IN HEALTHCARE, INCREASES IN WIRELESS DEMAND CHANGE EVERYTHING

Balance Your Resources with User Expectations

80% Percent wireless traffic generated indoors

+2x Smartphone and wireless data usage is more than doubling every year

78% Percent of Wi-Fi traffic now in video

IT Leadership Faces New Challenges in Healthcare

You are expected to expand mission- and life-critical Wi-Fi to drive patient care and safety, user satisfaction, and operations, while finding ways to support the explosive growth of smartphones and non-Wi-Fi devices. Today, creating a leading-edge mobile healthcare environment that supports more users andmore devices has led to more demands, more choices, and an increased need to understand and mitigate these complexities.
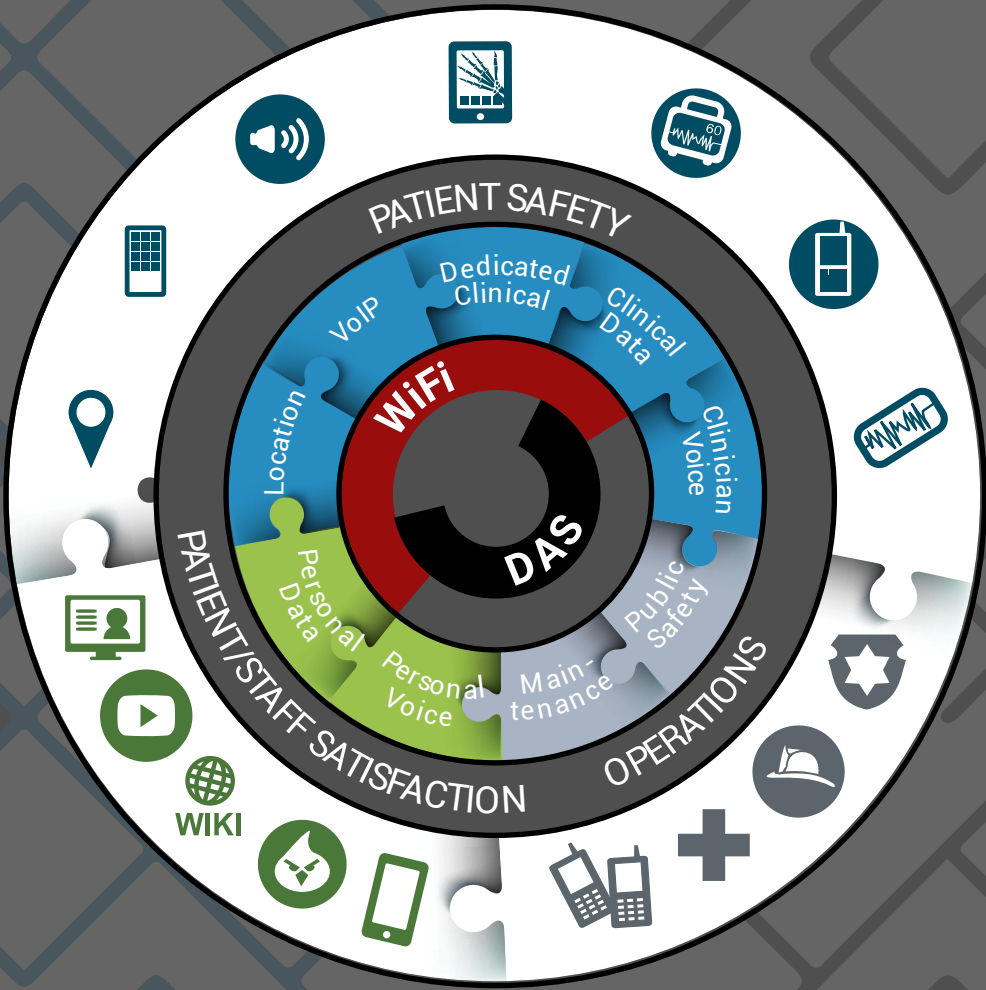
To address the challenges of increased network demand and greater use of mobile devices to deliver high-quality healthcare, IT departments are rethinking their approach to in-building wireless—looking at all wireless options comprehensively. A growing number see the benefits of a strong, integrated strategy that combines the best of high-performance Wi-Fi with a 4G-capable Distributed Antenna System (DAS) for seamless operation with maximum capacity.

