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# Cisco Meraki Solutions for Healthcare Organizations

**Wi-Fi • SD-WAN • Switching • MV Cameras — Cloud-Managed, HIPAA-Compliant, BTI-Delivered**

*A BTI Communications Group solution guide — Cisco Meraki Authorized Partner | CA | AZ | IL*

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# Meraki Product Solutions for Healthcare

Four Solutions. One Dashboard. Zero Compromise.

## Meraki Dashboard

Unified cloud management for all Meraki devices – zero-touch, anywhere access



## Meraki MR Wi-Fi

Clinical-grade 802.11ax wireless for EHR, telemedicine & medical IoT



## Meraki MX SD-WAN

Secure multi-site WAN with AES-256 VPN, auto-failover & IDS/IPS



## Meraki MS Switching

PoE+ cloud-managed switching for APs, cameras & IoT devices



## Meraki MV Cameras

Cloud-managed security cameras with built-in AI analytics & no NVR



# Executive Summary: Why Healthcare Organizations Need a Unified Cisco Meraki Network

"Healthcare IT infrastructure is no longer just a back-office concern – it is the operational backbone of patient care, regulatory compliance, and organizational resilience. A fragmented network built on legacy components is a clinical liability."

## The Stakes Have Never Been Higher

Regional healthcare provider groups, health systems, and physician-owned practices face a convergence of pressures that legacy, siloed network infrastructure cannot address: clinical workflows depend on reliable wireless connectivity, telemedicine requires low-latency high-availability WAN links, medical IoT devices need secure segmented access, physical security depends on cloud-managed cameras, and HIPAA Security Rule requirements demand technical safeguards across every layer of the network. The answer is not more point solutions, but a unified, cloud-managed network architecture – and Cisco Meraki, deployed and managed by BTI Communications Group, is that architecture.

## The BTI + Cisco Meraki Advantage

### Meraki MR Wi-Fi

Clinical-grade wireless for EHR, telemedicine, BYOD & medical IoT across every care environment

### Meraki MX SD-WAN

Secure, intelligent WAN connectivity linking clinics, hospitals & data centers with HIPAA-compliant segmentation

### Meraki MS Switching

Enterprise-grade PoE switching that powers and connects every access point, camera & IoT device

### Meraki MV Cameras

Cloud-managed physical security with built-in analytics, 24/7 recording & zero NVR hardware

BTI Communications Group is a Cisco Meraki Authorized Partner serving healthcare organizations across California, Arizona, and Illinois. We design with Ekahau, install with our own certified crews, and manage with infrastructure-led managed services – delivering outcomes that generic IT providers cannot match.

# Meraki MR Cloud-Managed Wi-Fi for Healthcare

## Clinical-Grade Wireless That Performs When It Matters Most

In a healthcare environment, wireless connectivity is not a convenience – it is a clinical tool. Nurses rely on Wi-Fi to access EHR systems at the point of care, physicians use wireless networks for telemedicine consultations, and biomedical engineers depend on reliable connectivity for patient monitoring systems, infusion pumps, and imaging devices. Cisco Meraki MR access points, designed and deployed by BTI Communications Group using the Ekahau predictive RF modeling methodology, deliver the clinical-grade wireless performance healthcare organizations demand – with the cloud-managed simplicity that IT teams require.

### Key Capabilities for Healthcare Wi-Fi

#### Wi-Fi 6 & 6E Ready

802.11ax access points delivering multi-gigabit throughput for high-density clinical environments

#### Ekahau-Designed Coverage

Predictive RF modeling eliminates dead zones in patient rooms, ORs, ICUs & waiting areas

#### Medical IoT Segmentation

Dedicated SSIDs and VLANs isolate infusion pumps, monitors & imaging from staff and guest traffic

#### HIPAA-Compliant Architecture

Built-in PSK with Identity, air marshal rogue AP detection & encrypted management

#### Seamless Roaming

802.11r/k/v fast BSS transition for voice-over-Wi-Fi and real-time clinical applications

#### Zero-Touch Provisioning

Cloud-managed deployment and configuration across all facilities from a single dashboard

# Meraki MX SD-WAN for Healthcare

## Secure, Intelligent WAN Connectivity Across Every Care Site

Healthcare organizations operate across distributed environments — from main hospitals and satellite clinics to urgent care centers, physician offices, and remote administrative facilities — and each site requires reliable, secure WAN connectivity for cloud-hosted EHR systems, telemedicine platforms, medical imaging archives, and centralized IT resources. Cisco Meraki MX SD-WAN, deployed and managed by BTI Communications Group, transforms healthcare WAN infrastructure into an intelligent, policy-driven network with application-aware routing, automatic failover, and HIPAA-compliant segmentation — at a fraction of the cost of legacy WAN.

