

# MERAKI MX SD-WAN FOR HEALTHCARE: REDUCE DOWNTIME, ACHIEVE HIPAA COMPLIANCE & CUT WAN COSTS

The definitive guide to Cisco Meraki SD-WAN and Meraki MX Next-Gen Firewalls for healthcare organizations – covering HIPAA-compliant network architecture, Meraki managed service for healthcare, multi-site SD-WAN deployment, and real-world ROI. Published by **BTI Communications Group**, Cisco Meraki Authorized Partner.



CA | AZ | IL | 800-435-7284 | [btigroup.com](http://btigroup.com)

# EXECUTIVE SUMMARY

SECTION 1 OF 7

Meraki MX SD-WAN helps healthcare organizations reduce network downtime, strengthen HIPAA compliance, and support reliable clinical operations across distributed sites. BTI Communications Group delivers Meraki managed service for healthcare as a fixed-price, fully supported solution combining Cisco Meraki MX SD-WAN, next-generation firewalls, expert engineering, and ongoing managed services.

## 99.99%

### NETWORK UPTIME

SLA-backed availability across all sites

## 60%

### COST REDUCTION

vs. legacy MPLS circuits and traditional consulting

## 24/7

### SOC / NOC COVERAGE


Continuous monitoring, alerting, and response

## 100%



### FIXED-PRICE DELIVERY

Zero variance. Fully scoped. No surprises.

This guide walks Healthcare IT and operations leaders through the core challenges driving the need for Meraki network modernization, the operational capabilities of the Meraki MX platform, the real-world outcomes BTI clients achieve with SD-WAN, and the concrete next steps to begin your own transformation. Whether you oversee a single critical access hospital or a distributed health system spanning dozens of sites, this document is your operational roadmap for Healthcare and Meraki managed service for healthcare success.

 BTI Communications Group is a Cisco Meraki Authorized Partner with local teams in California, Arizona, and Illinois. Every engagement is scoped with itemized, discounted pricing and a fixed monthly fee – no surprises, no scope creep, and no gaps in coverage.

---

**BTI Communications Group** – Cisco Meraki Authorized Partner |  800-435-7284 |  [info@btigroup.com](mailto:info@btigroup.com) | 

btigroup.com | CA | AZ | IL

# THE CHALLENGE: LEGACY NETWORKS IN HEALTHCARE

SECTION 2 OF 7

Healthcare runs on data – and in modern Healthcare environments, clinical records, diagnostic imaging, pharmacy systems, billing workflows, telemedicine sessions, and IoT-connected medical devices all depend on continuous, secure, high-performance network connectivity. Yet most Healthcare organizations are still running legacy network infrastructure that was designed a decade or more ago, long before cloud-first clinical applications, remote care delivery, and sophisticated ransomware attacks became daily operational realities. That gap between what your network was built for and what Healthcare needs today is where risk lives.

## DOWNTIME: THE \$9,000-PER-MINUTE HEALTHCARE PROBLEM

Industry research consistently places the cost of Healthcare IT downtime between \$5,000 and \$9,000 per minute when all operational impacts are accounted for – delayed procedures, diverted patients, manual workarounds, staff overtime, and regulatory exposure. Legacy switches, aging firewalls with no centralized management, and single-point-of-failure WAN designs are not theoretical risks. They are daily operational liabilities for Healthcare teams that need a better SD-WAN strategy, not more complexity.

## HIPAA COMPLIANCE PRESSURE IS ACCELERATING

For Healthcare organizations, OCR enforcement actions, state-level privacy laws, and mandatory breach notification requirements have made HIPAA compliance a continuous operational discipline – not an annual checkbox exercise. Your network architecture must provide encrypted transmission of all ePHI, comprehensive audit logging, granular access controls, and demonstrable security policies. Auditors are not impressed by intent. They require evidence, and legacy networks rarely produce it efficiently.



## MULTI-SITE HEALTHCARE & MULTI-CLOUD COMPLEXITY

Managing dozens of clinical locations – hospitals, ASCs, physician offices, urgent care centers – with siloed network configurations, inconsistent security policies, and no centralized visibility creates exponential management overhead and compliance blind spots. A Meraki MX SD-WAN approach gives Healthcare IT teams a simpler way to standardize operations across every site.