The secrets to a robust wireless strategy that meets the unique and varied demands of healthcare IT are flexibility, coverage, and anticipation. Many devices and applications used in medical facilities, such as Bedside Medicine Verification, are best suited to a Wi-Fi deployment. Others, such as public safety, should be implemented via DAS. In some instances, such as smartphones, either could be used. A comprehensive wireless solution provides healthcare IT departments with the flexibility needed to optimize wireless devices, applications, and traffic.

WIRELESS DRIVING SATISFACTION

Better Choices Produce Better Wireless Results

The goal is to have your entire wireless solution operating seamlessly and efficiently. Understanding the unique benefits of DAS and Wi-Fi is the key to building a reliable, solid network that addresses healthcare-specific coverage, capacity, and criticality requirements.

Not all IT solutions providers can offer an integrated solution—one that combines industry expertise with the right products and the specialized RF and IT knowedge needed for agile healthcare operations.

Black Box combines DAS and Wi-Fi solutions into a comprehensive network that supports:
• 4G LTE
• Wi-Fi
• Medical telemetry (WMTS)
• Public safety
• Two-way radio
• Paging

InnerWireless4G

In many industries, BYOD and prioritized network usage present the greatest wireless challenges. However, healthcare IT must accommodate broader uses. Supporting smartphones remains essential to physician, staff, patient and guest satisfaction, but healthcare IT administrators must also provide network support for advanced life-saving devices and applications, as well as public safety and two-way radio operations. InnerWireless4G is the solution.

InnerWireless4G is a best-in-class, in-building DAS technology that provides a range of capabilities to address the varied needs of healthcare environments: from hybrid-fiber DAS that supports smartphones, two-way radios, public safety, and paging, to digital DAS and all-fiber DAS that can incorporate Ethernet and WLAN.

Black Box tailors InnerWireless4G to support all wireless carriers and users, whether it's for an individual building or a campus. We work in conjunction with every carrier to engineer each wireless frequency independently, and create uniform, signal-level
coverage that meets every carrier requirement. This ensures seamless interoperability and incomparable wireless continuity both within, and outside of, your facility. Our team works with you to ensure that all healthcare network users' needs are addressed, and that your wireless network performs flawlessly in the most demanding circumstances.

InnerWirelessHD3

In medical facilities, guest and patient consumption demands, along with growing clinical application usage, are taxing today's Wi-Fi deployments. IT leaders need a Wi-Fi solution that prioritizes life-critical applications for high-quality patient care and safety, while simultaneously maintaining value for guests and patients. InnerWirelessHD3 is a multifaceted wireless solution that mitigates coverage, capacity, and criticality challenges—maximizing the number of network users and enabling unsurpassed data throughput.

With InnerWirelessHD3 you are able to operate multiple wireless LANs concurrently within your facility. This capability—called layering—segments traffic by application and/or protocol. With multiple layers, guest/patient traffic and life-critical applications can be delivered side-by-side, eliminating congestion and enabling the Wi-Fi performance required by today's hospitals.

Coverage

Reliable wireless coverage is the first component needed to achieve the mobile workflow hospitals depend on to provide high-quality patient care, critical emergency communications, and patient and physician satisfaction. Application and device characteristics are used to optimize data rates and signal intensity to ensure consistent, high-quality coverage across hospital facilities and campuses.

Capacity

A dependable, high-capacity network is requisite when lives are at risk. Healthcare systems need to prepare for maximum network usage and speed to ensure patient safety, seamless workflow, and user satisfaction.

Criticality

The use and availability of lifesupporting technology is more critical to patient outcomes than visitors' personal device usage. It is extremely important for hospital systems to be able to prioritize their bandwidth based on importance and application.

Leading-Edge Facilities are Incorporating Technologies According to Their Needs

This hospital achieved its goal of enabling the mobile enterprise. Staff can remain connected wirelessly no matter where their duties take them, and patients can be monitored continuously as they move throughout the facility.

Their comprehensive wireless solution successfully supports a mix of leading-edge wireless devices and applications. This combination enabled the enterprise to improve nursing efficiency despite the 4x increase in the floor space the nurses now are required to cover.

The results using a comprehensive wireless approach include: the ubiquitous deployment of an EPIC EMR, and the reliable implementation of 30 wireless applications on more than 2,000 devices.

Comprehensive wireless now serves cutting-edge clinical apps to a staff of 1,500. At the same time, the solution has reduced wireless support hours by 70%.

