



Microsoft Education Customer Solution Case Study



Rwandan Girls Academy Models Cost-Effective Technology Solution for Future Schools

Overview

Country or Region: Rwanda

Industry: Education

Customer Profile

Located in the Gashora Sector of Rwanda, the Gashora Girls Academy is an upper-secondary boarding school that offers high quality college-prep academic courses to 270 students.

Business Situation

The Gashora Girls Academy wanted to provide technology in classrooms and labs to help students advance in their coursework.

Solution

The Gashora Girls Academy decided to deploy Windows MultiPoint Server 2011 to take advantage of the lower cost, scalability, and power efficiency.

Benefits

- Provided a Model for Other Schools
- Provided Technology at a Lower Cost
- Offered Scalable Solution
- Eased Daily Maintenance

“Some of these girls have never even seen a computer before. Through Windows MultiPoint Server, they can experience the most current software and technology.”

Kimberley Mecham, Technical Advisor, Gashora Girls Academy

Gashora Girls Academy is an upper-secondary boarding school for 270 girls. Located in the Gashora Sector of Rwanda, the school is funded by the Rwanda Girls Initiative, an organization working to provide high-quality secondary education to all girls in Rwanda. Part of the mission of the Gashora Girls Academy is to ensure that every student has access to technology. The school, which opened in February 2011, decided to deploy Windows MultiPoint Server 2011, which allows multiple users to share one computer simultaneously, each with their own independent and familiar Windows experience. Gashora Girls Academy is deploying a scalable technology solution that it believes other schools can easily duplicate. This solution will also help the school lower costs and ease administration, while ensuring that students can access the latest technology.

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Situation

Opened in February 2011, the Gashora Girls Academy was built as a part of the Rwanda Girls Initiative, which has developed a model for investment in Rwanda's growth and development. A large part of the initiative is the education of girls in Rwanda. Gashora Girls Academy, an upper-secondary boarding academy for 270 girls, is the first school funded by the initiative. The school's 12 teachers come from both inside and outside of Rwanda. In addition to academics, the girls are provided with housing, meals, and access to healthcare. Campus facilities include an arts center, a sports field, and science and technology labs. The campus also supports a community center for the village of Gashora, providing space for educational seminars and community gatherings.

A large part of the curriculum at Gashora Girls Academy is dedicated to science and technology. As part of that effort, the school wanted to ensure that the students had liberal access to technology, and eventually it would like to have a computer station for every student. The school hired a network consultant to help configure a wireless network and a Microsoft Windows 2008 file server for administration purposes, but it was unsure what sort of technology solution to deploy in labs and classrooms. It had several issues it needed to consider before choosing a solution. First, the school would have to rely on teachers to help configure and maintain the computers, so it wanted to avoid networks that would require extensive cabling. In addition, teachers would be responsible for maintenance and for setting up accounts, so the school was concerned about the level of daily maintenance the desktop computers would require in terms of applying updates and patches or installing software. Another issue was power, which is expensive and often unreliable, so the

school must rely on battery backup power to run any electrical items.

"As a new school, we were in the unique position of starting fresh with everything," explains Kimberley Mecham, Technical Advisor at Gashora Girls Academy. Initially, Gashora Girls Academy planned to deploy 36 low-cost desktop computers, but it knew that power and maintenance requirements would increase as it added more computers. At some point the school could require more help from outside consultants to build the network and maintain the systems. It wanted to find a more cost-effective, scalable solution in terms of hardware and power that would be easy to deploy and maintain internally.

Solution

After considering a more traditional one-to-one approach of a desktop computer for every student, Gashora Girls Academy decided to deploy Windows MultiPoint Server 2011. With MultiPoint Server, multiple users, each with their own independent and familiar Windows experience, share one host computer simultaneously. In its computer lab, the school deployed six host computers running MultiPoint Server. To each host, it attached six user stations consisting of a mouse, keyboard, and a 20-inch LED monitor—which consumes less power than a traditional monitor—for a total of 36 workstations.

For its host computers, Gashora Girls Academy purchased custom-built computers—which it was able to acquire at a lower cost than off-the-shelf machines—in the United States, where costs are typically much lower, and installed the MultiPoint Server 2011 before shipping the units to Rwanda. At the school, the MultiPoint user stations are attached to the host computers through MultiSeat HP t100



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USB thin-clients, which were donated to the school by HP. It also bought battery backups for the lab in the United States. Software licenses for programs such as Microsoft Office 2010 were donated through the Microsoft Giving Campaign.

