Higher Education: Overcome Technology Challenges With Location-based Networking

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32% of surveyed IT leaders believe networking is an area that benefits by partnering with an IT solutions provider.*

Foundry research, commissioned by WEI, December 2021.

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Higher Education: A Different Kind of Challenge

Introduction

Managing the IT estate of any digitally transformed organization is challenging. And while there are companies that boast many mission-critical business processes, **the institutions of higher education face challenges that few other enterprises must contend with:**

A

- Supporting a diverse collection of non-standardized student and faculty wireless devices.

- The student body has lofty expectations concerning their digital experiences.

B

- Many institutions consist of multiple campuses dispersed across larger regions.

- Higher education institutions are a treasure trove of personal identifiable information and high value research data.

C

- IT teams must balance security with a mindset that encourages sharing and open collaboration.

- Colleges host cafeterias, coffee shops, bookstores, fitness centers, and stadium seating – all of which must offer secure network access.

Coming Up Next

Our experts dive into the overriding challenges that higher education institutions must overcome and how Juniper Networks can assist. To support these efforts, Juniper has dedicated time and money to better understand the IT needs of colleges and universities. Part of that effort includes an extensive study their team conducted on how location-based networks can greatly benefit education campuses today. **Let's dive in.**

Students Value Modernized Network Environments

Students Value Modern Network Environments

The digital experience matters.

In a 2021 study by Juniper Networks, potential students were asked how digital experiences influence their college decision making.

The results show that an institution can achieve significant advantages by delivering an ideal digital experience to students. That shouldn't be surprising as students today have never known a world without internet or digital mobility!

That's why an astounding 95% of surveyed consumers preferred to attend schools and public places that offer connected experiences over institutions that do not.[3]

What is your next location network-enabled use case?

- ◯ Wireless access network refresh
- ◯ Smart building IoT technology
- ◯ In-building staff, guest, or vendor movement tracking
- ◯ Technology to manage number of people in common spaces
- ◯ Wayfinding technology for in-building navigation

POST ANSWER

Students were asked about what digital experiences they valued:
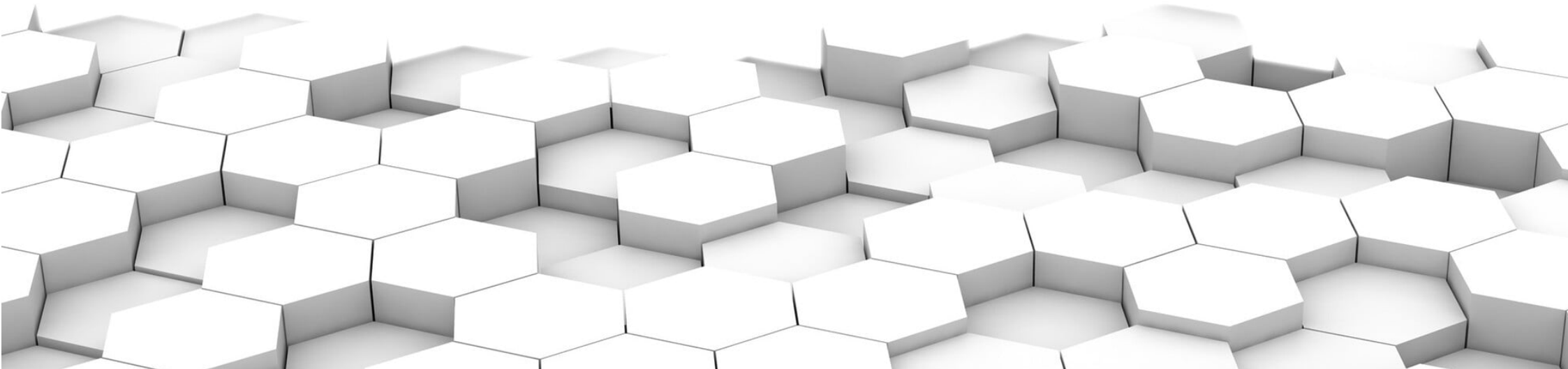
40-45%
Were more likely to congregate in public places that offer wireless conveniences for their mobile devices.

45%
Preferred the ability to automatically check-in without stopping at a check-in desk.

41%
Highly valued the ability to use contactless payment services at the register[4]

Survey: Higher Education IT Professionals

Survey: Higher Education IT Professionals

Juniper Networks also reached out to the same IT professionals that manage the technology and networks of today's colleges and universities.

These leaders understand the competitive advantages and value that digital experiences offer.

Survey says...

