

WHITEPAPER

Wi-Fi 6: Your On-Ramp to the Connected Campus



With Wi-Fi 6, your institution adds more lanes to the internet highway, increases the speed limit upstream and downstream, and removes many of the congestion, density, and security roadblocks that often hinder a truly connected campus.

The connected campus is flexible, easily adapts to change, and depends on a reliable, fast network infrastructure that's available anywhere, any time, to anyone. Professors, visitors, staff, and students view dependable, speedy Wi-Fi access as a must-have.

Providing this service is vital, since **96% of students ranked access to Wi-Fi as the most important technology for studying**. That was in 2020, when most students had an average of two connected devices; within four years, there'll be seven connected devices per person, on average. That doesn't count the predicted rise of devices via the Internet of Things (IoT)—an estimated 29.3 billion networked devices by 2023.

Already, some higher education institutions are pushing networks built on earlier Wi-Fi architectures beyond capacity. Students study, surf, and game campus-wide. IoT devices already dot grounds, parking lots, and arenas. Stakeholders want their internet to push the pedal to the metal, and before Wi-Fi 6, that wasn't economically feasible.

Now, a fast, reliable, and affordable connected campus is a reality—plus a whole lot more.

Wi-Fi 6 (or 802.11ax) delivers high-density performance and faster throughput.

The latest generation of Wi-Fi features new capabilities specifically designed to support and bring out the best in connected devices, wearables, virtual and augmented reality, artificial intelligence, and data analytics.

With always-on connectivity—without bottlenecks or degraded experiences—Wi-Fi 6 is the highest performing set of wireless protocols developed, and was designed to operate efficiently across campuses, dorms, and classrooms.

Revving higher-ed's engine



Improved educational experiences

Public and private institutions are seeing more immersive learning via augmented and virtual reality. The prices on AR/VR solutions have come down significantly, and these technologies are very effective for learning. The high speeds of Wi-Fi 6 deliver the low latency required for the rich learning experiences today's students demand.



New operational efficiencies

As the use of IoT is extended on campus, you can increase energy savings with automated lighting, offer enhanced safety with smart cameras, and monitor high-value equipment with sensors. Wi-Fi 6 sensors offer longer battery life than predecessors, enabling increased student engagement like connected campus and collaboration solutions.



Upgraded security

Wi-Fi 6 improves wireless security with WPA3, empowering colleges and universities to increase the use of physical security technologies like cameras or smart access controls. With the higher bandwidth capabilities of Wi-Fi 6, improved video quality and analytics help make schools a safer place for students, staff, and educators. Now, you can meet the dual demands of increased cybersecurity risk and smaller or stagnant budgets with solutions that do more.



Higher capacity

Previous Wi-Fi standards were unable to provide the increased bandwidth needs of video calls, cloud applications, and all the devices brought to campuses today. With Wi-Fi 6, busy areas like arenas, lecture halls, dining rooms, libraries, and outside parks can easily manage all users' upstream and downstream demands.

Turbo-charge with Meraki Wi-Fi 6

With the Cisco Meraki cloud-based platform, deploy faster, manage everywhere, and scale reliably to Wi-Fi 6. Your team can seamlessly manage campus-wide Wi-Fi and distributed multisite networks. With a single dashboard, they can run your institution's entire IT operation on any device.

That's what customers like [Butler University](#) and [Albany State University](#) are doing.



Butler University is staying ahead of ever-growing bandwidth hunger by ensuring reliability, exploring how to use new data insight for future campus design, and using its connected campus' access to information as part of its competitive advantage. IT staff rolled out Meraki Wi-Fi 6 MR access points across the university's buildings, campus, and complexes, and used the portfolio of Meraki cloud-based solutions for its future-facing network.



Albany State University deployed Meraki Wi-Fi 6 MR access points across campus in outdoor areas, residence halls, dining rooms, and dorms as part of its network future-proofing initiative. Students immediately noticed internet speeds improved, no longer slowing even during intense gaming sessions. The IT department had fewer access points to roll out and manage, all preconfigured with the university's APIs pre-deployment, requiring no additional training or prior network knowledge.

**With critical Wi-Fi 6 infrastructure in place,
your institution can have a faster, safer, and more
seamlessly connected campus. We can help.**