Nautobot + Cisco SDN

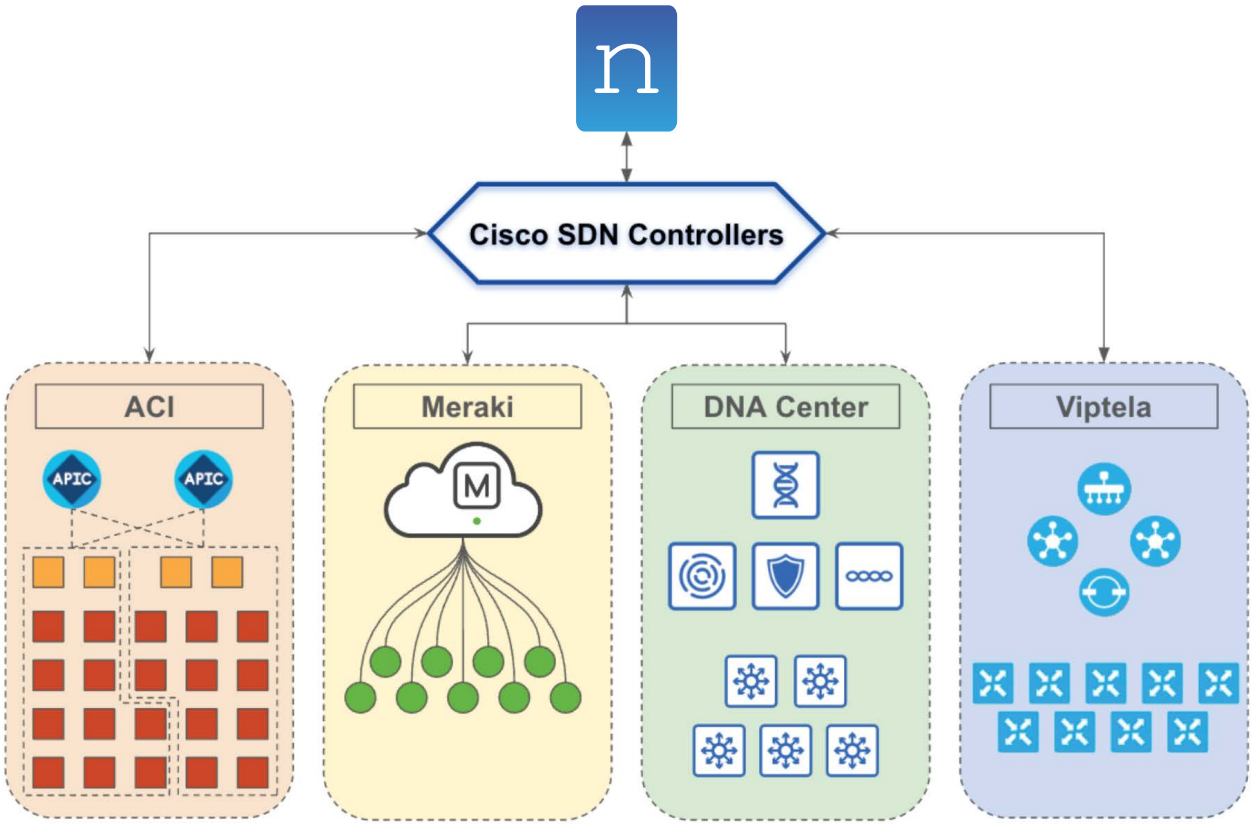
Multi-Domain Multi-controller Unified Inventory Management & DCIM

The Challenge

While controllers have undoubtedly improved network reliability and management, they have also introduced their fair share of challenges. As networks expand, issues of controller sprawl begin to emerge. With domain segmentation, separate teams often manage controllers within their specific domain, leading to isolated management practices. Moreover, acquisitions introduce additional controllers with their own unique operational characteristics.

Eventually, it becomes evident that no single entity possesses a comprehensive understanding of all the controllers and devices on the network. This lack of visibility complicates every aspect of network management. Whether it's addressing incidents or implementing changes, administrators find themselves navigating from one controller to another, painstakingly piecing together the puzzle for a complete picture.

