

SOLUTION GUIDE

Meraki for Manufacturing

An intelligent IT platform for a resilient future

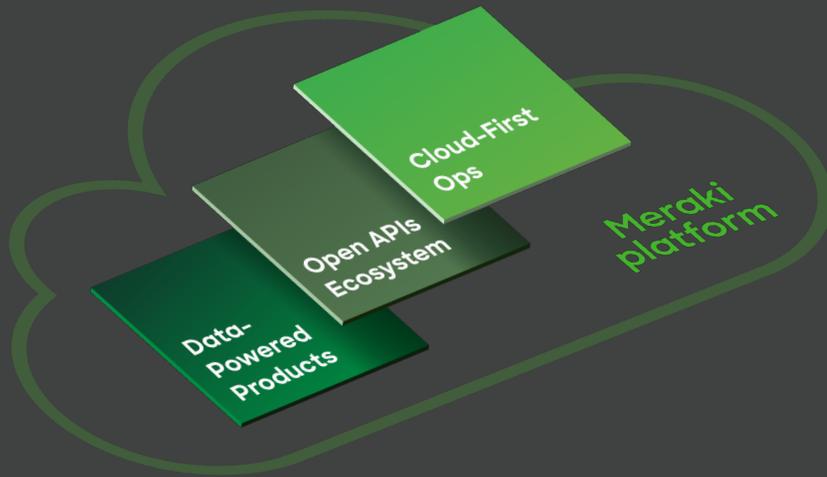


The only constant is change.

2020 disrupted manufacturing with massive shocks to supply chains, revenues, and jobs. Modernizing operations for Industry 4.0 is key to staying ahead, but compressed transformation timelines are both disruptive and daunting. How manufacturers adapt—and how quickly—will set them apart from their competitors.

The ability to evolve with speed, and at scale with security, is the foundation for winning in tomorrow's marketplace.

**Cisco Meraki can enable
your cloud-first operations.**



**A secure,
intuitive,
intelligent,
and innovative
platform.**

**Cisco Meraki offers a secure,
cloud-based IT platform designed to
prepare you for your Industry 4.0 future:**



**Reduce
complexity**



**Automate and
modernize**



**Secure and
safeguard**



**Adapt
quickly**

Reduce Complexity

- ✓ No command line interface or physical controllers
- ✓ Central cloud management that's scalable to 1,000s of locations for true end-to-end visibility and control
- ✓ Realize operational savings via auto-deployment and installation
- ✓ Zero-touch provisioning for the entire IT infrastructure
- ✓ Automatic upgrades and patching





Automate and Modernize

- ✓ Automate provisioning and management of multiple organizations, networks, and policies
- ✓ Rapidly deploy VPN with cloud-brokered site-to-site tunnels
- ✓ Automatically apply policies to services, devices, and users based on identity and intent
- ✓ Minimize outages, unsafe or concerning environmental conditions, and operational downtime with [sensors](#)
- ✓ Proactively identify network problems and drastically reduce troubleshooting time with [alerts and analytics](#) using machine-learning algorithms
- ✓ Take advantage of modern, high-performance wireless and networking standards

Secure and Safeguard

- ✓ Ensure physical security and safety of people and assets
- ✓ Secure connectivity to onboard cloud applications and protected internet access for optimal performance
- ✓ Reduce attack surfaces with cloud-orchestrated microsegmentation between employee groups, guests, and applications
- ✓ Automatically receive security signatures from the largest cyber threat team in the industry
- ✓ Improve app performance with secure SD-WAN while adding site resiliency
- ✓ Leverage best-in-class Cisco security technologies





Adapt Quickly

- ✓ Deploy, manage, and troubleshoot at speed
- ✓ Automate real-world insights to improve experiences faster
- ✓ Support digital twin creation thanks to the intelligent, extensible cloud platform
- ✓ Extend and customize network functionality, analytics, and reporting with [RESTful APIs](#)
- ✓ Get access to a [marketplace ecosystem](#) with over 140 turnkey applications from 50+ technology partners delivering IT and business solutions
- ✓ Rapidly deploy solutions for safe mustering, PPE and safety equipment detection, contact tracing, safe wayfinding, and more

