



Elevating Connectivity: iBUS at One of Asia's Largest Government Hospitals

Patna Medical College & Hospital (PMCH)
Thousands of patients. Zero disruption.

Case Study

iBUS
Digital. Infrastructure. Solutions.

Case Study | 1

The Diagnosis

PMCH, one of Asia's largest public hospitals, was undergoing a major infrastructure upgrade. However, mobile connectivity remained inconsistent across critical areas, including wards, diagnostic zones, and basements. These network gaps disrupted essential hospital operations, affecting everything from staff coordination to OTP-based processes for schemes like Ayushman Bharat and ABHA.



The environment presented multiple constraints: limited access to building schematics, undefined cable routes, and the need to ensure uninterrupted patient care.

The brief was clear: **restore mobile signal without affecting patient care.**



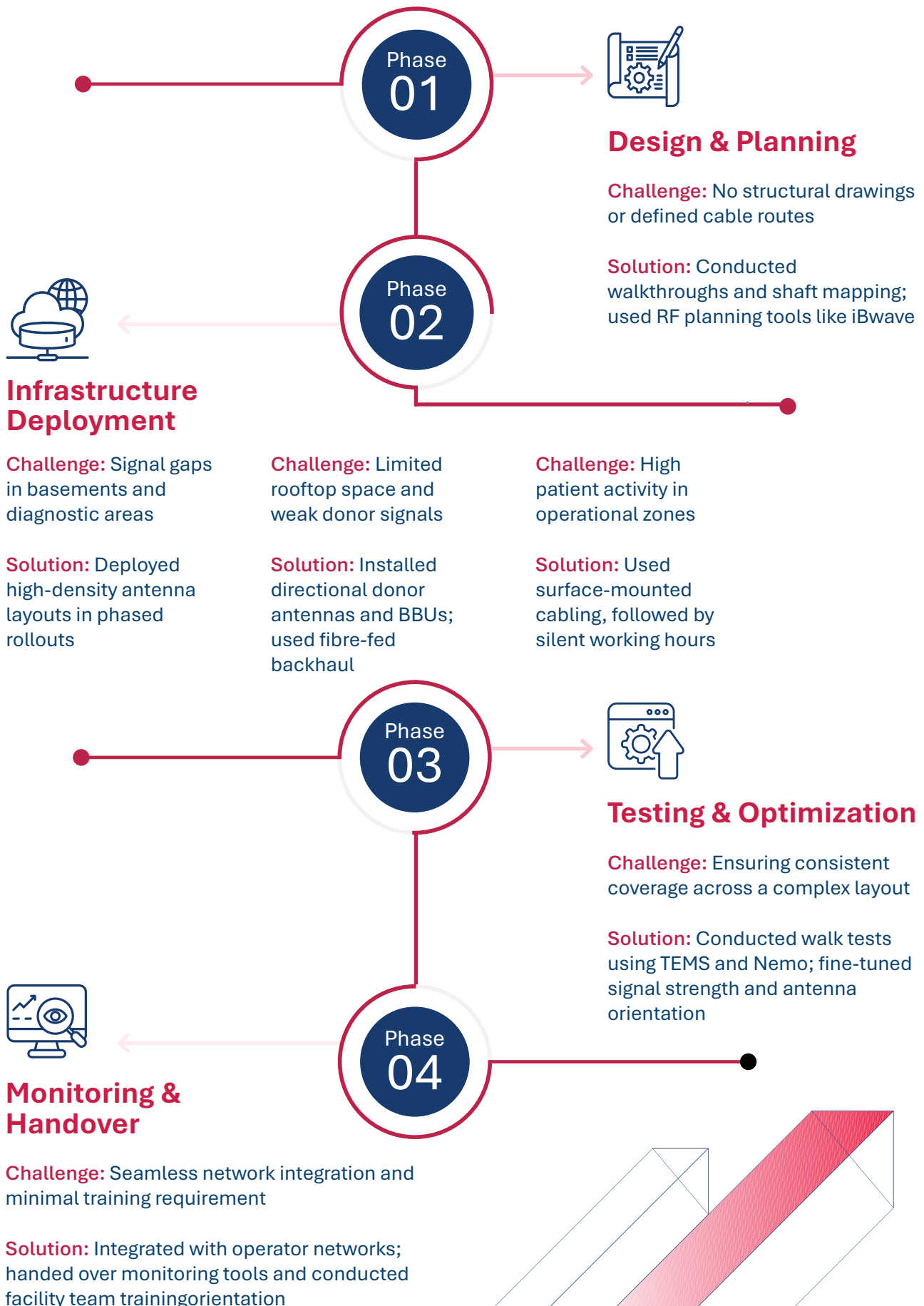
The Treatment Plan

To ensure seamless mobile coverage in an operational, century-old hospital, iBUS deployed a phased and precision-led solution:

