

Increasing access to computers for students and teachers with Windows MultiPoint Server 2011

Dr. Modesto Rivera Elementary School

Challenge

Ensure better use of resources and allow greater access to computers for teachers and students.

Solution

Implementation of 72 *NComputing L300* Series access devices to enable 17 classrooms with 4 or 8 seats per class. The devices are connected via LAN to one Windows MultiPoint Server 2011 host per classroom.

Impact

Reduced acquisition and maintenance costs, decreased power consumption, maximized student learning, and provided more computing resources for teachers.

Deployment

- Hosts: Lenovo ThinkCentre M70e, 1 x Core 2 Duo E7500, 3 GB RAM, DD 320 GB, DVD ± RW
- Operating System: Windows MultiPoint Server 2011 Standard
- Terminals: *NComputing L300* with vSpace
- Monitors: Acer 17
- Keyboard & Mouse: USB
- Printers: Lexmark E260DN (1x show)
- UPS: APC Back-UPS ES 550, 8 sockets (1 x classroom)

The director Dr. Modesto Rivera Elementary School, Domingo Leduc del Valle, had a simple vision for his school. "As we all know, technology moves at the speed of light. As technology improves, so does the need to educate our children. We owe it to them to assure that when they grow up and leave the school, they are able to communicate effectively in the world of commerce, having learned on the latest equipment and software applications."

His challenge was to ensure that both students and teachers had access to the latest technology equipment, taking into account that resources for Information Technology (ICTs) are not as abundant as we would like them to be.



Above: Students in the classroom with 8 L300 devices and Windows MultiPoint Server 2011

Enabling Technology for Teachers and Students

Dr. Modesto Rivera Elementary is in the town of Carolina, about a half hour from the capital of Puerto Rico, San Juan. When the school first started looking for a new solution, it had a single computer lab with ten desktop computers using Windows XP. The challenge for the technology department was to provide access to students in each classroom and to allow teachers to incorporate digital learning materials and desktop computing in all classes. At the same time, the total cost of acquisition had to fit a very limited budget and had to have low maintenance requirements in terms of time, labor and cost.

The IT provider for the Rivera School, Ahmed Technology Corp., suggested a solution that combined the *NComputing* virtual desktop technology with Microsoft's new operating system - Windows MultiPoint Server 2011. The union of the two products gives users the best virtual desktop solution that gives users a complete Windows 7 experience for multi-user environments. With this solution, each student can enjoy their own customized virtual desktop with their own files, applications and Internet access.

Windows MultiPoint Server 2011 is designed specifically for schools and academic institutions and is based on the latest server operating system, Windows Server 2008 R2 SP1. It has new simplified licensing models and lower costs than Windows Server 2008 R2 Standard to offer better value and flexibility for academic customers.

The Solution at Hand

Results with NComputing

Improved resources for collaboration and classroom management
Provided a platform for students to gain knowledge of both academic subjects and computer technology
Reduced equipment and maintenance costs
Reduced energy consumption

“For me, the benefit is a question of how many different ways we can prepare them: they can become familiar with the class material and learn to use the computing system.”

Giselle Landrau
Teacher, Dr. Modesto Rivera School

NComputing's technology takes advantage of the computing capability of modern computers, which have much more capacity than is needed for a typical user. This unused capacity can be shared simultaneously by many users. Each user has its own monitor, keyboard and mouse connected to a small access device and high reliability that is connected to the shared computer. Access devices have no CPU, memory or moving parts, making it robust, reliable and easy to implement and maintain. Ahmed Technology recommended the NComputing L300 devices that connect to the server via local area network. Ahmed assessed traditional thin clients and attended demonstrations organized by different manufacturers, but found that these solutions are complex and require third-party hardware components, hence adding to the total cost. NComputing devices also provide an environmentally responsible manner to upgrade the computer labs without losing much energy. Technology Ahmed believes that the new computer uses 80% less electricity than a laboratory using traditional desktops.

In turn, Windows MultiPoint Server 2011 provides schools with new technologies that simplify installation and management of the host servers. The system is designed for administrators who are not IT professionals to easily implement user accounts and the students' desktop experience. Additionally, WMS 2011 incorporates a set of functions for classroom orchestration, allowing teachers to easily monitor, control and ease collaboration among students.



Engaged Students. Empowered Educators

Once the desktop virtualization solution was in place, the reaction of users, both students and teachers, was impressive. Giselle Landrau, a Spanish teacher at the Rivera School commented, “The student interest is very different. They can be more independent, and that allows me to work with students who lag behind to provide them additional individual training.” Teachers have also found that the classes are very different with the use of the NComputing system and Windows MultiPoint Server 2011. “Students love it. It helps them develop many different kinds of skills and gives them individualized practice on the topics they are discussing in class,” said Vanessa Delgado, an English teacher at the school. “Since I give many digital presentations, my goal is for them to prepare and give their own project presentations using the system.”

Schools like Dr. Modesto Rivera Elementary are looking for solutions that are affordable, reliable, easy to install and administer, and that are aligned with the academic and technological goals of the institution. This approach is designed to provide each school with the basic tools and computer equipment to support the academic development of the students.

Multi-user computing simplifies the deployment and ongoing maintenance of the academic computing facilities. After extensive testing of the NComputing L300 access devices and Windows MultiPoint Server 2011, the Rivera School is confident that they have found a solution that resolves the IT infrastructure problems facing schools and meets the needs of students and teachers alike.