Survey: Higher Education IT Professionals

75% agreed the network is an important business enabler to stay ahead of the competition.

77% want location-enabled solutions that integrate into Wi-Fi networks. They also want solutions that integrate with IoT and BLE to manage asset location, modern experiences, and security.

58% agree that AI is important to simplify network operations.

78% are involved in a wireless access network refresh.

80% are currently implementing smart building IoT technology.

68% are deploying wayfinding technology for in-building navigation.

72% are implementing inventory, asset tracking or theft prevention technology.

71% are actively seeking a movement tracking solution for staff, guests, and vendors.

5 Advantages Of A Juniper EVPN-VXLAN/IP Network

1. **Scalability**: EVPN/VXLAN/IP makes it easy to add core, distribution, and access switches to the network.
2. **Flexibility**: The open standards-based architecture ensures backwards and forwards interoperability,
3. **Greater Security**: Granular network segmentation of devices along with the ability to create group-based security policies.
4. **Improved Performance and Resiliency**: Latency is reduced.
5. **Simplicity**: Operational complexity is reduced.

Discover More Here

Network Infrastructure:
A True Differentiator

Why Network Infrastructure Is A True Differentiator

Engagement From Anywhere

While targeted marketing campaigns play an important role in promoting a college or university, their effectiveness can be short lived. A 2022 study showed that 93% of students want learning and campus services combined in a complete digital experience. This included social, cultural, organizational, health, and wellbeing services.[5]

In the same study, 91% of students believed their online learning experience should be as strong as face-to-face lectures and other on-campus experiences. In other words, students desire the same level of engagement, regardless of location.

Achieve A Lasting Advantage

To meet this standard, educators must have the ability to deliver beyond student expectations. This applies for all interactions and similar anticipated needs. **This is a tall order and one that legacy networks cannot meet properly.** Those who can, however, will achieve a lasting advantage over schools that continue to lag in network modernization efforts.

Location-based Network Benefits For Higher Ed Campuses

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80% of higher education network professionals either agree or strongly agree that new student experiences are important to growth.

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Education is a business.

Educators may frown upon this realization, but a college or university can only survive if it is run like a business. Operations must be as efficient as possible, space capacities are fully maximized, and cost savings are attained whenever possible, all without sacrificing the student experience.

Location-based wireless services save time and money over traditional Wi-Fi access networks. These systems also springboard into new levels of insight:

- Track the movement of customer traffic in campus retail stores and cafeterias to identify demand patterns and optimize physical space for maximum revenue.

- Locate assets with real-time asset tracking, identify the fastest routes around campus and buildings.

- Automated reporting for better decision-making concerning facility management.

Location-based networking: Secure, scalable, and reliable

Here's what IT admins can expect.

At its most basic level, location-based networking helps ensure 24/7 access to secure, scalable, and reliable Wi-Fi networks while saving time and money. With Juniper location-based network wireless solution, IT administrators can ensure reliable and consistent Wi-Fi connectivity wherever it is needed.

By integrating it with Juniper Connected Security you can institute safe learning environments and trusted research spaces to protect students and hosted data.

By leveraging Juniper's indoor location services, admins can also:

- Gain real-time insights into all wireless experiences.

- Optimize wireless and IoT experiences with AI-driven insights and customizable service-level expectations based on streaming telemetry data from your Juniper access points.

- Fix potentially disruptive issues before they have time to impact user experiences through automated problem identity and remediation.