**A flexible foundation
for any future.**

Solution

WAN Edge



MX + **MG**

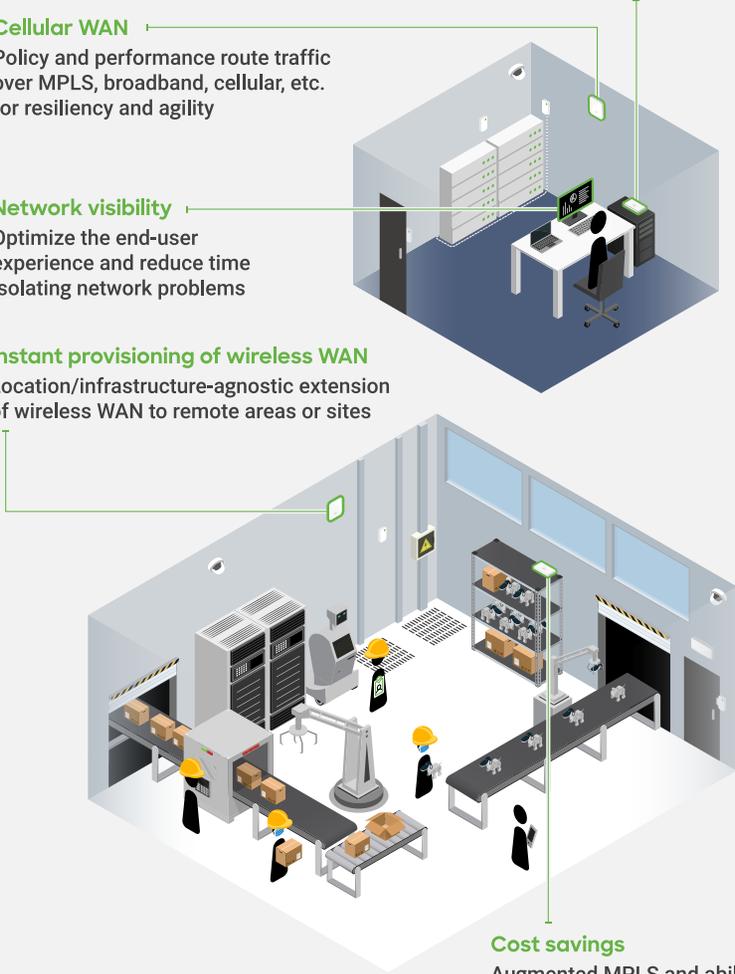
Wired and Wireless WAN



MI

Advanced WAN Analytics

- Optimize cost and performance by leveraging any WAN transport technology: MPLS, broadband, fiber, cellular
- Take advantage of instantly-on connectivity with cellular to rapidly extend WAN coverage or add resiliency
- Best-in-class security technologies (Umbrella, IPS/IDS, AMP) are informed by Cisco's world-renowned security organization, TALOS
- Ensure optimized SD-WAN connectivity and factory uptime with dynamic failover and policy- and performance-based routing
- Save time with at-a-glance quality-of-experience remediation with rich analytics that leverage machine learning (ML) for application, ISP, and voice provider health



SD-WAN with native security
Always-on security and prioritization of critical traffic

Cellular WAN
Policy and performance route traffic over MPLS, broadband, cellular, etc. for resiliency and agility

Network visibility
Optimize the end-user experience and reduce time isolating network problems

Instant provisioning of wireless WAN
Location/infrastructure-agnostic extension of wireless WAN to remote areas or sites

Cost savings
Augmented MPLS and ability to use multiple WAN uplinks for cost efficiency and bandwidth

Solution

LAN



MR

Wireless LAN Access Points



MS

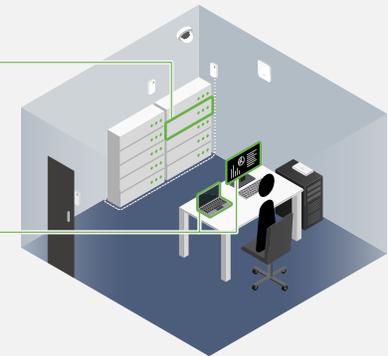
Ethernet Switches

- Wide range of switching options for any size branch network
- Adaptive policy for advanced segmentation with simple management
- Ruggedized, IP67-rated Wi-Fi 6 access point portfolio and external antenna options for low-density to high-performance use cases
- Advanced analytics and machine-learned insights simplify network operations and troubleshooting
- Dedicated scanning radio for always-on wireless IPS security
- Network and ecosystem integration for location analytics, asset tracking, heatmapping, and Bluetooth® capabilities
- Globally set policy that is enforced based on identity, regardless of location

Segmentation | Employees, guests, IoT, etc.