Students in the lab now have a Microsoft Windows 7 interface and can access Microsoft Office 2010 programs to complete school projects. They can also run computer science applications, stream videos, or listen to audio programs. The school is ready to expand beyond the lab and into other classrooms, and it believes it can reach its goal of providing a computer station for every student more quickly than it could have with a traditional one-to-one solution. Because MultiPoint Server supports networked clients running a remote desktop program (RDP) from traditional computers, laptops, or netbooks, the school can use older or refurbished equipment to build more labs.

With MultiPoint Server 2011, teachers can provide a more personalized learning experience for students. They will be able to see thumbnail views of students' desktops and monitor their progress during class to see who needs help. They can also project their desktop onto students' monitors to explain a concept or program, and they can more easily incorporate tools like the Internet in daily lessons so that students master both the material and the technology. From an administrative standpoint, the school has fewer computers to maintain.

Benefits

By deploying Windows MultiPoint Server 2011, Gashora Girls Academy can more quickly meet its goal of providing access to technology for every student. “Some of these girls have never even seen a computer before,” says Mecham. “Through

MultiPoint Server, they can experience the most current software and technology.”

Provided a Model for Other Schools and the Community

One of the school's visions is to provide a model for other area schools that want to introduce technology. “We are in the spotlight right now, so we want to be a model of efficiency when it comes to technology, so other schools can see how easy it is to provide access for their students,” explains Mecham. The Rwanda Girls Initiative also hopes to use Gashora Girls Academy as the model for other schools in Rwanda.

“We also have a vision for a community center where we can offer computer classes,” says Mecham. “With MultiPoint Server, we can provide cost-effective access to technology, and this is the kind of thing that really changes a whole community.”

Provided Technology at a Lower Cost

Because Gashora Girls Academy built its lab from scratch, it was able to reduce up-front costs of deploying MultiPoint Server several ways. First, it reduced expenses by purchasing components in the United States. “We paid \$800 [RWF 476,000] for a server in the United States, where we would have paid \$1700 [RWF 1,010,000] in Rwanda,” says Mecham.

The school also expects to keep power costs lower than if it had deployed traditional desktop computers. In Rwanda, electricity costs average RWF 131/kWh (U.S. 22¢/kWh). The 36 low-cost desktop computers it originally considered would have used approximately 682 kilowatt hours (kWh) and paid RWF 89342 (U.S.\$149) per month. For the six Multipoint Server host computers, the school uses 132 kWh per month for a cost of RWF17,292 (U.S.\$29), an 80 percent lower cost. Every



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percentage it saves can be allotted to expanding technology to other classrooms.

Offered Scalable Solution

With MultiPoint Server 2011, Gashora Girls Academy has a scalable solution that will help it to meet its goal of providing individual access to technology for every student. In the current lab which has six user stations per host, the school can easily add four more user stations per host to increase access. MultiPoint Server also offers the ability to split screens, so two students can use one monitor at the same time, each with her own individual desktop and computing experience.

In other classrooms, the school can take advantage of the remote desktop access available through MultiPoint Server, so students can log on to the server from any computer on the wireless network to access their account. And as it increases access to technology, the school is not limited only to the thin-client solution it deployed originally. “With MultiPoint Server, we can use older equipment—even old laptops—to get a Windows 7 desktop in front of every student,” says Mecham. “This will make it easier for us to attain our goal of one-to-one access more quickly.”

Eased Daily Maintenance

Because Gashora Girls Academy will have to rely primarily on faculty members to maintain the computers, it needed a solution that would not be difficult to manage and would not take too much time away from teaching. With its current installation, the school only needs to manage the six host computers—applying updates and patches and installing software—instead of 36 individual machines. The system is also easier to set up than a traditional networked classroom. “The consultant we used to help us set up our other network systems was amazed at

how easy it was to set everything up,” explains Mecham. “We have everything standardized, so as we move forward, we should experience no issues setting up new computers.”

Gashora Girls Academy is the first step for the Rwanda Girls Initiative in meeting its objective of transforming educational opportunities for young women in Rwanda. With the aid of solutions like Windows MultiPoint Server, the Rwanda Girls Initiative can help ensure that both students and community members have increased access to technology that helps to broaden horizons.



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For more information about Gashora Girls Academy products and services, visit the Web site at:

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