

**MODERNIZING MISSION-CRITICAL
NETWORK INFRASTRUCTURE
FOR ARMY HOSPITAL, DELHI**



Modernizing Mission-Critical Network Infrastructure for Army Hospital (R&R), Delhi

CASE STUDY

Name : ARMY HOSPITAL R&R

Industry : HEALTHCARE

Location : DELHI

OVERVIEW

Network infrastructure powers every critical function in a modern hospital. It supports clinical workflows, diagnostics, surveillance, and communication. In a high-pressure healthcare environment, downtime is not an option.

A leading defense hospital in Delhi needed to upgrade its aging network. Legacy infrastructure had started limiting performance and increasing operational risk. Support delays added further pressure.

Digisol designed and delivered a modern network architecture to solve these challenges. The solution improved reliability, simplified management, and created a scalable digital backbone for future growth.

BACKGROUND

The hospital handles around **2,000** outpatient visits daily, processes **3,500** lab tests, and performs nearly 250 radiology procedures every day.

Such scale demands always-on connectivity. Clinical teams rely on uninterrupted access to systems and data. Surveillance and monitoring systems also depend on a stable network.

The hospital needed infrastructure that could support these demands today and scale for tomorrow.

THE CHALLENGE

The existing network had reached end-of-life. Much of the infrastructure was out of warranty. This increased the risk of failures and made support unpredictable.

Replacement timelines from the incumbent vendor were slow. That created downtime concerns and made maintenance difficult. Performance was another concern. Growing workloads were putting pressure on the legacy setup. The hospital needed a stronger and more scalable architecture.

At the same time, the upgrade had to happen without disrupting daily hospital operations. Deployment had to be fast, simple, and low-risk.

Budget also mattered. The solution had to deliver enterprise-grade performance while remaining cost-effective.

THE SOLUTION

Digisol deployed an integrated networking solution built for resilience, performance, and ease of deployment. The design used a structured architecture across core, distribution, and access layers. This improved traffic flow, increased reliability, and prepared the network for future expansion. At the core, high-speed fiber connectivity strengthened the network backbone. Layer 3 switching improved traffic handling and supported demanding workloads. At the distribution layer, redundant links improved availability and reduced the risk of failure. At the access layer, structured Cat6 passive networking supported endpoint connectivity across hospital blocks and monitoring systems.

The solution combined active and passive components into one integrated stack. This improved compatibility and made deployment easier. Digisol also reduced execution risk through faster availability and shorter lead times. Products were delivered quickly, and deployment moved faster than competing alternatives. Strong local support added further value. Faster response and replacement timelines helped reduce downtime exposure. The solution also aligned with Make in India priorities, supporting both technical and procurement objectives.

THE OUTCOME

The hospital successfully moved from aging infrastructure to a modern and reliable network. Performance improved across the environment. The upgraded architecture delivered better speed, stronger stability, and improved scalability. Support responsiveness also improved. Faster replacements reduced delays and lowered operational risk. The simplified architecture made ongoing management easier. It also reduced complexity for the IT team. Most importantly, the migration happened without disrupting critical healthcare operations. The result is a future-ready network that supports continuous hospital operations with greater confidence.

BUSINESS IMPACT

The project delivered value beyond infrastructure refresh.

It improved uptime assurance for critical healthcare services. It reduced support risk. It also created a scalable platform for future digital growth.

Key benefits included:

- Higher network reliability
- Faster support and reduced downtime risk
- Better scalability for future expansion
- Simplified deployment and management
- Stronger long-term infrastructure readiness

The project balanced performance, supportability, and cost efficiency.

