LTW

Building the Ideal Wireless Campus

**Empowering Students and Teachers
with Reliable, High-speed WLAN**

Meeting the Growing Need for Wireless Connectivity

More than ever, private schools must leverage the power of the Internet to enrich the learning experiences of today's students. Today's students have grown up in a wireless world, expecting 'anywhere, anytime' access to the information they need, on any device, including laptops, smartphones, and tablets. Teachers also need reliable, high-speed Internet access to administer online testing, deliver streaming multimedia content, and use learning management systems (LMS) to share assignments, grades, and study guides. Campus safety needs are also driving demands for wireless connectivity for video surveillance, emergency response, and crisis notification systems.

More than ever, private schools must leverage the power of the Internet to enrich the learning experiences of today's students.

But the increasing demands and needs for campus connectivity and mobility, along with rapidly changing technologies, pose significant challenges for schools and create risks of escalating costs. Some schools have already made investments in expanding or upgrading their wireless networks, only to learn the hard way that the wrong choices can leave them with underperforming technology, complaints from students and staff, and obstacles to achieving good educational outcomes. Others are still searching for solutions but finding it difficult to identify the best option for their campus.

So how can private schools make the right choice? And how can they build and maintain cost-effective networks for high-speed and reliable wireless access that meets growing demands and delivers outstanding performance without breaking school budgets?

Wireless Next Generation WLAN
Affordable, High-performance Wireless LAN for Schools

Over the past two years, significant advancements have been made in wireless local area network (WLAN) technology. Thankfully, this means that Wi-Fi™ wireless networking has advanced to the point that schools can deliver wireless service to hundreds and even thousands of users and devices simultaneously, using technology that makes this vastly easier and more affordable than ever before.

For example, using the latest WLAN protocols and hardware that is intelligent and self-optimizing, Zebra Technologies, a global leader in wireless networking, has created wireless next generation (WiNG) WLAN. This technology is now achieving record-setting wireless performance and reliability in schools around the country, at a fraction of the cost of other solutions. The next generation approach offers a simplified user interface and zero-touch installation that makes it inexpensive and remarkably easy to install, maintain, and administer a world-class wireless network that meets any level of demand.

With WiNG Express, your private school can meet any level of demand for Wi-Fi, mobility, and ...easily expand your network and keep up with future needs.

Given these latest innovations, our wireless networking experts at LTW have been recommending and installing Zebra WiNG wireless technology in schools and businesses throughout the northeast.

Importantly, WiNG technology is available in an affordable, best-in-class package for private schools called WiNG Express. With WiNG Express, your school can meet any level of demand for Wi-Fi, mobility, and wireless networking, including scalability to easily expand your network and keep up with future needs.

WiNG features intelligent access points that are self-optimizing and self-healing. They automatically configure new devices and connections and route or re-route traffic along the best pathways to ensure fast and reliable wireless connectivity. This eliminates network slowdowns and service outages, ensuring that your network is always up and running and that your campus community is always connected. And WiNG Express can be used to deliver reliable, high-speed wireless data, video, and voice inside your buildings and throughout your campus grounds. In fact, it can even be installed and configured to operate in multiple locations and across multiple campuses with centralized management by your staff.

With WiNG technology, you can provide support for all wireless computers and devices, and you can support applications and technologies that greatly improve your learning environment, campus security, and the overall productivity of your faculty and staff.

From multimedia educational resources, LMS, and online testing to ID card security, cashless payments, and asset tracking and management, you can leverage a high-performance wireless network to create the ideal wireless campus. This not only solves many of the technology challenges that your school may face, but it can help your campus deliver outstanding educational outcomes and services that will make it a model community. And, in today's world of increasing technology demands and connectivity, this has become a key in attracting the best and brightest students.

Features of Next Generation WLAN

- Campus-wide high-speed Wi-Fi and communications
- Technology to meet growing needs and demand at minimal cost
- Faster, more reliable, and intelligent networking
- Connectivity and mobility for students, faculty, staff, and guests
- High bandwidth available virtually anywhere, indoors or outdoors
- No bottlenecks or service outages
- Highly secure with advanced encryption and authentication
- Scalable for your unique school needs and future expansion
- Fast and easy to install, configure, and maintain

5 Key Benefits for Schools

- High-performance wireless for enhanced learning outcomes
- Improved productivity for your faculty and staff
- Increased wireless reliability, connectivity, and data security
- Reduced capital expense with up to 50% lower installation costs
- Low long-term costs with inexpensive operation and maintenance

Record-setting Performance

With WiNG WLAN, your school can achieve remarkable wireless performance and reliability, even in classrooms with more than 30 laptops. In fact, WiNG's record-setting throughput has been recognized by the Guinness Book of World Records for successfully delivering an unprecedented 84 simultaneous video streams through a single wireless access point. When this power is extended and multiplied by deploying multiple access points throughout your school, your network can achieve truly amazing connectivity and results.

