

使用Catalyst Center Network Issue Monitor and Encryption for ITSM

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簡介

本文檔介紹Catalyst Center和ITSM (ServiceNow)整合的網路問題監控器使用案例。

背景資訊

本文檔從涉及的元件、前提條件、事件流程、配置、工作流程執行和故障排除方案開始，介紹了與網路問題監控器相關的所有詳細資訊。如果在ServiceNow例項上安裝了Cisco DNA應用，則這一點很重要。

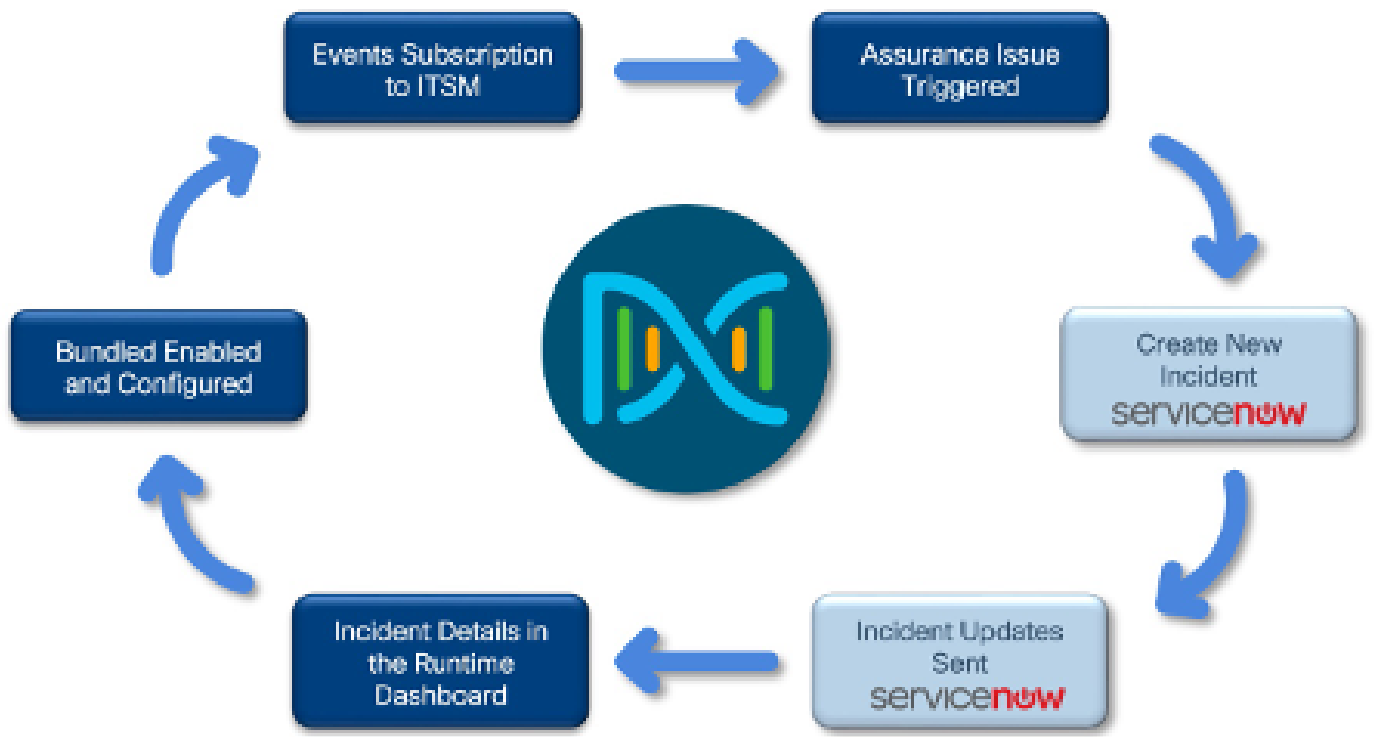
Cisco Catalyst Center-ITSM (ServiceNow)整合