## RISING CYBER THREATS TARGETING HEALTHCARE

Healthcare is the most targeted sector for ransomware, with average breach costs exceeding \$10 million. Flat networks without segmentation, outdated IDS/IPS signatures, and unmonitored IoT devices create wide attack surfaces that threat actors actively exploit. A Meraki MX firewall can help strengthen segmentation and visibility across the Healthcare network.



## MPLS COSTS & FRAGMENTED VENDOR SUPPORT

Legacy MPLS circuits carry price tags of \$1,500–\$5,000 per site per month, with 12–18 month provisioning timelines. When issues arise, multiple vendors point fingers at each other while Healthcare operations suffer. There is no single throat to choke – until now with a Meraki managed service for healthcare organizations that delivers one partner, one platform, and one accountable outcome.

"Healthcare IT leaders don't have the luxury of planned downtime. Every outage is a patient safety event, a revenue loss event, and a potential compliance event – simultaneously."

# THE MERAKI MX OPERATIONAL TRANSFORMATION FOR HEALTHCARE

SECTION 3 OF 7

Meraki MX represents the most operationally mature SD-WAN and next-generation firewall platform for Healthcare environments. It is not simply a better firewall – it is a converged Meraki architecture that unifies WAN connectivity, network security, HIPAA-compliant access controls, and centralized management into a single platform managed through the Meraki Dashboard. For Healthcare organizations, a Meraki managed service for healthcare teams, deployed by BTI's certified engineering team, becomes the operational foundation your clinical and IT teams have been waiting for.

1

## ZERO-TOUCH DEPLOYMENT & CENTRALIZED MERAKI DASHBOARD

Meraki MX devices are pre-configured in BTI's staging environment and shipped directly to your sites. Plug in. Power on. The device calls home to the Meraki cloud and self-provisions – no on-site engineer required for initial bring-up. The Dashboard provides a single pane of glass across every Healthcare location, every device, every policy. Changes made centrally propagate instantly.

2

## MERAKI MX SD-WAN + NEXT-GEN FIREWALL + AUTO VPN

Meraki MX SD-WAN delivers application-aware traffic steering across dual WAN links – prioritizing EHR traffic, VoIP, and clinical video over broadband or LTE backup. Auto VPN creates encrypted mesh tunnels between all your sites in minutes, not weeks. The Meraki MX firewall enforces Layer 7 application controls with deep packet inspection at every location simultaneously.

3

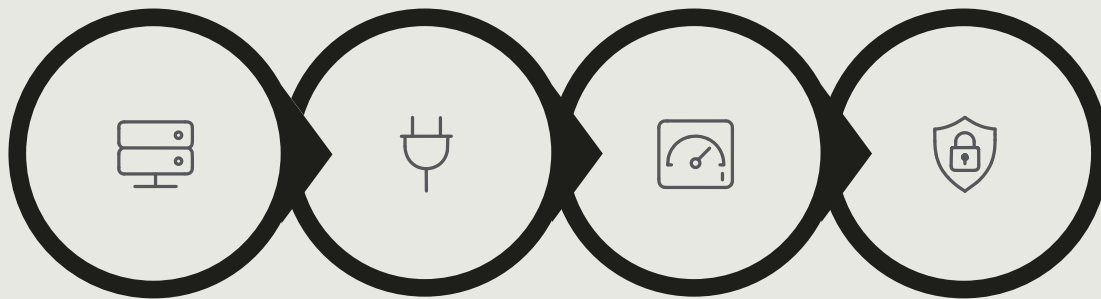
## HEALTHCARE SECURITY: IDS/IPS, MALWARE PROTECTION, URL FILTERING

Every Meraki MX includes Cisco Talos-powered intrusion detection and prevention, advanced malware protection via Cisco AMP, and granular URL/content filtering. Healthcare network segmentation with VLANs ensures your medical devices, staff workstations, patient Wi-Fi, and administrative systems are isolated – dramatically reducing your internal attack surface and satisfying HIPAA's minimum necessary access requirements.

4

## HIPAA-COMPLIANT MERAKI ARCHITECTURE

Meraki MX satisfies HIPAA Technical Safeguard requirements through encrypted ePHI transmission (AES-256 tunnels), comprehensive event logging with 90-day retention, role-based access controls, and automatic alerts on policy violations. BTI delivers a pre-configured Meraki managed service for healthcare organizations template that maps directly to your Security Rule requirements, giving your compliance team audit-ready documentation from day one.



