

# 使用Catalyst Center Network Issue Monitor and Encryption for ITSM

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## 简介

本文档介绍Catalyst Center和ITSM (ServiceNow)集成的网络问题监控器使用案例。

## 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，介绍了与网络问题监控器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。

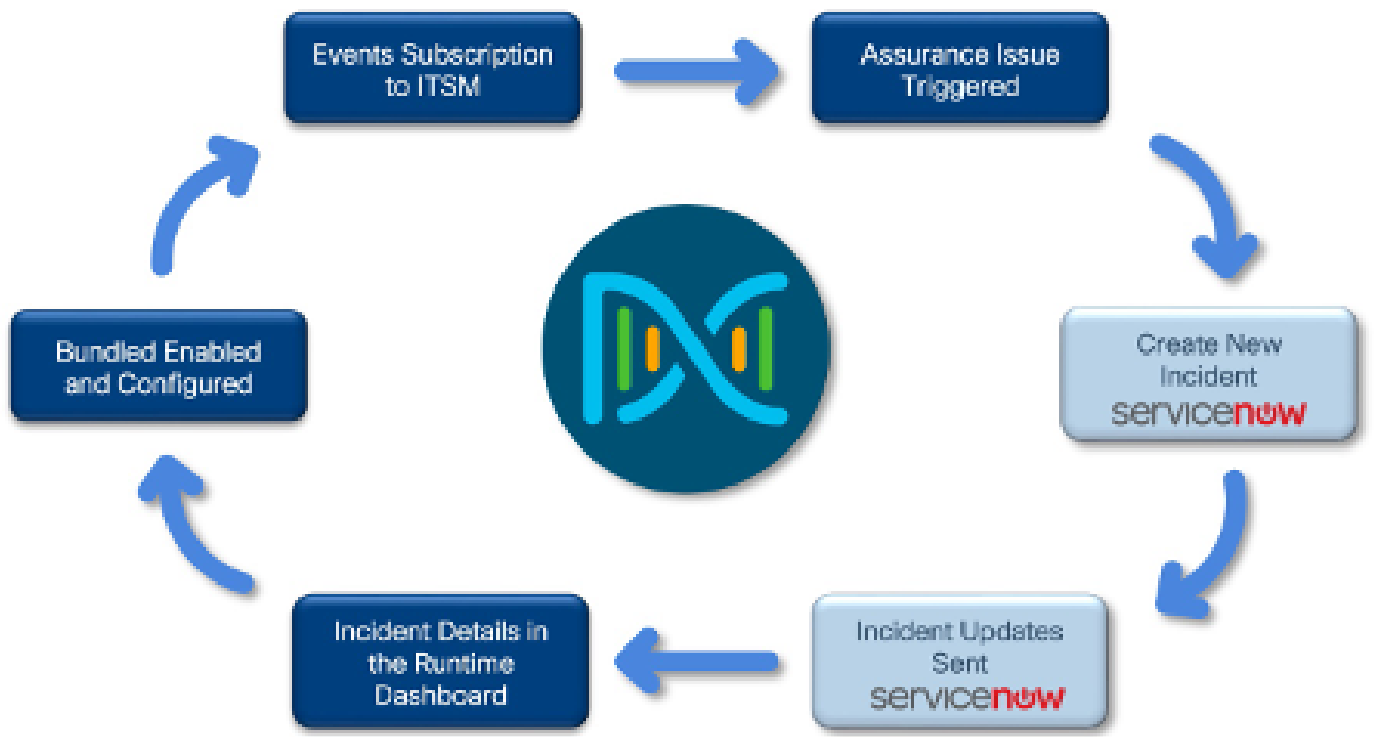
## Cisco Catalyst Center-ITSM (ServiceNow)集成

