

Data Center and Provider Connectivity Applications and Integrations with ServiceNow

Enhanced visibility; ticketing automation; and streamlined, simplified datacenter fabric management with ServiceNow





Benefits

- Inventory management and service cataloging
- Workflow automation
- Firmware upgrades and storage of configuration archives on ServiceNow platform
- Comprehensive network visibility and automated, closed-loop incident management
- Ticket creation on the NOW platform, based on rich NDI anomaly data
- Ticket management directly from Nexus Dashboard

Challenges

Cloud-based service management solutions such as ServiceNow offer critical insights and control. They help customers monitor service health, identify service disruptions, and aid with problem root-causing and resolution. Furthermore, ServiceNow's solutions enable customers to implement changes at accelerated, DevOps speed, help them track dependencies and relationships between IT services, and empower them to speed service delivery and create self-service experiences for their own customers and employees.

However, customers using these solutions still don't have full visibility of the underlying network or all of the variables that can cause service disruptions. When complex network problems arise, ServiceNow's solutions need deeper insights into the intent of the network administrator to pinpoint, characterize, or resolve them – it's an arduous investigation and troubleshooting process. Additionally, even with ServiceNow's powerful centralized management data base and workflow automation tools at their disposal, customers still lack the product-specific information that enables them to maximize the value ServiceNow can provide when it comes to seamlessly managing their networks.

Simply put, our joint customers need solutions that can import information specific to Cisco® products

into ServiceNow's Configuration Management Database (CMDB). They need ways to empower ServiceNow incident management with the rich telemetry information that Cisco products collect. Finally, they need integrations between Cisco products and ServiceNow that can give them more value than either tool standing on its own; integrations that can help them troubleshoot more easily, reduce mean-time-to-resolution, and deliver IT services more efficiently.

Solution

The applications and integrations that Cisco has built for ServiceNow are the answer to these shortcomings. They take two powerful sets of solutions and combine them in ways that create great value for customers. Our solutions include three applications; namely, the Cisco Data Center Networking Management App for ServiceNow, the Cisco Data Center Networking Insights App for ServiceNow, and the Nexus® Dashboard Connector for ServiceNow. With these applications, customers can enhance ServiceNow CMDB data with information specific to Cisco products, enrich ServiceNow incidents with detailed telemetry data collected by Nexus Dashboard Insights (NDI), reduce the time taken to root cause and remedy issues, deliver IT services more efficiently, and create more automated, self-service service requests and experiences for their own customers and employees.

Cisco Data Center Networking Management App for ServiceNow

The Cisco Data Center Networking Management App runs on ServiceNow’s “NOW” platform and uses an MID server to fetch the physical application topology and cloud inventory from the Cisco APIC®, Cisco Nexus Dashboard Fabric Controller (NDFC), and Nexus Dashboard Orchestrator (NDO) through those controllers’

REST APIs. The Management App enables users to manage their Cisco Nexus 9000 Series Switches and NDFC/Cisco ACI® controller inventory, create automated workflows for ACI, do self-service cataloging, manage incidents, upgrade firmware, and store configuration archives.

Additionally, the application creates service-aware business mappings based on data in the CMDB tables, enabling customers to visualize their network topologies and dependencies and perform configuration-drift analysis.