LEGACY  
NETWORK

ZERO-  
TOUCH

CENTRALIZ  
ED  
DASHBOAR  
D

HIPAA-  
COMPLIAN  
T

The Meraki MX platform also provides seamless multi-cloud connectivity to AWS, Azure, and Google Cloud – enabling secure access to cloud-hosted EHR platforms, revenue cycle management systems, and clinical analytics tools without the latency or complexity of backhauling traffic through a central data center. Your clinical applications perform the way their vendors intended, because your Healthcare network is finally aligned to how modern care delivery actually works.

# REAL-WORLD HEALTHCARE SD-WAN RESULTS & ROI

SECTION 4 OF 7

The operational transformation enabled by Meraki MX SD-WAN, deployed and managed by BTI Communications Group as a Meraki managed service for healthcare organizations, produces measurable results across every dimension that healthcare IT and operations leaders are held accountable for. These are not theoretical projections based on vendor marketing – they reflect the real operational outcomes BTI's Healthcare clients have achieved, benchmarked against industry averages and pre-deployment baselines.



## CLIENT SUCCESS STORY – REGIONAL HEALTHCARE HEALTH SYSTEM (12 SITES, CALIFORNIA)

A regional Healthcare health system operating 12 clinical locations across Southern California replaced its aging MPLS-based WAN with BTI-deployed Meraki MX SD-WAN. Within 90 days of go-live, the organization eliminated its \$42,000/month MPLS spend, replacing it with a BTI managed service for healthcare at \$11,400/month – saving over \$367,000 annually. Unplanned downtime dropped from an average of 47 hours annually to fewer than 4 hours. Their next HIPAA risk assessment produced zero network-layer findings for the first time in six years.

## CLIENT SUCCESS STORY – MULTI-SPECIALTY HEALTHCARE PHYSICIAN GROUP (8 SITES, ARIZONA)

A multi-specialty Healthcare physician group with 8 locations in the Phoenix metro area was struggling with inconsistent telemedicine performance and a recent ransomware near-miss that exposed their flat network architecture. BTI deployed Meraki MX across all sites in under 30 days, implemented full network segmentation, activated IDS/IPS and AMP, and enrolled the organization in BTI's 24/7 SOC monitoring service. Telemedicine session completion rates improved from 78% to 99.2%. No ransomware incidents have occurred in 24+ months of operation.

Beyond the numbers, the operational experience changes fundamentally. Your IT staff stops reacting to fires and starts managing strategically. Clinicians stop working around network failures. Compliance officers stop dreading audits. And your CFO stops receiving surprise invoices for emergency remediation work. That is the full-spectrum value of a BTI-managed Meraki MX deployment – a Meraki managed service for healthcare that delivers outcomes that compound over time and justify the investment many times over in the first year alone.

✔ Healthcare organizations that transition from MPLS to BTI-managed Meraki SD-WAN report average first-year savings of \$280,000–\$450,000 across a 10-site deployment – with ongoing savings every year thereafter.

# WHY BTI GROUP DELIVERS HEALTHCARE MERAKI SD-WAN RESULTS OTHER PROVIDERS CAN'T

SECTION 5 OF 7

There is no shortage of companies that will sell you Meraki hardware or offer a managed services contract. What is genuinely rare – and what BTI Communications Group delivers – is the complete operational capability to design, deploy, secure, manage, and continuously optimize a healthcare-grade Meraki MX SD-WAN environment under a single fixed-price engagement. This is not a marketing claim. It is a verifiable operational model with a specific scope of work, itemized pricing, and defined service levels for every component.

## SINGLE-PARTNER ACCOUNTABILITY

One contract, one phone number, one team responsible for design, deployment, security, and ongoing management. No finger-pointing between vendors when issues arise.

## CISCO MERAKI AUTHORIZED PARTNER STATUS

BTI's Meraki authorization means access to discounted hardware pricing, direct Cisco TAC escalation paths, and certified engineers trained specifically on Meraki MX SD-WAN and healthcare network architecture.

## HEALTHCARE-SPECIFIC DEPLOYMENT METHODOLOGY

BTI's playbooks are built for clinical environments – change windows aligned to patient care schedules, application dependency mapping for EHR systems, and HIPAA documentation produced as a standard deliverable, not an afterthought.

