



UNIVERSITY OF MISSOURI-KANSAS CITY



The University of Missouri - Kansas City is one of four campuses associated with that state's premier public university. With more than 14,000 full and part-time students, it is experiencing record enrollments and demand for its services. One of the reasons for its success is its Ideal Learning Environment initiative: all classrooms are equipped with the technology deemed necessary to support a given subject or class. The equipment ranges from VCRs to document cameras to Internet-connected computers equipped with a wealth of applications, and more.

THE PROBLEM

Like any entity, private or public, the University needed a way to protect its investment in technology. It had recently spent nearly \$750,000 for state-of-the-art media teaching tools, including digital projectors costing some \$5,000 each. The problem, said Tom Brenneman, CIO at the school, was that this equipment was walking away. Parts of the campus are located in high-crime areas, yet the school's doors must be open when students are available.

"This makes security a challenge," said Brenneman. "Thousands and thousands of dollars worth of equipment was being lost each year."

The University needed a solution that would watch over University's classrooms and other student areas like lounges and hallways in a way that would help students and staff stay safe and secure, while at the same time protecting the technology inside those rooms. It also had to be inexpensive, effective, simple to implement and use and not too hard on the University's limited bandwidth.

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Brenneman also needed a solution that would monitor the technology infrastructure, including the main data center, so that he and his staff could be alerted to any environmental factors that could lead to network down time, data loss or damage to equipment. These conditions included extreme temperatures, wide swings in humidity and water leaks. Moreover, the solution needed to provide surveillance capabilities.

"When we thought about the damage that could occur to servers and other equipment if the air conditioning broke down and we didn't find out soon enough ... or if a pipe broke, or if somebody unauthorized sat down at the wrong desk where the computer was still logged in, well, we just didn't want something like that to happen," said Brenneman. "I remember reading about a survey that said IT professionals attributed 40 percent of their network downtime to temperature-related problems with their IT equipment, and that's one of the things I really wanted to prevent," said Brenneman.



Brenneman was frustrated. “As an IT professional in the education market, I have limited time and staff, but I’m expected to keep our network and IT equipment running 24/7,” he said. “Without some assistance it’s impossible. In many cases, I wasn’t able to prevent problems because I didn’t have enough eyes and ears to notify us when something was about to go wrong.”

THE SOLUTION

Brenneman looked at several companies and solutions. Only one offered the combination of physical protection, environmental monitoring and value: NetBotz.

The NetBotz deployment at the University started with installation of an even dozen NetBotz appliances and NetBotz Central, which consolidates all information from NetBotz appliances across the campus and displays it anywhere via a browser. However, the NetBotz appliances were so effective that the University has since purchased more than 500 so far, and it continues buying them. When there is a problem, NetBotz notifies campus personnel instantly via phone, email, pager or SNMP Trap.

“NetBotz had several advantages over competitive solutions,” said Brenneman. “Above all we loved NetBotz Central, which lets us see what’s happening instantly, so we can react quickly if we need to, before any ‘situations’ get worse. Like if somebody is getting attacked in a classroom — we can get police right over there. How do you put a price on that kind of protection? Other solutions simply didn’t have the ability to centrally manage and monitor on a 24x7 basis like NetBotz.”

THE BENEFITS

Formal ROI calculations were not a factor in the University’s initial purchase decision, which came about because of the University’s concerns about security and protecting its technology investments. But Brenneman estimates the University recovered its investment in less than a year, based on stolen equipment it has recovered, reductions in theft and prevention of damage to equipment.

Just four months after deployment, the NetBotz system notified the AV Technology Group of three separate instances where equipment was being stolen or borrowed from classrooms. Because the appliances digitally recorded the activity, the group was quickly able to determine who was in the room and what equipment was taken. The university quickly and easily tracked down the individuals and recovered the equipment, valued at about \$25,000.

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“NetBotz has picked up a student disconnecting multimedia equipment; identified a purse snatcher who had been stealing from various offices all over the campus; and identified a person who broke into an equipment storage room,” said Brenneman. “All in all, NetBotz has enabled us to monitor and track down thousands of dollars worth of equipment.”

“The NetBotz appliances and surveillance software serves as our eyes and ears across campus, protecting millions of dollars of equipment from being damaged or stolen twenty fours hours a day, seven days a week,” said Brenneman. “But the real bonus is that it can protect people too. Campus police are real believers now.”

He said campus police report that their investigation process for thefts and other crimes has in many cases been reduced to as little as 20 minutes versus days and weeks.



One unexpected benefit of newer NetBotz cameras being deployed at the University: Because their resolution and images are so good, the cameras are being used for remote tech-support troubleshooting. They zoom in on the computer desktops so technicians, working by instant message or phone with the user, can see exactly what's happening while they troubleshoot.

“This is saving a tremendous amount of time and therefore, money,” said Brenneman. “Our support people are a lot more efficient because of this.”

He also likes the unified view provided by NetBotz Central, which provides 24/7 information on equipment and environmental metrics — power consumption, temperature, humidity, airflow and water leaks.

“Now,” said Brenneman, “we’ve got a single view of security breaches and any problems in places like server rooms, which can prevent equipment failure.”

NetBotz also provides a record of heating and cooling trends in the main server room. Brenneman finds the information useful for planning.

“We print out a graph to see how the temperature has fluctuated over, say, the last 12 hours,” said Brenneman. “We then talk with our facilities people to determine what’s going on in that room. It’s a great diagnostic tool. We can then troubleshoot a potential problem. We’ve saved a lot of equipment, and that means we’ve also saved the data that flows over the network. So even though we haven’t benchmarked it, we know productivity is up.”

CORE BENEFITS

- ◆ ROI in less than a year.
- ◆ Enabled the university to quickly track down the individuals who stole equipment, and allowed for recovery of equipment, valued at about \$25,000.
- ◆ Prevents theft of equipment.
- ◆ Compresses investigative time for campus police, from days and weeks to as little as 20 minutes.
- ◆ NetBotz cameras used for remote tech-support troubleshooting, saving time and money.
- ◆ NetBotz Central allows unified view of security and environmental conditions on campus, which in turn means quick response in the event of problems.
- ◆ Provides a record of heating and cooling trends in the main server room. Brenneman finds the information useful for planning.
- ◆ Saves time and money by providing a way to check and see if classroom is being used before a repair technician is sent across campus.
- ◆ NetBotz has made IT staff more efficient.
- ◆ Prevents equipment failure/data loss in case of brownouts and blackouts.
- ◆ Significantly faster response-to-resolution times.



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