## Meraki MX SD-WAN Capabilities for Healthcare

### Application-Aware Routing

Automatically prioritize EHR, VoIP & telemedicine traffic over lower-priority applications

### Dual-WAN Failover

Automatic failover between fiber, cable & LTE/5G ensures continuous clinical operations

### HIPAA-Compliant Segmentation

Site-to-site VPN with AES-256 encryption isolates ePHI traffic across all locations

### Integrated Security

Built-in IDS/IPS, content filtering, malware protection & Cisco XDR integration

### Zero-Touch Deployment

Cloud-provisioned MX appliances ship pre-configured to any site — no on-site IT required

# Meraki MS Cloud-Managed Switching for Healthcare

## The Network Foundation That Powers Every Clinical Device

Every access point, IP phone, security camera, nurse call system, and medical IoT device in your healthcare facility connects to the network through a switch. Cisco Meraki MS switches, deployed and managed by BTI Communications Group, deliver enterprise-grade PoE switching with the cloud-managed simplicity of the Meraki dashboard – from a single 8-port switch in a small physician office to a full multi-tier switching architecture in a regional hospital.

## Meraki MS Switching Capabilities for Healthcare

### PoE+ & PoE++ Power

Power access points, IP phones, cameras & nurse call systems without separate power infrastructure

### Cloud-Managed Configuration

Configure, monitor & troubleshoot every switch port from the Meraki dashboard

### VLAN & Segmentation

Isolate clinical, administrative, guest & IoT traffic with policy-based VLAN assignment

### 802.1X Port Authentication

Enforce device identity at every switch port – only authorized devices connect

### Stacking & High Availability

Virtual stacking and redundant uplinks ensure continuous operation in critical areas

### Integrated Network Topology

Automatic topology mapping shows every connected device across all facilities

# Meraki MV Smart Cameras for Healthcare Physical Security

## Cloud-Managed Video Security with Built-In Intelligence

Physical security in healthcare is a complex challenge. Hospitals and clinics must protect patients, staff, and visitors from violence and unauthorized access, while pharmacies, medication storage areas, infant protection systems, emergency departments, and parking structures all require reliable, intelligent video coverage. Cisco Meraki MV smart cameras, deployed and managed by BTI Communications Group, deliver cloud-managed physical security with built-in computer vision analytics – eliminating the complexity and cost of traditional NVR-based CCTV systems while improving intelligence and reliability.

## Meraki MV Camera Capabilities for Healthcare

### No NVR Required

On-camera storage with cloud archive eliminates NVR hardware, licensing & maintenance costs

### Built-In Analytics

Motion heatmaps, people counting & object detection provide operational intelligence

### 24/7 Cloud Recording

Continuous recording with configurable retention – accessible from any browser or mobile device

### HIPAA-Aware Deployment

Privacy zones, role-based access controls & encrypted video streams protect patient privacy

### Instant Search & Forensics

Motion-based video search finds relevant footage in seconds – no manual scrubbing

### Unified Dashboard

Manage cameras alongside Wi-Fi, switching & SD-WAN from the single Meraki dashboard

# HIPAA Compliance & Cybersecurity: The Meraki + BTI Security Architecture

## A Unified Security Posture Across Every Network Layer

HIPAA's Security Rule requires covered entities and business associates to implement administrative, physical, and technical safeguards that protect the confidentiality, integrity, and availability of electronic protected health information (ePHI). For healthcare IT teams, Cisco Meraki, deployed and managed by BTI Communications Group, provides a unified security architecture that addresses these HIPAA technical safeguard requirements across every layer of the network – from the wireless access point to the WAN edge to the physical security camera.