## VERIFIABLE SCOPE, VERIFIABLE PRICE

Every BTI engagement begins with a detailed statement of work. Every line item is visible. Every deliverable is defined. There are no ambiguous "time and materials" clauses that expose your budget to overruns.

"The difference between BTI and every other Meraki reseller is operational depth. We don't just sell the platform – we own the outcome."

# THE BTI ADVANTAGE FOR MERAKI HEALTHCARE SD-WAN: WHAT SETS US APART



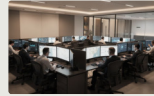
## EXPERT FULL-STACK MERAKI ENGINEERING FOR HEALTHCARE

BTI's engineering team holds advanced Cisco certifications across Meraki routing, switching, security, and collaboration. We design Healthcare network architectures and Meraki MX SD-WAN environments that align with clinical workflows, HIPAA requirements, and your specific multi-site topology – not cookie-cutter templates.



## TRUE TURNKEY MERAKI MX IMPLEMENTATION

BTI handles everything from physical plant wiring and rack installation to ISP coordination, device staging, Meraki MX firewall configuration, testing, and user training. You don't manage sub-contractors. You don't coordinate vendors. You get a working, secured Healthcare network – delivered.



## 24/7 SOC, SIEM & NOC INTEGRATION FOR HEALTHCARE SD-WAN

Every BTI-managed environment is integrated with our Security Operations Center, Security Information and Event Management platform, and Network Operations Center. This Meraki managed service for healthcare organizations detects, correlates, and responds to threats around the clock – not just during business hours.



## GRC & COMPLIANCE FRAMEWORK SUPPORT FOR MERAKI MX

BTI's compliance team maps your Meraki MX configuration directly to HIPAA Security Rule controls, NIST CSF, and HITRUST requirements. We produce the policy documentation, network diagrams, and evidence packages your auditors require – included in your monthly service fee.

## FLEXIBLE MERAKI MANAGED SERVICE DELIVERY MODELS

Fully managed, co-managed, or managed cybersecurity only. We adapt our Meraki managed service for healthcare to your internal team's capabilities and organizational structure.

## DISCOUNTED ITEMIZED MERAKI PRICING

As a Cisco Meraki Authorized Partner, BTI passes through hardware and licensing discounts with full transparency – every line item is visible and justified.

## ZERO-VARIANCE FIXED PRICE

Your scope of work is detailed, signed, and fixed. No change orders for standard implementation work. No surprise invoices. One predictable monthly fee for Healthcare and Meraki SD-WAN services.

## LOCAL ON-SITE TEAMS

BTI maintains local engineering and field technician teams in California, Arizona, and Illinois for rapid on-site response – not a call center routing tickets offshore.