- End the practice of disruptive installations and upgrades by utilizing automated deployment and setup.
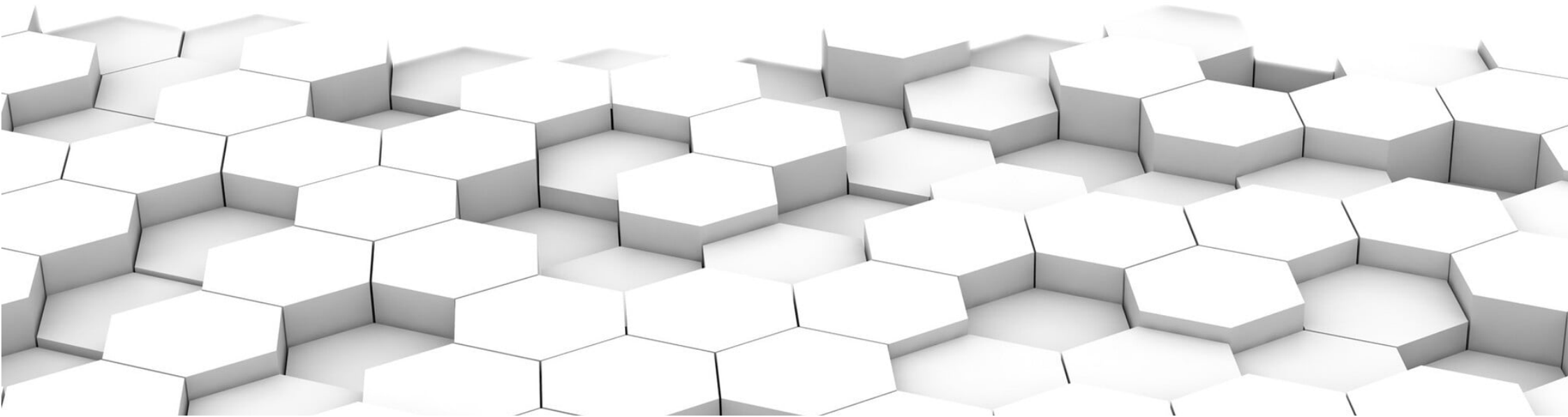
The Challenge of Improving Remote Experiences

The Challenge Of Improving Remote Experiences

Location-based networking includes remote workspaces.

Colleges and universities have implemented hybrid work strategies with 90% of remote working employees confirming that their employers have made changes to help boost productivity for them. In the mentioned study, one in three IT professionals stated that their institutions provide firewalls to remote workers for security and network access.

Multiple Challenges Remain

59%
Reported internal IT's inability to fix home network problems.

58%
State that network connectivity problems are holding them back.

55%
Expressed security concerns from using both work and personal devices on their network.

54%
Reported poor VPN performance, resulting in slow or no access to on-prem applications.

41%
Expressed the need for more collaboration and video tools.

IT professionals expressed the need to simplify remote troubleshooting for spaces where students, professors, and staff members operate from.

Fortunately, Juniper Networks offers AI-driven enterprise solutions for remote workforce management. IT support teams can use Marvis, the Juniper virtual assistant, to troubleshoot issues existing within remote workspaces and have them quickly remediated in simplified fashion.

The Value Of A Virtual Network Assistant

The Value Of A Virtual Network Assistant

Transform IT with AI-driven operations and support.

Acquiring and retaining IT talent is challenging for any organization, but especially for educational institutions struggling with personnel budgets. Overstretched IT teams can maximize their productivity and support coverage by empowering Marvis, the Juniper virtual network assistant that utilizes natural language processing and understanding.

Marvis understands user intent so there's no need to write interactive code. Marvis can contextualize verbal requests from personnel to accelerate troubleshooting workflows, answer questions about new product capabilities and features, provide insightful information on the network and local any type of connected network device in record time.

