

The 5G + OnGo Hospital

Is Your Hospital's Wireless Network Ready for the (Near) Future?

Wireless technology has become critical to healthcare. Wireless devices put a significant demand on a hospital's network and those demands will soon increase dramatically.



The Number of Wireless Devices is Increasing Rapidly

Growth in the number of wireless devices continues to explode:



Within 3 years, there will be 13 networked devices per person (smartphones, iPads, laptops, wearables)

That is a **100% increase!**

50%

of all devices will be wireless. 1st time in history wireless will surpass wired connections.

Networks will need to support a **66% increase** in wireless devices—moving from **3 billion** today, to **5 billion**

When we add in IoT devices like wireless sensors, the number of devices jumps to **29 billion**¹

Advances in Healthcare Require a Better Wireless Network

The near future will bring healthcare opportunities that require a wireless network with enhanced capabilities.

Real-Time Telehealth

- Communicate live between multi-stream collaboration everywhere and the hospital. Transmit video, voice, and large imaging files in seconds, both internally and externally.

Indoor & Outdoor Wireless Environments

- Equally serve & secure indoor and outdoor environments across campuses.

IoT and Wireless Robots

- Thousands of sensors in a hospital and real-time data speeds will not only yield new intelligence but enable sensor-driven robotic surgery in the future.


Augmented Reality AR / Virtual Reality (VR)

- Improve the knowledge and skills of clinicians. Wireless will need to support the manipulation of large images.

A 5G and OnGo wireless network that supports these opportunities will give a competitive advantage in terms of patient care, clinician satisfaction, and critical-care communications.

5G: A Network of Networks

3 important improvements:

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- **High speed mobile broadband** — Transmit data in gigabytes per second, 4K video and 5G assisted cloud connectivity will become commonplace
 - **Massive machine-to-machine communications** — Enables low-powered IoT devices on a large scale, leverage thousands of sensors in a smart hospital
 - **Ultra Wide Band** < 1 mSec latency – faster than human optical processing

5G rollout began in 2019 and is accelerating. In 2026 subscriptions are forecasted to reach **3.5 billion²**

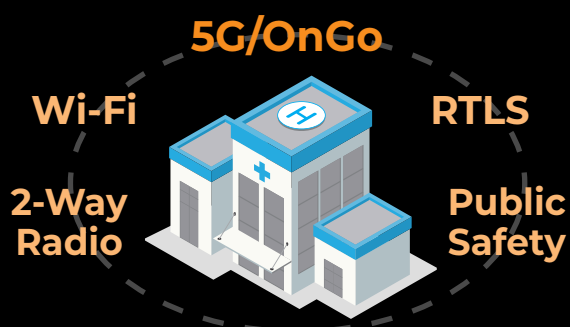
Today's Apple and Samsung smartphones can use OnGo. Manufacturers will soon use OnGo technology in infusion pumps, vital signs monitors, etc.

OnGo: The Hospital Network of the Future

Like Wi-Fi, but better

- A private, enterprise-controlled network @ 3.5 GHz
- Better security, better coverage, better latency, better quality of service
- Leverages 5G technology, but without a carrier subscription
- Send large imaging files in real-time, integrate Enterprise IP-PX VoIP, and move your toughest clinical apps to OnGo, eliminating competition with Wi-Fi.

5G and OnGo allow the construction of purpose-built medical wireless networks to support mission-critical applications while leveraging other wireless networks.



Mission-Critical Wireless

5G and OnGo, while powerful, are only part of a complete hospital wireless network. They need to be integrated into a system that supports EVERYTHING wireless, using Wi-Fi, RTLS, DAS, and even Public Safety and 2-way radio.

To build such a network, choosing the right partner with deep experience in healthcare mobility is critical. Black Box can be that partner for you.

We use 3 principles when designing a wireless network for a hospital:

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- 1. Design the network based on application and device requirements.** This approach ensures that your network is ready for anything.
 - 2. Leverage the right network.** With 5G and OnGo supporting purpose-built wireless networks, we expand the overall wireless capacity of a hospital.
 - 3. Deliver mission-critical performance across all networks.** Leverage coverage, capacity, and network selectivity across all networks.

To discuss how 5G + OnGo can help you prepare your hospital's wireless network for the present and the future, call us at **855-324-9909** or email us at **contact@blackbox.com**.

1. Ericsson; <https://www.ericsson.com/en/about-us/company-facts/ericsson-worldwide/india/authoried-articles/ushering-in-a-better-connected-future#:~:text=5G%20in%202022-.If%20we%20look%20at%20IoT%2C%20around%2029%20billion%20connected%20devices,will%20be%20related%20to%20IoT.&text=5G%20will%20enable%20organisations%20to,business%20models%20and%20use%20cases>

2. Ericsson Mobility Report November 2020; <https://www.ericsson.com/4adc87/assets/local/mobility-report/documents/2020/november-2020-ericsson-mobility-report.pdf>