如需Catalyst Center-ITSM整合的詳細資訊，請參閱以下檔案：

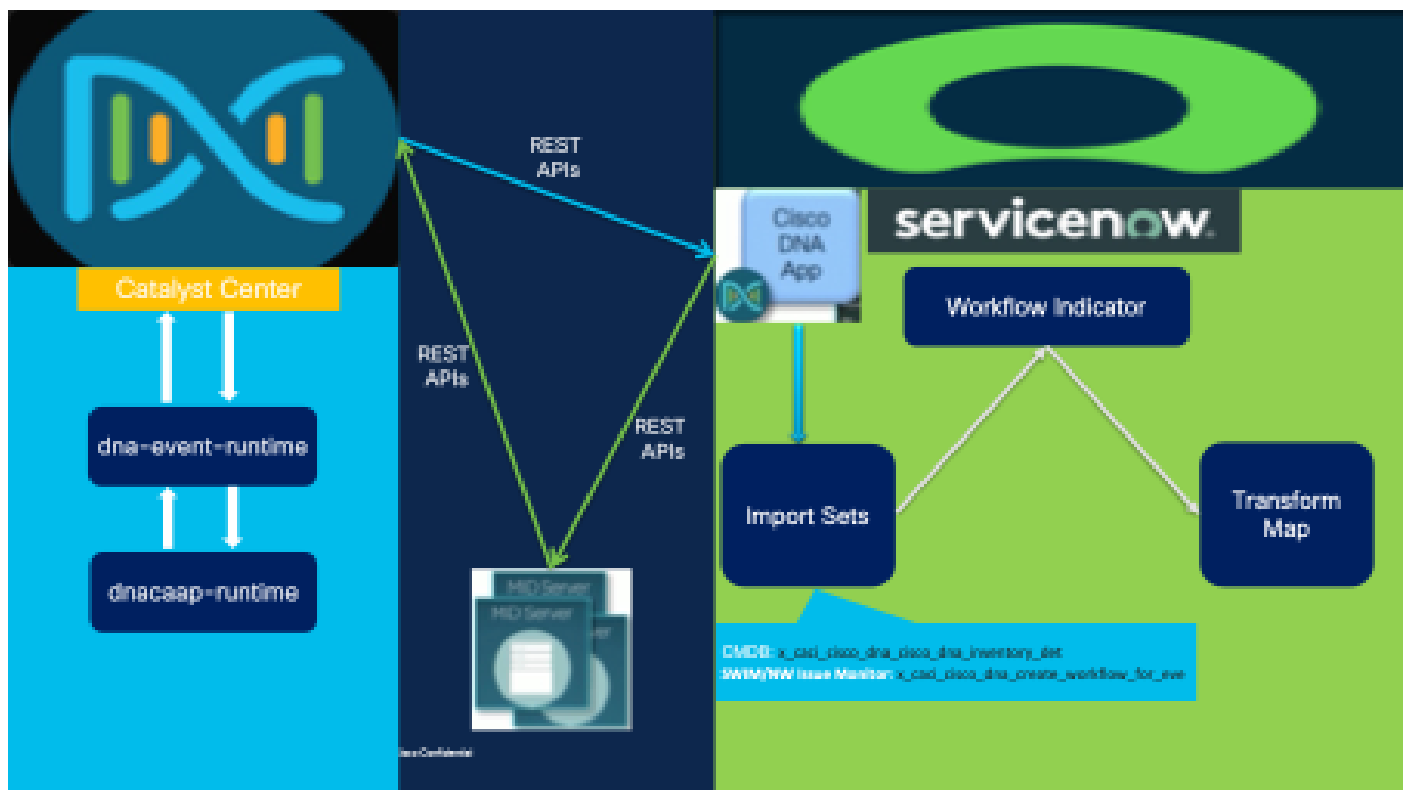
[確定Catalyst Center和ITSM整合的基本概念範圍](#)

架構：網路問題監控器

[網路問題監控工作流程：高級架構](#)



網路問題監控工作流程：Under the Hood



事件流程：Catalyst Center

- 當訂閱的事件在網路中觸發時，Catalyst Center的Assurance元件會在Issues & Events控制台和Device 360控制台下列出問題。
- Catalyst Center的dna-event-runtime服務接收事件，並將其提交到dnacaap-runtime服務，然

