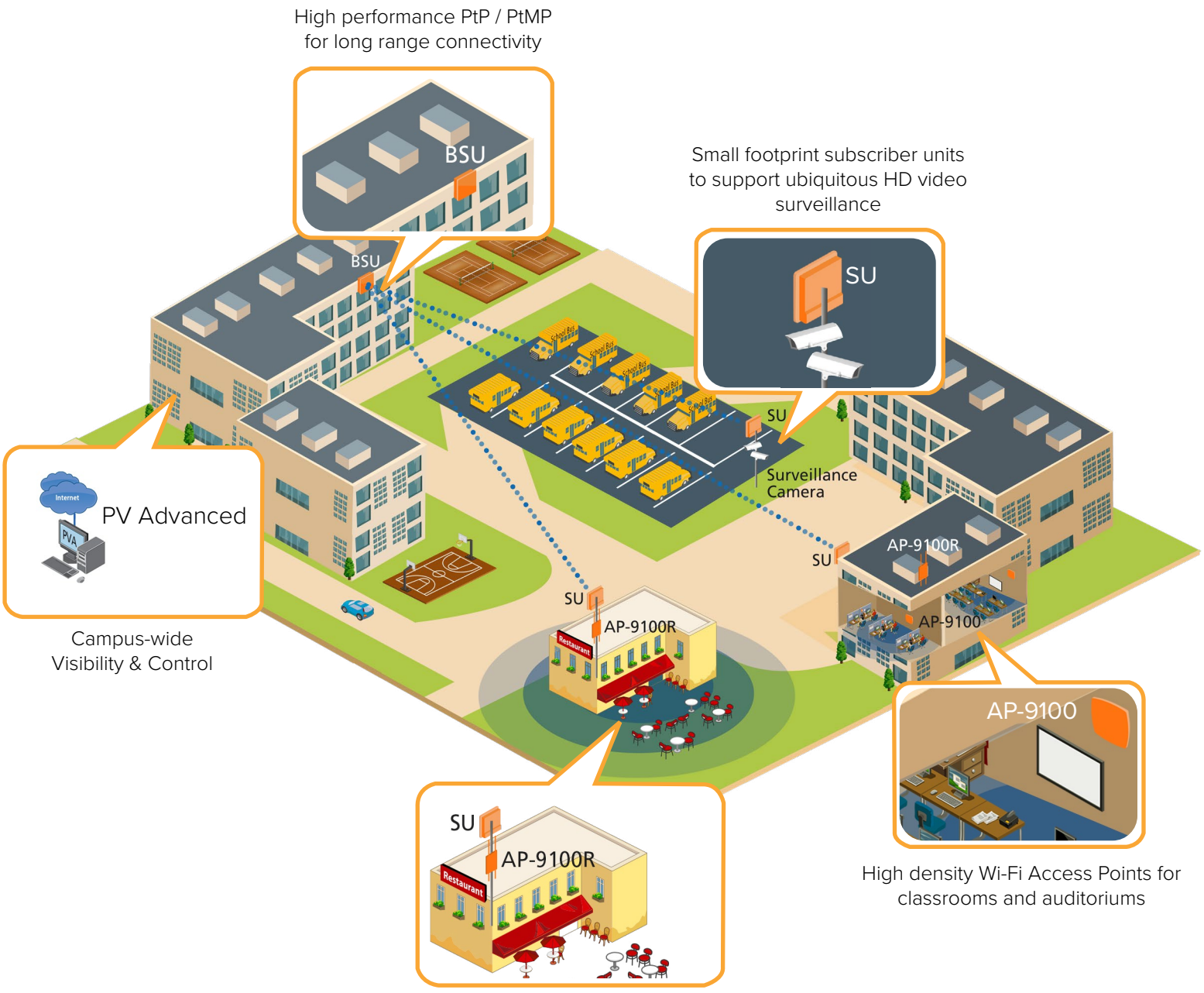
Application Notes
Education

Graduating to Campus Wide Wi-Fi

Technology being employed in educational institutions has fundamentally changed over the past few years and is continuing to evolve. Mobile devices such as iPads, laptops and smart phones are quickly replacing yesterday's tools for learning. Educational institutions including k-12, college and universities need to ensure high performance connectivity to support multimedia applications in dense classroom conditions. In addition these networks need to also support other applications such as campus-wide surveillance and building-to-building connectivity. Proxim's end to end portfolio of wireless products addresses all connectivity needs for the education market. ORiNOCO® .11ac solutions provide blazing speeds for wireless access and Tsunami® multi-point and point to point radios offer both fixed and mobile connectivity to these APs.

Proxim Offers

Comprehensive Wireless solution for Education Space



Why Proxim for Your Institution?