The latest Nautobot integrations with Cisco SDN controllers address these challenges by seamlessly synchronizing data from all network controllers, automatically populating their operational characteristics and managed devices into Nautobot.
This integration provides administrators with a valuable opportunity to gain a holistic view of their entire software-defined network environment from a single, unified screen. By employing a data-centric approach coupled with a DevOps automation environment, Nautobot enables the execution of workflows that were previously arduous or even impossible to create.



Solution: Unifying the Management Plane

The Nautobot Single Source of Truth (SSoT), populated with Cisco SDN data, provides a first pane of glass to manage all network controllers. Enabled via Nautobot's SSoT platform interface, administrators no longer need to engage in swivel chair heroics to understand the network's status or relationships.

The global controller view provides a concise overview of each controller's vital operating characteristics, while the controller-specific view offers detailed information for in-depth analysis. These features empower users to rapidly determine the status of any controller, it's peers, managed device, and access URLs.

The Managed Devices table ensures that administrators can quickly gather critical details, such as platform, model, software version, role, physical location, hostname, status and contract information. An additional bottom-up perspective is provided at the device level, with dynamic links back to the responsible controller.

Natively Supported Platforms

- **ACI**
- **Meraki**
- **Viptela**
- **DNA Center**
- **Cisco SDN Controllers**

* Extensible to any domain manager

Why Nautobot for Cisco SDN?

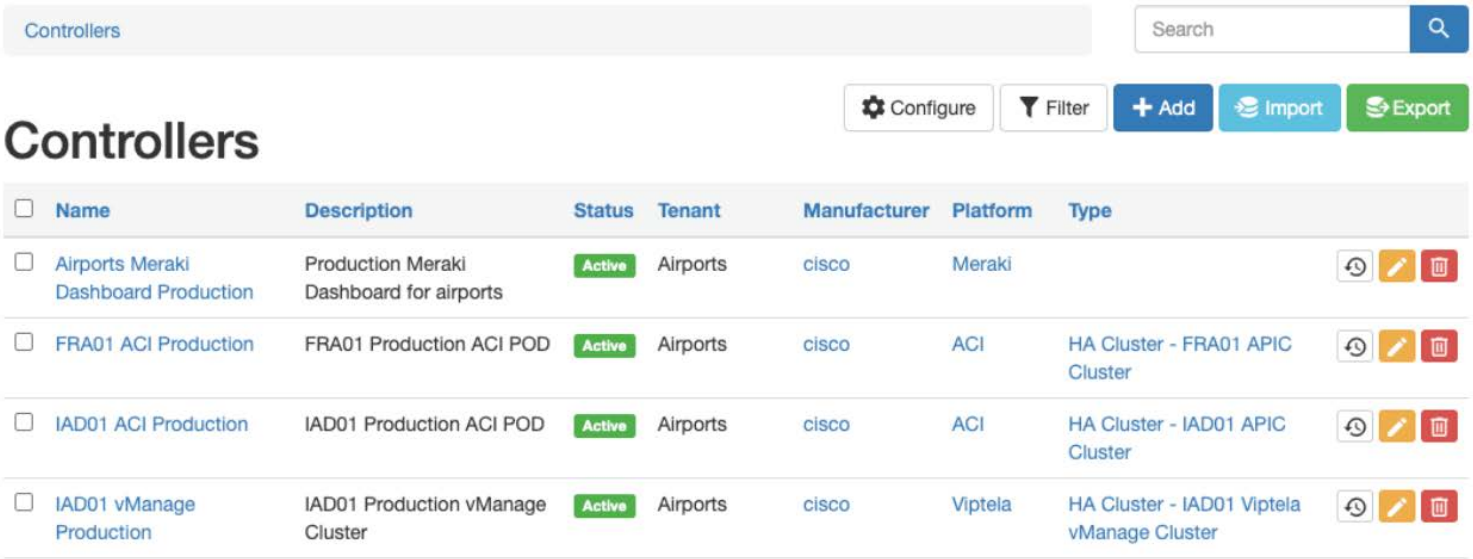
- Provides a unified data centric view of your entire SDN network.
- Seamlessly incorporates the operational characteristics of all controllers.
- Recognizes and comprehends the intricate relationships between controllers and the devices they manage.
- Offers full integration with the automation platform, accelerating system management and reporting tasks.

