Systems, Inc. Version	You can schedule a synchronization or trigger an update be database(CMDB). These activities integrate Cisco DNA Cer management. Note: If your network devices have not been before activating any other bundles in Cisco DNA Center p Information Contents Release Notes	CMDB Inventory Settings This is used to specify the CMDB Configuration details for ServiceNow, which includes the list of device attributes(mandatory/optional) that needs to be synced, by of destination within ServiceNow to receive the CMDB details, connection settings to the ServiceNow instance, transformation mapping between Cisco DNA Cente device families and ServiceNow CI classes, maximum number of devices that can be synced in a single API call and the discovery source details. Select an existing instance Create a new instance		
1.7.7 Platform Cisco DNA Center 1.2.5 +	This bundle contains an integration workflow that enables (enables synchronization of network device data between C	Instance Name *		
Taga Desise Discourty, CMDB Syncronization	 Integration Flows (1) Schedule to Publish Inventory Details - Serve Tris scheduler discovers the devices in the netw Inventory with an ITSM system. 	Description		
		1 Exit Back Next		

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

Step 16 For configuring a new instance, the following additional information must be entered.

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

Click Next to proceed.

- **Step 17** 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 10: Select Destination Window

Eisco DNA Center		Configure Basic ITSM (ServiceNow) CMDB synchronization	
Bundles Configu	rations	Configure your bundle	×
		Select Destination	
	Basic ITSM (ServiceNow) CMDB synchro	Destination Type *	
В	You can schedule a synchronization or trigger an update between (database(GMDB). These activities integrate Cisco DNA Center's pr your network devices have not been synchronized between Cisco I Cisco DNA. Center platform. Otherwise, further bundle integrations	Venchronize device inventory direct V Destination Lin* //pulnow/import/s_cacl_cisco_dne_cliss	
Vendor Cisco Systems, Inc.	Information Contents Release Notes	Enter a Custom Endpoint	
Version 1.7.7 Platform Cisco DNA Center 1.2.5 + Tags Device Discovery, CMDB Syncronization	This Basic IT5M(ServiceNow) CMDB Synchronization bundle recurring schedule to your IT5M(ServiceNow), CMDB system. Th If there is already a Configuration (tem (C) on the IT5M(Service as a displicate in the response Any updated information for a CI existing IT5M(ServiceNow) tool.		
	Cisco DNA Center - Inventory Device Data Synchronized		
	The following data is synchronized between Cisco DNA Center's		
	Mandatory Attributes:		
	Serial Number		
	Device Id		
	Device Family		
	Mac Address		
	Management IP address	🕤 Exit	Back Next

Click Next.

Step 18 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 11: Select Inventory Data Fields Window

Eisco DNA Center		Configure Basic ITSM (ServiceNow) CMDB synchronization					
Bundles Configu	ations	Config	gure your bundle				×
< Bundies	Basic ITSM (ServiceNow) C	Sel	ect Inventory Da	ata Fields			
в	You can schedule a supphropization or trigger		Name	Description	Is Attribute / Is R	eference	A
	configuration management database(CMDB). Management processes of incident, change o		Host Name	Hostname of the device	• Attribute	O Reference	
Vendor	between Cisco DNA Center and the CMDB sy Center platform. Otherwise, further bundle intr Information Contents Release Notes		MAC Address	MAC Address of the Device	• Attribute	O Reference	
Cisco Systems, Inc.			Device Id	Id of the Device	• Attribute	O Reference	_
1.3.1			IP Address	Management IP Address of the device	• Attribute	O Reference	
Platform DNAC 1.2.5 +	This Basic ITSM(ServiceNow) CMDB Sync publishes it either one-time or on a recurring		Serial Number	Serial Number of the device	• Attribute	O Reference	- 1
Tags Device Discovery,	Reconciliation API on the ITSM(ServiceNow, on the ITSM(ServiceNow) system with the si		Upgrade Failure Reason	Upgrade Failure Reason	• Attribute	O Reference	
Syncronization	activity does not delete any CIs on the existi		CurrentSMU Upgrade Date	CurrentSMU Upgrade Date	 Attribute 	O Reference	
			CurrentSMU	CurrentSMU	 Attribute 	O Reference	
	Cisco DNA Center - Inventory Device Data :		Prior Upgrade Date	Prior Upgrade Date	 Attribute 	O Reference	
	The following data is synchronized between (Code Upgrade Date	Code Upgrade Date	 Attribute 	O Reference	
	Host Name	Exit	t			Back	Next

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 19** 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** to proceed.

Step 20 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.

Cisco DNA Center Bundles Configurations		Configure E Configure your bur	Basic ITSM (ServiceNow) CMDB synchron	ization			×
< Bundles	Basic ITSM (ServiceNow) C	Update Tra	ansforms				
в	Ver en ekstelde og senereter instigerer bisker	Device Family	CI Class				*
	configuration management database(CMDB). Management processes of incident, change o between Cisco DNA Center and the CMDB sy	Routers	cmdb_ci_ip_router				
Vendor Cisco Systems, Inc.	Center platform. Otherwise, further bundle inti	Switches and Hubs	cmdb_ci_ip_switch				
Version 1.3.1	Information Contents Release Notes						
Platform DNAC 1.2.5 + Tags Device Discovery, CMDB Syncronization	This Basic ITSM(ServiceNow) CMDB Sync publishes it either one-time or on a recurring Reconciliation API on the ITSM(ServiceNow on the ITSM(ServiceNow) system with the si a duplicate in the response. Any updated int activity does not delete any CIs on the exist						
	Cisco DNA Center - Inventory Device Data						
	The following data is synchronized between (*
	Host Name	Exit		Bac	k	Next	

Figure 12: 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.

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	

Table 1: Default Device Family to CI Class Mapping List

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 21 In the Set Source Identifier and Operational Limit window, configure the data source and maximum limit. *Figure 13: Set Source Identifier and Operational Limit Window*

E Cisco DNA Center		Configure Basic ITSM (ServiceNow) CMDB synchronization
Bundles Configu	urations	
		Set Source Identifier and Operational Limit
	Basic ITSM (ServiceNow) C	Enter Discovery Source * Other Automate d 3
В	You can schedule a synchronization or trigger configuration management database(CMDB) Management processes of incident, change o	Enter Max Limit * 1000
Vendor Cisco Systems, Inc.	Center platform. Otherwise, further bundle inte	
Version 1.3.1	Information Contents Release Notes	
Platform DNAC 1.2.5 + Tags Device Discovery, CMDB Syncronization	This Basic ITSM(ServiceNow) CMDB Sync publishes it either one-time or on a recurring Reconciliation API on the ITSM(ServiceNow on the ITSM(ServiceNow) system with the s a duplicate in the response. Any updated int activity does not delete any CIs on the exist	

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
 - **Note** Other Automated is a pre-configured 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 pre-configured 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 22 In the **Summary** window, review the configuration summary.

Figure 14: Summary Window



After reviewing the information, click Configure.

For a successful configuration, you will 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 methods described in Step 9 above.

Review your configuration, click **Manage** > **Configurations** > **General Settings** and use the **Filter** or **Find** tools to locate the instance configured in this procedure. If necessary, later on you can edit, update, or delete the instance in the **General Settings** window. For additional information, see Configure General Settings: Edit an Instance.

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

- In the Cisco DNA Center platform GUI, click the Menu icon (=) > 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