## 100% FINANCING AVAILABLE – AS LOW AS 3.99%

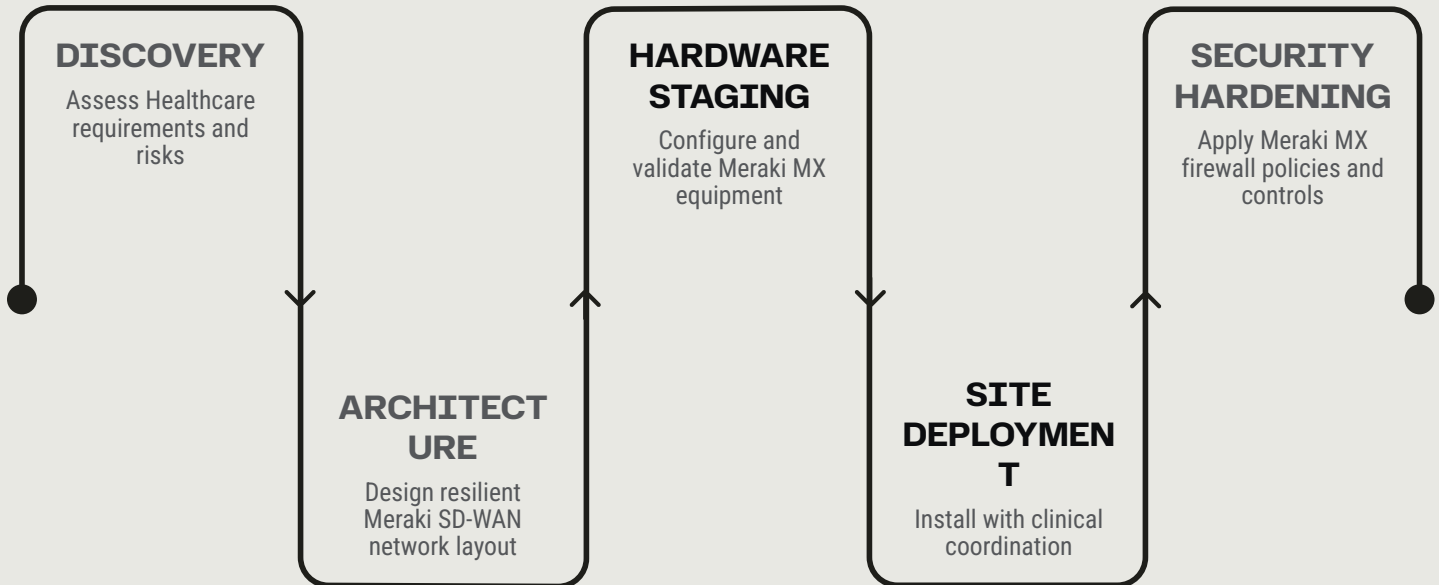
BTI ensures financing for your entire Meraki MX network refresh project – including hardware, licensing, installation, and managed services – with 100% financing of all costs at rates as low as 3.99%. No capital budget required. Modernize your healthcare network today and pay over time.

"BTI's fixed-price model eliminates the single biggest fear healthcare IT leaders have about network modernization: cost overruns. We scope it completely. We price it transparently. We deliver it on time – every time – with Meraki MX, SD-WAN, and Healthcare support built in."

# HEALTHCARE MERAKI SD-WAN IMPLEMENTATION BEST PRACTICES

SECTION 6 OF 7

Deploying a Healthcare-grade Meraki SD-WAN and Next-Generation Firewall environment is not a plug-and-play exercise. It requires disciplined project management, clinical workflow awareness, rigorous change control, and a deployment methodology proven across dozens of similar Healthcare environments. BTI's Meraki managed service for healthcare – developed and refined over years of Healthcare network engagements – eliminates the most common failure modes and ensures your go-live is an operational success from day one, not a months-long remediation project.



## PHASE 1-3: DESIGN BEFORE YOU DEPLOY

BTI begins every Healthcare Meraki SD-WAN engagement with a structured discovery process – inventorying existing infrastructure, mapping clinical application dependencies, identifying compliance gaps, and documenting your site topology. From this foundation, our architects produce a detailed Meraki MX SD-WAN design with VLAN segmentation, SD-WAN traffic policy templates, Meraki MX firewall rule sets, and Auto VPN topology before a single device is touched. Hardware is staged and pre-configured in BTI's lab environment, tested against your design specifications, and shipped ready to activate.

- Current-state infrastructure audit and gap analysis
- Clinical application dependency mapping
- HIPAA technical safeguard alignment review
- Full network design documentation delivered pre-deployment
- Hardware staged and verified before site shipment

## PHASE 4-6: DEPLOY, HARDEN, AND OPERATE

Site deployment follows a proven Healthcare Meraki managed service for healthcare organizations playbook – coordinated with your clinical operations team to minimize disruption, executed by BTI field technicians, and validated against acceptance criteria before sign-off. Security hardening activates IDS/IPS, AMP, URL filtering, and logging policies calibrated to your specific environment. The final phase transitions your environment to BTI's NOC and SOC for ongoing monitoring, management, and optimization – with monthly reporting, quarterly reviews, and proactive recommendations included in your Meraki managed service agreement.

- Clinical-hours-aware deployment scheduling
- BTI field technician physical installation and wiring
- Security policy activation and validation testing
- NOC/SOC onboarding with alert tuning
- Monthly operational reporting and QBRs included

1

### DASHBOARD VISIBILITY FROM DAY ONE

Your Healthcare team gets access to the Meraki Dashboard immediately upon go-live. BTI provides customized alerting thresholds, runbooks for common scenarios, and dashboard training so your staff can see what's happening across every site in real time – without needing to interpret raw logs.

