Elevating the Student Experience with Next Generation WLAN

An IDC InfoBrief, sponsored by Ruckus Wireless | June 2016
Today’s College Students are Digital Natives

Digital native (n): A person born or brought up during the age of digital technology and therefore familiar with computers and the Internet from an early age.

Today’s students expect pervasive Wi-Fi coverage for access to devices, apps, and “things” that they use to study and to socialize.
The Higher Ed Market: Key Statistics

$875 MILLION
SIZE OF THE HIGHER EDUCATION MARKET FOR ENTERPRISE WLAN BY 2019
Source: IDC, 2016

U.S. College Enrollment Is Falling

Enrollment is poised to fall as the U.S. labor situation improves, so universities have to compete harder for students – and high-performance Wi-Fi is a differentiator.

- 20 million students attending U.S. colleges and universities (Fall 2015)
- 4,500+ degree-granting U.S. colleges and universities
- 12 million college students in the EU (2013)

Sources: National Center for Education Statistics; Eurostat
What’s Driving Wi-Fi Demand in Higher Ed?

Students see Wi-Fi as an essential utility
Much like food, water, and shelter, digital natives see anytime, anywhere wireless access as essential to their well-being.

Historically, higher education institutions were early adopters of the latest high-speed, reliable Internet/Wi-Fi solutions. However, many factors continue to heighten Wi-Fi requirements at colleges and universities:

- More devices: 5 per person worldwide
- More applications: 28 billion mobile applications installed in 2015
- IoT deployments: 21.4% CAGR for number of connected IoT devices from 2014-2019
Higher Ed Wi-Fi Connects the Campus End-To-End

Students
Wi-Fi is an Essential Utility
- Use mobile devices to research and connect to course materials
- Social media to connect with friends and events
- Stream video, engage with multi-player games

Faculty and Administration
Digitization Enables Student Engagement
- Leverage mobile devices for 1:1 learning
- Secure wireless posting of course material and grades
- Streamline administrative functions
- Employ mobility to hold “office hours” anywhere on campus

Community
Mobile and Social Brings Everyone Together
- Secure guest access
- Deploy university mobile app
- Location-based services (LBS) guide and connect students, alumni, visitors, and parents to navigation, services, and events

High-performing Wi-Fi can be a competitive differentiator in attracting students

U.S. public higher education spending on tablets growing at 12.8% CAGR from 2014-2019

Over 75% of LBS early adopters cite navigation as a top application
Universities Use Wi-Fi to Innovate

All-wireless campuses
The classroom can be virtually anywhere

- Provides new opportunities on campus for students, faculty, staff, alumni, sports/arts supporters, and others to engage with the institution.

E-learning initiatives. 1:1 device implementations for anytime/anywhere access to course and reference materials

Location-based services

- Mobile apps point students to nearest wireless printer for on-the-fly printing
- Wayfinding for new students, parents, alumni, and visitors
- Push notifications of relevant events based on student location

Modernize operational technology with telephone systems, IP surveillance
But Networks Are Getting Crowded

Connectivity costs will fall while the value of connecting things will rise. Consumer devices – from smartphones/tablets to the Internet of Things – will increase the throughput demands in student housing.

OVER 1.2 BILLION CONNECTED INTERNET DEVICES IN THE U.S. EXPECTED BY 2018

- Smartphones 288.3M
- Connected TVs 197.1M
- Home Internet of Things 185.1M
- Tablets 162.7M
- PCs 130.4M
- Blu-ray Players 100M
- Digital Media Adapters 93.4M
- Video Game Consoles 86.4M
- eReaders 7.5M
Wi-Fi Advances Help Meet Higher Ed Challenges
Benefits of an Enterprise WLAN Solution Designed for the Higher Ed Market

**Performance**

Wi-Fi is an “always on” utility

- Pervasive coverage across the campus
- High density to accommodate students, faculty, and staff with multiple devices
- 802.11ac Wave 2 migration path

**Manageability**

Easy to deploy, maintain, scale, and upgrade

- Thorough, easy to administer, and secure BYOD
- Granular access and security-policy setting
- Flexible deployment and scalability
- Round-the-clock student BYOD support portal

**Value**

Wi-Fi: An investment, not an expense

- Lower cost of ownership
- Attract and retain students with services using Wi-Fi, LBS, and network analytics
- Enable shift to digital learning pedagogy

Methodology

For this report, IDC drew from its library of research on enterprise networking, US public higher education, and connected consumer devices to form a comprehensive view of the opportunities and challenges contained within the higher education WLAN market.