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

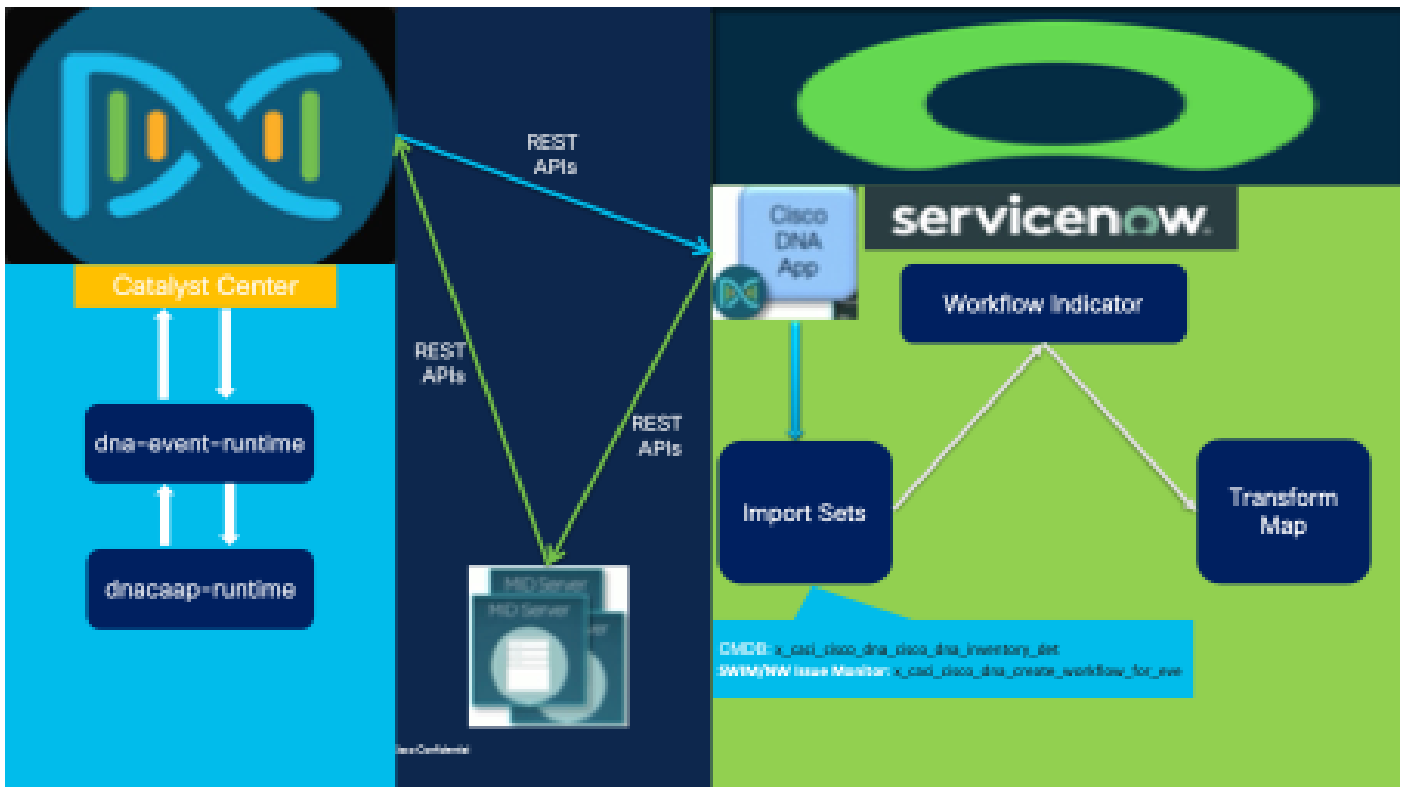
[介绍Catalyst Center和ITSM集成的基本概念](#)

## 架构：网络问题监控器

[网络问题监控器工作流程：高级架构](#)



网络问题监控工作流程：深入研究



事件流：Catalyst Center

- 当网络中触发预订的事件时，Catalyst Center的Assurance组件会在Issues & Events控制面板和Device 360控制面板下列出问题。
- Catalyst Center的dna-event-runtime服务接收事件并将其提交到dnacaap-runtime服务，然后