後觸發事件在運行時控制台上的發佈。

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"}

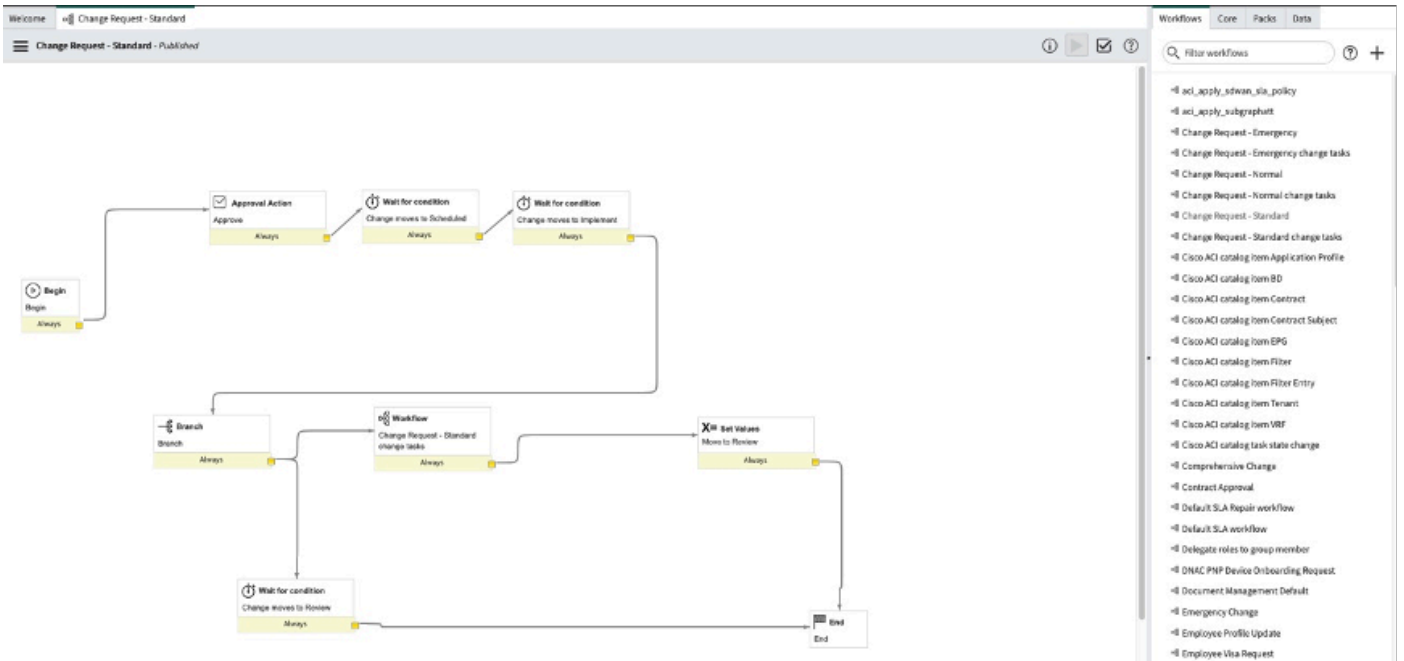
{"instant":{"epochSecond":1722414720,"nanoOfSecond":625000000},"thread":"dnacaap-runtime-akka.actor.default-dispatcher-6236","level":"INFO","loggerName":"com.cisco.dnacaap.flow.storage.BapiExecutionIgniteStore","message":"Creating Ignite Cache : bapiExecutionId: 3c0a2789-e5db-4ebf-aaa8-b7a0be4b299f, 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"}
```

- 然後，Catalyst Center對安裝在ServiceNow例項上的Cisco DNA應用進行REST API呼叫。
- 思科DNA應用會自動觸發思科DNA中心發佈的網路事件的問題、事件和更改工作流程。

事件流程：ITSM (ServiceNow)

- 在網路中發生並收到通知的網路事件將從Cisco Catalyst Center中挑選並推送到ServiceNow，使用ServiceNow中的ServiceNow Import Set API、Scripted REST API或Generic REST API終端。資料過帳到的「導入集表」為 x_caci_cisco_dna_create_workflow_for_eve。

