

将Catalyst Center库存与服务Now CMDB系统同步

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简介

本文档介绍Catalyst Center与ITSM (ServiceNow)集成的CMDB同步使用案例。

背景信息

本文档从涉及的组件、前提条件、事件流、配置、工作流程执行和故障排除方案开始，介绍了与CMDB同步相关的所有详细信息。如果ServiceNow实例上安装了Cisco DNA App，则此命令也很重要。

安装在SNOW实例上的Cisco DNA应用使用Cisco DNA Center资产作为数据源，将Cisco Catalyst Center发现的设备的基本单向同步安排到ServiceNow配置管理数据库(CMDB)中。思科DNA应用支持从思科DNA中心到服务立即的CMDB同步。

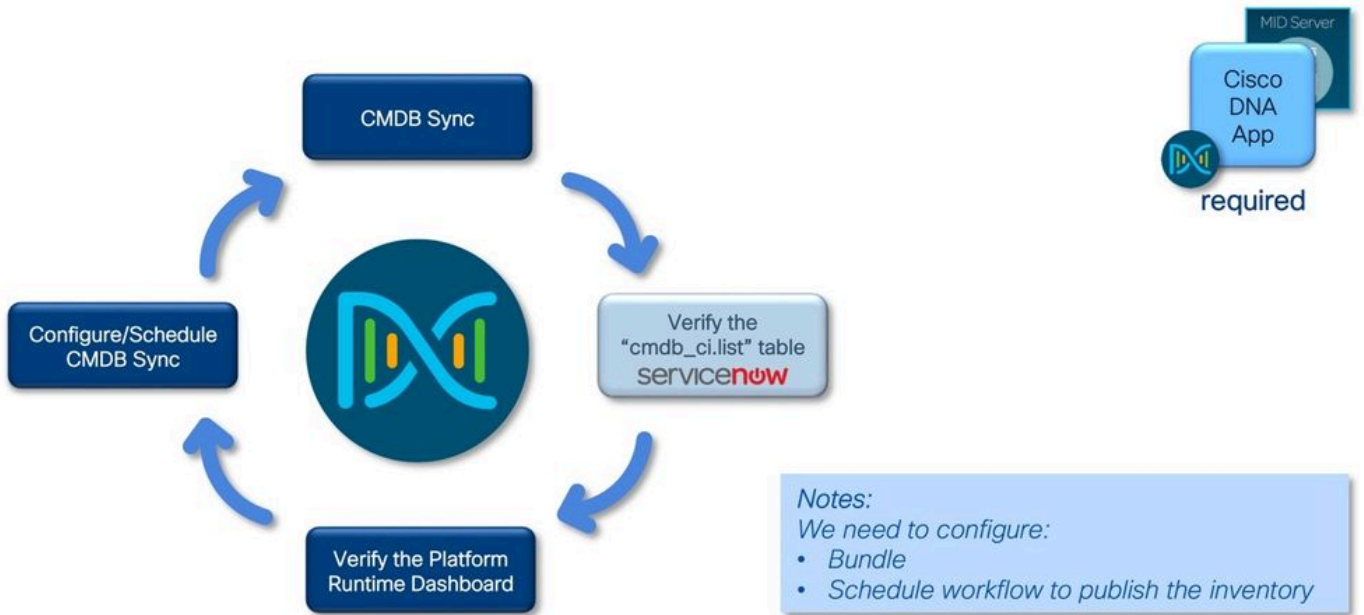
Cisco Catalyst Center-ITSM (ServiceNow)集成

