Motorola's Wireless Higher Education Solutions

Indoor and Outdoor Connectivity

Only Motorola knows wireless broadband inside and out. Motorola's MOTOwi4™ portfolio of wireless broadband solutions is earning high marks in helping institutions of higher education quickly meet the growing demand for high-speed services on-and-off campus.

Empowering Higher Education Environments

High-speed wireless computing is creating a new breed of college and university student. From Durban to Dubai, from Cambridge to Canberra, the new generation of higher education students are both computer and Internet literate. They demand instant high-speed access whenever they need it… and wherever they are. The fact is, more and more of the best and the brightest students are choosing an educational institution at least in part on its high-speed connectivity capabilities.

But wireless broadband isn't only about high-speed access. All around the world, colleges and universities are discovering that in addition to helping them be more attractive to students, wireless broadband capabilities are helping them in a great many other ways. They're encouraging and facilitating collaborative and distance learning, helping to increase safety and security on and off campus, and improving productivity of faculty, administration and staff. Higher education-specific benefits include:

MOTOwi4 SOLUTIONS
The MOTOwi4 portfolio of complementary high-speed wireless solutions enables colleges and universities to deliver, control and leverage IP-based voice, video and data in real time. MOTOwi4 solutions provide a robust, scalable, interference-tolerant broadband infrastructure that enhances connectivity, communication and collaboration for students, faculty and administrative leadership and staff.

Ubiquitous Campus-Wide Connectivity.
MOTOwi4 solutions make it easier, quicker and more affordable to provide students, faculty and staff with broadband Internet access from virtually everywhere on campus. The result is speedier access to educational research, online library repositories, learning portals, Course Management Systems, and faster campus-wide communications in emergency situations.

IT Security Solutions. Over half of higher education environments have experienced security breaches including unauthorized modification of grades and the exposure of confidential student records. Through DES and AES over-the-air encryption standards, wi4 solutions help colleges and universities manage an enormous number of individual profiles and access policies to maximize network security while supporting open creation and information sharing.

Video Surveillance Security Solutions. Premise and property protection, data center security and personal and public safety are among the highest priorities on campuses of all sizes. A high-speed wi4 network enables state-of-the-art IP-based video surveillance solutions. Applications include remote monitoring of perimeters, parking lots, dormitories and other hard to reach and heavily used campus locations.

Administrative Productivity. MOTOwi4 solutions help improve administrative productivity and reduce costs by enabling advanced applications such as online class registration, electronic grading, data collection, access to student transcripts and other data, ID verification, library services and billing procedures.
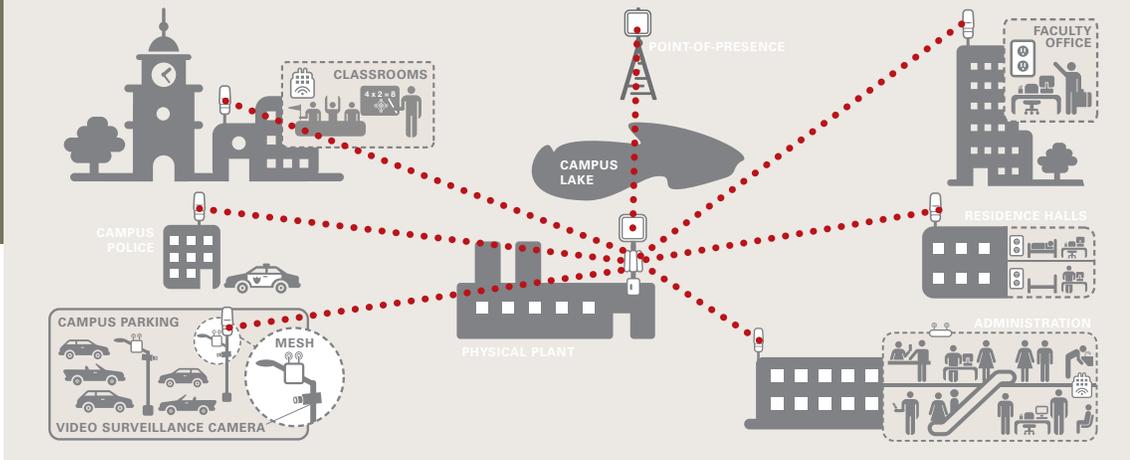
Contingency Planning. In the event of a natural or man-made disaster situation, a wi4 wireless broadband network enables colleges and universities to build redundant systems and develop contingency plans for maintaining continuous communications with faculty, staff, students, parents, government agencies and first responders.

Revenue Building. A MOTOwi4 broadband network also offers numerous opportunities for colleges and universities to create new profit centers and add new revenue streams.

