The AI-Native Approach For Modernizing College Networks

Vying for students to enroll at your higher education institution is getting more competitive. Colleges and universities alike are actively promoting their campus lifestyle as a selling point. Beyond top notch landscaping, next-gen classrooms, and sparkling student facilities, however, your campus must also offer a seamless digital experience. In the same way higher education must provide a curriculum and faculty that engages today's students, they also need engaging digital platforms that enhance student learning and access to resources.

An Equitable Experience For All Students

Educational institutions want to ensure an equitable campus experience for all students. However, when an institution fails to offer campus-wide outdoor wireless coverage, students must resort to their own data plans, thus giving an advantage to some students over others. No student should be limited to studying in specific areas of campus because of their data plan restrictions.

Performance Driven

When students are in their dorms, they expect more than just equitable wireless speed. They demand robust performance to support their laptops, smartphones, gaming consoles, printers, and more. Campuses also require wireless capabilities that meet the high demands of engineering students and other data-intensive programs. Campus networks must handle dense student congregations in libraries, cafeterias, and sporting venues. While these requirements may seem extensive, they reflect the essential needs of today's modern campus network that supports digitally-focused students.

The New Leader In Campus Networks

A longtime WEI partner, Juniper Networks is providing the architectural solutions that higher education institutions need to deliver a comprehensive campus experience today. In fact, 17 of the 20 most prominent universities in the world, including Oxford, operate on Juniper Networks. However, Juniper's reach extends beyond prestigious institutions. Their client list includes private and public universities with fewer than 2,000 students as well. Juniper's solutions are designed to meet the diverse needs of educational institutions, from large research universities to small liberal arts colleges. The secret to

45%

of students are more likely to congregate in public places that offer wireless conveniences for their mobile devices.[1]

their success is their AI-Native networks that provide seamless, safe, enhanced user experiences for everyone on campus.

Think Outside The Box

If your wireless vendor is only talking about coverage and speed, the wrong performance metrics are being prioritized. The modern campus experience is about more than just network and internet access. Juniper technology includes location-based wireless services. Proven possibilities include:

- Providing students with navigation to help them find classrooms and other campus facilities more easily.

- Locating individuals who need assistance in emergency situations, or steering students and faculty aways from problem areas.

- Delivering location-based notifications or information to students and faculty to enhance engagement and communication.

- Easily locating portable assets such as lab equipment or student devices.

- Using location data to optimize network performance and ensure suitable connectivity in all campus areas.

- Tracking the movement of foot traffic in campus retail stores and cafeterias to identify demand patterns.

Today, more colleges and universities are making attendance mandatory to improve student participation. Imagine having classroom attendance taken automatically by your network. All this innovation is packed in the box of the Juniper Mist platform. That is because Juniper access points are integrated with 16-element directional antenna arrays that exchange and correlate Bluetooth LE signals. That means no additional hardware to purchase for all these added uses.

Automate Network Support

Managing comprehensive network access across a widespread campus environment presents significant challenges. With an extensive IT infrastructure spread across a vast area, and sometimes across entirely separated campuses, how can you effectively maintain end-to-end service levels? When a support ticket is generated on the opposite side of campus, how can your team respond efficiently?

The answers to these and other campus-related questions can be found in Juniper Mist Wi-Fi Assurance. Juniper's AI-Native system continuously monitors your distributed campus network to automatically detect and diagnose issues before they impact users. The power of Juniper's Mist AI extends beyond protection. It includes the capabilities to automatically remediate common network problems, reducing the need for manual intervention by limited campus IT support teams.

Juniper Mist Wi-Fi Assurance enhances network performance and reliability while simultaneously decreasing time to remediation and operational costs. By leveraging AI-powered automation, it enables your IT team to provide more responsive support across the entire campus, regardless of physical distance or infrastructure complexity.

Strengthen Your Network with Wired Assurance

While your students may only think about their wireless experience, there is a vast wired infrastructure that makes a pristine campus experience possible. This includes switches, routers, servers, IoT devices, and printers. That is where Juniper Mist Wired Assurance excels as well. With Juniper Mist Wired Assurance, your IT support teams can execute critical activities such as:

- Onboard, configure, and manage all Juniper EX Series switches from the Juniper Mist cloud. This includes zero-touch provisioning.

- Obtain real-time visibility into all wired network switches and connected devices using AI-Native insights.

- Reduce human error and achieve greater scale with configuration templates to ensure consistent configurations void of human error.

- Proactively capture packets during incidents and store them in the cloud for easier diagnosis of intermittent issues.

- Obtain automatically generated comprehensive reports and analytics on network performance that help network support teams make data-driven decisions.

Hello, Marvis

No conversation about Juniper Networks would be complete with highlighting its proven virtual network assistant, Marvis. With its natural language processing (NLP) capabilities, your IT staff can interact with Marvis using conversational language. This eliminates the need for complex coding or memorizing CLI commands. Ask it a question about your network and it will find you the answer. Marvis can provide insights into issues surrounding most scenarios including misconfigured VLANs, PoE compliance status, and anomaly detection. Marvis augments the capabilities and skillset of your network support team to enhance its efficiency and effectiveness. This allows you to allocate more funds towards teaching personnel rather than support staff, which is what is important to your students.

All This With Reduced Costs?

Students and the faculty and staff that support them are each looking for greater value. By leveraging the AI-Native network of Juniper Networks, you can manage your institution's network more cost-effectively. Potential disruptions and problems are proactively identified at their earliest stages, reducing consequential costs. Automating many of the mundane onboarding and configuration tasks that burden your IT personnel pull greater value out of your limited personnel. This collective array of reduced supports costs can allow you to allocate more funds to educational services or potentially lower tuition costs for your students.

Talk to WEI today

Students today are not seeking the same college experience as their parents. The eras are much different with much of today's learning requiring intuitive, reliable, and convenient digital capability. For them, an enhanced digital experience must be seamlessly integrated into their campus life. Only the Juniper Mist portfolio offers the AI-Native Network technology capable of meeting these expectations, giving your higher education institution the means required to elevate your campus over others.

Contact WEI to get started on enhancing your campus network experience.

Sources:

1. The College of William & Mary and Juniper Networks Case Study | Juniper Networks US

About WEI

WEI is an innovative, full service, customer centric IT solutions provider.

Why WEI? Because we care. We go further.

WEI is an expert in business technology improvement, helping clients optimize their technology environments and work efficiently. WEI works with clients to understand goals, integrate strategy with technology solutions, and leverage their current IT environment into one company-wide model to increase utilization and efficiencies around their unique business processes.