







Cisco Meraki Solutions for Education Organizations

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

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

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Meraki Product Solutions for Education

Four Solutions. One Dashboard. Zero Compromise.

Meraki Dashboard

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



Meraki MR Wi-Fi

Education-grade 802.11ax wireless for LMS, video learning & student 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 & classroom devices



Meraki MV Cameras

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



Executive Summary: Why Education Organizations Need a Unified Cisco Meraki Network

Education IT infrastructure is no longer just a back-office concern — it is the operational backbone of student learning, regulatory compliance, and campus safety. A fragmented network built on legacy components is an academic liability.

The Stakes Have Never Been Higher

K-12 districts, community colleges, universities, and charter school networks face a convergence of pressures that legacy, siloed network infrastructure cannot address: digital learning workflows depend on reliable wireless connectivity, remote and hybrid instruction requires low-latency high-availability WAN links, student and classroom IoT devices need secure segmented access, campus safety depends on cloud-managed cameras, and FERPA, CIPA, and E-Rate compliance 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

Education-grade wireless for LMS, video conferencing, BYOD & classroom IoT across every learning environment

Meraki MX SD-WAN

Secure, intelligent WAN connectivity linking campuses, district offices & data centers with FERPA-compliant segmentation

Meraki MS Switching

Enterprise-grade PoE switching that powers and connects every access point, camera & classroom 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 education 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.

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Meraki MR Cloud-Managed Wi-Fi for Education

Education-Grade Wireless That Performs When Learning Demands It Most

In an education environment, wireless connectivity is not a convenience — it is a learning tool. Teachers rely on Wi-Fi to deliver digital curriculum and access learning management systems, students use wireless networks for video-based instruction and collaborative platforms, and technology coordinators depend on reliable connectivity for Chromebooks, tablets, interactive displays, and classroom IoT devices. Cisco Meraki MR access points, designed and deployed by BTI Communications Group using the Ekahau predictive RF modeling methodology, deliver the education-grade wireless performance schools and universities demand — with the cloud-managed simplicity that IT teams require.

Key Capabilities for Education Wi-Fi

Wi-Fi 6 & 6E Ready

802.11ax access points delivering multi-gigabit throughput for high-density classrooms, lecture halls & auditoriums

Ekahau-Designed Coverage

Predictive RF modeling eliminates dead zones in classrooms, libraries, gymnasiums & outdoor learning areas

Student Device Segmentation

Dedicated SSIDs and VLANs isolate student Chromebooks, staff devices, IoT & guest traffic

CIPA & FERPA-Compliant Architecture

Built-in content filtering, 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 instructional applications

Zero-Touch Provisioning

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



Meraki MX SD-WAN for Education

Secure, Intelligent WAN Connectivity Across Every Campus and District Site

Education organizations operate across distributed environments — from main campuses and satellite schools to administrative offices, athletic facilities, and remote learning centers — and each site requires reliable, secure WAN connectivity for cloud-hosted LMS platforms, video conferencing tools, student information systems, and centralized IT resources. Cisco Meraki MX SD-WAN, deployed and managed by BTI Communications Group, transforms education WAN infrastructure into an intelligent, policy-driven network with application-aware routing, automatic failover, and FERPA-compliant segmentation — at a fraction of the cost of legacy WAN.

Meraki MX SD-WAN Capabilities for Education

Application-Aware Routing

Automatically prioritize LMS, video conferencing & SIS traffic over lower-priority applications

Dual-WAN Failover

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

FERPA-Compliant Segmentation

Site-to-site VPN with AES-256 encryption isolates student data 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 Education

The Network Foundation That Powers Every Classroom Device

Every access point, IP phone, security camera, interactive display, and classroom IoT device in your school or university 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 charter school to a full multi-tier switching architecture in a large university campus.

Meraki MS Switching Capabilities for Education

PoE+ & PoE++ Power

Power access points, IP phones, cameras & interactive displays without separate power infrastructure

Cloud-Managed Configuration

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

VLAN & Segmentation

Isolate student, staff, 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 campuses



Meraki MV Smart Cameras for Campus Physical Security

Cloud-Managed Video Security with Built-In Intelligence

Physical security in education is a complex and critical challenge. Schools and universities must protect students, faculty, and staff from unauthorized access and campus threats, while libraries, parking structures, athletic facilities, administrative buildings, and entry points 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 Education

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 campus operational intelligence

24/7 Cloud Recording

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

FERPA-Aware Deployment

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



FERPA, CIPA & Cybersecurity: The Meraki + BTI Security Architecture

A Unified Security Posture Across Every Network Layer

FERPA's privacy requirements and CIPA's internet safety mandates require educational institutions to implement administrative, physical, and technical safeguards that protect the confidentiality, integrity, and availability of student education records and ensure safe internet access. For education IT teams, Cisco Meraki, deployed and managed by BTI Communications Group, provides a unified security architecture that addresses these compliance requirements across every layer of the network — from the wireless access point to the WAN edge to the physical security camera.

Compliance Technical Safeguard Mapping

Access Control (FERPA)

Meraki PSK with Identity, 802.1X port authentication & role-based dashboard access enforce unique user identification and restrict access to student records systems

Audit Controls (FERPA)

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

Transmission Security (FERPA)

AES-256 encrypted site-to-site VPN, WPA3 wireless encryption & TLS-encrypted management protect student data in transit across all sites

Content Filtering (CIPA)

Meraki MX built-in content filtering and category-based web policies enforce CIPA-compliant internet access for students on all devices and networks

Why BTI Communications Group Delivers Results Other Providers Can't

The BTI Difference: Expertise, Accountability & Outcomes

The education 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 education practice is built around the Meraki platform and focused on the results schools and universities require.

What Sets BTI Apart

Certified On-Site Design and Install

BTI is 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 your district doesn't have to

Full-Stack Meraki

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

Education-Specific Experience

Deep expertise in K-12 and higher education environments, FERPA/CIPA compliance & E-Rate funding

Lifecycle Managed Services

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

Real-World Results & ROI: Cisco Meraki for Education

Measurable Outcomes Across Every Network Layer

Operational and financial outcomes are the only metrics that matter in education 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 education engagements across California, Arizona, and Illinois.

Performance Outcomes by Solution Area

99.99%

Wi-Fi Uptime

Wireless availability across learning environments post-deployment

configured

WAN Failover Time

Between WAN circuits based on application requirements

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 for education organizations:

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

E-Rate Funding Eligibility

Meraki Wi-Fi and SD-WAN solutions are E-Rate eligible — BTI assists with documentation to maximize federal reimbursement

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

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

Your students, faculty, and organizational mission deserve network infrastructure that performs reliably, protects student data, and scales with your learning 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

1

01 Discovery Call

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

1

03 Ekahau Design Preview

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

2

02 Site Assessment

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

2

04 Custom Proposal

Fixed-price proposal covering hardware, licensing, installation & managed services — with guaranteed outcomes and E-Rate documentation support

Connect With BTI Communications Group

Cisco Meraki Partner Page

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

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