Coverage

One of the biggest challenges that universities face today is deploying reliable, high performance Wi-Fi coverage that can cover the entire campus including classrooms, dorms and outdoor spaces. Furthermore with growing security concerns, institutions are increasingly implementing campus wide video surveillance networks in both a fixed deployment, monitoring a given location and on buses. Proxim offers a complete wireless communication portfolio for the education space. Proxim's long range outdoor wireless portfolio with advanced interference mitigation features helps you effectively extend your coverage to every desired area. For indoor coverage, Proxim's high power, dual radio ORiNOCO® access point portfolio offers reliable, gigabit Wi-Fi experience with fewer APs and at a lower cost. Learn more about the entire portfolio here.

Security

Of all of the challenges in these networks one of the most challenging is security. More people and devices accessing the network, literally translates to more sensitive information that needs to be protected. The goal is to keep the data of your students, faculty and guests safe and at the same time provide easily accessible high speed Wi-Fi access.

The ORiNOCO® product range implements WEP, WPA, WPA2 (enterprise and PSK) encryption technology for secure communications, it also supports MAC access control and 802.1x authentication for granular network security. In addition to the existing logical grouping features like VLANs, network administrators can further segregate users into sets, domains or groups with the help of the Virtual Access Point (VAP) feature of the ORiNOCO® access points.

High Density Wi-Fi

Schools, college and universities today are extremely diverse environments and networks need to support multiple, high dense areas such as lecture halls, auditoriums, and stadiums To make matters more challenging every student is typically connected via two devices – a tablet/laptop and a smart phone. The latest edition of ORiNOCO® solutions offer .11ac Gigabit speeds access points with a rich feature set including dynamic bandwidth to ensure minimal self interference between APs, WMM QoS for reliable multimedia applications and 802.11k radio resource measurement to optimize network usage.

Simplified Administration and Control

Comprising of a wide variety of tools, the PV Advanced is an incredibly powerful network management and controller solution that provides a complete view of the network and at the same time gives seamless granular device-level control. It offers a plethora of features ranging from inventory management, customizable graphics to device level statistics and diagnostics reports, not to mention advanced fault management features with email alert and more.

Lewis University

CHALLENGE

- Enable campus wide Wi-Fi to meet increasing needs of growing faculty and student body
- Cost-effectively expand high bandwidth capacity

SOLUTIONS

- Tsunami® broadband wireless systems for building to building connectivity
- ORiNOCO® access points for classroom Wi-Fi and outdoor hotspots

RESULTS

- Proxim provided a complete wireless infrastructure solution for campus-wide connectivity
- Cost savings of over USD 10,000 annually

> "The Proxim products were an easy choice given their reliability and cost-effectiveness, as well as the impressive throughput and eventual WiMAX compatibility of the Tsunami® MP.11.The success of this deployment has generated significant word-of-mouth interest at other neighboring colleges, which has been very beneficial for both Lewis and for ITP."

Frank Lugo
Chief Technology officer, ITP.

“During the equipment selection process, we conducted performance tests to ensure that the infrastructure will meet and exceed our accreditation standards and multi-campus communications needs. We were pleased with Proxim’s equipment stability which allowed us to expand our virtual university.”

José Samuel Ordaz Ruiz
Technology Coordinator of Information at UNACH.

UNACH

CHALLENGE

- Universidad Autónoma de Chiapas required high bandwidth, high-availability broadband connectivity to support virtual university, distance education
- 6 of 9 campuses lacked any form of broadband connectivity and were unable to access digital education tools or the Internet
- Cost–effective solutions needed to provide support for voice, data and video

SOLUTIONS

- Tsunami® QuickBridge® – High-speed, carrier-grade point-to-point wireless with nLoS capabilities
- Tsunami® .GX Series – Carrier-class, long-range wireless bridge for voice and data backhaul
- ORiNOCO® access points – High performance wireless LAN access points

RESULTS

- All 11 campus facilities are connected creating “Red UNACH, CERO MAYA,” a cutting-edge information and wireless communication network for distance learning, digital education tools
- UNACH is now able to extend administrative support to all its campuses as well as providing the opportunity for connectivity to other entities such as health, security and educational organizations

End to End Portfolio for Education

Point-to-Multipoint / Point-to-Point

Tsunami® 10100L Series

400 Mbps | 4.9– 5.9 GHz
Up to 28 dBm (dual chain)

Tsunami® 820 Series

300 Mbps | 4.9 (except FCC) - 5.9 GHz
Up to 26 dBm (Dual chain)

Tsunami® 835-CPE

300 Mbps | 5.1 – 5.9 GHz
Up to 26 dBm (dual chain)

Enterprise Wireless LAN / Wireless Access Points

ORiNOCO® AP-9100

1300 + 450 Mbps | 2.4 GHz, 5 GHz
Up to 24.8 dBm (Triple chain)