

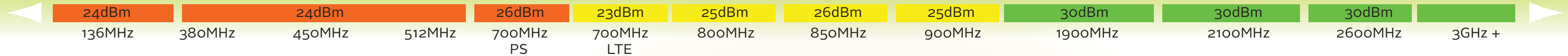
SOLID ALLIANCE **MULTI-CARRIER WIRELESS** **INFRASTRUCTURE FOR** **HOSPITALS**



**SOLID ALLIANCE™ DAS delivers an
engineered wireless infrastructure
to support the mission-critical
communications required for
world-class patient care.**

SOLID
solid.com

THE SOLiD ALLIANCE DAS IS BROADBAND AND PROTOCOL INDEPENDENT. PUBLIC SAFETY, 2-WAY RADIO, PAGING, 2G/3G CELLULAR, AND 4G LTE SERVICES ARE DELIVERED OVER A SINGLE FIBER.



WIRELESS CHALLENGES OF A HOSPITAL

- Difficult for Wi-Fi networks to meet all wireless needs
- Usually, secure Wi-Fi not able to provide outdoor or remote connectivity
- Devices and applications must process data quickly – standard wireless is not keeping pace
- Green building construction generally keeps the outdoor cellular signals from getting inside

FOR CLINICIANS

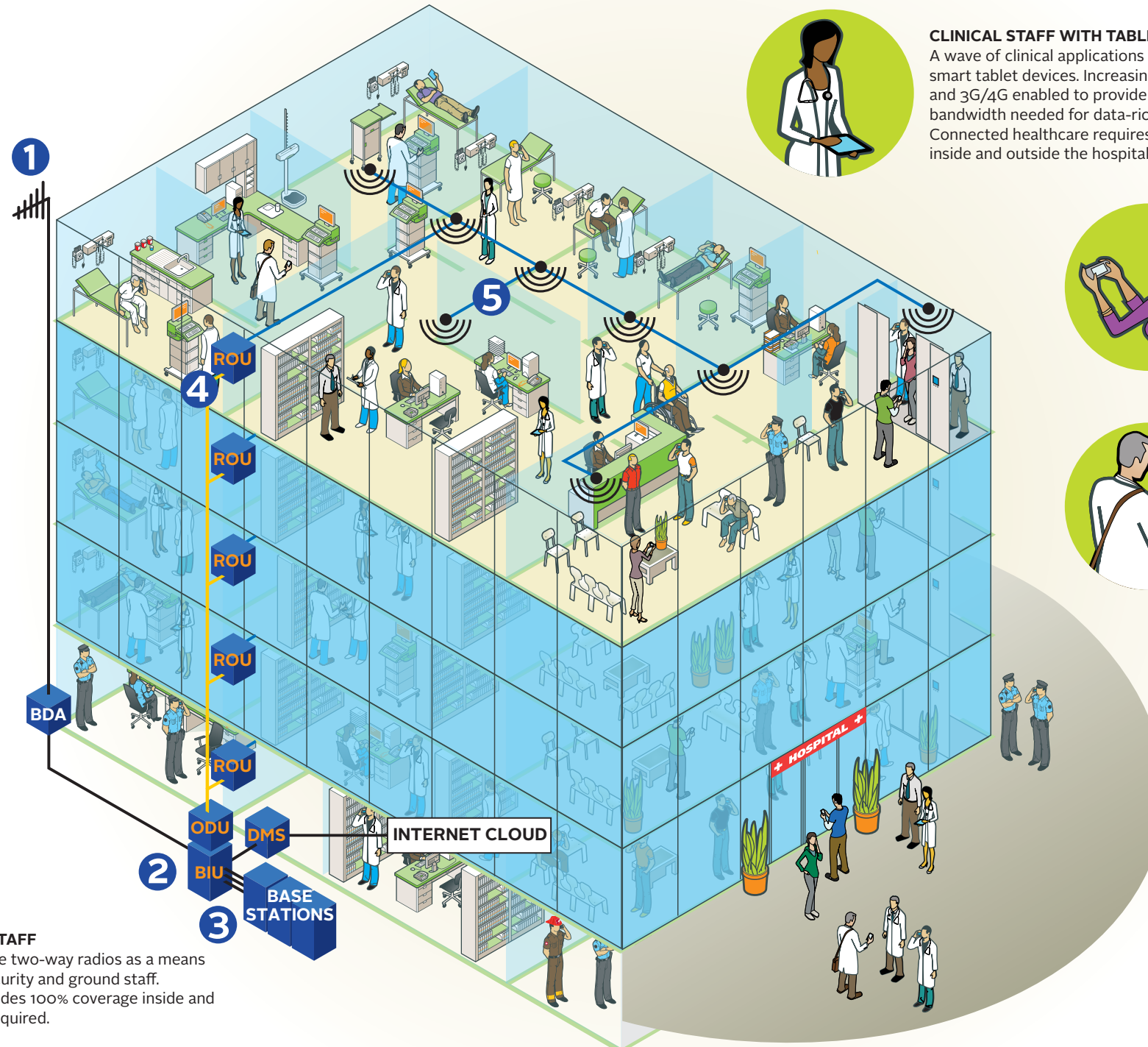
Clinicians rely on their smart devices as a component of patient care. Mobile devices are not a want-to-have, but a must-have and intermittent or poor coverage is no longer acceptable.

