

CORIANT IS NOW PART OF INFINERA

Coriant Manages Vendor-Agnostic Network Migration

Network Migration Expertise Supports Major Upgrade

CHALLENGE

The operator's business-to-business unit began an initiative to simplify and streamline its network to deliver top-quality data and voice services to enterprise customers. The new network architecture was designed to streamline the people, processes, and technologies in the enterprise network and thereby reduce operating expenses (OpEx) and provisioning errors, accelerate service delivery times, and enhance the customer experience. The goal was to build a seamless enterprise network and to give a single team responsibility for the processes and procedures associated with end-to-end service provisioning.

Originally, the operator had planned to use its own personnel to execute the entire enterprise network migration. However, the company determined that its engineers and field operations personnel did not have time to take care of day-to-day operations and also handle the volume of migration tasks within the required time period. Consequently, the operator decided to look for outside help.

SOLUTION

The operator deployed Ethernet and MPLS-based technology across the enterprise network. It reduced the number of its core hardware vendors from four to two and simplified its infrastructure by shifting from four technology platforms to one. Finally, it streamlined provisioning tasks significantly to an approach that requires only one day, one team, and one process.

Coriant was chosen by the operator to manage the overall network migration process because of our proven success with similar migration projects. The Coriant activity focused on moving the circuits and services from legacy equipment onto newly-deployed network elements throughout the network.

Coriant was selected because of our proven expertise in similar network migration projects.



Customer

A large Multiple System Operator (MSO)

Location

USA

Challenge

- Streamline enterprise network architecture
- Migrate customers to the new network
- Reduce operating expenditure
- Enhance the customer experience

Solution

Deployed 5 dedicated Coriant Services teams to execute network migration including:

- Project management
- Network Modernization & Migration Services
- Site audits
- Fiber installation
- Inventory updates

Results

- Successfully upgraded network within required timeline
- Migrated business customers onto the new network
- Simplified network while enabling delivery of new advanced services
- Reduced network operating expenses
- Improved customer experience

PROVEN MULTI-VENDOR MIGRATION EXPERTISE

“Coriant Professional Services ran a series of workshops educating and demonstrating our extensive and impressive track record specializing in various migration projects worldwide,” said Rick Greenspan, Executive Account Manager, Coriant. “However, experience and expertise were not the only criteria required for the project. The operator was also looking for a partner that was vendor-agnostic, one that could help them with migration, regardless of whatever legacy technology they had deployed throughout the enterprise network,” he said. “Coriant demonstrated that our teams have experience in all major vendors’ platforms and systems. This means they would not require additional vendor-certified training to retrieve equipment configurations or provision new equipment.”

The initial Coriant proposal included a four-month delivery schedule for all on-site work for two key markets in the Southwestern United States. However, given that the network migration was a highly visible initiative within the operator’s organization and because the initial scope of work was a trial project, “The operator wanted to shorten that timeline as much as possible,” Greenspan said. “Coriant understood the operator’s concerns and, by overlapping the number of on-site teams and their various activities, we were able to cut five weeks off the original timeline. We delivered the initial migration in less than three months.”

The initial project centered on migrating the operator’s end customer services (i.e., basic Internet services, Ethernet services, and VLAN) onto its new enterprise network. Coriant provided five major deliverables for 35-40 hub locations. In addition to program management, Coriant included site auditing; site fiber installation or labeling and running new fiber cables to the equipment; physical circuit migration; and live entry of hub configurations and services into the commercial inventory management system.

For each of the five deliverables, Coriant deployed a delivery team. Four of the teams were deployed on-site and one team worked remotely to update the commercial inventory management system. Members of all five teams worked in close coordination with the operator’s engineers and field operations personnel.

“We were able to cut five weeks off the original timeline. We delivered the initial migration in less than three months.”

ROBUST PROGRAM MANAGEMENT

The Coriant program management team was responsible for coordinating field audits, setting timelines and, as necessary, accelerating internal and external schedules to adhere to the timelines. The team also developed risk and contingency-planning documentation. In addition, the program management team hosted project status meetings, identified and resolved any issues that arose and regularly submitted project status reports and progress metrics to the operator.

The Coriant audit team built an audit package to collect critical information from the legacy equipment at each hub location and the services that were delivered by the equipment, including basic Internet, Ethernet services, and VLAN. The audit package served multiple functions, including identification of the circuits on the legacy equipment that were to be migrated to the new network and documentation of all associated connections. The team also used the audit package to create a cable running list and a Bill of Materials (BOM) from which Coriant ordered fiber jumper cables. Furthermore, it served as a template for the creation of cable labels and as a tool to enter data into the commercial inventory management system.