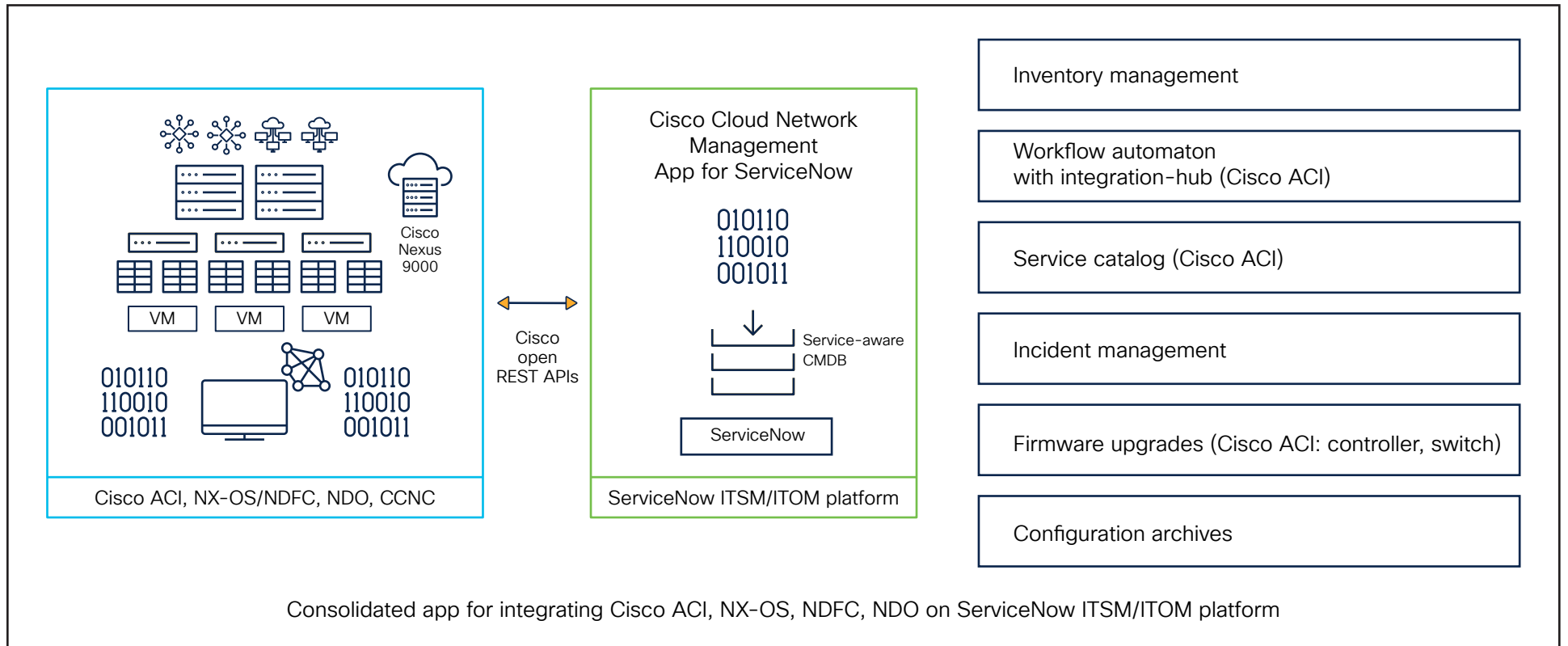


Figure 1. Cisco Cloud Network Management app for NOW

Cisco Nexus Dashboard Insights App on ServiceNow

For enhanced visibility and troubleshooting, we've built the Nexus Dashboard Insights App for ServiceNow. This application queries the APIs of Nexus Dashboard Insights (NDI) and then populates ServiceNow's CMDB tables with anomaly information from NDI and creates incident tickets using that data. Incidents include incident number, the state of the ticket, details

from the anomaly, and assignment group/user. Users can set the frequency with which they want to poll those APIs and import anomaly data, and they can also create the conditions under which an anomaly triggers an alert or incident.

The application extends support for correlating multiple Nexus Dashboard Insights on a single

ServiceNow instance. Also, ticketing information is uniform across multiple Nexus Dashboard Insights instances. With Cisco's Nexus Dashboard Insights integration, ServiceNow administrators can predict network outages and vulnerabilities before they affect service performance and can accelerate changes while reducing risk.

