



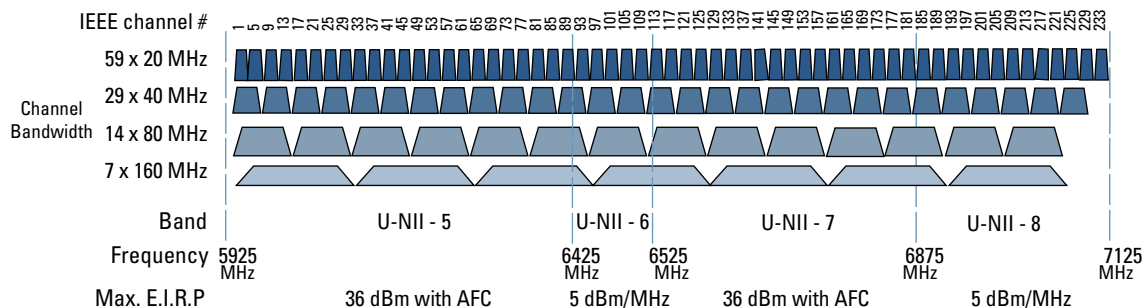
How to Ensure Your Wireless Network Infrastructure is Wi-Fi 6/6E Ready

As the use of wireless devices in today's hyperconnected world continues to skyrocket, the FCC's recent move to release 1,200 MHz (1.2 GHz) of spectrum for unlicensed use in the 6 GHz band greatly extended the amount of available bandwidth for Wi-Fi and other unlicensed technologies.

For industries and consumers alike, this next step in wireless network evolution not only accelerates the growth of the Internet of Things (IoT), but it also promises less interference and lower latency, which ultimately means higher performance and faster speeds.



FCC U.S. 6 GHz Channel Plan



Maximum client power is 6 dB lower than permitted AP power

Wireless coverage in the 6 GHz band is similar to the 5 GHz band, so leading access point (AP) vendors indicate that there is no need to further increase the number of APs, change AP locations, or redo wireless site surveys for environments with the already established 5 GHz technology in place.

But that doesn't mean change comes without consequence. While the number and location of APs won't need to change, the cabling infrastructure that connects it all together must be ready to support the higher throughput capabilities of Wi-Fi 6/6E.

Likewise, because industry standards now also recommend a minimum of a 25 Gbps uplink capacity within the fiber backbone infrastructure to support the increased amount of Wi-Fi 6/6E traffic and higher speeds, it's more important than ever to follow industry standards and best practices when designing and deploying your next-generation wireless network infrastructure.

The Wi-Fi 6/6E Infrastructure Checklist

Given the breadth of wireless connectivity on the horizon, wireless APs are now deployed across a wider variety of controlled and uncontrolled environments and spaces. Considering that they are vital network endpoints in today's digital world, it's imperative to deploy these devices in manners that optimize coverage while meeting unique, and often critical, requirements for protection, security, accessibility, code compliance, and aesthetics. Consider the following when making your next move.



Coverage

To optimize coverage, wireless APs, by their very nature, must be oriented to provide best line of sight and prevent obstruction by the building structure. Therefore, deployment at the proper location and height and unobstructed by wall board, soffits, ceiling tiles, joists and other ceiling components is key.



Harsh Environments

For outside, near-building deployments, it's important to protect wireless APs from elements like rain, snow, sunlight, and extreme temperature. Per FCC rules, in the 6 GHz band, only APs intended for outdoor operation shall be operated outdoors.



Security

In open spaces such as schools, hospitals and other public spaces, it's vital to protect wireless equipment from theft, vandalism, and accidental damage. Wireless AP enclosures in these areas should include locking mechanisms to prevent unauthorized access to equipment and the supporting infrastructure and comply with regulations like the Health Insurance Portability and Accountability Act (HIPAA).



Compliance

Specific types of spaces may have regulatory requirements that need to be met when deploying wireless APs. For example, hospital and healthcare facilities need to comply with Infection Control Risk Assessment (ICRA) Procedures to protect patients from the consequences of anything stemming from the routine maintenance or large renovation and construction projects in healthcare environments.



Aesthetics

Many commercial buildings are designed to high architectural standards where ceilings and walls must remain aesthetically pleasing. In these scenarios, wireless designers must plan to meet architectural preferences while also ensuring that wireless APs remain exposed to maintain better coverage.



Mounting Considerations

In addition to mounting wireless APs to ceilings or walls horizontally to maintain optimum coverage, the proliferation of wireless communications can also require mounting wireless APs in unique locations such outdoor environments and/or underneath seating at large sports venues.

By keeping these considerations in mind, you'll be ready to tackle the most imminent Wi-Fi 6/6E needs, as well as make smart, future-proof decisions for additional evolution in the marketplace.

By working with a partner like Oberon, a division of Chatsworth Products, you'll also have quick and easy access to the right products, people and resources to help ensure your wireless infrastructure is Wi-Fi 6/6E ready today. Learn more at oberonwireless.com.

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