College Advances Emergency Notification

Northern Virginia Community College uses over 100 digital signs for emergency alerts, news, and communications.

EXECUTIVE SUMMARY

NORTHERN VIRGINIA COMMUNITY COLLEGE

- Higher Education
- Northern Virginia
- 72,000+ students; 2300 fulltime faculty and staff

CHALLENGE

- Provide effective emergency communications
- Improve communications about campus events and deadlines
- Minimize IT workload

SOLUTION

- Integrated 100+ Cisco Digital Signs into existing Cisco network
- Centrally managed content and digital displays using Cisco Digital Media Manager
- Created web-based application to enable people to submit content without involvement from IT department

RESULTS

- Enhanced emergency notification
- Made on-campus communications more attention-getting and timely
- Decreased costs and increased productivity for IT staff

Challenge

With six campuses and 13 total sites, Northern Virginia Community College (NOVA) is the second largest multicampus community college in the United States and the largest educational institution in Virginia. The college serves more than 72,000 students.

As part of its emergency preparedness program, NOVA wanted an effective way to disseminate emergency information on campuses. Notices could range from information about weather-related closures to instructions such as “shelter in place” or “evacuate the building.”

The college campuses already had network-connected digital signs, which played content from DVD players in the IT room. But creating a DVD takes time, making the solution unworkable for emergency notifications. In addition, the manual solution would not scale, because it required an IT staff member to be physically present to change DVDs.

NOVA needed a new type of system to advance its emergency communication strategy. “To best ensure the safety and security of students and staff, we needed an emergency notification solution that we could update from any location, even from off campus,” says Allen Sinner, chief technology officer and director of IT, Northern Virginia Community College.

Solution

Northern Virginia Community College chose the Cisco® Digital Signs solution, which includes high-definition Cisco LCD Professional Series Displays, Cisco Digital Media Players for each display, and Cisco Digital Media Manager software. “We already have a Cisco network that we use as the platform for Cisco Unified Communications, so we had confidence that Cisco Digital Signs would integrate well with our existing IT environment,” says Sinner.

Before the equipment had even been removed from the box, the IT department learned that President Barack Obama would be visiting Northern Virginia Community College in less than 24 hours. Campus leadership wanted to provide a live video stream of the visit across all campuses so that faculty, staff, and students could participate in the historic occasion. “Fortunately, the Cisco Digital Signs solution is easy to install and requires very little configuration,” Sinner says. Overnight, the IT department deployed Cisco Digital Signs throughout all six campuses, in libraries, meeting areas, and common hallways. Everyone present on any campus was able to watch the President’s speech live, on large, high-definition displays.

Today, the NOVA deployment includes more than 100 digital signs in 40 buildings. NOVA divides the displays into three sections. One always shows live video, either from a news station or from the college president or notable visitor (Figure 1). “We display live news feed to entice people to look at our digital signs, and then they’re drawn in to see campus news and announcements,” Sinner says. Another section displays general college information, such as

enrollment deadlines. The third section displays content that various campus departments or student groups have submitted. Video over IP has not interfered with the performance of any other network applications, because it uses multicast technology, which requires very little bandwidth.

Figure 1. NOVA divided the displays into three zones. One shows weather updates and key college announcements, the second displays live video (i.e. CNN or campus events), and the third is reserved for faculty.

Results

Self-Service Content Submission, Saving Time for IT

The college IT department used the open application program interface (API) for Cisco Digital Signs to create a web-based application for content submission. The application avoids the need for IT to get involved by prompting content submitters for all needed information, such as the campus locations where the content should play and the expiration date. The easy-to-use interface also eliminates the time and costs of training.

All content plays in continuing cycle. When someone submits new slides through the web interface, the slides are automatically moved into a folder and given a place in the queue. The new content appears the next time the cycle begins.

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> **— Allen Sinner, Chief Technical Officer and Director of IT, Northern Virginia Community College**

The web-based application is particularly useful for emergency notification, because public safety officials can instantly override current digital signage content with the emergency messaging (Figure 2). Authorized officials use a PC, laptop, or mobile device to sign in, select the appropriate campuses for distribution, and just click a button to instantly distribute emergency messaging (Figure 3).

Figure 2. Safety and Security Officials can push out a single emergency message to all displays on selected campuses.