- 根據事件配置中設定的 workflow 指示符值，將基於轉換指令碼在 ServiceNow 中建立事件/問題票證。
- 來自 DNA 的每一個「問題」事件記錄都有一個相關聯的工作流程指示器，可決定事件在 ServiceNow 中經歷的工作流程型別。此程式碼片段是「工作流程指示器」的範例。



- 根據 workflow 指示器決定，執行轉換對映之一，並且分析臨時表中的資料，並將其對映到在網路問題事件發生時的相應目標表。

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)

- 目標對象中的思科DNA應用透過Cisco Catalyst Center中的網路詳細資訊豐富了ITSM票證。Cisco DNA應用向Cisco Catalyst Center進行REST API呼叫，獲取各種型別的豐富資訊，例如裝置、問題、使用者和使用者建立的票證客戶端。

網路問題監控套件組態

Network Issue Monitor and Encryption for ITSM (ServiceNow) 捆綁包會從Cisco Catalyst Center 檢索事件，以瞭解任何保證和維護問題。然後，捆綁包將定期計畫的事件資料發佈到ITSM (ServiceNow)系統。

此捆綁包還包含提取豐富網路情景資料的API。如果您的網路裝置尚未在Cisco Catalyst Center與ITSM (ServiceNow CMDB)系統之間同步，則建議先啟動Basic ServiceNow CMDB同步套件，再啟動此套件。但是，只要CI條目在ServiceNow CMDB中可用，則不必運行CMDB同步。