该服务在Runtime控制面板上触发事件的发布。

#### dna-event-runtime Logs Snippet:

```
{"instant":{"epochSecond":1722414310,"nanoOfSecond":301000000},"thread":"dna-event-akka.actor.default-dispatcher-4","level":"INFO","loggerName":"com.cisco.dna.event.runtime.datapath.pipeline.actors.flow.sinks.RestSink","message":"RestSink submitting event [eventId:NETWORK-NON-FABRIC_WIRED-1-251 instanceld:a257cc99-07b1-443a-8e15-5d744bcdd530] request to URL http://dnacaap-runtime.dnacaap.svc.cluster.local:8095/dnacaap/core/v1/aes","endOfBatch":false,"loggerFqcn":"org.apache.logging.slf4j.Log4jLogger","threadId":36,"threadPriority":5,"tenantId":"nobody","requestId":"None","userId":"nobody","userName":"nobody","asctime":"2024-07-31 08:25:10,301","timeMillis":"1722414310301"}

{"instant":{"epochSecond":1722414310,"nanoOfSecond":358000000},"thread":"OkHttp http://dnacaap-runtime.dnacaap.svc.cluster.local:8095/...", "level":"INFO","loggerName":"com.cisco.dna.event.runtime.datapath.pipeline.actors.flow.sinks.RestSink","message":"RestSink is SUCCESS for eventId:NETWORK-NON-FABRIC_WIRED-1-251 instanceld:a257cc99-07b1-443a-8e15-5d744bcdd530 subld:nesNew subName:null responseCode:202 responseBody:okhttp3.internal.http.RealResponseBody@49cc90d7 responseMessage:", "endOfBatch":false,"loggerFqcn":"org.apache.logging.slf4j.Log4jLogger","threadId":6228,"threadPriority":5,"tenantId":"nobody","requestId":"None","userId":"nobody","userName":"nobody","asctime":"2024-07-31 08:25:10,358","timeMillis":"1722414310358"}
```

#### dnacaap-runtime Logs Snippet:

```
{"instant":{"epochSecond":1722414720,"nanoOfSecond":508000000},"thread":"dnacaap-runtime-akka.actor.default-dispatcher-6237","level":"INFO","loggerName":"com.cisco.dnacaap.flow.storage.BapiExecutionIgniteStore","message":"Creating Ignite Cache : bapiExecutionId: 740b2263-ab8b-44eb-ad98-833e5f395dc0, storageKey: issue_details_arr","endOfBatch":false,"loggerFqcn":"org.apache.logging.slf4j.Log4jLogger","threadId":50390,"threadPriority":5,"tenantId":"nobody","correlationId":"None","userId":"nobody","userName":"nobody","asctime":"2024-07-31T08:32:00.508Z","timeMillis":"1722414720508"}

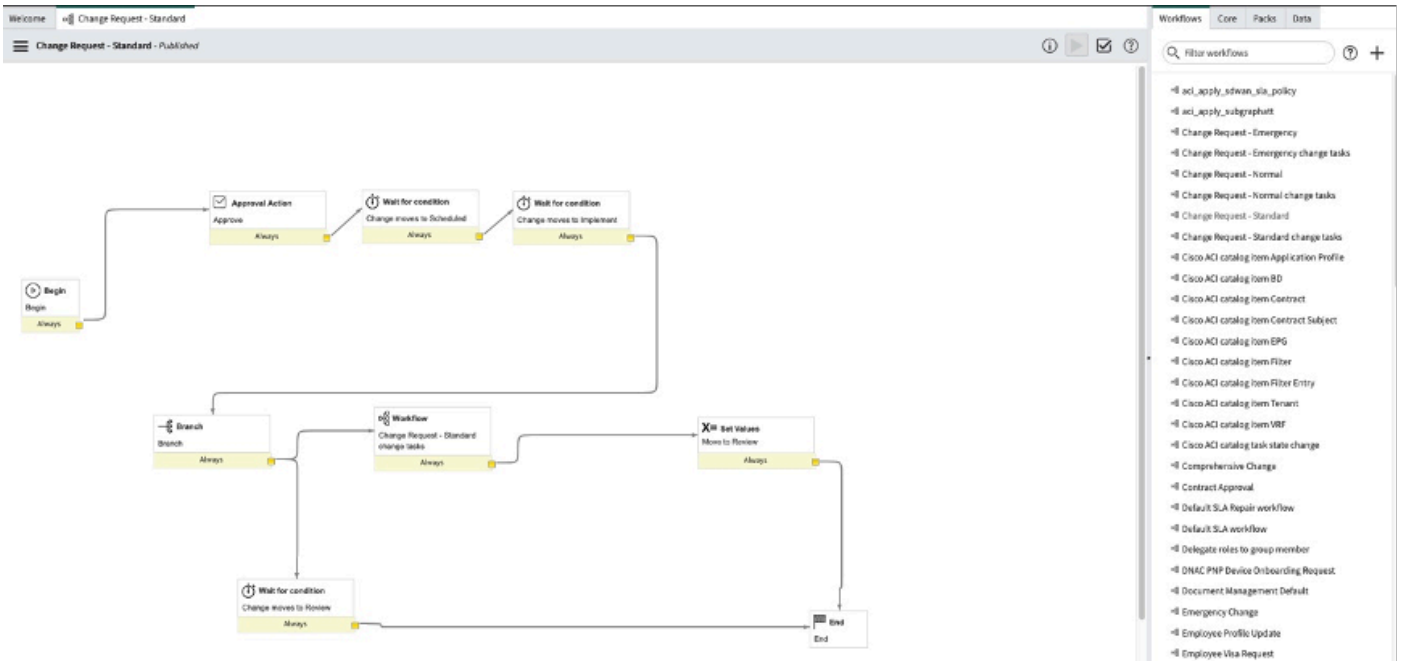
{"instant":{"epochSecond":1722414720,"nanoOfSecond":625000000},"thread":"dnacaap-runtime-akka.actor.default-dispatcher-6236","level":"INFO","loggerName":"com.cisco.dnacaap.flow.storage.BapiExecutionIgniteStore","message":"Creating Ignite Cache : bapiExecutionId: 3c0a2789-e5db-4ebf-aaa8-b7a0be4b299f, storageKey: issue_details_arr","endOfBatch":false,"loggerFqcn":"org.apache.logging.slf4j.Log4jLogger","threadId":50389,"threadPriority":5,"tenantId":"TNT0","correlationId":"None","userId":"dna-event-runtime","userName":"dna-event-runtime","asctime":"2024-07-31T08:32:00.625Z","timeMillis":"1722414720625"}
```

