



SEVEN BENEFITS OF WI-FI 7 FOR HIGHER EDUCATION

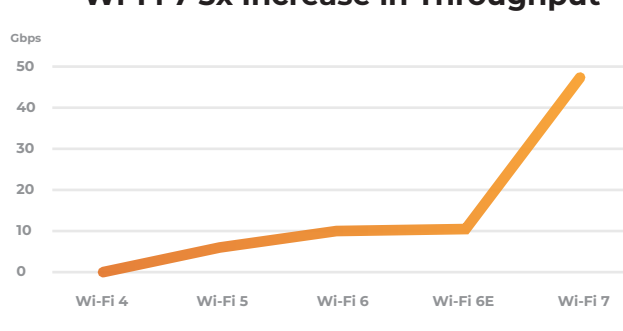
With the introduction of Wi-Fi 7, universities and college campuses can accommodate a greater number of devices and applications to improve student life. From collaborative learning to smart buildings with enhanced security systems, Wi-Fi 7 provides the capacity, efficiency and performance needed to deliver seamless high-speed internet connectivity across the campus. Here are seven ways in which higher education networks can benefit from adopting Wi-Fi 7 network technology sooner rather than later.

1

Ultimate performance

With the IEEE labeling the newest Wi-Fi® standard as Extremely High Throughput (EHT), you can rest assured that live video streaming and online video gaming will see real benefits. Thanks to wider channels and greater 6 GHz capacity gains, peak rates with Wi-Fi 7 are capable of delivering close to five times greater throughput than previous generation Wi-Fi 6 technology.

Wi-Fi 7 5x Increase in Throughput



2

Reliable connections



MLO (Multi-Link Operation)

By utilizing multiple bands simultaneously through multi-link operation (MLO), Wi-Fi 7 helps create a more stable and reliable network. Through wireless link redundancy, aggregation and selection, Wi-Fi 7 is more agile and navigates signal interference, obstacles and varying levels of congestion with ease—helping clients enjoy a strong connection.

3

Circumventing interferences

With Punctured Transmission, also known as Preamble Puncturing, Wi-Fi 7 makes the most efficient use of the 320 MHz channels by reclaiming all bandwidth before and after any interference to transmit and receive. Whether you're in the library, large lecture hall or football stadium, this feature neutralizes typical signal degradation caused by interference from legacy users of the channel.

Without Preamble Puncturing



With Preamble Puncturing



4

Robust privacy and data security

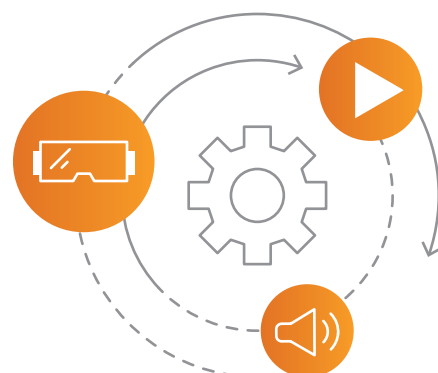


Building on the Wi-Fi Protected Access™ 3 (WPA3™) security framework, Wi-Fi 7 offers a more powerful encryption algorithm to protect data transmitted over the network. Authentication and encryption mechanisms even defend against offline dictionary attacks—making it more resistant to brute-force attempts to crack passwords and allowing students, faculty and administrators to feel secure in times when ransomware is on the rise.

5

Optimized for audio, video and VR

If you thought your existing Wi-Fi was low latency, then prepare to be blown away. With MLO and preemptive prioritization, Wi-Fi 7 delivers enhanced Quality of Service (QoS), allowing demanding low-latency applications to run their fastest ever. Wi-Fi 7 technology shaves off time you never knew you had to help you live in the present.



6

Making campuses smarter with IoT



With efficient use of the added 6 GHz spectrum and its wider channels, Wi-Fi 7 now offers more bandwidth in which to run more IoT devices without log jamming the network. From lighting and environmental controls to security cameras and alarms, Wi-Fi 7 provides networks with more usable spectrum that can support more IoT automation.

7

Support existing Wi-Fi 6E clients at 6 GHz

Despite all the trailblazing Wi-Fi 7 accomplishments, the new standard is still backward compatible with legacy Wi-Fi devices, including the millions of existing Wi-Fi 6E clients that support 6 GHz. What's more, Wi-Fi 7 is designed to run the network so efficiently that older devices will also benefit from the upgrade with an improved performance.



Now that the entire 6 GHz band has officially opened, upgrading your higher education network to Wi-Fi 7 is a no-brainer. As new students arrive with Wi-Fi 6E capable devices—and with 233 million new Wi-Fi 7 devices expected in 2024*—migrating your network to Wi-Fi 7 today provides your staff, faculty and students with excellent performance.

One of the simplest ways to invite Wi-Fi 7 onto your campus is by deploying RUCKUS R770 access points (APs). These tri-band APs operate at 2.4 GHz, 5 GHz, and 6 GHz frequency simultaneously, resulting in a maximum physical data rate of a staggering 12 Gbps. In addition, these APs continue to include our unique patented technologies such as the BeamFlex+® smart antenna system, ChannelFly® software and RUCKUS SmartMesh™ networking.

To learn more about how to migrate your network to Wi-Fi 7, visit us online or call your local sales professional.



About RUCKUS Networks

RUCKUS Networks and delivers purpose-driven networks that perform in the demanding environments of the industries we serve. Together with our network of trusted go-to-market partners, we empower our customers to deliver exceptional experiences to the guests, students, residents, citizens and employees who count on them.

Ready for a network that's easier to manage and maintain? [Visit us online](#) to learn more about how our innovations were created to make your life easier.

www.ruckusnetworks.com

Visit our website or contact your local RUCKUS representative for more information.

*Source: Wi-Fi Alliance <https://www.wi-fi.org/news-events/newsroom/wi-fi-alliance-introduces-wi-fi-certified-7>