JUNIPER
driven by Mist AI

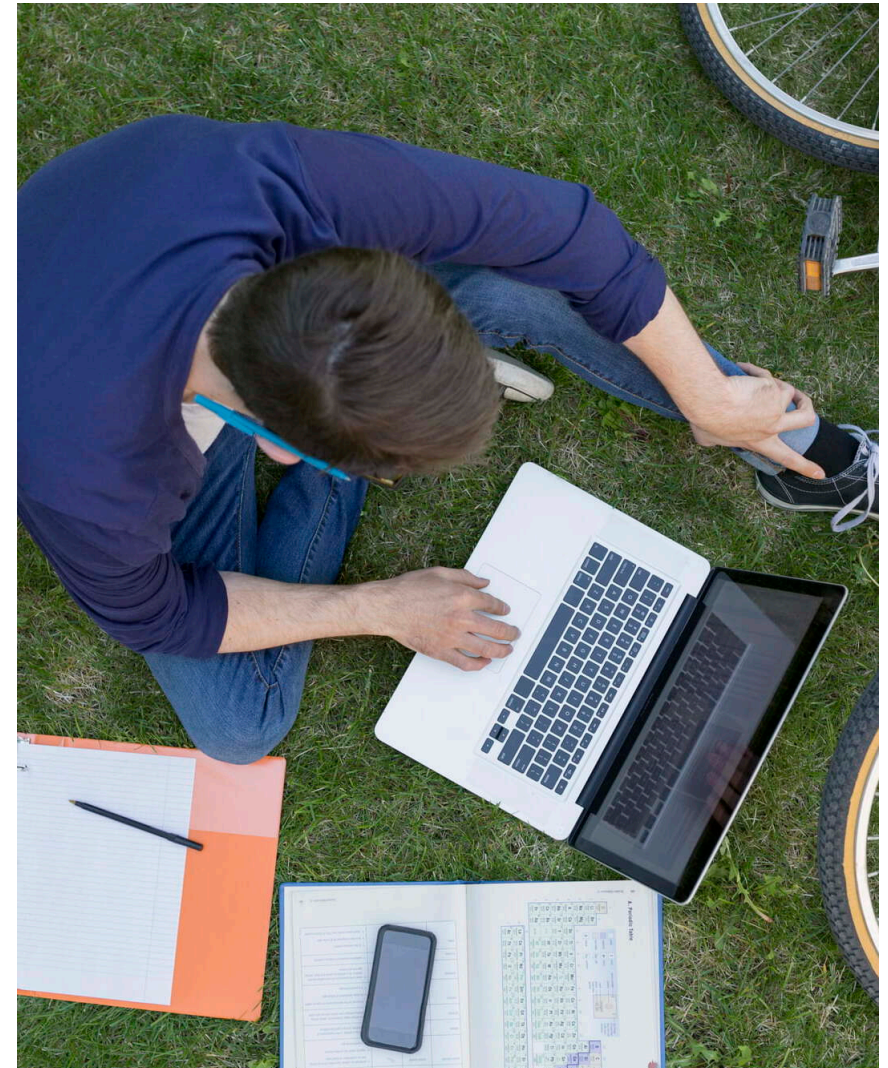# The Difference Between Good And Great

The Little Details That Higher Education Values

What separates the good from the great?

Attention to detail. There are many viable wireless solutions out there, all delivering network connect accessibility to users. But it is the small particulars that separate these solutions, and in a big way. Sixty-nine percent of higher ed IT professionals cited compatibility with existing access mounts as important. By using existing mounts, colleges and universities save money as new site surveys are no longer needed, saving costly deployment time. These savings can be monstrous for large campuses undergoing a large wireless refresh cycle.

Wasted time adds up.

Consider how much time is wasted tracking down something you need such as lab equipment, additional chairs to seat a larger than expected audience, or audio/visual devices. Juniper's location networking solutions eliminate the precious time squandered on locating assets because you always know where everything is. In that way, Juniper is helping campuses reclaim time and money. Additionally, network location insight reports analyze the traffic of all cafeterias and retail stores on campus to find out if these services are open during the correct hours, allowing managers to modify as needed.

How The Juniper Solution Set Helps Higher Education Excel

Helping Higher Education Excel

Provider commitment matters as much as the solution itself.

Juniper Networks not only has the tools necessary to modernize college and university networks, but they also have the commitment and understanding to do so. Juniper houses a complete set of best-of-breed solutions that higher education institutions desire for meeting the stringent demands of current and future semesters.

Their location-based solutions include switches, routing platforms and wireless APs that fully integrate with one another.

Deliver to all college or university shareholders.

Renowned colleges such as William & Mary in Virginia are realizing the operational advantages that the Junos OS gives them to fully automate and streamline their network operations.

Along with the ability to connect more than 50,000 users and devices, the college experienced a savings of more than 400 hours in deployment time and admit that they are only in the early stages of discovering what the Mist AI platform and Marvis are capable of.[4]

Turn Questions Into Solutions

Reimagine The Higher Education Experience

Springboard to the next level.

The post-pandemic world has changed the way students consume information, and shareholders at all colleges and universities must entertain this solution for sustained network operations. Location technology is helping higher education campuses everywhere reduce risk and add value.

Let WEI help you.

If you are a network administrator for a higher education institution, it is time to experience the empowerment that Juniper Networks delivers. Over time, your respective institution will reap the benefits as the student population, faculty, and all shareholders will be better for it.

Why WEI? We go further.

WEI is an expert in business technology improvement, helping clients optimize their technology environments and work efficiently. WEI understands customer goals to 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.

WEI's clients benefit from a strong focus on customer satisfaction and attention to detail. From solution design through implementation, WEI's sales and technical team remains focused on providing unwavering support throughout a project. **Call 1-800-296-7837 to get started.**

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Sources:

1. Juniper Remote Workplaces and Public Spaces Consumer Survey, 2021
2. Building Modern Campus Experiences and New Operational Efficiencies – Juniper Study
3. Why getting the university digital experience right will attract more international students (thepienews.com)
4. The College of William & Mary and Juniper Networks Case Study | Juniper Networks US

Thank You For Reading

Higher Education: Overcoming Technology Challenges With Location-based Networking Solutions

Call WEI at 1-800-296-7837