- 然后，Catalyst Center对ServiceNow实例上安装的思科DNA应用执行REST API调用。
- 思科DNA应用可自动触发思科DNA中心发布的网络事件的问题、事件和更改工作流程。

#### 事件流：ITSM (ServiceNow)

- 网络中发生并通知的网络事件将从Cisco Catalyst Center中挑选并推送到ServiceNow，使用ServiceNow导入集API、脚本REST API或ServiceNow中的通用REST API终端。数据过帐到的导入集表为x\_caci\_cisco\_dna\_create\_workflow\_for\_eve。

- 根据事件配置中设置的工作流指示器值，将基于转换脚本在ServiceNow中创建事件/问题通知单。
- 来自DNA的每条问题事件记录都有一个关联的工作流指示符，用于确定事件在ServiceNow中经历的工作流类型。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，执行转换映射之一，并且分析临时表中的数据并将其映射到在网络问题事件情况下是事故的适当目标表。

servicenow All Favorites History Workspaces Admin Table Transform Maps

Table Transform Maps Name Search

All > Source table contains dna > Name => Incident CommandOutputUpdate

Name	Source table	Target table
Incident CommandOutputUpdate	Incident CommandOutputUpdate [x_caci_cisco_dna_incident_commandoutputs]	Incident (incident)
Incident DNA Transform	Incident DNA Import [x_caci_cisco_dna_incident_dna_import]	Incident (incident)
Incident Status Update	Ticket Status Update [x_caci_cisco_dna_ticket_status_update]	Incident (incident)

- 目标对象中的思科DNA应用通过Cisco Catalyst Center中的网络详细信息丰富了ITSM票证。思科DNA应用会向Cisco Catalyst Center发出REST API调用，以获取各种类型的丰富信息，例如设备、问题、用户和用户创建的票证。

## 网络问题监控器捆绑配置

Network Issue Monitor and Excentration for ITSM (ServiceNow)捆绑包从Cisco Catalyst Center检索事件，以了解任何保证和维护问题。然后，捆绑包会定期将事件数据发布到ITSM (ServiceNow)系统。

此捆绑包还包含提取丰富网络情景数据的API。如果您的网络设备尚未在Cisco Catalyst Center和ITSM (ServiceNow CMDB)系统之间同步，建议在激活此捆绑之前激活Basic ServiceNow CMDB同步捆绑包。但是，只要CI条目在ServiceNow CMDB中可用，则不必运行CMDB同步。