有关Catalyst Center-ITSM集成的详细信息，请参阅以下文档：

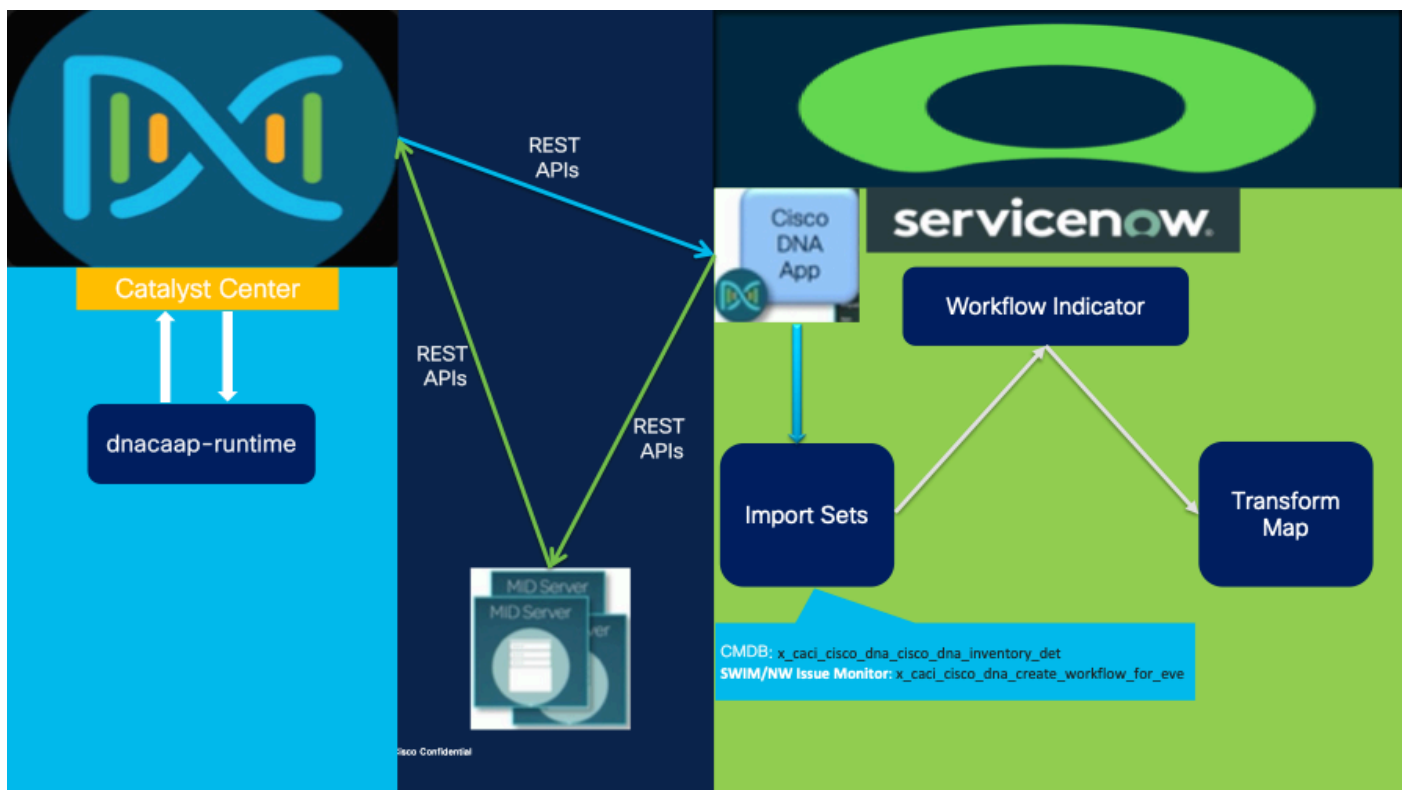
[介绍Catalyst Center和ITSM集成的基本概念](#)