2

### PROACTIVE MERAKI MANAGEMENT, NOT REACTIVE FIREFIGHTING

BTI's NOC monitors WAN link health, device availability, VPN tunnel status, and security alert queues 24/7. We identify and resolve issues before they impact clinical operations – often before your team is even aware a condition exists. Mean time to resolution drops dramatically in the first 90 days.

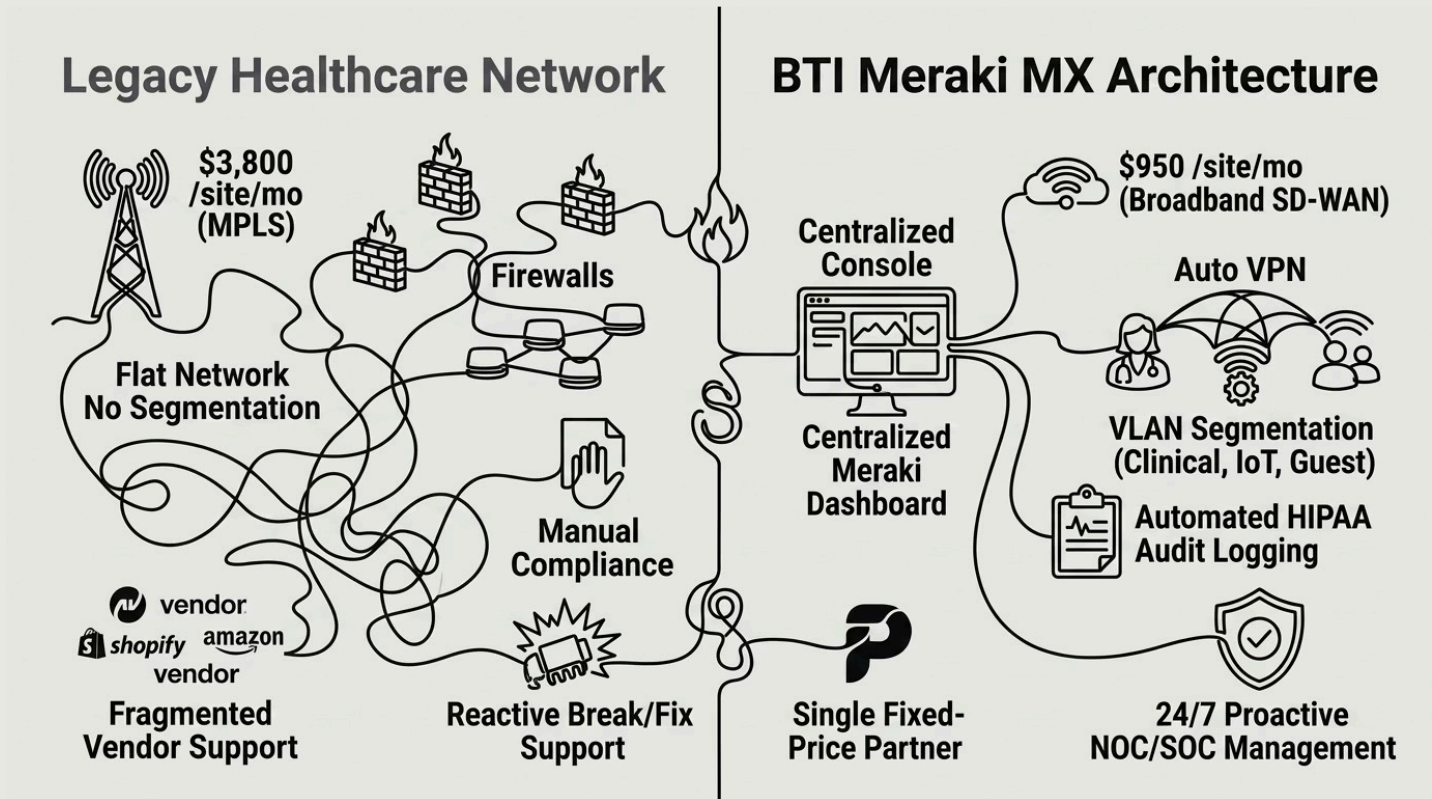
3

### CONTINUOUS OPTIMIZATION

Networks are not static. New applications, new sites, new threats, and new compliance requirements emerge constantly. BTI's Meraki managed service for healthcare organizations includes ongoing configuration changes, firmware management, policy updates, and optimization recommendations – all without additional project fees or surprise charges.