Unified access | Consistent policy and visibility for wired and wireless users

Location analytics and Bluetooth® | Integrations for safe occupancy, safe mustering, asset tracking, and more



Self-registration for delivery check-ins
Self-registration on splash page

Solution

Smart Cameras and Sensors



Smart Cameras

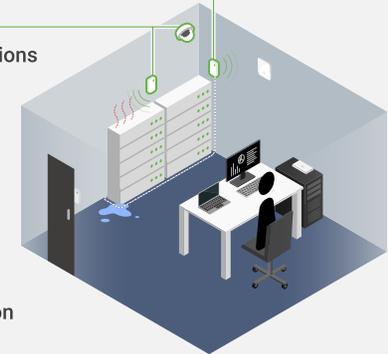


Environmental Sensors

- Minimal infrastructure makes it simple to set up and deploy anywhere; scales easily to meet future needs
- Monitor people and processes for increased safety and security, get alerts for suspicious activity, and easily respond to and investigate events
- Intelligent analytics show hot spots, density, occupancy, and can help detect PPE and safety gear compliance
- Real-time environmental visibility with alerting prevents premature equipment failure, unplanned downtime, or disruption to operations
- Aggregate and analyze data to track usage metrics, automate operations, identify anomalies, and optimize processes

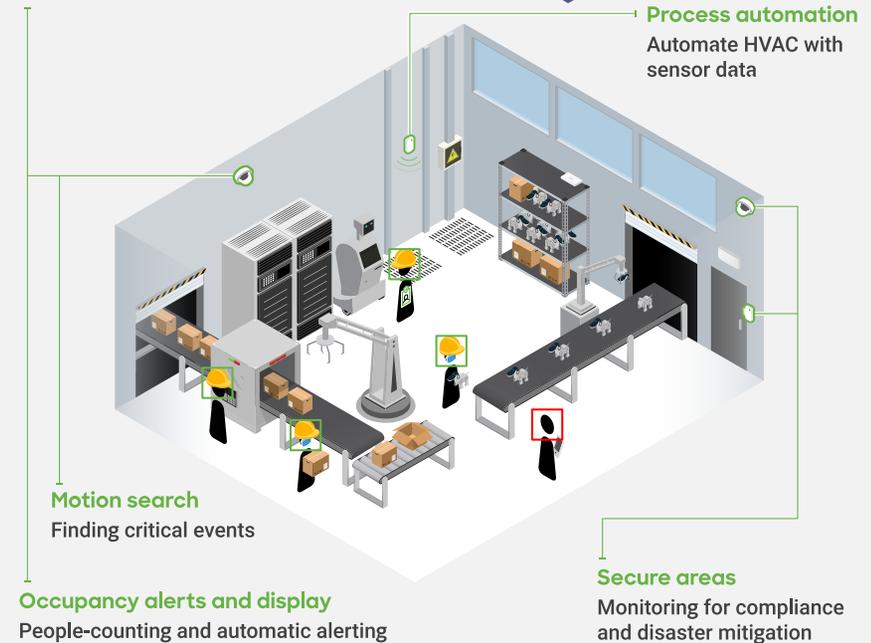
Damage prevention
Alerts triggered for water detection

Proactive monitoring
Identify suboptimal operating conditions



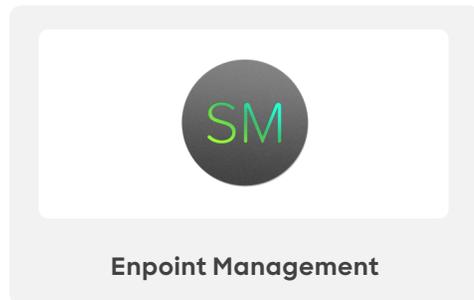
PPE and safety gear protection
Real-time detection and classification of objects via machine learning

Process automation
Automate HVAC with sensor data



Solution

Enterprise Mobility Management



- Intuitive, 100% cloud-based device management
- Centrally provision, monitor, and secure all endpoint devices from the Meraki dashboard
- Drive operational efficiency with zero-touch provisioning and rapid application deployment
- Offer employees self-service options for BYOD by integrating directly with Meraki Wi-Fi
- Provision and enforce certificate-based authentication with ease for superior security
- Software update control and dynamic policy adjustments maximize protection

Systems Manager
Secure mobile devices with policies and application management

Geofencing
For organization asset theft

Off-site security
SM, AMP, AnyConnect, Umbrella, Duo

Sentry Wi-Fi
Securely connect devices to corporate Wi-Fi using auto-provisioned authentication certificates



Trusted access
Contract worker device



Learn how Cisco Meraki
manufacturing solutions can
help you embrace the digital
future of manufacturing.