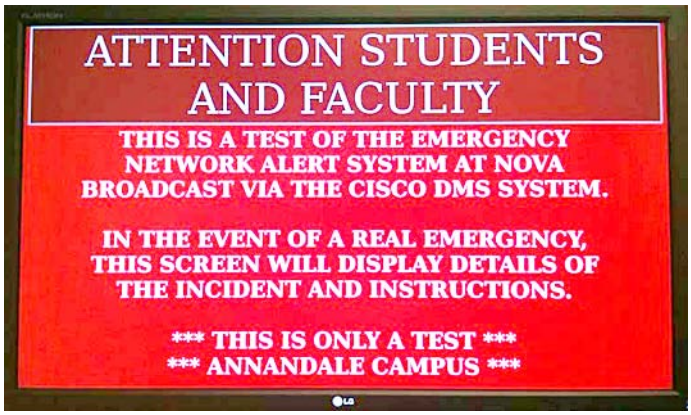
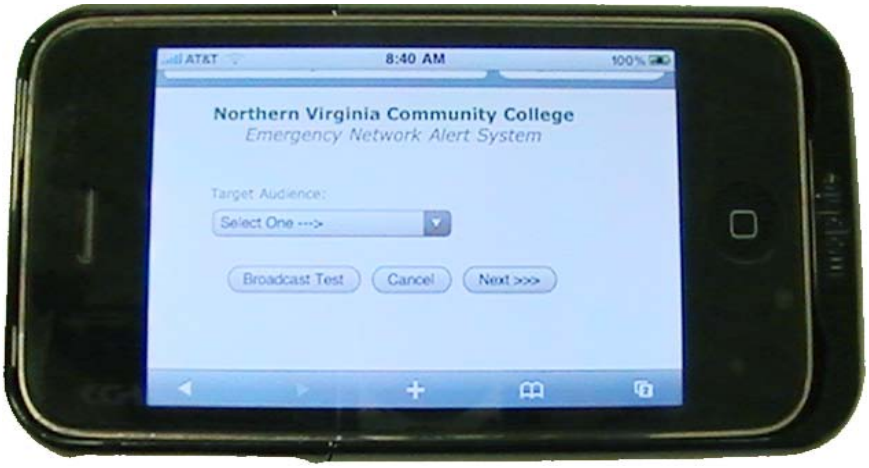


Figure 3. NOVA's emergency network alert system allows campus safety professionals to update digital signs on the fly using a PC or a mobile devise.



"Inviting people to submit content from their browsers is not only convenient for them, it also allows us to restrict access to Cisco Digital Media Manager to just a few people, eliminating the risk of unintentional changes to content schedules," says Sinner.

Effective Emergency Notification

NOVA's emergency communication plan was put to the test when a campus shooting occurred on one campus in December 2009. "Local police used the web interface to send emergency instructions and updates to all of the Cisco displays on that campus, with just a few clicks," says Sinner. People on campus remained informed, and the up-to-date information from a reliable source helped to quell rumors. Nobody was hurt during the incident, and NOVA received praise from law enforcement officials for rapidly disseminating evacuation and procedure information across the digital signage.

Eye-Catching Campus Communications

Various college administrators and groups use Cisco Digital Signs to display their information in an attention-getting format:

- The provost and staff communicate information such as class registration deadlines and enrollment periods for employee healthcare plans.
- Student groups create short commercials in PowerPoint to announce sports and social events.
- Campus security personnel and local police provide emergency notifications and instructions.

PRODUCT LIST
Routing and Switching
• Cisco Catalyst® 6509e, 4506, and 3750p Switches
• Cisco 3845 Integrated Services Routers
Digital Media Suite
• Cisco Digital Signs application, including Cisco LCDs, Cisco Digital Media Players, and Cisco Digital Media Manager
Security
• Cisco ASA 5540 and 5520 Adaptive Security Appliances

"The colorful, constantly changing content on the digital signs attracts more attention than a piece of paper tacked onto a building," Sinner says. And unlike bulletin boards, the Cisco Digital Signs always feature up-to-date content, because people indicate the expiration date during submission.

Support for Campus Green Initiatives

Promoting campus events on digital signs instead of posters reduces paper, supporting NOVA's commitment to environmental sustainability. To conserve power, the college uses the built-in programming to turn off all digital signs between 11:00 p.m. and 7:00 a.m. "With our old system, the displays were on all the time, leading to premature burnout," says Sinner. "Programming the displays to turn off at night protects our investment in equipment and also reduces energy costs."

Next Steps

Now that the Cisco Digital Signs Solution is in place, Northern Virginia Community College plans to use it in new ways to increase return on investment:

- **Revenue generation from ad sales**: NOVA is investigating using Cisco Digital Signs as a revenue source by selling advertising to local businesses and national organizations that target college students.
- **Extending the same communications to the desktop:** The IT department plans to implement Cisco Show and Share, another application in the Cisco Digital Media Suite. Cisco Show and Share is a social video system that the college can publish the same content displayed on the digital signs. Students and faculty can also use Show and Share to author and collaboratively edit their own videos, for distance learning, for example. Students are already familiar with social video sites, so they will need little if any training.

Sinner concludes, "With Cisco Digital Signs, Cisco is giving us the tools to get to where we want to be in the future."

For More Information

To find out more about the Cisco Digital Media Suite and the Cisco Digital Signs application go to: http://www.cisco.com/go/dms.

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