架构：CMDB同步

CMDB同步：高级架构



CMDB同步工作流程：基本要求



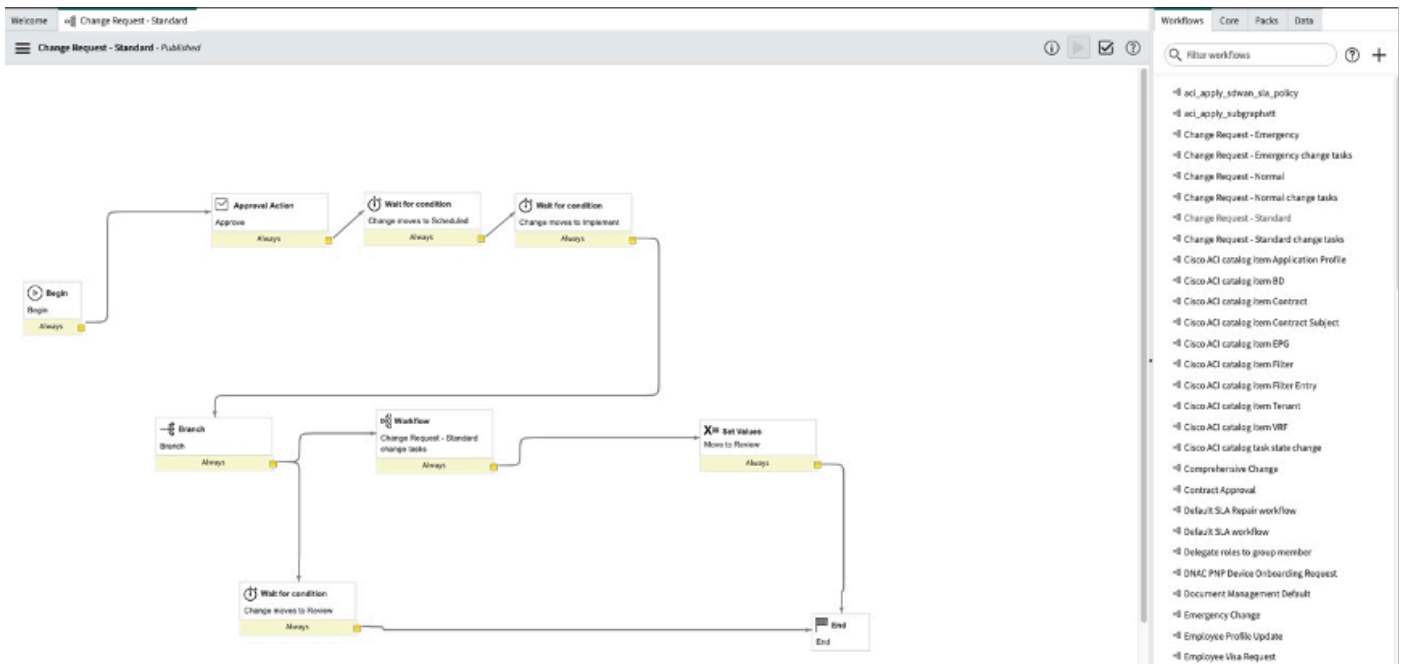
事件流：Catalyst Center

- 当触发CMDB同步事件时，dnacaap-runtime服务开始发挥作用，dnacaap-platform调度程序创建作业ScheduleDnaacaapJob，该作业以预定频率发现网络中的设备，并提取所需的设备信息，以便能够将资产与ITSM系统同步。
- 然后，Catalyst Center对安装在SNOW实例上的Cisco DNA应用进行REST API调用。

事件流：ITSM (ServiceNow)

- 从Cisco Catalyst Center选择并通知网络中发生的网络事件（CMDB Sync、SWIM、网络问题），然后使用ServiceNow中的ServiceNow导入集API或脚本REST API或通用REST API终端推送到ServiceNow。数据过帐到的导入集表为x_caci_cisco_dna_cisco_dna_inventory_det。
- 安装在SNOW上的思科DNA应用使用来自Cisco Catalyst Center中发生事件的数据。网络运营团队为每个事件选择的关联工作流程指示器以及其他用户选择（如类型、类别、严重性）会导致创建事故、问题或RFC（更改请求）。

来自DNA的每个事件记录都有一个关联的工作流指示符，用于确定事件可在ServiceNow中通过哪种类型的工作流。此代码段是工作流指示器的一个示例。



- 根据工作流程指示器决策，可以执行转换映射之一，并解析临时表中的数据并将其映射到相应的目标表（事件/问题或更改）。

CMDB同步捆绑配置

有关CMDB同步捆绑包配置，请参阅配置基本ITSM (ServiceNow) CMDB同步捆绑包(Cisco DNA Center ITSM集成指南，[2.3.5版](#))部分。

CMDB同步工作流执行

Catalyst中心

1. 导航到平台>开发员工具包>集成；将鼠标悬停在3个点上，然后单击计划流程。

Schedule to Publish Inventory Details - ServiceNow Connector



Scheduled

DESCRIPTION

This scheduler discovers the devices in the network in a scheduled frequency and extracts the required device information to be able to sync the Inventory with an ITSM system.

