

## **Verizon Business Technicians Get Ahead with Hands-on CCNA Virtual Training**

Verizon Business is a global leader in communications and IT solutions. Many of the world's largest corporations and governments rely on Verizon Business' professional and managed services and network technologies to accelerate their business.

When delivering those services, technicians in the field must know how to troubleshoot outages, design and support Verizon Business service installations, and understand, assign and allocate network addresses. In order to standardize its technicians' knowledge of complex Cisco networking equipment, Verizon Business decided to make available Cisco Certified Network Associate (CCNA) certification training. A CCNA certification program would ensure field staff had advanced training on Cisco equipment – key to Verizon Business' network infrastructure – while also promoting professional development and helping retain talent. “Every Cisco Certification begins with CCNA. CCNA certification is an excellent first step because it contains much of what our technicians need to know,” said Matt Russell, Technical Trainer with Verizon Business' training department, the Learning Group.

### **A Tangible Business Solution**

In 2006, during Verizon Business' development phase of the CCNA training program, it became clear that hands-on training was necessary to drive home key points of instruction. However, providing a hands-on experience involved setting up real equipment: building and monitoring router topologies, resetting the environment after a student used it, and maintaining expensive equipment. The necessary practice environment would require no small investment – in time or funds.

In addition, Verizon Business found their practice environment wouldn't be scalable to the numbers of students they hoped to train – more than 300 a year from the US, Latin America, Asia Pacific, and Europe. “To do it internally, we would need thirteen individual lab scenarios and a full-time technician assigned to scheduling access and keeping the environments running properly. It just wasn't feasible,” noted Russell.

Verizon Business found its solution in Element K's vLab technology. Along with providing access to a virtual environment for IPv6 and client server labs, vLab provided access to a live Cisco production environment. Using vLab, learners

could schedule time to practice their skills, make mistakes, and gain practical experience, without risking damage to Verizon Business equipment. With a catalog of dozens of virtual labs focusing on core Cisco technologies, Verizon Business quickly incorporated vLabs into its CCNA certification training program.

### **The CCNA Program at Verizon Business**

The 20-week CCNA course is held twice a year, with 150-180 participants in each class. A virtual lab is assigned weekly to augment synchronous and asynchronous lessons. “Having labs available via a web browser is a huge benefit. Learners can take a lab on a specific topic from the office, from home, or on weekends,” noted Russell. “Employees can complete a lab and come out knowing they’ve really tested their skills.”

Using the vLab technology, students can refer to a sample solution and work toward it to eliminate guesswork. Labs also have a time limit, which helps simulate real-world pressures and the CCNA exam experience. “Many of my students say they could not have passed the exam without the hands-on experience, or the time limit of each virtual lab,” said Russell. He found students often continue to access their Element K accounts even after completion of the program. Students also use the technology to test work they are not able to test in a Verizon Business network production environment – testing that could have a direct impact on customers.

Another area contributing to the success of this program is the working relationship between Verizon Business and Element K. The two companies hold monthly working meetings to discuss Verizon Business’ program, address challenges, provide training, or look at upcoming technologies. “Element K’s timely responsiveness has been of tremendous value,” said Russell.

### **Evaluating What’s to Come**

Verizon Business employs a demo site, set up by Element K, to evaluate new vLabs as they become available. The company then makes informed decisions about which virtual labs to incorporate next into their curriculum. “Element K allows us to proactively look 12 months down the road to evaluate new learning assets. It’s a huge benefit from a planning perspective,” noted Russell.

Verizon Business plans to expand its CCNA certification training curriculum to meet changing demands in the communications technology industry. To date, the company has trained hundreds of technicians for the CCNA certification. “Let’s face it, the CCNA exam is extremely difficult. But even if an individual does not pass their first attempt, our assessments show employees continue to demonstrate progress throughout the CCNA course. What’s important is that people are learning. Having the means to get hands-on experience from virtually anywhere in the world, anytime of the day, is critical to our training process.”