事件数据可以发布到ServiceNow中的Event表中。如果您的ServiceNow实例中没有事件管理插件，则可以将该捆绑配置为在ServiceNow的任何通用REST终端中接收事件。

有关网络问题监控和强化捆绑配置，请参阅Cisco DNA Center ITSM集成指南([Cisco DNA Center ITSM集成指南，版本2.3.5](#))的“配置用于ITSM的网络问题监控和强化(ServiceNow)捆绑”部分

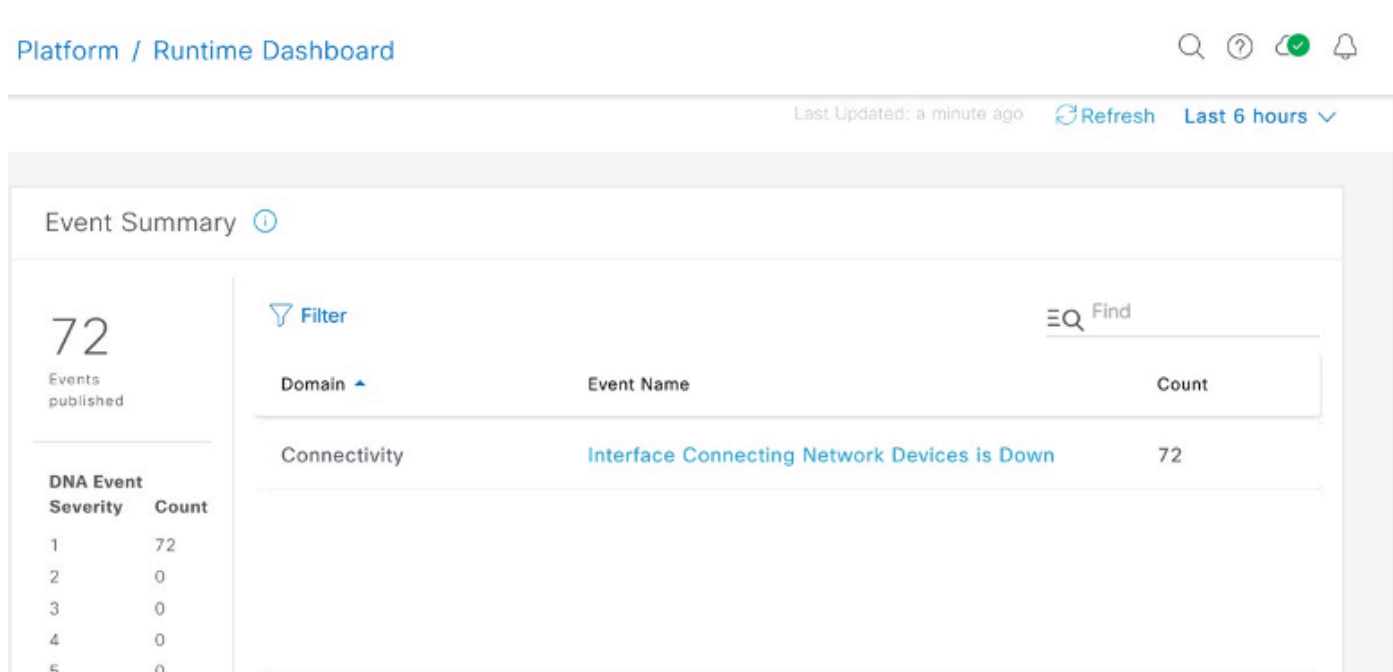
## 网络问题监控工作流程执行

### Catalyst中心

1. 保证控制面板列出网络中报告的问题，这些问题发布在运行时控制面板上。



- ii. 相应问题在Catalyst Center的Platform Runtime控制面板上列为“事件”。



Event History - e15647e1-13c6-401f-a450-22b69268e740

Last updated: a few seconds ago

Filter Find

Source	Destination	ITSM Workflow	ITSM Status	ITSM ID	ITSM Link	ITSM Last updated/Flow	ITSM Entry Severity/Priority	ITSM Event Severity
ServiceNow	Cisco DNA Center	Incident	Resolved	INC0334635	<a href="https://www000011.service-now.com/incident.do?sys_id=1189e0e08040000a0000000000000000">https://www000011.service-now.com/incident.do?sys_id=1189e0e08040000a0000000000000000</a>	August 06, 2024, 11:01:23 am	11 - Critical	11
Cisco DNA Center	ServiceNow	Incident	New	NA	NA	July 31st 2024, 12:37:43 pm	NA	11