TAGS

ServiceNow

HOW TO USE THIS FLOW

The integration flows can be scheduled to run periodically at a specified date/time. Configure scheduling the integration flow with the form provided.

* Schedule window cannot be lower than 24 hours

- Run Now
- Run Later
- Recurring

Schedule

2. 选择CMDB计划类型，然后单击计划。

Integration Flow Summary

REST-Based (0) | 0 flows | **Schedule-Based (1) | 0 flows**

Filter | Export | [IQ Find](#)

Domain	Name	Version	Instances			Performance			
			All (X) +				Minimum	Maximum	Average
Integrations	Schedule to Publish Inventory Details - ServiceNow Connector	V1	1	0	0	1	23.303s	23.303s	23.303s

3. 要查看CMDB同步计划状态的状态，请导航到平台>运行时控制面板>集成流摘要。

Schedule to Publish Inventory Details - ServiceNow Connector (1)

Schedule-Based Integration Flow

Export

Filter | [IQ Find](#)

Instance ID	Status	Start Time	End Time +	Duration
c1187910-b2b8-4a36-9132-e738c2c3cafd	SUCCESS	July 28th 2024, 12:36:56 pm	July 28th 2024, 12:37:19 pm	23303 ms

Schedule to Publish Inventory Details - ServiceNow Connector

c1187910-b2b8-4a36-9132-e738c2c3cafd Details

RUN SUMMARY				ERRORS	
Start Time	July 28th 2024, 12:36:56 pm	Time Taken	23303 ms	Data is not Available	
End Time	July 28th 2024, 12:37:19 pm	Status	SUCCESS		

LOGS

No Logs are available

4. 可以监控dnacaap-runtime服务的日志，以查看诸如计划ID、bapi密钥、bapi id等详细信息，这些详细信息可在工作流失败时用于调试。

```
| INFO | dnacaap-management-akka.actor.default-dispatcher-78546 | 200834 |
com.cisco.dna.commons.scheduler.repository.ScheduleDAO | scheduleId : 86d0b48f-
c1e3-4cfa-b207-85c3725c5604 Insert schedule invoked for This scheduler discovers
the devices in the network in a scheduled frequency and extracts the required device
information to be able to sync the Inventory with an ITSM system. |

| INFO | dnacaap-management-akka.actor.default-dispatcher-78546 | 200834 |
com.cisco.dna.commons.scheduler.util.ScheduleUtil | Job ScheduleDnaacaapJob
created for schedule 86d0b48f-c1e3-4cfa-b207-85c3725c5604 |

| INFO | DefaultQuartzScheduler_Worker-1 | 95 |
com.cisco.dnacapp.components.scheduler.service.ScheduleDnaacaapJob | 86d0b48f-
c1e3-4cfa-b207-85c3725c5604 | Scheduling job with scheduleId 86d0b48f-c1e3-
4cfa-b207-85c3725c5604, bapi key 3a96-a800-4c2b-a29c ,bapi id c1187910-
b2b8-4a36-9132-e738c2c3cafd |

| INFO | OkHttp http://dnacaap-runtime.dnacaap.svc.cluster.local:8095/... | 200852 |
com.cisco.dna.commons.scheduler.util.ScheduleUtil | No more schedules available for
86d0b48f-c1e3-4cfa-b207-85c3725c5604 ,hence the schedule is marked to
completed |
```

运行时控制面板上提到的实例ID是工作流程的bapi id。

Schedule to Publish Inventory Details - ServiceNow Connector (1)

Schedule-Based Integration Flow

Export

Filter EQ Find

Instance Id	Status	Start Time	End Time *	Duration
c1187910-b2b8-4a36-9132-e738c2c3cafd	SUCCESS	July 28th 2024, 12:36:56 pm	July 28th 2024, 12:37:19 pm	23303 ms

ITSM-ServiceNow

Import Set Table of ServiceNow接收来自Cisco Catalyst Center的CMDB同步事件。使用ServiceNow中的ServiceNow Import Set API或脚本REST API或通用REST API终端将数据推送到ServiceNow。

- 要检查从Cisco Catalyst Center发布到ServiceNow的数据，请导航到导入集，并在表中查找导入集条目：x_caci_cisco_dna_cisco_dna_inventory_det

The screenshot shows the ServiceNow 'Import Sets' interface. At the top, there's a search bar and navigation tabs. Below, a table lists import sets. One entry is visible: 'ISSET0027463' with a 'Processed' state. Below the table, the details for this import set are shown, including its number, mode, import set table, and short description. At the bottom, there's a section for 'Import Set Rows' with a table showing one row in a 'Ignored' state.

