

WHITEPAPER

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





With standards like Wi-Fi 6 and Wi-Fi 6E, 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: [96% of students](#) ranked access to Wi-Fi as the most important technology for studying. That was in 2020, when most students had two connected devices, on average. Just three years later, people now have an average of [seven connected devices each](#), and there'll soon be over 29 billion networked IoT devices too.

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 school grounds, car parks, and arenas. Stakeholders want their internet to push the pedal to the metal, and before Wi-Fi 6, that wasn't economically feasible.





Wi-Fi 6 and Wi-Fi 6E deliver high-density performance and faster throughput

The latest generations of Wi-Fi feature new capabilities specifically designed to support the best in connected devices, wearables, virtual and augmented reality, AI and ML, and analytics.

With always-on connectivity—without bottlenecks or degraded experiences—these latest versions of Wi-Fi were designed with wireless protocols and can operate efficiently across campuses, dorms, and classrooms.

Revving higher education's engine



IMPROVED EDUCATIONAL EXPERIENCES

Post-secondary institutions are expanding and enriching learning experiences with AR and VR, which have become more accessible since prices have dropped significantly. Wi-Fi 6 and subsequent protocols deliver the low latency necessary for today's rich online learning experiences and give students the speed and performance they need.



NEW OPERATIONAL EFFICIENCIES

With extended use of [cloud-managed networked](#) IoT, campuses save energy with automated lighting and equipment controls, enhance safety using smart cameras, and monitor and protect high-value assets with sensors. Thanks to a longer battery life than prior models, connectivity based on Wi-Fi 6 and beyond helps create increased student engagement via connected campus and collaboration solutions.



UPGRADED SECURITY

Wi-Fi 6 and Wi-Fi 6E include mandated support for [WPA3 security](#), which empowers colleges and universities to increase the use of physical security technologies like cameras or smart access controls. With the higher-bandwidth capabilities this standard delivers, 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 risks 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 and beyond, busy areas like arenas, lecture halls, dining rooms, libraries, and outside spaces can easily manage all users' upstream and downstream demands.

Higher education IT leaders share their results

The Cisco Meraki cloud-managed platform allows institutions to deploy faster, more reliable and scalable Wi-Fi across buildings, grounds, and campuses, and it's all operated and updated via a single dashboard, on any device.

[See more Meraki higher education case studies →](#)



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Learn more about how we help higher education.

Sharing ideas has always been at the heart of higher education. Today, collaboration and knowledge-sharing requires reliable, fast, and secure connectivity. Meraki can help.