Going Wireless for a Safer, Smarter, More Efficient Campus

WiNG technology delivers record-setting performance while creating virtually limitless opportunities for security and services that strengthen relationships with your students and their parents and give your school a competitive edge in attracting new students and driving enrollment. Your network can be integrated with ID cards, radio frequency ID (RFID) technology, and handheld computers and scanners to create a smarter, safer, and more efficient campus. You can maximize campus security, provide seamless transactions and cashless payments, improve the productivity of faculty and staff, protect access to all of your assets and resources, track attendance, and even document and access student allergies, special requirements, and emergency contacts.

Anytime, Anywhere Voice and Data Access

The ability to deliver truly resilient wireless voice and data services to every corner of your campus serves the needs of the student body as well as your faculty and staff. With real-time access to student transcripts, online testing, and grading applications in addition to online knowledge bases, your faculty has the tools required to deliver an enriched learning experience and achieve maximum productivity. You can even extend wireless access to guests without compromising your network security, with partitioned access for authorized visitors, parents, and family members of your students.

Real-time Faculty and Administrative Applications

A wireless network can provide a wealth of applications that help teachers spend more time teaching and less time on administrative tasks, thus improving the overall quality of private education. Reliable, high-speed wireless access means that your faculty and staff can access important administrative applications, student information, and educational resources from anywhere on your campus. This allows your faculty and staff to be productive and efficient wherever they are and delivers mobility that empowers them to take learning experiences beyond the classroom and into other areas of your campus.

Powered by your network, wireless attendance applications can eliminate paper forms, save time, and eliminate errors...

Powered by your network, wireless attendance applications can eliminate paper forms, save time, and eliminate errors while rapidly identifying missing students. Wireless software applications can also be used for seamless and cashless checkouts, payments, and reservations in your library, cafeteria, media center, school store, or even at self-service kiosks.

And the ability to send wireless work orders to maintenance staff not only improves productivity for your faculty and staff but enables faster repairs. From a leaky faucet or faulty heating unit to the removal of broken glass in the parking lot, wireless administration can help you maintain a safer and cleaner environment for all.

ID Cards and Wristbands

Combined with a next generation wireless network, smart ID cards and wristbands can allow your school to make enormous strides in improving campus security, services, and efficiency.

Many schools have already implemented ID card solutions that control access to campus facilities and provide verifiable photo identification for students, faculty, and staff. But smart ID cards and wireless networking can also be used to extend access controls to particular classrooms, offices, and restricted areas within your campus, granting access only to selected members of your faculty, staff, or security personnel. And they can be used to screen access to and verify or monitor attendance at campus events.

By using smart ID cards and the latest software solutions, you can also eliminate manual visitor logs and processes and replace them with automated technology that will help your staff ensure that all visitors are authorized and avoid dangerous and potentially tragic mistakes and oversights.

ID cards and wireless networking can also be used to protect and secure school equipment and resources, such as laptops, tablets, and audio/visual equipment, by requiring ID scanning and tracking for any checkouts or reservations.

For enhanced security, to avoid truancy, and for emergency planning and crisis management, RFID cards can also be used to track movement, identity current and last locations, and verify presence.

Wherever ID cards or wristbands are used, they can be scanned with handheld computers and devices, including smartphones and tablets, making it easier than ever for faculty, staff, or automated equipment to verify identity, process transactions, and deliver important services. Whether IDs are used in your cafeteria, library, school stores, or with vending machines, kiosks, or checkout processes for any other resource, they can save considerable time and lower your budget expenses.

And, finally, smart wristbands can also be printed and created for safe off-campus trips and activities, including scanning and monitoring and even documenting and accessing student allergies, special requirements, and emergency contacts.

Voice Over WLAN (VoWLAN)

The same wireless network that provides access to the Internet, video and back-end educational applications can also enable the delivery of wireless voice services. Voice over WLAN (VoWLAN) handsets provide cost-effective connectivity for teachers and administrators throughout campus, effectively eliminating monthly cell phone service fees as well as the need and cost associated with running cabling to classrooms. Smartphone-style handsets provide a virtual and mobile extension of the desk phone, complete with the desk phone feature set, including abbreviated 4-digit extension dialing, one-number reach, one voicemail box, call forwarding, conference calling, and more—all without replacing your existing PBX system. This same device can provide push-to-talk private calls and group calls for immediate connectivity, and can even communicate with two-way radios on existing radio systems. With access to email, messaging, the Internet, and mobile-based applications, you can finally have all of your communications converged in a cost-effective mobile device.