Number	Short description	State	Import set table	Data source	Created	Load completed	Load run time
ISSET0027463	Synchronous REST transformation	Processed	Cisco DNA Inventory Details [x_caci_cisco_dna_cisco_dna_inventory_det]	(empty)	2024-07-28 00:07:17	(empty)	

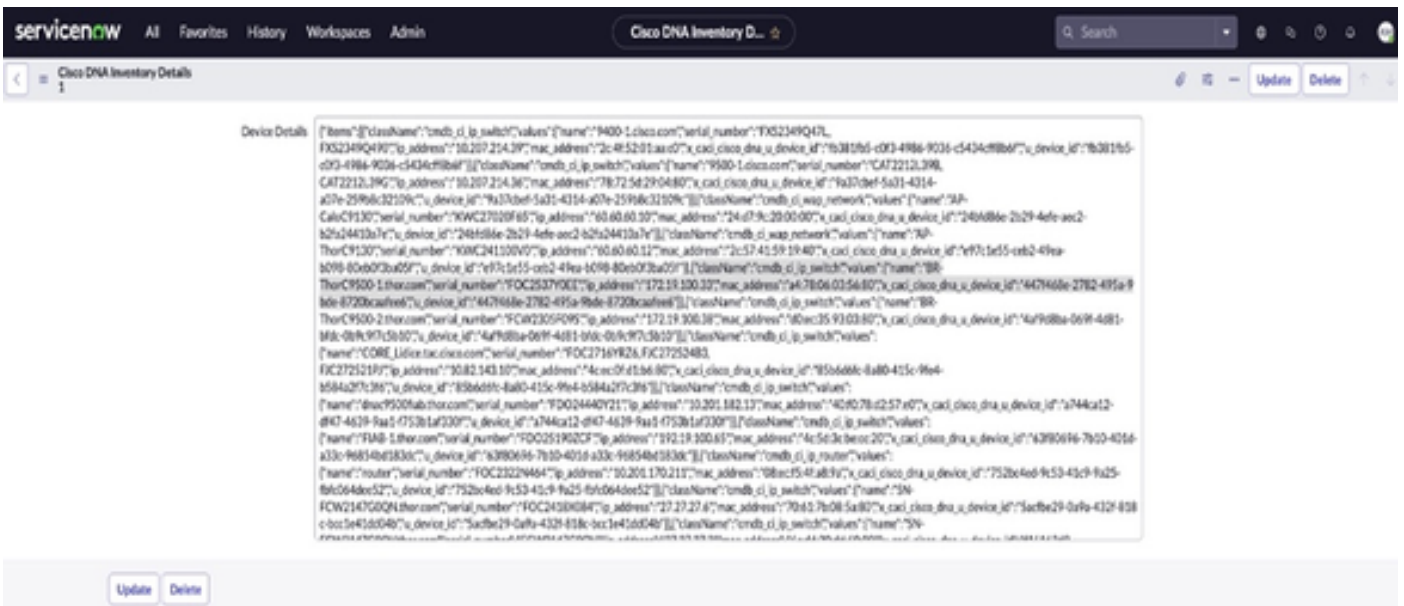
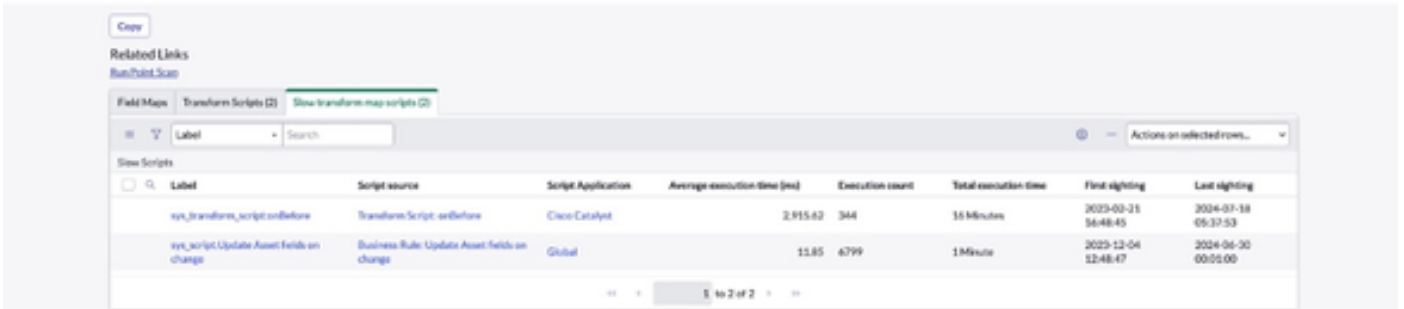
Created	Row	State	Target record	Error	Comment	Transform Map
2024-07-28 00:07:17	1	Ignored	(empty)	(empty)	<Defl version="1.0" encoding="UTF-8" ...>	Cisco DNA Inventory Details