# BEFORE & AFTER: HEALTHCARE SD-WAN ARCHITECTURE COMPARISON

The following Healthcare and Meraki comparison illustrates the operational and security transformation organizations experience when moving from a legacy, fragmented network architecture to a BTI-deployed Meraki MX SD-WAN environment. This Meraki managed service for healthcare helps standardize connectivity, strengthen security, and simplify operations across every site.



## LEGACY MPLS HEALTHCARE NETWORK

\$3,800+/site/month. 12-18 month provisioning. Single carrier dependency. No redundancy without doubling cost. Inflexible QoS.

## DIY BROADBAND

Low upfront cost but no centralized management, inconsistent security policies, no compliance documentation, and no support accountability.

## BTI + MERAKI MX SD-WAN

Dual-WAN Meraki MX firewall with automatic failover. Fixed monthly cost. Centralized management. Built-in security. HIPAA-ready. 24/7 Meraki managed service for healthcare included.

# NEXT STEPS – HEALTHCARE MERAKI SD-WAN ACTION

SECTION 7 OF 7

If your **Healthcare** organization is dealing with unplanned downtime, HIPAA compliance uncertainty, rising WAN costs, cybersecurity exposure, or the operational exhaustion of managing a fragmented network environment across multiple sites, this is the moment to act. BTI Communications Group offers three no-cost engagement options for healthcare IT and operations leaders who want to move from awareness to action quickly, with minimal disruption, through a proven **Meraki managed service for healthcare** teams.



## OPTION 1: HEALTHCARE MERAKI COMPLIANCE READINESS REVIEW

A no-cost HIPAA network architecture review conducted by BTI's compliance and engineering team. We assess your current healthcare environment against HIPAA Technical Safeguard requirements, identify gaps in your **Meraki MX** and network architecture, and deliver a prioritized remediation roadmap – at no charge, with no obligation.



## OPTION 2: FIXED-PRICE MERAKI MX SD-WAN MODERNIZATION WORKSHOP

A structured half-day workshop with BTI's architects to design your future-state **Meraki MX SD-WAN** architecture, define your healthcare SD-WAN topology, and produce a fixed-price proposal with itemized hardware, licensing, implementation, and managed services costs – all in one session.



## OPTION 3: FULL OPERATIONAL TRANSFORMATION PROPOSAL FOR HEALTHCARE

A comprehensive multi-site infrastructure assessment producing a complete turnkey proposal: network design, hardware bill of materials with discounted pricing, implementation timeline, compliance documentation framework, and full managed services scope for your **Meraki managed service for healthcare** initiative – delivered in 10 business days.

**Request Your No-Cost Multi-Site Healthcare Infrastructure Assessment Today**  
Contact BTI Communications Group to schedule your assessment. Our healthcare IT specialists will respond within one business day.

[info@btigroup.com](mailto:info@btigroup.com)

800-435-7284

[btigroup.com](http://btigroup.com)

Serving CA | AZ | IL – Local engineers. Local response. Fixed price. No surprises.

## WHY ACT NOW FOR HEALTHCARE MERAKI SD-WAN?

Every month your organization operates on a legacy network is a month of unnecessary downtime risk, HIPAA exposure, and excess WAN spending. Healthcare IT modernization timelines are typically 60–90 days from engagement to go-live with BTI's proven deployment methodology for **Meraki MX** and **Meraki MX SD-WAN**. Organizations that engage BTI today are fully operational on their new Meraki SD-WAN platform before the next quarter – and realizing ROI immediately upon cutover.

The cost of inaction compounds. A single ransomware incident in a healthcare environment carries an average recovery cost of \$1.27 million. A single OCR enforcement action for a network-level HIPAA violation has resulted in settlements exceeding \$2 million. BTI's fully managed **Meraki managed service for healthcare** organizations at a predictable monthly fee is not an expense – it is the most efficient risk management investment your organization can make.

## REQUEST A FREE HEALTHCARE NETWORK ASSESSMENT

[info@btigroup.com](mailto:info@btigroup.com)

800-435-7284

[btigroup.com](http://btigroup.com)

Email us to request a no-cost quote or consultation. Our healthcare IT specialists respond within one business day.