FOR PATIENTS, FAMILIES AND VISITORS

- Leading hospitals are committed to improving the patient experience – including pervasive cell coverage
- Patients and visitors rely on their wireless devices to help manage their lives. Poor coverage increases negative feelings and creates a sense of being disconnected from their lives
- Physicians and other care providers are increasingly choosing to communicate with their patients and patients' families via email. Reliable coverage while in the hospital is an important component of high-quality care

THE SOLiD ALLIANCE DAS MEETS THE CHALLENGES OF THE HOSPITAL ENVIRONMENT

- Delivers a dedicated voice and data network
- Provides an alternate wireless data network
- Ensures 5-bar signal strength and 3G/4G everywhere
- Preserves the battery life of the mobile device
- Complies with Public Safety (Fire Code) mandates
- Guarantees medical device safety through low RF output



CLINICAL STAFF WITH TABLETS

A wave of clinical applications are now accessible using smart tablet devices. Increasingly, these devices are Wi-Fi and 3G/4G enabled to provide the processing speed and bandwidth needed for data-rich healthcare applications. Connected healthcare requires mobility anywhere – inside and outside the hospital.



PATIENT/VISITOR DEVICES

Patients and visitors bring their smartphones and tablets into a hospital expecting the same connectivity they enjoy elsewhere. Mixing visitors onto the clinical WLAN or denying wireless access to visitors are both problematic. Visitors want reliable communication as well as access to their favorite music, videos, and content-rich web sites. A 3G/4G ALLIANCE DAS solution meet these multi-media content requirements without burdening the hospital's WLAN.



CLINICAL STAFF WITH SMARTPHONES

The cell phone has been replaced by the smartphone for most clinicians. 100% voice coverage is assumed. However, these devices are increasingly used as a data portal providing mobility and access to clinical thin-client applications. The hospital can provide this connectivity through WiFi or 3G/4G. Either way, mobility for the user is key.



SECURITY & GROUND STAFF

Many hospitals use private two-way radios as a means of communication for security and ground staff. The ALLIANCE DAS provides 100% coverage inside and outside the facilities as required.



FIRST RESPONDERS

First responder radios rarely work in a hospital unless the signal is enhanced with a DAS. A SOLiD ALLIANCE DAS provides 100% voice connection and assures that all local first responder radios work on a single system. This is an especially important benefit during a major emergency. The SOLiD ALLIANCE DAS is unique in its ability to comply with National fire code regulations and accommodate multiple first responder frequency bands.



CLINICAL STAFF WITH PAGERS

Pagers remain widely used in hospitals. A SOLiD ALLIANCE DAS provides reliable coverage for pagers and newer technologies.

HOW THE SOLiD ALLIANCE DAS WORKS

- 1 Wireless carrier and public safety signals are received via a **rooftop antenna** or, for larger deployments, from carrier base stations placed on-site.
- 2 RF signals are routed to the **BIU (Base Station Interface)** where advanced RF filtering eliminates potential interference between signal types. RF Power Control guarantees each wireless carrier will receive proper RF power on the DAS.
- 3 All RF signals are converted to optical signals and transported over **one strand of fiber** to each designated telecom closet.
- 4 An **ROU (Remote Optical Unit)** is installed in designated telecom closets to convert optical signals back to RF signals. Each ruggedized ROU is UL labeled, NEMA4X compliant and lockable for maximum installation flexibility.
- 5 The RF signals are distributed over a passive coaxial infrastructure and carefully placed **antennas**.



WHAT CAN YOUR HOSPITAL DO WITH MORE WIRELESS BANDWIDTH?

Speed of service per wireless device:

TODAY:	TOMMOROW:
1Mbps 5Mbps 10Mbps 20Mbps	50Mbps 120Mbps 1Gbps 3Gbps

Keeping smart devices smart – With 100% in-building coverage and capacity

4G technology that gives the hospital:

- Reliable mobile connectivity
- Infrastructure technology that reduces costs
- Higher data rates to enable new applications
- Complete separation from the hospital's LAN and IT core
- No interference issues to deal with
- A data throughput roadmap to 3Gb per second per device

In today's hospital environments, doctors and clinicians rely on their smart devices as an important tool for delivering excellent patient care. Healthcare workers need to communicate with families, read patient vitals, reviewing lab reports and check patient records while on the move. Mobile devices are not a want-to-have, but a must-have and intermittent or poor coverage is no longer acceptable.

SOLiD delivers indoor wireless service with unparalleled performance, cost efficiency, and flexibility for the future.

Wi-Fi isn't enough for effective patient care:

- Wi-Fi has standardized but Wi-Fi doesn't go beyond the walls of the hospital. Smartphones and tablets are used everywhere.
- Wi-Fi technology is typically unlicensed and over-utilized with basic Wi-Fi (for clinicians and patients), EMRs, PACS, integrated alarming, VOIP phones, and other wireless-enabled medical equipment.
- Hospitals create a flexible technology roadmap and avoid unnecessary costs by keeping the DAS and Wi-Fi networks completely separate.

The SOLiD ALLIANCE Multi-Carrier Distributed Antenna System (DAS) delivers an engineered wireless infrastructure to support the mission-critical public safety communications, 2-way radio, and commercial cellular services required for world-class patient care.



Connect with SOLiD

SOLiD empowers capacity and coverage for cellular, public safety, and Wi-Fi services at large venues and campuses through innovative Distributed Antenna System (DAS) and carrier-grade Optical Network solutions for Small Cell Backhaul and Passive Optical LAN (POL) deployments.

For more information or complete technical specifications, please visit our website or contact us via email or phone.

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