- Workflow Indicator确定事件在ServiceNow中必须经过的工作流的类型；根据工作流指示器决策，将执行其中一个转换映射。

转换映射表：

The screenshot shows the ServiceNow 'Table Transform Maps' interface. It features a search bar and navigation tabs. Below, a table lists transform maps. One entry is visible: 'Cisco DNA Inventory Details' mapping from 'Cisco DNA Inventory Details [x_caci_cisco_dna_cisco_dna_inventory_det]' to 'Configuration Item [cmdb_ci]'.

Name	Source table	Target table	Run business rules	Order	Active	Updated
Cisco DNA Inventory Details	Cisco DNA Inventory Details [x_caci_cisco_dna_cisco_dna_inventory_det]	Configuration Item [cmdb_ci]	true	100	true	2020-05-14 02:15:17

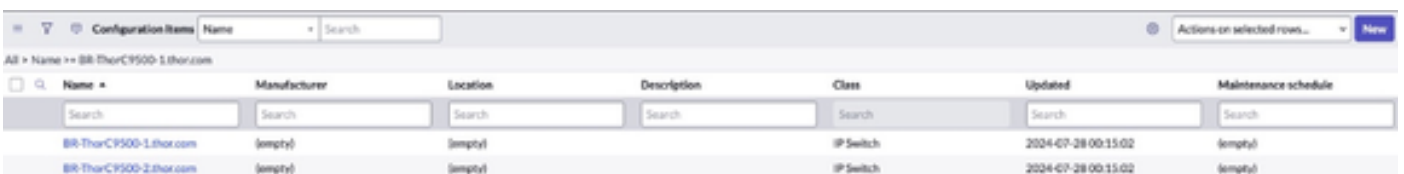


CMDB同步 workflow 执行验证

CMDB同步成功后，Cisco Catalyst Center的资产详细信息将发布到ServiceNow的CMDB数据库中。

要查看从Cisco Catalyst Center同步到ServiceNow CMDB的CI，请在全局搜索中键入cmbd_ci.LIST。将打开一个新选项卡，其中列出了ServiceNow系统中可用的所有CI。

ServiceNow CMDB中的DNAC CI条目：



IP Switch
BR-ThorCV9500-1.thor.com

Dashboard Form Update Delete

Name BR-ThorCV9500-1.thor.com Company
Asset tag FOC2537VDEE
Manufacturer Unknown Model ID Unknown
Asset Unknown Firmware version
Assigned to

Configuration Other Attributes

Device type --None-- IP Address 172.19.100.33
Location Estimated bandwidth
Ports Firmware manufacturer
Channels Firmware version
Description

Related Items Search for CI + -

相关信息

- [范围Catalyst Center和ITSM集成的基本概念（新）65个字符](#)
- [使用Catalyst Center Network Issue Monitor and Encryption for ITSM](#)
- [监控ITSM的Catalyst Center Automation \(SWIM\)事件](#)
- [Cisco DNA Center ITSM集成指南，版本2.3.5](#)

关于此翻译

思科采用人工翻译与机器翻译相结合的方式将此文档翻译成不同语言，希望全球的用户都能通过各自的语言得到支持性的内容。

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