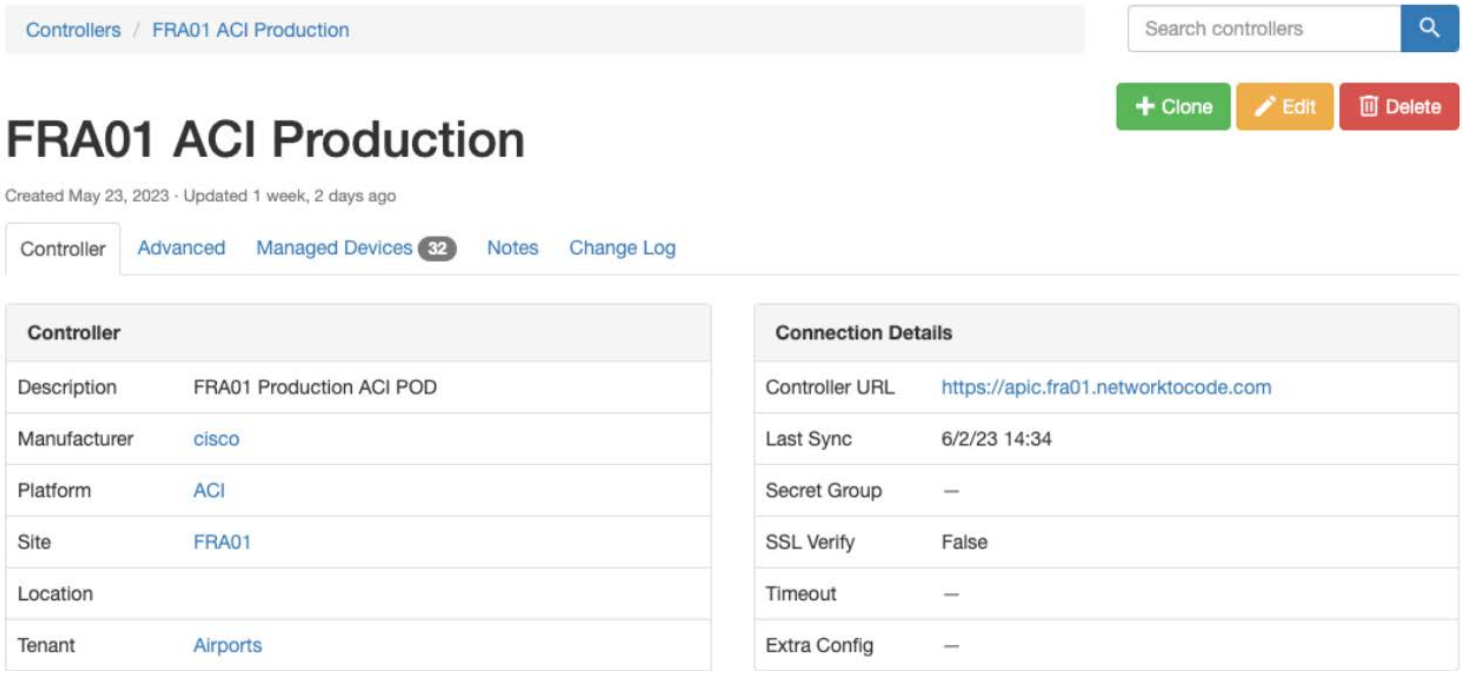
Nautobot + Cisco SDN In Action

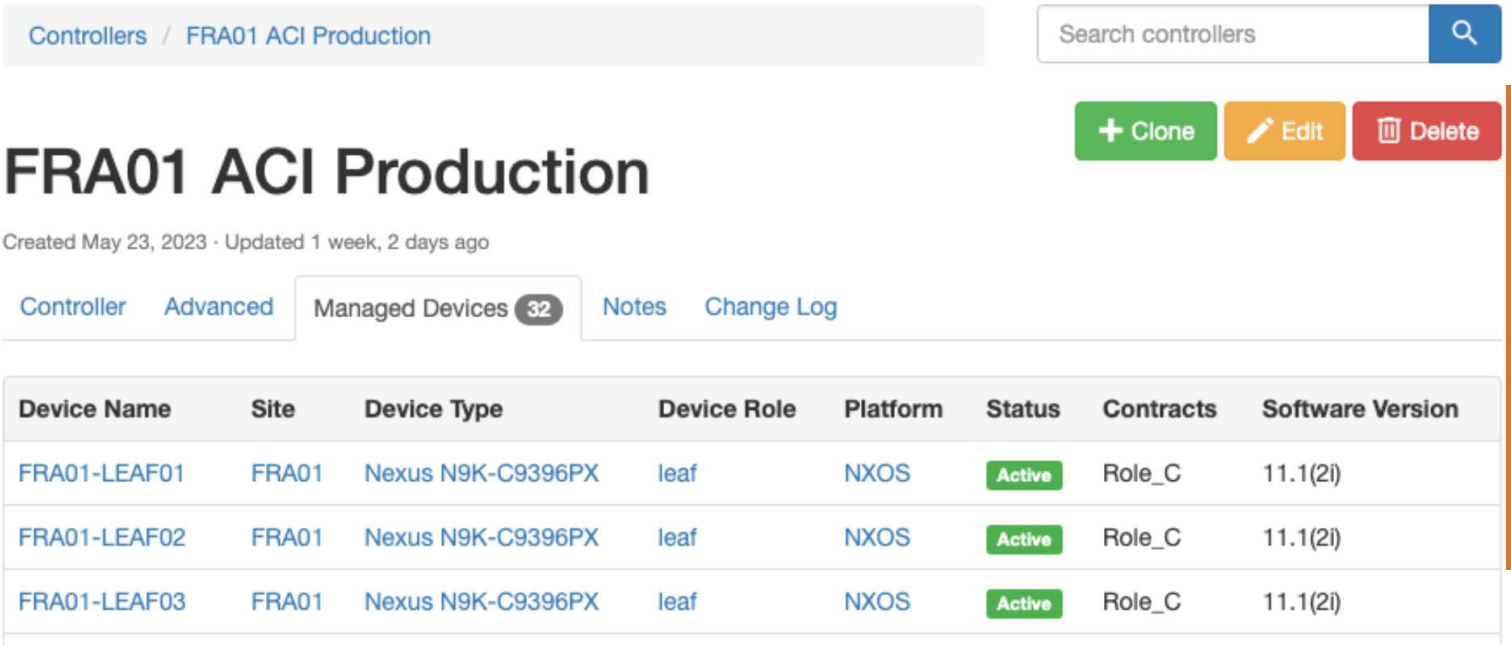
Nautobot's automation platform empowers NetDevOps administrators to interact with and manipulate controller data. This functionality empowers development engineers to generate essential reports, such as traffic and usage reports, or health and availability reports, providing valuable insights to inform critical business decisions.

Furthermore, Nautobot enables the execution of jobs at scale, streamlining administrative tasks and facilitating automated provisioning. Whether it's provisioning new devices or making adjustments to device parameters, the platform's job capabilities simplify and accelerate these processes.

ACI DNA Center Meraki viptela







Want to learn more?

Use the following links for additional information:

- **Join the #nautobot channel on the Network to Code Community on Slack**
- **View Nautobot on GitHub**
- **Try Nautobot Now**
- **Check out All Things Nautobot on YouTube**
- **Contact Us for a Live Demo and Overview**

About Network to Code:

Network to Code is the foremost expert in network automation strategy and has deployed more network automation projects than any other company in the world. Our network automation solutions help organizations transform the way their networks are deployed, managed, and consumed.

Through managed and professional services, NTC deploys data-driven network automation based on NetDevOps principles to improve reliability, efficiency, and security while reducing costs. NTC is the sponsor of Nautobot, the leading open source Network Source of Truth and Automation platform.

Network to Code is a Cisco Advanced DevNet Specialization Partner.

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