A leading international provider of network equipment and related services delivers communications networks, telecom services, and multimedia solutions to over 180 countries. More than 1,000 networks worldwide utilize the company's network equipment.

Business Challenge

Network equipment providers are faced daily with the need to meet increasing demand: higher capacity, lower costs, and helping their customers deploy new services quickly. In order to meet this demand, the firm delivers an end-to-end, proven solution that will enable them to establish a long-term competitive advantage.

To have leading-edge technology and to enable faster time-to-market for that technology, extensive development and testing is required. However, the equipment necessary to verify the product performance and release to market is extremely significant in quantity and expense. In order to satisfy the testing requirements and share global development across their numerous locations, the firm was faced with duplicating equipment throughout many test labs.

The firm's corporate directives included reducing both CAPEX and OPEX by adding more efficiency across the existing 400 labs and 6,000 test tools. Rather than continuing to expand the global labs and test equipment, they searched for a solution that would enable them to increase the efficiency of their labs by sharing their current test resources. Worldwide access was a critical factor for this global organization, so 24x7 operation and high reliability were important factors. As they started planning their solution, they quickly realized that they would also require a solution that would scale with their needs, in terms of both port count and speeds, since all groups were growing in both these directions. The final consideration was power consumption - their lab power was sometimes limited and usually very expensive to run, so they needed to build an automation infrastructure that was as energy-efficient as possible.
The nGenius switching solution provides us with a robust, scalable solution that delivers great flexibility to access our lab resources, anytime and from anywhere.”

Service Delivery Manager, Leading International Network Equipment Manufacturer

Solution

Initially, this equipment manufacturer deployed a lab automation test case at one of their main campuses in the US and made it available to several test teams. They deployed an ONPATH 2900 series packet flow switch, enabling them to automate 1,024 ports of non-blocking Gigabit Ethernet (GigE) connectivity to their routers, servers and various test tools. The initial success with the NetScout solution included reduced setup times for test configurations and much better utilization of test tools. The firm then expanded their use of automation to include additional test teams and also accommodate their increasing need for 10G connectivity. They deployed five nGenius 3903 chassis, each offering 144 ports in a small 3RU footprint, for a total of 720 ports of 10G connectivity for various high-performance test cases.

The firm also uses Horizon Management Software, which provides intelligent, high-performance connectivity within the firm’s network. The Software’s intuitive GUI provides simple point-and-click provisioning and secure remote control of their switching network. NetScout also worked with the firm to successfully integrate their existing third-party lab automation software with their Management Software to expand the amount of equipment under automation control and enable advanced reservation and sharing capabilities worldwide.

The connectivity automation benefits expanded for both equipment sharing and global 24x7 lab access by test teams in other US locations, as well as Europe and Asia. Two additional ONPATH 2910 chassis were added within the first year to expand their GigE testing needs. The firm intends to expand their GigE test beds and scale further to the ONPATH 2920 chassis, which provides 2,048 ports of non-blocking GigE automation. The firm has also expanded their use of 10G automation with ten additional nGenius 3903 chassis. And their migration to 10G is gaining steam, so they are planning to deploy the nGenius 3912 chassis for up to 576 ports of non-blocking 10G scalability. The nGenius 3903 and 3912 chassis also provide 40G and 100G connectivity automation which the firm is now exploring for an upcoming high-speed router project. Increasing utilization of the firm’s existing resources, which reduces CAPEX, and increasing test team velocity without increasing OPEX, are the drivers of their expansion plans.

Business Results

Using the 3900 and 2900 series to automate their product and application testing worldwide, this equipment manufacturer successfully decreased their CAPEX over multiple departments, utilizing their existing equipment rather than purchasing additional equipment to meet their testing needs. By increasing their overall lab utilization, one department was able to achieve an astonishing 70% efficiency goal.

Remote access and management of their test labs helps the firm reduce their OPEX as well – fewer people are required to set up and run tests, and connections can be made instantaneously from any location, through a simple software interface.

The nGenius switching solution offers this network equipment manufacturer capital investment and operational savings; greater equipment and support efficiency; and reduced power, space, and cooling requirements. It also empowers them with more efficient testing capabilities, which in turn, translate to faster time-to-market, not only for their solutions, but for their customers as well.