事件資料可以發佈到ServiceNow中的Event表中。如果您的ServiceNow執行個體中沒有事件管理外掛程式，則可以設定套件組合以接收ServiceNow中任何通用REST終端中的事件。

有關網路問題監控和增強捆綁配置，請參閱《Cisco DNA Center ITSM整合指南》(Cisco DNA Center ITSM整合指南2.3.5版)的「為ITSM配置網路問題監控和增強(ServiceNow)套件」部分

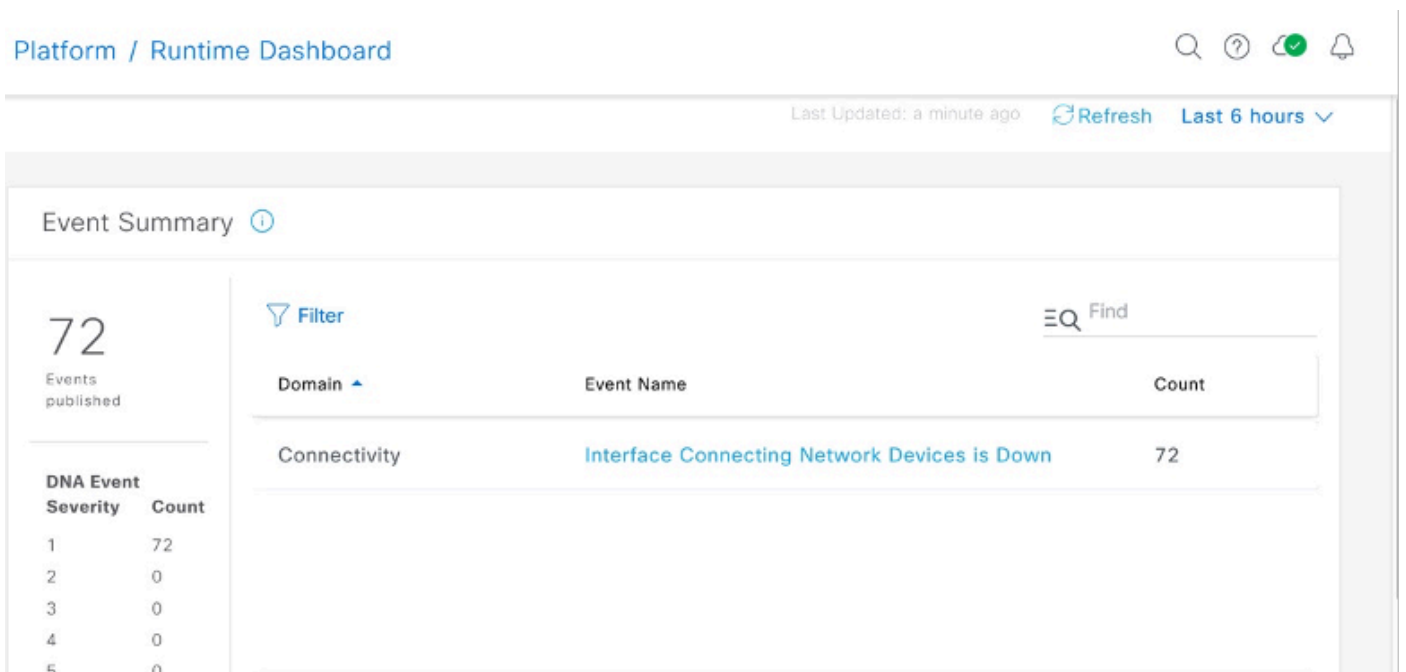
網路問題監視器工作流程執行

Catalyst中心

1. 保證控制台列出了網路中報告的問題，這些問題發佈在運行時控制台上。



- ii. 對應的問題會列為Catalyst Center平台執行階段儀表板上的事件。



Event History = a15647e1-13c6-401f-a450-22b69268e740

Last updated: a few seconds ago

Filter Find

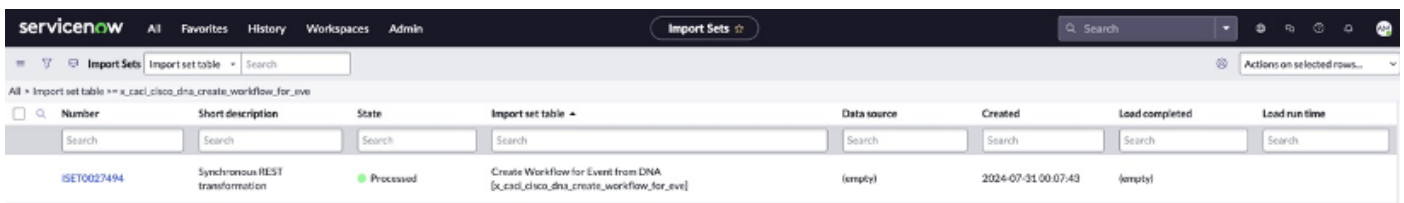
Source	Destination	ITSM Workflow	ITSM Status	ITSM ID	ITSM Link	ITSM Last updated/Flow	ITSM Severity/Category/Priority	ITSM Event Severity
ServiceNow	Cisco DNA Center	Incident	Resolved	INC0334635	https://www00883.service-now.com/incidents?sys_id=1189e0e080000e400000000000000000	August 06, 2024, 11:21:27 am	3 - Critical	3
