

Executive Summary

Customer

Northern New Mexico College (NNMC)

Challenge

Many of NNMC's students live in remote villages spread across the Rocky Mountains. NNMC wanted to make its IT labs remotely accessible, so that students could complete them without enduring a long drive or dangerous winter weather.

Objectives

- Provide remote access to IT lab equipment to better serve students located across rural Northern New Mexico
- Reduce the time faculty spent setting up, managing, and troubleshooting labs
- Gain the ability to quickly rollout new courses in cybersecurity and other in-demand technologies

Technology Solution

NDG's NETLAB+ system enables anytime, anywhere access to IT laboratory equipment.

Results

NNMC now serves more courses to more students than ever before. The college was recently awarded a National Science Foundation grant to develop a cybersecurity program, built on NETLAB+, as part of its Information Engineering Technology bachelor's degree. Additionally, NNMC has been able to expand its program to a satellite campus in Santa Fe, using NETLAB+ to provide students with remote access to lab equipment on the NNMC campus in Española.

Overcoming Geographical Challenges in Rural New Mexico

The Challenge

Northern New Mexico College is a small college that primarily serves rural communities within a 40-mile radius of its campus in Española, New Mexico. The college's students—predominantly Hispanic (74%) and Native American (11%)—face many of the challenges one would expect from a region characterized by chronic poverty, underperforming primary and secondary schools, and limited employment opportunities.

The Information Engineering Technology (IET) program was started in 2009 to give NNMC students access to the training and skills they need to be relevant in today's technology-driven marketplace. The program has grown from 15 to more than 70 students; it has expanded its curriculum to include Cisco, VMWare and Palo Alto Networks; and it has been awarded two prestigious National Science Foundation grants.

Yet, the IET program at NNMC also faced significant challenges. Many of its students struggled to fit IT labs into demanding schedules that also included family and work responsibilities. At times, the weather conditions in the Rocky Mountains compounded that problem, making it dangerous for students to travel from their remote villages to lab facilities.

Meanwhile, the IET program grappled with the resource challenges faced by many small programs. Overburdened faculty wanted a solution that would free them from the time-consuming tasks of setting up, managing and troubleshooting IT labs, so that they could spend more time teaching and growing the program.

The Solution

In 2015, Northern New Mexico College began using NDG's NETLAB+ platform to provide students with remote access to IT lab equipment.

NDG's NETLAB+ is a remote access solution that allows academic institutions to host real IT equipment, virtual machines, and a wide variety of curriculum content options. NETLAB+ includes all the software needed to provide an environment through which instructors can manage IT courses, and students can schedule and complete lab exercises. NETLAB+ includes supported content specifically designed for popular IT academies, including Cisco, VMware, EMC, Palo Alto Networks, Red Hat, and more.

“Now students can complete labs whenever they want. During the day, late at night, on the weekends—lab use is much better distributed over time. So we’re able to use less equipment to serve the same number of students.”

Dr. Jorge Crichigno

With NETLAB+, NNMC’s students are now able to complete labs from the comfort of their homes. The program only requires students to visit the physical lab for the first class to learn about the underlying hardware, after which students are able to do all of their lab work online. This has greatly improved accessibility and outcomes for students—it has also benefited faculty and staff.

“NETLAB+ makes our lives easier,” explains Dr. Jorge Crichigno, Department Chair and Associate Professor at NNMC. “I teach classes. I’m the chair of the department, and I have plenty of other responsibilities like working on grants and accreditation. I don’t have a technician to help me with the labs. NETLAB+ makes it easy, because students just login to the website, reserve a time and complete the lab. There’s no need for me to set anything up, manage scheduling or do any of the troubleshooting that may be required in a physical setting. Everything is just ready to go.”

Results

Thanks to NETLAB+, students at NNMC now have remote access to a broad range of curriculum from anywhere they have an Internet connection. Chase Harrison (a recent graduate) notes, “NETLAB+ made a huge difference for me. I was working full-time and going to school full-time, so my only free time was late at night and on the weekends. It really helped being able to do the labs from home.”

NETLAB+ has enabled NNMC to bring its IET program to Santa Fe, which previously did not have any other four-year-degree-granting institutions. The Santa Fe extension does not have physical lab facilities, so the ability to remotely access equipment on the Española campus was critical to meeting the needs of the underserved students in Santa Fe. Dr. Crichigno observes, “The idea is that we are going to grow, because Santa Fe is a much larger city and there is a need for four-year programs in the IT area.”

In August 2017, NNMC was awarded a \$433,689 grant from the National Science Foundation to develop a cybersecurity concentration as part of the IET program. The program will use NETLAB+ to implement the complex topologies required for cybersecurity courses, in addition to providing students with remote access to the labs.

Talk to Us About Your Program Requirements

NETLAB+ is a flexible solution that enables institutions of all sizes to overcome learning challenges and build great IT training programs. Contact us to schedule a free consultation—and learn how we can help you meet your educational objectives.

info@netdevgroup.com