The same wireless network that provides access to the Internet, video and back-end educational applications can also enable the delivery of wireless voice services.

Emergency Communications

A WiNG wireless network provides a highly reliable and pervasive backbone required to support a broad range of emergency communications. The ability to reach all faculty and administrators simultaneously through a group push-to-talk walkie-talkie style call to voice over WLAN (VoWLAN) handsets allows administrators, campus security and more to rapidly 'spread the word' during emergencies. An email or text message can also be sent to any wireless device on your network or even off-campus.

Video Surveillance

The ability to wirelessly connect video cameras both indoors and outdoors eliminates the high cost of wiring, enabling educational institutions to blanket the campus with video cameras. The result is real time streaming video, providing visibility into every inch of the campus, enabling security personnel to immediately discover and respond to virtually any type of on-campus incident. The digital video is easy to archive and retrieve, sophisticated analytics proactively identify potential problems and the wireless network allows personnel anywhere on campus to watch the video.

Distance Learning

A high-speed wireless network provides a vehicle to enhance and extend your learning environment through distance education. Your school can give students online access to class and individual lessons as well as homework assignments, library services and more. This can be an ideal option when managing student illnesses or prolonged absences.

Automated Asset Tracking

Wi-Fi locationing technology enables the automatic tracking of your school assets including laptop computers, tablets, electronic equipment, books, and even office equipment and furniture. Now, assets can be easily located when needed, potentially reducing inventory requirements. Stolen assets are instantly visible, providing a theft deterrent that protects against equipment loss and negative impact on your budget.

Live Coverage of Events

Sporting and cultural events are an important aspect of every school. A high-performance WiNG wireless network allows your school to enable easy and cost-effective viewing of any event, either live or streamed at a later date. A wireless network eliminates the high cost of cabling your venues, which are often hard-to-wire areas, and it provides the flexibility to move press areas as needed, with no need to wire sports facilities that may be hundreds of yards from the nearest campus building.

The Power of Big-business Wireless for Private Education

WiNG Express is a powerful, enterprise-class WLAN solution that gives private schools the same power and reliability as wireless networking designed for private sector business. But it is priced for private school budgets and its operating system is wrapped in a simple and easy-to-understand graphical user interface. This makes installing and managing your school's network easy and cost-effective, with no specialized knowledge or extensive IT resources required.

With WiNG Express, you can enjoy easy, zero-touch deployment with no need to understand advanced configuration options. You can just power up your access points and they will be discovered automatically and provisioned with your pre-defined configurations.

WiNG Express supports networks of any size, from one to 1,024 access points in one or more locations, with easy scalability to expand your network to support more users and more applications in a single classroom or at multiple sites.

With big-business wireless simplified and priced for private schools, your students, faculty, and staff can enjoy all the benefits of seamless and high-performance wireless connectivity at a highly affordable cost.

Security and Control
- Comprehensive best-in-class wireless security
- Tiered approach to protect and secure every point in your network
- Role-based firewall that protects against attacks and unauthorized access
- Advanced data protection and user verification technologies
- Role-based differentiated access for students, staff, faculty, and guests
- Configurable blocking of inappropriate websites
- Wi-Fi locationing technology for school asset and security monitoring
- Supports RFID for additional security, tracking, and service capabilities

Affordable and Cost-effective
- Low installation costs and minimal hardware investment
- Eliminates costs to reconfigure or move wired solutions
- No recurring monthly expenses for phone lines
- Affordable network management services available

How to Get Started: Free Consultation

LTW is a leading systems integrator specializing in wireless networking and security technologies. We provide turnkey solutions backed by over 20 years of industry experience and a proven track record of success. We deliver scalable, affordable, leading-edge solutions designed for high performance and reliability in K-12 education, government, public safety, and the private sector. In partnership with Zebra Technologies, a world leader in next generation wireless networking, we are offering free expert consultation to help you assess your current network and evaluate your best options in building the ideal wireless campus. We will work with you to achieve your goals and provide optimal solutions to help you deliver outstanding educational outcomes.

Schedule Your Free Consultation

Contact us today to learn more and schedule your free consultation!

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