Cisco DNA Center	ServiceNow	Incident	New	NA	NA	July 01st 2024, 12:37:43 pm	NA	3

ITSM-ServiceNow

Cisco Catalyst Center中的警報事件透過Import Set Table of ServiceNow接收。使用ServiceNow中的ServiceNow導入集API或指令碼化REST API或通用REST API終結點將資料推送到ServiceNow。

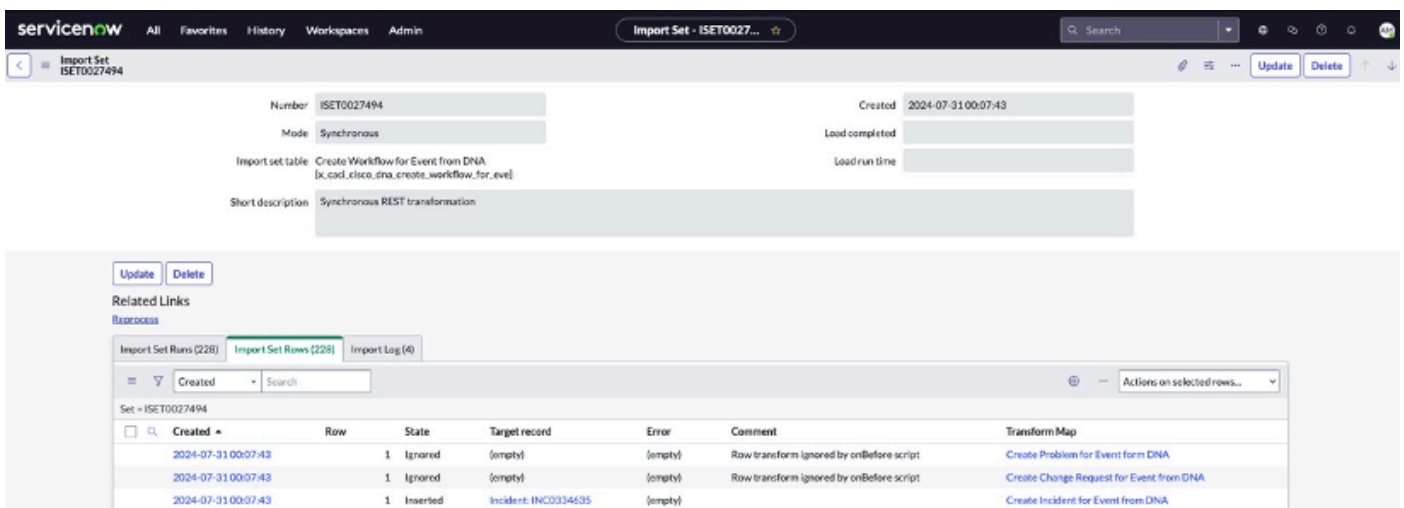
- 要檢查從Cisco Catalyst Center發佈到ServiceNow的資料，請導航到「導入集」，並為以下表查詢「導入集條目：x_caci_cisco_dna_cisco_dna_inventory_det

1. 從表x_caci_cisco_dna_cisco_dna_inventory_det的「導入集」控制台中過濾出「導入集」條目。



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.檢查「匯入集」的明細，並檢查各個「未預期事件」編號的「匯入集資料列」。



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.工作流程指示器決定事件在ServiceNow中必須經過的工作流程型別；根據工作流程指示器決定，會執行其中一個轉換對應。

iv.要檢查「轉換對映」的詳細資訊，請按一下導入集行的轉換對映列中的超連結。

轉換事件對應表：