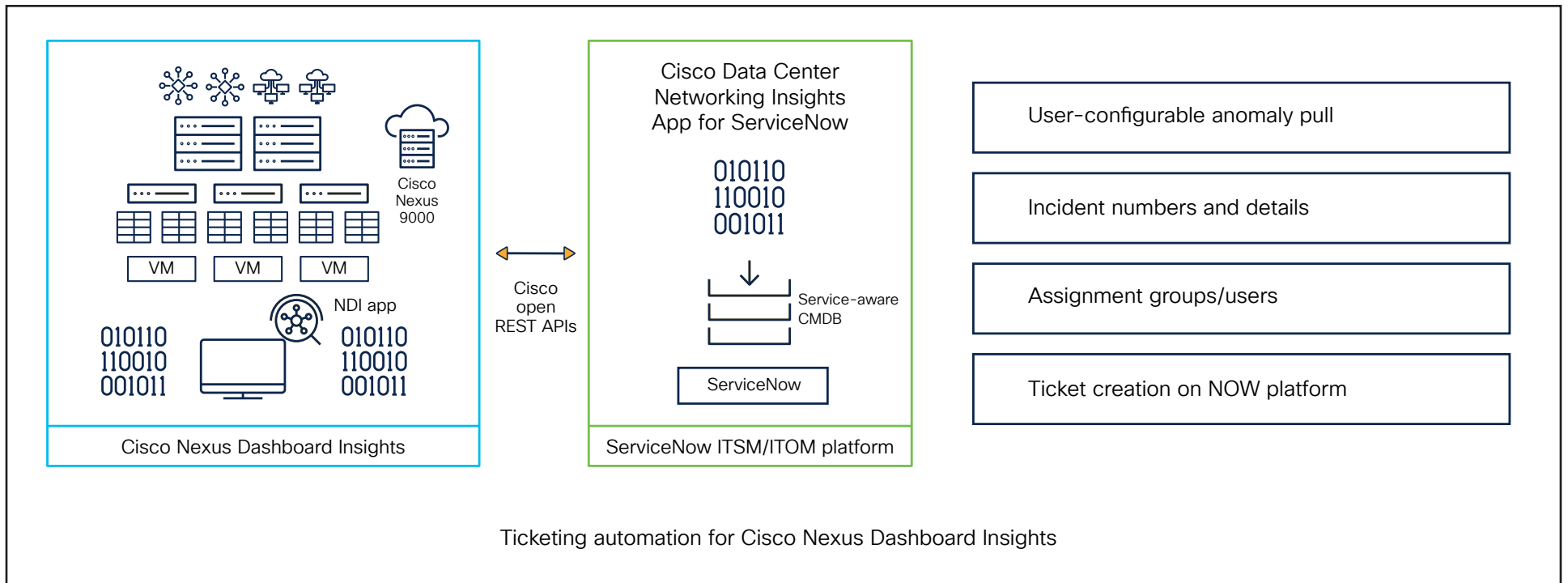


Figure 2. Cisco Data Center Network Insights App for ServiceNow

Cisco Nexus Dashboard Connector for ServiceNow (application runs on Nexus Dashboard)

With this integration, different from the two above in that it runs on Cisco Nexus Dashboard (Cisco ND) and is offered through the Cisco DC App Center, we bring all the

incident-management capabilities relevant for the network operator into Nexus Dashboard with the “ServiceNow App” for Cisco Nexus Dashboard. This tool enables network operators

to manage their ServiceNow incidents on Cisco Nexus Dashboard, alongside Nexus Dashboard Insights, Nexus Dashboard Orchestrator, and other powerful network-management tools.