## ITSM-ServiceNow

Cisco Catalyst Center中的警报事件通过Import Set Table of ServiceNow接收。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`

1. 从“导入集”控制面板中筛选出表`x_caci_cisco_dna_cisco_dna_inventory_det`的导入集条目。

Number	Short description	State	Import set table	Data source	Created	Load completed	Load run time
ISET0027494	Synchronous REST transformation	Processed	Create Workflow for Event from DNA [x_caci_cisco_dna_create_workflow_for_evt]	{empty}	2024-07-31 00:07:43	{empty}	

ii.检查导入集的详细信息，并检查各事件编号的导入集行。

Number: ISET0027494  
 Mode: Synchronous  
 Import set table: Create Workflow for Event from DNA [x\_caci\_cisco\_dna\_create\_workflow\_for\_evt]  
 Short description: Synchronous REST transformation

Created: 2024-07-31 00:07:43  
 Load completed:   
 Load run time:   
 Update Delete

Related Links  
 Backprocess

Import Set Runs (228) | Import Set Rows (228) | Import Log (4)

Created	Row	State	Target record	Error	Comment	Transform Map
2024-07-31 00:07:43	1	Ignored	{empty}	{empty}	Row transform ignored by onBefore script	Create Problem for Event from DNA
2024-07-31 00:07:43	1	Ignored	{empty}	{empty}	Row transform ignored by onBefore script	Create Change Request for Event from DNA
2024-07-31 00:07:43	1	Inserted	Incident: INC0334635	{empty}		Create Incident for Event from DNA