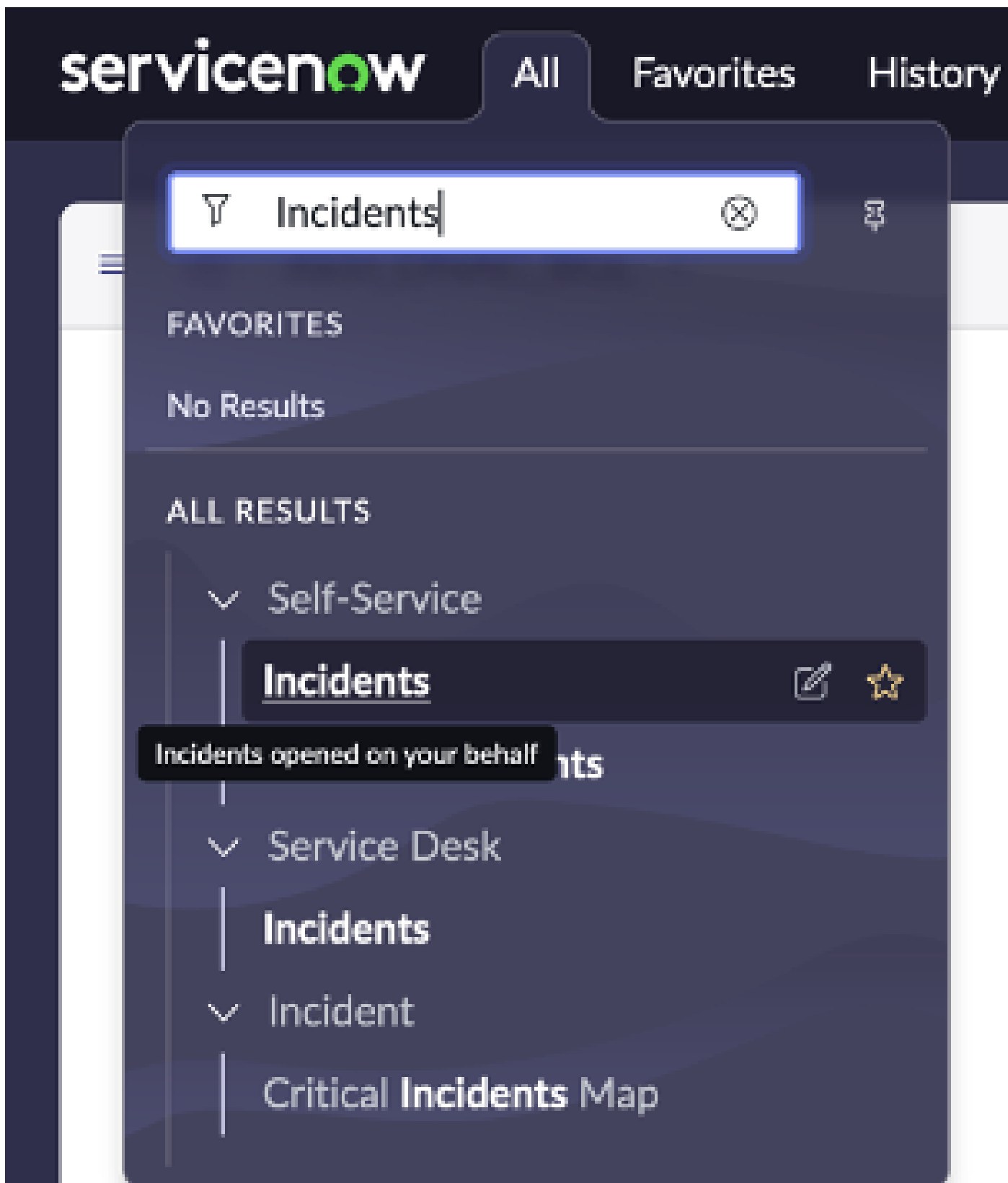
The screenshot shows the ServiceNow interface for Table Transform Maps. The breadcrumb path is: All > Source table:controle/infra > Name: Incident CommandOutputUpdate. The table below lists three mappings:

Name	Source table	Target table
Incident CommandOutputUpdate	Incident CommandOutputUpdate [x_caci_cisco_dna_incident_commandoutput]	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)

網路問題監視器工作流程執行驗證

- 一旦工作流程成功執行，就可以使用報告問題的裝置的問題詳細資訊來建立事件故障單。

1. 全局搜尋(Global Search) >服務檯(Service Desk) >事件(Incidents)。



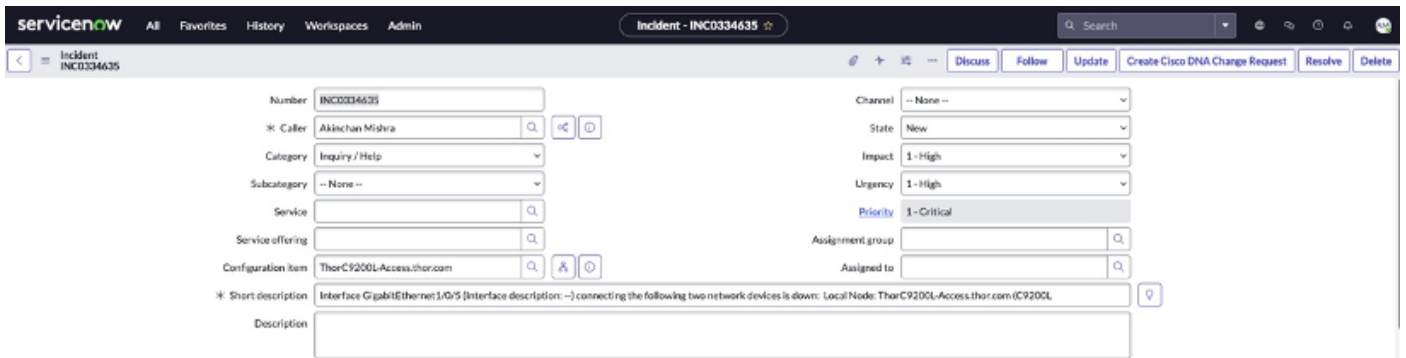
ii. 從「事件票證」控制台中篩選出事件票證。

The image shows the ServiceNow Incidents list view. The header includes the 'servicenow' logo, navigation tabs, and a search bar. Below the header, there is a table