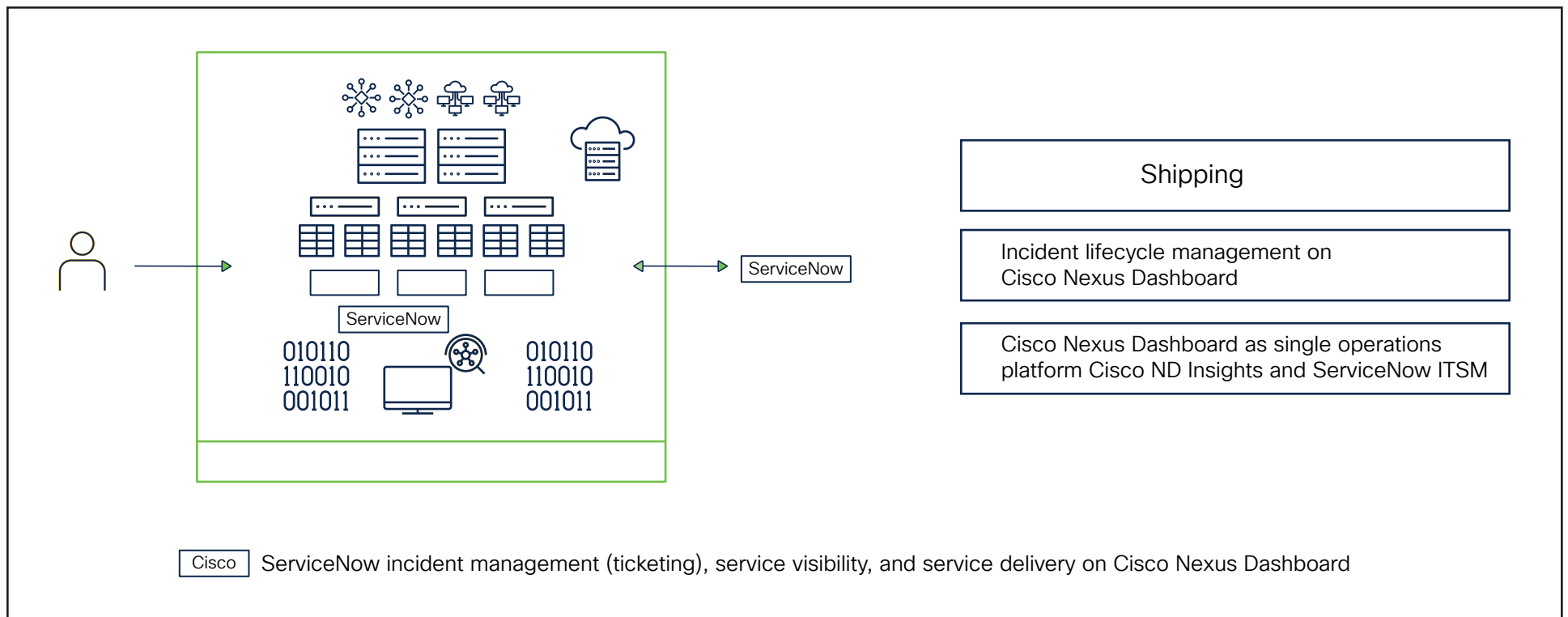


Figure 3. Cisco Nexus Dashboard Connector for ServiceNow



Key use cases

- Inventory management, service cataloging, and workflow automation
- Firmware upgrades and storage of configuration archives on NOW
- Comprehensive network visibility and automated, closed-loop incident management
- Ticket creation on the NOW platform, based on rich NDI anomaly data and push notifications
- Ticket management directly from Nexus Dashboard

Inventory management, service cataloging, and workflow automation

The Cisco Data Center Networking Management App enables users to enhance ServiceNow CMDB data with product-specific information. Users can populate ServiceNow tables with information about the devices in their Cisco ACI, NDFC, or NX-OS standalone fabric. For example, using this application, they can query the APIC's APIs and import network information into ServiceNow – different Cisco Nexus 9000 switch and interface information, details about application profiles, tenants, endpoint groups, etc. Our Management App also leverages ServiceNow's service-cataloging capabilities and enables us to help customers independently request services within their broader teams and organizations and create

more automated, self-service experiences for their own customers and employees.

Firmware upgrades and storage of configuration archives on NOW

With the Management App, customers can easily implement firmware upgrades directly from their ServiceNow instances. Furthermore, they can use it to track dependencies and relationships of the devices and supported IT services in their Cisco fabrics, and they can import and store current and archived configuration information.

Comprehensive network visibility and ticket creation on the NOW platform

The Insights App gives customers enhanced visibility and troubleshooting capabilities. It takes anomaly data from NDI and then populates ServiceNow CMDB tables with that data and creates incident tickets. Incidents include incident number, the state of the ticket, details from the anomaly, and assignment group/user. Users can set the frequency with which they want to poll those APIs and import anomaly data; users can also create the conditions under which an anomaly triggers an alert or incident. In short, the application makes it easier and faster to root cause and remedy network issues the moment they arise.

Push notifications

The Cisco Nexus Dashboard Insights for ServiceNow application enables the user to leverage emails or collaboration tools such as Cisco Webex® for notifications. When a new ticket is created, a notification is sent over the Webex Teams or email, per the configuration, including the ticket number, priority, to whom it is assigned, URL, and the details of the incident.

This setup helps assignees prioritize resolution measures based on priority. The push notifications also help them, using the integration, be more responsive to pressing problems, thus helping ensure less downtime of critical services.

Use case: Incident management on Nexus Dashboard

Information on incidents related to a user or a group will be available on Cisco Nexus Dashboard, in addition to Nexus Dashboard Insights Plugin on the ServiceNow platform. This gives network operators the flexibility to view, update, reassign, and close the tickets related to their functional area on Nexus Dashboard, making it a single pane of glass for network operations and management.