## HIPAA Technical Safeguard Mapping

### Access Control (§164.312(a))

Meraki PSK with Identity, 802.1X port authentication & role-based dashboard access enforce unique user identification and automatic logoff

### Audit Controls (§164.312(b))

Meraki dashboard logs all configuration changes, authentication events & network activity with tamper-evident audit trails

### Transmission Security (§164.312(e))

AES-256 encrypted site-to-site VPN, WPA3 wireless encryption & TLS-encrypted management protect ePHI in transit

### Integrity Controls (§164.312(c))

Meraki IDS/IPS, content filtering & Cisco XDR detect and prevent unauthorized ePHI modification or destruction

# Why BTI Communications Group Delivers Results Other Providers Can't

## The BTI Difference: Expertise, Accountability & Outcomes

The healthcare IT market is crowded with providers who can sell Cisco Meraki hardware, but BTI does more: we design with Ekahau expertise, install with our own certified crews, integrate Wi-Fi, SD-WAN, switching, and cameras, and manage it all with infrastructure-led services that deliver guaranteed outcomes. As a Cisco Meraki Authorized Partner, BTI's entire healthcare practice is built around the Meraki platform and focused on the results healthcare organizations require.

## What Sets BTI Apart

### Certified on-site Design and Install

BTI is a Cisco Blackbelt, ISO 27001, and ISNetworld certified for safety compliance

### Ekahau Design Expertise

Every Wi-Fi engagement begins with a rigorous Ekahau predictive RF design – not a guess

### Fixed-Price Delivery

Zero variance, guaranteed outcomes – BTI absorbs scope risk so you don't have to

### Full-Stack Meraki

Wi-Fi, SD-WAN, switching & cameras designed and managed as a unified system

### Healthcare-Specific Experience

Deep expertise in clinical environments, HIPAA compliance & medical IoT integration

### Lifecycle Managed Services

Post-deployment monitoring, optimization & support – not just installation and goodbye

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# Real-World Results & ROI: Cisco Meraki for Healthcare

## Measurable Outcomes Across Every Network Layer

Operational and financial outcomes are the only metrics that matter in healthcare IT. BTI's Cisco Meraki deployments – spanning Wi-Fi, SD-WAN, switching, and MV cameras – consistently deliver measurable improvements across uptime, compliance readiness, operational efficiency, and total cost of ownership. The following represents typical findings from BTI healthcare engagements across California, Arizona, and Illinois.

## Performance Outcomes by Solution Area

# 99.99%

### Wi-Fi Uptime

wireless availability across clinical environments post-deployment

# Configurable

### WAN Failover Time

between WAN circuits with Meraki MX SD-WAN depending on application

# 60%

### Camera Deployment Time

faster camera deployment vs. traditional NVR-based CCTV systems

# 40%

### IT Ticket Reduction

reduction in network-related IT support tickets post-Meraki deployment

## Financial ROI Summary

The financial case for a unified Cisco Meraki infrastructure managed by BTI is compelling across every cost category:

### WAN Cost Reduction

Replace expensive MPLS circuits with broadband + LTE SD-WAN – typical savings of 40-60% on WAN spend

### NVR Elimination

Remove NVR hardware, licensing & maintenance – Meraki MV on-camera storage delivers immediate CapEx savings

### IT Labor Savings

Unified dashboard management reduces IT administration time by 30-50% across all network domains

### Downtime Cost Avoidance

99.99% uptime SLA eliminates the \$50,000-\$500,000+ per hour cost of clinical network outages

# Take the First Step Toward a Unified, HIPAA-Compliant Cisco Meraki Network

Request Your No-Cost Cisco Meraki Healthcare Network Assessment from BTI Communications Group

Your patients, clinical staff, and organizational mission deserve network infrastructure that performs reliably, protects ePHI, and scales with your care delivery model. BTI Communications Group is ready to assess your current environment and design a unified Cisco Meraki solution – Wi-Fi, SD-WAN, switching, and MV cameras – that delivers guaranteed outcomes.

## What You'll Receive in Your No-Cost Assessment

01

### Discovery Call

30-minute consultation with a BTI healthcare network specialist to understand your environment, challenges & goals

02

### Site Assessment

On-site or remote evaluation of your current wireless, WAN, switching & physical security infrastructure

03

### Ekahau Design Preview

Preliminary Ekahau RF heat map and coverage analysis for your primary facility

04

### Custom Proposal

Fixed-price proposal covering hardware, licensing, installation & managed services – with guaranteed outcomes

## Connect With BTI Communications Group

### Cisco Meraki Partner Page

Full portfolio overview, solution details & partner credentials – [BTI Cisco Meraki Partner Page](#)

### Contact Us

Speak with a BTI healthcare network specialist today – [contact us](#)

### IT Services

Explore BTI's full managed IT and cybersecurity services – [BTI IT Services](#)