with columns for 'Number', 'Opened', 'Short description', 'Caller', 'Priority', 'State', 'Category', 'Assignment group', 'Assigned to', 'Updated', and 'Updated by'. A single incident is listed 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 IC 9500-	Akinchan Mishra	1 - Critical	Resolved	Inquiry / Help	(empty)	(empty)	2024-08-01 00:43:53	akimishr

三。事故單詳情

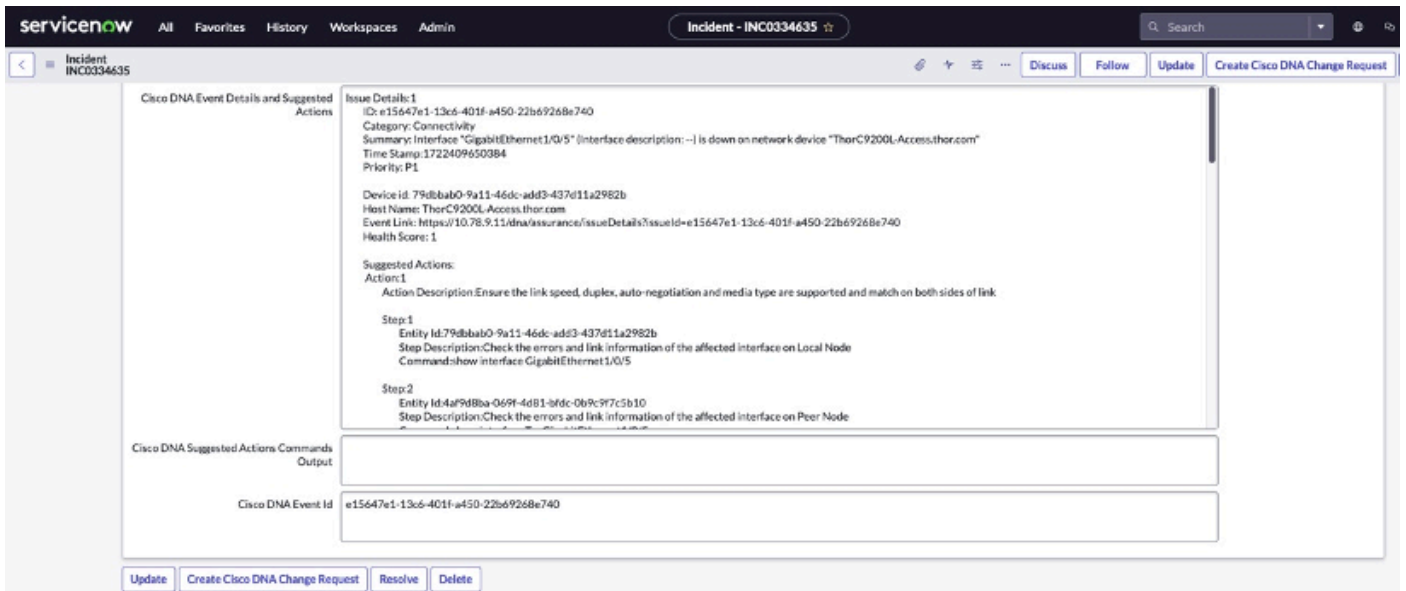
a. 打開事件票證以檢視詳細資訊。



b. 「事件通知單」的「思科DNA」頁籤有多個部分，一個是「裝置豐富」資訊。



c. 思科DNA事件詳細資訊和建議操作是另一部分。



相關資訊

- [確定Catalyst Center和ITSM整合的基本概念範圍](#)
- [將Catalyst Center庫存與ServiceNow CMDB系統同步](#)
- [監控ITSM的Catalyst Center Automation \(SWIM\)事件](#)

關於此翻譯

思科已使用電腦和人工技術翻譯本文件，讓全世界的使用者能夠以自己的語言理解支援內容。請注意，即使是最佳機器翻譯，也不如專業譯者翻譯的內容準確。Cisco Systems, Inc. 對這些翻譯的準確度概不負責，並建議一律查看原始英文文件（提供連結）。