SOUTHWESTERN UNIVERSITY NETWORKS A 335-MILE LEARNING ENVIRONMENT

A large university system, located in the southwestern United States, needed to build a high-speed, interactive distance-learning network that connected its main campus with 24 school districts. The network needed to be constructed over a 235-mile rural area with no existing infrastructure to support the expansion. The university chose a Motorola wi4 Fixed point-to-point wireless broadband networking solution that is now providing a cost-effective, carrier-grade, interactive communications network. The network is now being used not only for distance learning applications, but also for support services such as admissions, financial aide programs and non-credit workforce training for the state government.

MOTOwi4 Solutions Simplify Bringing Broadband Speed and Next-Generation Capabilities to Campus Networks

MOTOwi4™ solutions are the foundation of a high-speed wireless ecosystem that connects every aspect of your higher learning environment —inside and outside. Known for their exceptional reliability even in the most challenging environments, wi4 solutions enable flexibility, security and scalability to support future growth.

• wi4 Indoor Solutions:

Enterprise WLAN solutions are optimized for mobility and provide colleges and universities with secure connectivity and access at the point of activity. They enable crucial campus-wide applications including asset management, connectivity, real-time video surveillance, access in classrooms, lecture halls, hallways, administrative and faculty offices, dormitories, and facilities like libraries, student unions and parking lots.

Broadband Over PowerLine, or BPL, solutions deliver high-speed connectivity over a building's electrical system, with access as close as the nearest electrical outlet. How does BPL help colleges and universities? With applications like: high-speed access in multi-unit dorms, classrooms and office buildings; indoor video surveillance; virtual LANS; kiosk communications; alarming systems; energy management; and voice over IP service for students, faculty and administrators, to name a few.

• wi4 Fixed Solutions:

Point-to-Point solutions provide scalable, cost-effective licensed and unlicensed connectivity between remote sites, transmitting data with maximum reliability even in Non-Line-Of-Sight environments and under difficult conditions such as high interference, rough terrain and water barriers. Specifically, wi4 Fixed point-to-point solutions help educational users interconnect on- and off-campus facilities, including new construction where fiber is unavailable.

Point-to-Multipoint solutions can operate in licensed or unlicensed frequencies, and create reliable, cost-effective connectivity between multiple facilities and locations. These systems deliver virtually ubiquitous information access, data, equipment and facilities monitoring and the implementation of highly efficient work flow systems. They also provide exceptional interference resistance in dense, noisy environments. They give you the ability to monitor remote locations, facilities and equipment, and they streamline data transmission between multiple points.

wi4 Mesh solutions provide scalable high-speed solutions for campus-wide environments, enabling fixed, nomadic and mobile IP coverage. wi4 Mesh solutions are highly available, self-forming, self-healing networks that can provide high-speed connectivity and access capabilities in virtually any academic setting. Applications include location-based services for campus security and management teams and video surveillance for more efficient transportation management and monitoring.

wi4 WiMAX solutions use licensed frequencies to extend broadband coverage and capabilities with a standards-based, high performance product portfolio. Products in the wi4 WiMAX portfolio provide the crucial benefits of extended IP access, and allow you to take advantage of productive new services.

MAJOR MIDWESTERN UNIVERSITY BRINGS OFF-CAMPUS FACULTY UP TO BROADBAND SPEED

A major university located in the upper Midwest already had a broadband network connecting students, faculty and administrative personnel on campus. But many of the faculty and staff who lived off-campus need to connect to the network from home. The university chose to implement a wireless broadband system, and selected a Motorola MOTOwi4 Fixed point-to-multipoint wireless broadband network for its reliability, ease of implementation and affordability. The university installed the system which now connects off-campus users to the university broadband network, resulting in more efficient, more effective 24/7 high-speed communications including Internet access and e-mail.

Benefits: MOTOwi4 Helps Colleges and Universities Optimize Learning and Operational Productivity.

Freedom from Wires. MOTOwi4 wireless broadband solutions let you deploy equipment to complement and complete your existing networks wherever it is most convenient, even in areas where wiring is difficult or dangerous.

Monitoring. Our wi4 indoor and remote field monitoring solutions deliver real-time problem alerts and empower technicians to monitor machine performance and perform remote diagnostics.

Leased Line Replacement. Many higher learning environments replace expensive T1 leased lines and leased PBX systems with more cost-efficient wi4 wireless IP connectivity that eliminates recurring expenses.

Digital Video Surveillance. Our advanced video surveillance capabilities help colleges and universities enhance student, faculty and staff safety, as well as minimize loss and guard against intrusion.

Online Learning and Collaboration. MOTOwi4 wireless broadband solutions enable extended distance learning programs and provide interactive environments for collaborative teaching and research.

Streamlined Administrative. Our solutions deliver online efficiency that helps improve productivity and reduce costs by enabling advanced applications such as Internet registration, electronic grading, profile management, Course Management Systems, billing and more.

World Leadership in Design and Deployment

As a leader in integrating disparate wireless and RF technologies, Motorola offers unsurpassed expertise in designing and deploying wireless broadband networks in virtually every type of campus and off-campus environment. We offer our customers comprehensive network management tools and support services that help them meet and master the formidable challenges of today's higher education marketplace.

MOTOROLA