Solving The Coverage Conundrum in Hospitals



The Rise of mobile technology

Mobile device usage by physicians is increasing:

2017: 51% 2022: 98%

In a recent study, 77% of the patients surveyed felt positive about clinicians using mobile devices in the context of their care. Add in factors like increased mobile usage from patients waiting in the lobby, and the demand for data can slow down the entire system. Something as simple as a mobile app must not interfere with critical care applications or other devices in the network. Furthermore, digital communications must remain constant as the doctor moves from the parking garage to the elevator, the office, their hospital rounds, or even to the clinic across the street. The solution is a well-designed DAS system that can support advanced connectivity.

Digital healthcare

Digital healthcare has become indispensable for patients accessing services, from preventative or lifestyle-related services to outpatient care and chronic disease management. In 2019, the global digital health market was \$84B and is expected to reach approximately \$221B by 2026. Simple transactions, like push notifications and SMS, are essential in the digital healthcare experience as they connect providers and patients across every stage of the patient journey.

Here are a few of the critical digital healthcare processes which bridge gaps in communication that impact patient outcomes:

- Appointment reminders
- Ongoing patient-provider communication
- · Data gathering
- · Behavioral and chronic illness management
- Medication management
- Delivery of test results
- Public health interventions





Remote Check-In

People are on the go, and remote check-in saves the physician and patient time.

Typical issues that inhibit remote check-in:

- Distance from cell tower
- Terrain e.g. underground garages tend to have little signal
- Building materials that block wireless signals (tinted & Low-E glass, steel & metal)
- Lack of cell signal in elevator shafts

With a DAS system in place, facilities can ensure that cell coverage is not a problem in the parking garage where most patients handle remote check-in.



Clinical Surveillance & Alarm Management

Healthcare systems must have the ability to quickly identify deterioration in patient condition. Clinical surveillance and alarm systems reduce the risk of life-threatening events for patients. Making sure these systems run without incident requires a reliable indoor wireless signal.



Improved staff communication

By 2022, 61% of nurse managers reported a reduction in medication administration errors and attributed the improvement to the use of mobile technologies.

Additional benefits of implementing inbuilding wireless technology include:

- Expedited response time in emergencies
- Information access throughout the entire healthcare enterprise
- Improved quality of care with fewer technological mistakes
- Ability to video conference with staff



Non-Hospital Staff

As COVID-19 swept the globe, it created critical demand for medical supplies and equipment via shipping and freight. Procurement of shipments for use by first responders and care facilities was integral to patient care. Third-party vendors, like FedEx or UPS, need to seamlessly transact within the building from truck to loading docks to receiving.

Medical deliveries are often

- Time- and temperature-sensitive
- Organic-based medicines whose conditions must be precisely maintained and monitored



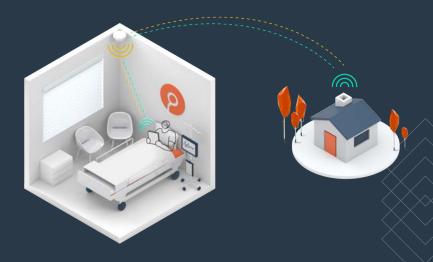
Access Anywhere

As doctors, nurses, and hospital staff continuously move about the hospital, mobile technology has excellent potential for making their operations more efficient. The future of healthcare appears to be a definite place for mobile devices like tablets and smartphones.

When paired with a solid cellular signal, mobile devices have potential benefits for improving healthIT, communications, and overall patient care and satisfaction.

Patient Satisfaction

Whether it's a mother getting to see her baby via a video monitor from a neonatal unit or a grandmother connecting with their grandchild during a virtual visit, video capabilities have become essential to patient satisfaction. Patients want the ability to stay in contact with family, friends, and work. Factors like these contribute to the demand for increased and seamless connectivity in hospitals, and from 2017 to 2022, 72% of hospitals highlighted the improved quality of patient care thanks to mobile resources.



The Solution: Pando's DAS Systems



To address all these potential issues, a Distributed Antenna System (DAS) can be designed for indoor and outdoor use, providing wireless coverage throughout healthcare facilities and solving any connectivity concerns.

DAS distributes the cellular signal, providing sufficient bandwidth and consistent coverage that serves all users within the facility and crosses the physical barriers (building materials) that other wireless systems do not. In addition, a DAS is the ideal infrastructure to provide services from commercial wireless operators, public safety, and local two-way radio.

