Cisco Catalyst 8540 *Helps Nextel Provide Best-Possible Customer Service*

AS ONE OF THE WORLDWIDE, LEADING TELECOMMUNICATIONS PROVIDERS, NEXTEL CONSIDERS THEIR CUSTOMER CARE FACILITIES TO BE THE SAFEGUARD FOR ONE OF THEIR BIGGEST ASSETS—THE CUSTOMER. IN THE SEARCH TO PROTECT THIS INVESTMENT THROUGH SUPERIOR NETWORK SOLUTIONS, AND THROUGH ADVANCED FUTURE TECHNOLOGIES FOR SERVICE AND/OR INTERNET PROVIDER TYPES OF SERVICES, THE CATALYST® 8540 SWITCH HAS BEEN INSTRUMENTAL.

Nextel's existing data-business wide area network (WAN) was operating fine, but, in order to better serve their customers, the team at Nextel national headquarters wanted to further increase uptime, thereby improving productivity. In order to improve customer satisfaction, they also wanted to increase the number of its Customer-Care facilities.

The Nextel nationwide network consists of Cisco IGX™ WAN switches connected to Cisco 7500 series routers at the core locations, routing all traffic across the nation from the smaller sites connected via Cisco 2500, 2600 and 3600 series routers to their data center in Atlanta, GA. The routing protocol employed is primarily Enhanced Interior Gateway Routing Protocol (EIGRP). The multiprotocol-compatible Catalyst 8540 routers enable direct communication with the core locations, providing a robust design and much faster re-routing capabilities in case of a link failure.

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—Kevin Osburn, Nextel's Manager of Network Engineering

Why the Catalyst 8540?

The headquarters engineering team looked at two other vendors and originally selected another manufacturer for one of their locations, but after a few months of service (and network headaches) decided to replace it and to stay with their "vendor of choice," Cisco. A number of issues were addressed. The 8540 successfully met Nextel's requirements for integrated Layer-3 switching, ATM internetworking and wire-speed switching at Layer 2 and Layer 3.

Kevin Osburn, Nextel's Manager of Network Engineering, said the requirement was to attach Novell NetWare and Windows NT servers at 100 MB and to provide the fastest possible switching and connectivity to these servers for all users, including those departments with service level agreements (SLAs). These SLAs specify certain commitments to bandwidth capacity, response time, and much more. Nextel's Customer Care Facilities want to provide the fastest possible service to our internal customers, where up time is absolutely critical in order to best serve its external clients.

States Osburn, "We could see the main Catalyst 8540 advantages relative to Nextel's needs:

First, the Catalyst 8540 currently has a much higher percentage of up time than any competing product. Second, high-density Gigabit uplink capabilities, which are imperative to Nextel Multiprotocol compatibility. Third, the collapsed-backbone architecture it affords enables more streamlined data traffic and easier management."

Adds Osburn, "The Catalyst 8540 has helped us not only to meet, but exceed our SLAs. All this directly affects our bottom line and provides better support for our customers."

Record-breaking Results

Since one of the main objectives for improvement in the existing system was for 99.99 percent uptime, redundancy was also one of the factors in our final decision to purchase from Cisco. "We'd heard about the Catalyst 8540's record-breaking restoration within twelve seconds," says Osburn, so it reinforced the decision to stay with Cisco.

Today, the Nextel network provides data services, but the plan is to further leverage the technology in 2000. Since Nextel employs prioritized IP traffic to all their national data centers for billing and customer data applications, quality-of-service (QoS) mapping and standardization across networking protocols and technologies is very important; it provides a higher priority for users' communications with critical applications to the Atlanta data center. "We work hand in hand with our SE's and we have a contract that provides us with network design support," says Osburn. Our Cisco sales representative and service engineer, James Kovaly, keep us up to date on all new products and technologies. Their knowledge of the Catalyst 8540 roadmap's IP precedence and QoS mapping was just one more reason to go with the Catalyst 8540."

Vendor of Choice Is Still Cisco

The 8540 uses the same Cisco IOS software base that exists in all of Cisco's routers. This gave Nextel the assurance that the stability of the IOS network operating system acquired after years of fine-tuning in customer environments all over the world would exist in the 8540 platform as well. With a packets per second (PPS) routing capacity of 24 Million, the 8540 would provide them with the platform they needed to not only meet their current expectations, but to grow at over 100% each year!

Most of the users are connected to Catalyst 5500 switches in the wiring closets that use high-speed Gigabit Ethernet trunks to provide a wire-speed, redundant path to the core. With the help of the new Catalyst 8540, Nextel has been able to scale the design to provide the necessary density of Gigabit Ethernet ports while at the same time sustaining very high data throughput with zero downtime.

According to Osburn, Cisco is Nextel's vendor of choice for implementing networking strategies, the SLAs supported, the advantage of consistent products across the network, and the superb level of Cisco support.

Osburn adds, "Nextel has become a powerful company and we intend to build a network that will keep us running with as little downtime as possible. We are working towards five nines, 99.999 percent uptime! We are looking for our primary vendors to support us along that path, and Cisco has stepped up to the plate."

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