Architecture Overview

Healthcare and Hospital System Network Configurations

Personalized, tech-enabled medicine is the future of healthcare. IT leaders must take a proactive approach to build a future-proof network that meets patient and provider needs.

$3M

A large medical system anticipates saving $3M by replacing physical devices like routers, firewalls, etc. with virtualized network functions across all physician offices.

Core

This architecture is well-suited for distributed healthcare networks with multiple headquarters spread across a state or region.

Carefully designed Disaster Recovery (DR) and Business Continuity (BC) plans that include secondary, tertiary, and public cloud-based data centers are fundamental elements needed for this design to succeed.

Connectivity options such as dark fiber, managed wavelength, or 100Gbps ethernet services support data mirroring, recovery, and backup between the main and regional headquarters, and all physical and cloud-based data centers.

HQ Campus

Fiber or 5G connectivity delivers access throughout a hospital's center of operations/ central data center, including surgery, radiology, pathology labs, and teaching centers.

↓40%

One multi-facility hospital system reduced ER mortality rates by 40% by upgrading network speeds from 1 Gbps to 10 Gbps to meet the bandwidth needs of a remote patient video monitoring application.

Edge Compute

Providers are increasingly using automation and AI to quickly parse through large sets of structured and unstructured data in situations where there's no time to waste. To that end, many healthcare systems are now deploying edge compute solutions for their low latency, mobility, and data processing capabilities.