Advancements using comprehensive wireless have enabled the enterprise to achieve 98% compliance for Bedside Medication Verification.
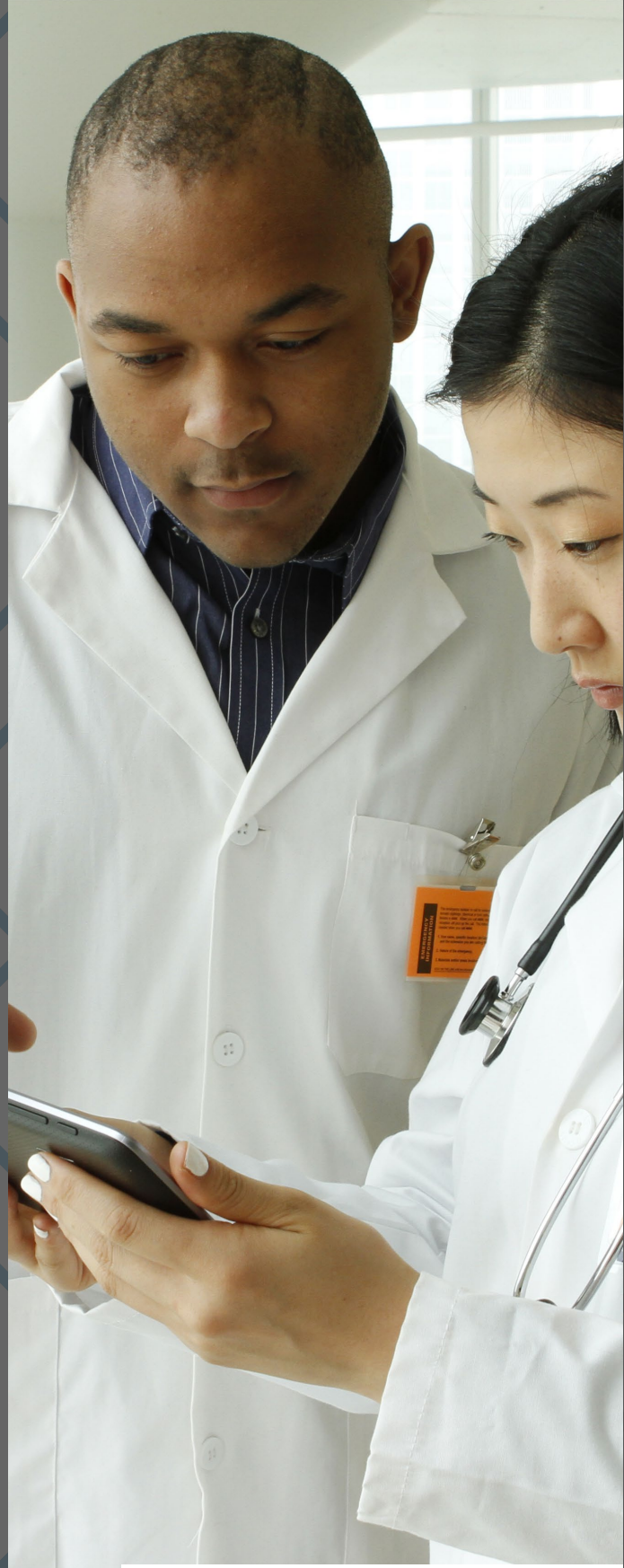
This healthcare system now uses cellular for personal mobile wireless communications to prevent personal traffic from overburdening the Wi-Fi system. This improves patient and physician satisfaction scores

Comprehensive Wireless Starts With Black Box

Black Box understands the unique environment and specialized workflows inherent in healthcare IT, and has mastered successful design and deployment of in-building wireless systems to support these initiatives. We leverage our long-term relationships with leading technology partners, coupled with our unique expertise, to design and implement solutions that are backed by an unmatched 100% first-time acceptance rate. We:

• Perform a complete assessment of your current wireless network and analysis for future device and application growth
• Provide benchmarking for signal-level requirements throughout the facility including the perimeter and entrances
• Design a tailored, engineered solution for maximum network performance
• Partner with you on a convenient, flexible turnkey deployment
• Provide life-cycle services for long-term success

With more than 4,000 team members and 200 offices in 150 countries, Black Box offers global capabilities with local expertise. We have a deep understanding of the unique challenges when deploying integrated wireless in healthcare environments, and work with hundreds of hospitals and medical facilities to deliver high-quality—and life-saving—IT.

Our Partners

CISCO Gold Partner · aruba NETWORKS · COMMSCOPE® SYSTIMAX® | Premier · CORNING