Global Banking Giant Leverages Nautobot to Accelerate Time to Value

The Customer: Leading Global Bank

A global presence, thousands of physical locations, and two centuries of prosperity stand as a testament to the bank's steadfast commitment to helping the communities, companies, and individuals they serve achieve their vision of financial success.

Each day, **200,000** employees reaffirm that commitment to **60 million customers.**

In 2022, millions of new customers sought the bank to facilitate their vision, expanding revenue beyond **$40 billion.**

The Challenge: Transforming Network Services for Efficiency

An expanding customer base and evolving customer expectations created increased demand for network services. And legacy practices such as hands-on-keyboard task execution and manual recordkeeping could not meet that demand.

Project delays mounted as engineers sifted through duplicate records, resolved discrepancies, and searched for omitted information. Manual process management methods contributed to project delays as well. Requests would frequently sit for days before an approver or engineer performed a simple administrative task.

It was time for a new, data-centric, and efficiency-minded approach to increase project throughput.

The Solution: Nautobot® Streamlines Bank's Network Operations

Nautobot was introduced as a source of truth and automation platform, providing a centralized hub for network data and a means to streamline business processes.

Today, data is collected from and distributed to various systems around the bank such as DCIM, IPAM, and monitoring platforms. Discrepancies and irregularities in naming conventions and format are automatically normalized into a cohesive data model. This stored information is then made available in a highly accessible manner, manually via a web interface and programmatically via REST APIs and GraphQL. Data quality has also been improved by integrating a governance policy that ensures every piece of data is assigned an owner responsible for its accuracy.

Furthermore, Nautobot's automation environment optimizes and organizes processes by automating previously manual tasks such as the importation of data to dependent systems and the analysis of user requests. With Nautobot, these features have streamlined processes by significantly reducing the amount of time a request spends awaiting human approval and execution.

The Results: Nautobot Drives Rapid Network Service Deployment

Nautobot is being used throughout the organization to expedite the delivery of network services.

Centralized Hub for Seamless Integration

Nautobot's core function is as a central hub for data within the bank, enriching and standardizing data as it's ingested and distributed. As data is ingested, validation and normalization functions ensure consistency, accuracy, and compatibility across the dataset. When data is distributed to dependent systems, it's transformed into the format and convention preferred by the receiving system. In essence, the data is tailored to meet the requirements of dependent systems, which ensures seamless integration.

Streamlining Analytical Processes by 35% With Automation

Automations are streamlining analytical processes as well. For example, **firewall rule change requests are programmatically evaluated** against a variety of security rules. This approach has eliminated manual evaluations for routine requests – requests that had previously required human analysis are now automatically routed to the right process.

Furthermore, Nautobot is tracking asset refresh dates across **100,000 devices** and enriching that data with the associated device lifecycle costs. The data is then used to generate expense forecast reports. This has led to less time being spent collecting and compiling data, allowing decisions to be made more quickly.

SVP, Network Technology

"NTC showcases expertise in network automation, strategy, and implementation, along with technical proficiency in crafting and sustaining practical network automation solutions. Additionally, they exhibit leadership in agile development practices."

Reduced Deployment from Weeks to Hours

These functions allow for data to be managed on Nautobot itself or on other systems of record such as CMDBs and IPAMs. **To date, automations handle the day-to-day provisioning, deprovisioning, and maintenance of network services and equipment on dependent systems.** These actions are initiated via self-service portals, which kick off automated workflows to update monitoring, logging, security, and control systems.

This automation has dramatically improved process throughput by eliminating manual tasks and hold times while a request is awaiting attention from human engineers. These changes have enabled the bank to deploy devices and services in hours instead of weeks.

Looking Ahead: Bank Adopts NTC Golden Config App to Automate Config Management

The bank intends to build upon these efficiencies by integrating Network to Code's Golden Config application to aid in the automatic identification and remediation of configuration drift.

Along with a myriad of other benefits, this solution expedites troubleshooting processes because engineers know explicitly which configuration lines are misconfigured and can push automatically generated commands to correct it.

Additionally, the bank will be deploying a second instance of Nautobot to capture and model the operational state of the network. This second instance will share a common data model with the primary intended state deployment, allowing for comparisons to be made between the two states more efficiently at scale.

Equipped with Network to Code's leading solutions, including Nautobot and its Firewall Models application, the bank reinforces its commitment to service its customers' financial aspirations. This future-ready infrastructure enables the bank to keep pace with increasing demands and maintain its position as a leader in operational efficiency.