



Wi-Fi Healthcare Environments: Essential Planning for Simplifying Infection Control Procedures

As healthcare facilities deploy more dense, robust wireless networks to support a growing number of connected devices and technology, one thing remains essential: ensuring patient health safety.

For network designers and managers tasked with deploying these networks, it's important to balance a reliable infrastructure with the need to ensure compliance with Infection Control Risk Assessment (ICRA) procedures and healthcare-specific design and installation standards, while also ensuring FDA-approved wireless devices and compliance with HIPAA data security and privacy regulations.

There are several documents available to the ICT industry that provide resources and recommended guidelines for wireless infrastructure design and implementations. Several standards are including the much needed best practices for the placement and deployment of Wi-Fi and small cell access points (AP) to deliver optimal performance, serviceability, maintenance, security and to help lower future costs.

Standards, Recommendations & Best Practices

- **ANSI/BICSI 004-2018 Information Communication Technology Systems Design and Implementation Best Practices for Healthcare Institutions and Facilities:** Placement of equipment – “Specifies that wireless antennas and APs be placed within enclosures or surface mounted in locations that provide access without disturbing the environment.”
- **ANSI/BICSI 008-2018 Wireless Local Area Network (WLAN) Systems Design Implementation Best Practices:** Section 9.2 Healthcare facilities: “APs should be designed and installed so they are accessible for servicing and troubleshooting without the need for infectious control protocols.”
- **TIA-TSB 162-B Telecommunications Cabling Guidelines for Wireless Access Points:** “Consider maintenance and security of the access points.” “The use of an enclosure is recommended in areas where physical security is a concern.”
- **Guide to Medical Grade Wireless Utility (MGWU) BICSI International Supplemental Information** “The implementation of a wireless infrastructure should not require costly and disruptive above ceiling change management.” “They should be installed in a cabinet flush with or below the ceiling, or wall mounted.”
- **ANSI/TIA-1179-A Healthcare Facility Telecommunications Infrastructure Standard:** “It is recommended that the wireless environment be characterized prior to design and installation of cabling.” “Policies and procedures to mitigate Airborne Infectious Disease.”

Additional Considerations

- **HIPAA**—§ 164.310 Physical Safeguards. A covered entity must, in accordance with § 164.306: (a)(1) Standard: Facility access controls. Implement policies and procedures to limit physical access to its electronic information systems and the facility or facilities in which they are housed, while ensuring that properly authorized access is allowed.
- **ICRA 2.0**— ICRA procedures are called for by the Facilities Guidelines Institute (FGI), where the procedures are implemented throughout project planning, design, and construction. Protecting patients from the consequences of routine maintenance procedures, renovation and construction projects.
- **NEC Code**—Hospitals strictly adhere to the National Electric Code. Ceiling enclosures or cabinets with metal back boxes should have a UL listed label which states “Ceiling mounted ITC enclosure system E 348543. Additionally, enclosures or cabinets with metal back boxes should come with Fire-Rated grommets for cable egress.

A Full-Range of Healthcare-Ready Wireless Infrastructure Solutions

When looking to equip your teams with the right wireless AP enclosures and mounts to ensure the necessary level of infrastructure support while adhering to strict guidelines and regulations, be sure to work with a vendor that can provide a wide range of options and the knowledge and expertise to help troubleshoot even the most unique application challenges.

For General Use:

- ✓ Consider the Oberon™ Wi-Tile™ 1047, which mounts an AP flush to a plenum or suspended ceiling, revealing only the antenna face of the AP for optimal wireless coverage.
- ✓ The Oberon Wi-Tile 1076, meanwhile, is a locking, recessed wall or hard ceiling mounting solution to secure APs from most vendors.

For Behavioral Health Areas:

- ✓ The Oberon Hi-Bar™ 1014-IND compact Wi-Fi AP enclosure is designed specifically to protect APs in challenging indoor environments, such as low-risk behavioral health areas.

For Outdoors or Areas That Require Washdown:

- ✓ The Oberon Skybar™ 1020 series protects APs in challenging environments such as stadiums, gyms and other areas that can require washdown. It is NEMA PW ancillary-rated, having passed applicable tests for power washing.

For Outdoors or Around Greenspaces:

- ✓ The Oberon NetPoint™ 3032 Wireless Bollard is a cost effective way to extend wireless and Wi-Fi coverage into auditoriums, sports venues, courtyards, malls, and campus open areas permanently or temporarily.



For more information essential planning for simplifying infection control procedures, be sure to visit us on the web at chatsworth.com/wireless-enclosures.

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