iii. 工作流程指示器确定事件在ServiceNow中必须经过的工作流程类型；根据工作流程指示器决策，执行转换映射之一。

iv. 要检查转换映射的详细信息，请在导入集行的转换映射列中单击超链接。

事件事件的转换映射表：

servicenow All Favorites History Workspaces Admin Table Transform Maps

Table Transform Maps Name Search

All > Source table:cnsl:incident > Name: Incident CommandOutputUpdate

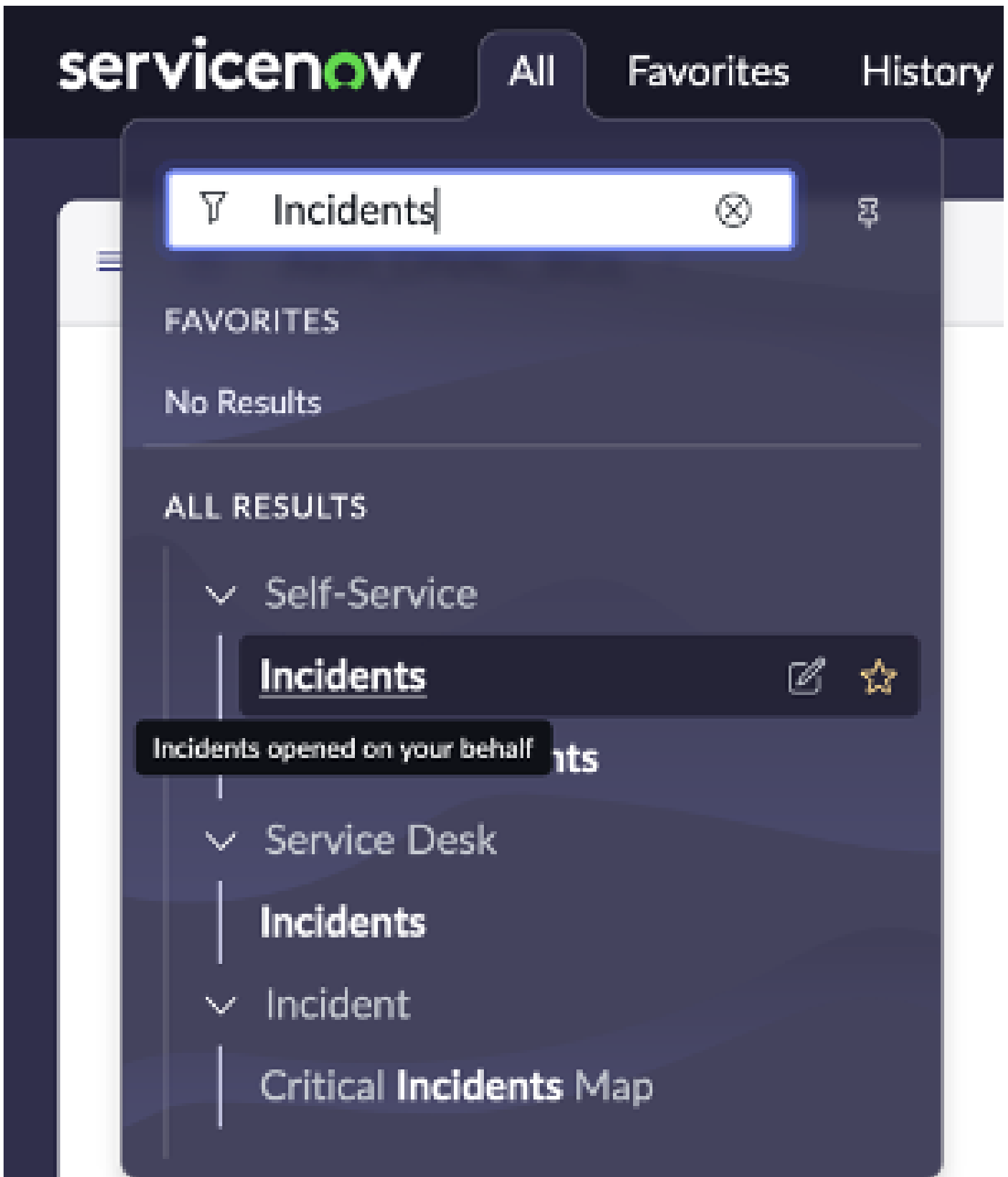
Name	Source table	Target table
Search	Table	Search
<a href="#">Incident CommandOutputUpdate</a>	Incident CommandOutputUpdate [x_caci_cisco_dna_incident_commandoutput]	Incident (Incident)
<a href="#">Incident DNA Transform</a>	Incident DNA Import [x_caci_cisco_dna_incident_dna_import]	Incident (Incident)
<a href="#">Incident Status Update</a>	Ticket Status Update [x_caci_cisco_dna_ticket_status_update]	Incident (Incident)

## 网络问题监视器 workflow 执行验证

- 工作流程成功执行后，可以使用报告问题的设备的问题详细信息创建事故单。

1. 全局搜索>服务台>事件。





ii. 从事故单控制面板中过滤事故单。

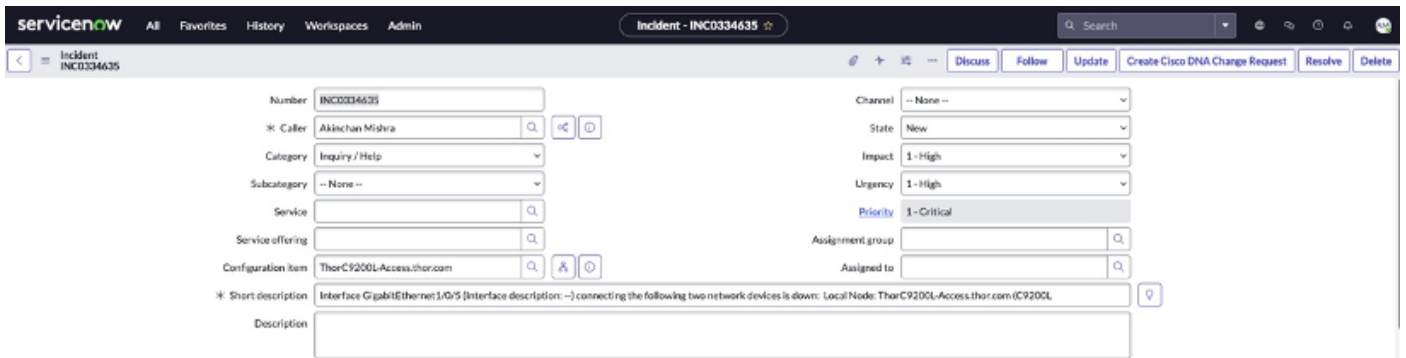
The image shows the ServiceNow Incidents list view. The breadcrumb navigation at the top reads 'All > Active = true > Number = INC034653'. The table below displays a list of incidents with the following columns: Number, Opened, Short description, Caller, Priority, State, Category, Assignment group, Assigned to, Updated, and Updated by. One incident is visible with the following details:

Number	Opened	Short description	Caller	Priority	State	Category	Assignment group	Assigned to	Updated	Updated by
INC034653	2024-07-31 01:25:23	Interface TenGigabitEthernet1/0/5 (Interface description: -) connecting the following two network devices is down: Local Node: BR-TheorC9500-2.theor.com IC9500-	Akinchan Mishra	1 - Critical	Resolved	Inquiry / Help	(empty)	(empty)	2024-08-01 00:43:53	akimishr



### 三。事故单详情

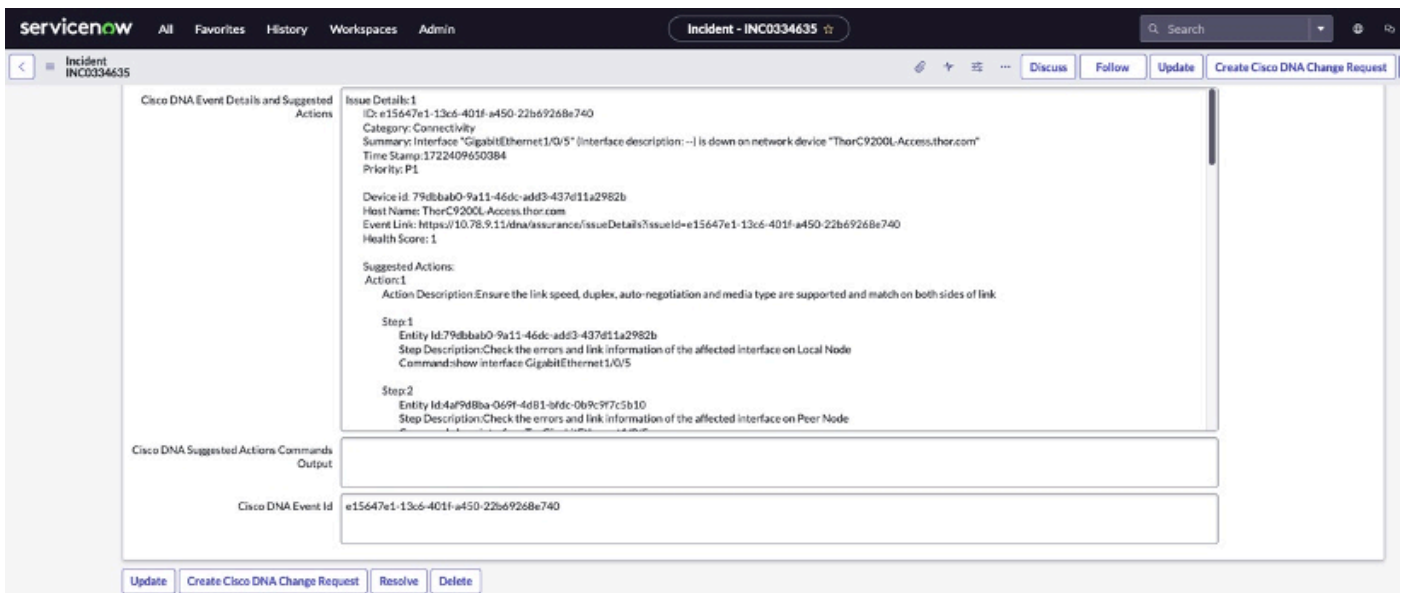
a. 打开事故单以查看详细信息。



b. “事故单”的“思科DNA”选项卡包含多个部分，一个是“设备丰富”信息。



c. 思科DNA事件的详细信息和建议的操作是另一部分。



### 相关信息

- [介绍Catalyst Center和ITSM集成的基本概念](#)
- [将Catalyst Center库存与ServiceNow CMDB系统同步](#)
- [监控ITSM的Catalyst Center Automation \(SWIM\)事件](#)

## 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。

请注意：即使是最好的机器翻译，其准确度也不及专业翻译人员的水平。

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