At each hub location, the Coriant fiber installation team made sure all new cables were available, as itemized on the BOM, and reviewed the audit package for potential inconsistencies. After drawing up a cable run list, the team used it to create and print labels. This team also staged the required amounts of fiber types and lengths, maintained the cable inventory and managed all fiber installation crew times, material, and schedules. The Coriant migration team was responsible for executing the actual physical migration, (i.e., the fiber connects and disconnects of each circuit from legacy equipment to the new equipment). As part of that process, the Coriant migration team also inspected and cleaned each fiber tip on each end. Working remotely, the Coriant inventory Team updated information in the database as that information came in from the audit team. The commercial inventory management system includes an equipment inventory, an inventory of physical and logical circuits, and information on customers and sites.

A PHASED APPROACH

The Coriant program management team, working closely with the operator’s personnel, planned and executed the migration of the enterprise network in four distinct phases. The initial phase centered on the site audits. At each of the 35-40 hub locations, the audit team did a physical inventory of all equipment, cards, slots, ports, fibers and fiber termination panels (FTPs). Team members then documented in their audit package all information related to fiber connections, the location of router and CWDM/FTP racks, and details on cards and ports. The team also determined the requirements for fiber cable installations, cable lengths, and identified all of the connections on the operator’s port matrix, noting any undocumented connections. After photographing all terminal equipment, the audit team uploaded the audit package spreadsheet and photos, updated the fiber BOM with information on required fibers, and submitted a site survey report to the Coriant program management team.

The second phase of the migration involved installing fiber at each hub location or running new fiber cables to the new equipment. After reconciling any inconsistencies that may have occurred in the hub locations audit, the team members, where necessary, adjusted label files and printed or re-printed cable labels. They then installed the new hub cables, as specified by the Coriant audit package.

The actual migration of the hub locations occurred in the third and final on-site phase. As with the other on-site phases of the project, the Coriant team arrived at each site prior to the designated maintenance window, typically at night. Before beginning to work at the site, the team opened a work ticket with the regional network operating center (RNO) and noted any alarms that were occurring. Coriant team members then disconnected fibers from legacy equipment and connected them to the new equipment, coordinating with the operator's engineers who did the logical provisioning of the circuits. Once team members finished the physical migration, they verified with the RNO that no new alarms had occurred; if any did, the team followed the RNO's guidance in resolving any physical fiber issues.

In the last phase of the project, a virtual team of Coriant experts updated the commercial inventory management system. Members of the Coriant teams understood the importance of collecting the relevant data and ensuring its accuracy prior to sharing it with the inventory team. Once information came in from the hub locations, the Coriant inventory team added this data into the database. This included each of the hub location's floors, bays, cabling, fiber distribution frames, shelves, cards, ports and wire maps.

As the team migrated end-customer services, the Coriant inventory team "wire mapped" or "port mapped" the ports. To correctly reflect the "real world" sites in the commercial inventory management system, team members built any and all SONET and Ethernet connections and, for DWDM connections, the lambda rings or pipes into the inventory.

CORIAN PROFESSIONAL SERVICES EXPERTISE

To meet the aggressive migration timeline required by the operator, Coriant Professional Services utilized five teams of experts dedicated exclusively to the project. "In doing so we were able to migrate all the hub locations to the new enterprise network architecture while freeing up the operator's own engineers and field operations people so they could focus on their day-to-day jobs and continue delivering top-notch services to their enterprise customers," Greenspan said.

"The operator especially appreciated the flexibility the Coriant teams showed in adjusting our tight work schedules to accommodate their blackout dates. When you work with cable TV companies, you have to realize their maintenance windows and blackout dates often are different from those of other types of service providers. We had to set our maintenance windows around their video schedule. For example, the beginning and ending ceremonies of a major global sports event were marked as particular blackout dates. The Coriant team worked around their unique requirements and still brought the project in on time."

RESULTS

Partnering with Coriant helped the operator achieve two major goals: getting their business customer base onto the new network as soon as possible and using the new streamlined network to deliver high-quality, high-speed services to those customers. The operator has already seen positive results, including reduced operational expenses and provisioning errors. Service delivery times have been cut and the operator can now troubleshoot and resolve network issues faster and more efficiently. The tricky twin goals of improving customer experience while performing a major network modernization were successfully accomplished with the support of Coriant Professional Services.

These trademarks are owned by Coriant or its affiliates: Coriant®, Coriant CloudWave™, Coriant Dynamic Optical Cloud™, Coriant Groove™, Coriant Transcend™, mTera®, Nano™, and Pico™. Other trademarks are the property of their respective owners. Statements herein may contain projections regarding future products, features, or technology and resulting commercial or technical benefits, which may or may not occur. This publication does not constitute legal obligation to deliver any material, code, or functionality. This document does not modify or supplement any product specifications or warranties. Copyright © 2018 Coriant. All Rights Reserved. 74C.0095 Rev. B 01/18