	Conducted a manual RF survey across 40+ departments, compensating for the absence of architectural drawings.		Designed and implemented a hybrid, fibre-fed Distributed Antenna System (DAS) supporting multiple operators.
	Installed 500+ indoor antennas across OPDs, wards, diagnostics, stairwells, and corridors for complete coverage.		Manually routed fibre and coax backhaul to avoid structural impact and ensure safety compliance.
	Used surface-mounted cable routes, eliminating drilling and core cutting in sensitive hospital areas.		Positioned directional donor antennas with BBUs to maintain clean and stable signal reception.
	Deployed fiber-fed active DAS architecture with multi-band support, ensuring LTE and 5G readiness.		Proposed a neutral-host model to enhance cost-efficiency and operational scalability.
	Integrated real-time signal monitoring dashboards and trained facility teams for proactive management.		Scheduled deployment during non-peak hours to ensure zero operational disruption.

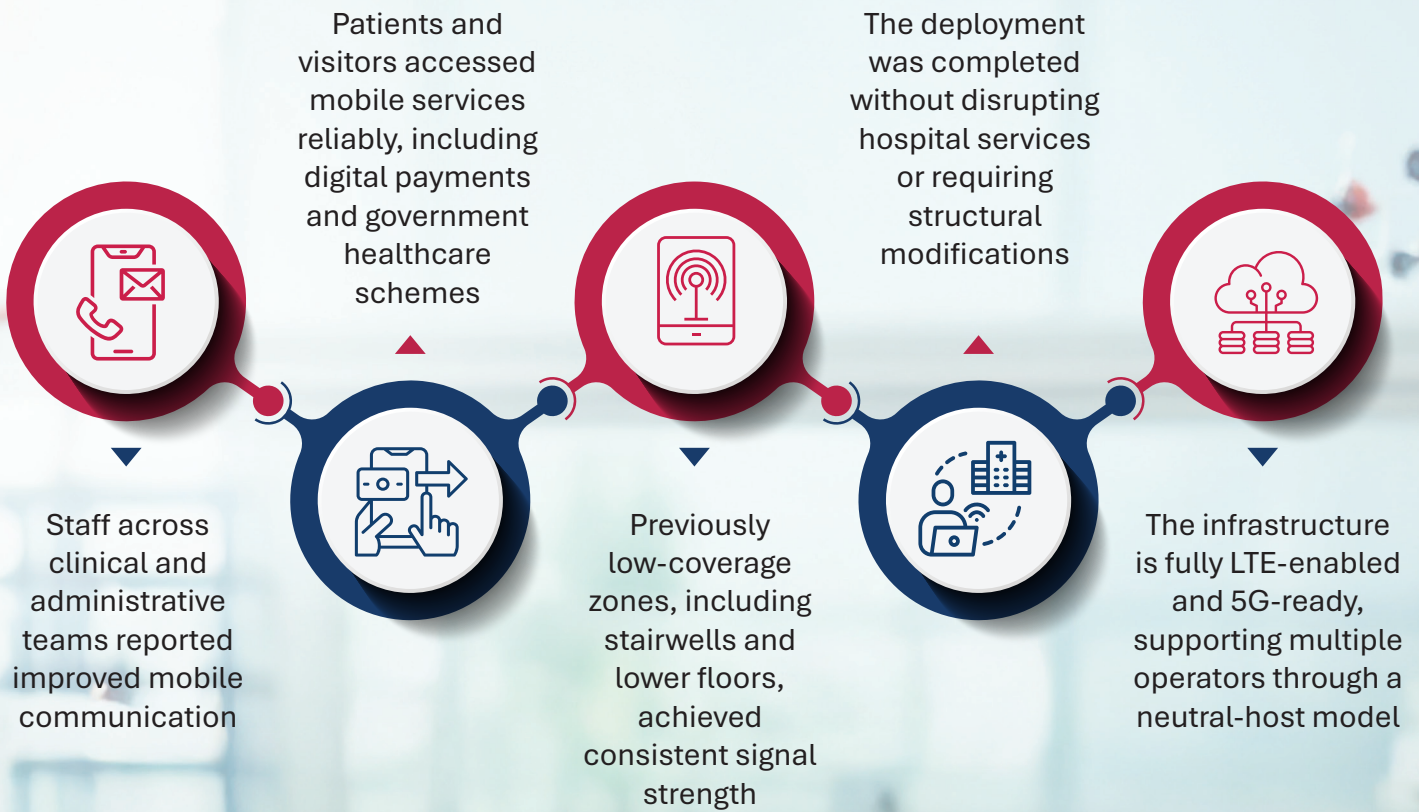


Core Challenges & Phase-Wise Execution



Results & Outcomes

The project delivered marked improvements to daily operations and user experience:



Impact Beyond Bars



Enabled mobile access for government schemes such as Ayushman Bharat and ABHA



Supported mobile-first workflows for diagnostics, labs, and administration



Delivered a scalable, neutral-host network across four mobile bands



Established a replicable deployment model for high-density healthcare environments

This was not just a connectivity upgrade.

