



Cisco Wireless Licensing Feature Matrix

Cloud

Feature	Cisco Wireless Essentials ¹	Cisco Wireless Advantage
Cloud management Manage your access points with Cisco Meraki dashboard.	✓	✓
Zero-touch firmware upgrades Manage and schedule firmware upgrades.	✓	✓
Zero-touch provisioning Claim and manage devices with Meraki dashboard.	✓	✓
Enterprise wireless security – WPA2, WPA3 Offers enterprise wireless standards – WPA2 and WPA3.	✓	✓
Guest access and splash page Provides a guest network with a splash page, offers one-click isolation.	✓	✓
Network-Based Application Recognition 2 (NBAR2); Cisco Application Visibility and Control (AVC) An advanced application recognition engine for Layer 7 traffic.	✓	✓
Layer 7 AVC Allows network administrators to easily manage application traffic.	✓	✓
QoS for voice/video optimization Identifies and prioritizes client traffic by type of application.	✓	✓
Bluetooth Low Energy (BLE) Enables IoT hub functionality as BLE receiver and gateway as well as beacon transmitter.	✓	✓
Wi-Fi Personal Network (WPN) Enables easy wireless network segmentation.	✓	✓
Band steering Active steering based on 802.11v and other improvements.	✓	✓
Client balancing Active client balancing based on 802.11v and other improvements.	✓	✓
IPv6 enhancements Multicast Listener Discovery (MLD) snooping, IPv6 Bonjour forwarding, Layer 2 client isolation, and other improvements.	✓	✓
IPv6 support Live tools, IPv6 uplink, Layer 3 firewall rules, and other improvements.	✓	✓
Wireless mesh Creates and establishes wireless backhaul between gateway and repeater.	✓	✓
Bonjour forwarding Forwards mDNS/multicast traffic to other VLANs.	✓	✓
Outdoor Standard Power (SP) Uses higher transmit power on certified 6E access points.	✓	✓
Air Marshal Wireless intrusion detection and protection against rogues and DoS attacks.	✓	✓
RADIUS and policy-based networking RADIUS-based authentication and policy management including Cisco Identity Services Engine (ISE) integration.	✓	✓
MR Teleworker VPN Extends the corporate LAN to employees at remote sites with Cisco Meraki access points.	✓	✓
IPsec Supports 100G+ hardware encryption for high-bandwidth secure Layer 3 transport between sites or from cloud to site.	✓	✓
RadSec RADIUS over DTLS Provides more granular control of the RADIUS configuration and packet flow.	✓	✓
AutoRF Automated RF optimization and customization functions that offer flexible and adaptable RF management.	✓	✓
Meraki Health A suite of tools and analytics for troubleshooting and enhanced visibility.	✓	✓
Intelligent Capture Manual and live packet capture, packet viewer.	✓	✓
API Umbrella integration Integrates Cisco Umbrella into dashboard.	✓	✓
FIPS 140-3 Provides a validated cryptographic level of security.	✓	✓
Service Expansion Shelf (SES)–imago tag Electronic Shelf Labels (ESL) integration Integrates SES-imago tag ESLs.	✓	✓
Message Queuing Telemetry Transport (MQTT) support Lightweight data streaming for IoT applications.	✓	✓
Location Analytics Displays real-time location statistics to improve customer engagement.	✓	✓
OpenRoaming Provides a frictionless, secure guest Wi-Fi onboarding experience.	✓	✓
Meraki MR Automation and Scanning API Open API program to provide access from external northbound system integrations.	✓	✓
USB support for IoT integration Enables USB port for IoT device connectivity and gateway.	✓	✓
Cisco Spaces Extend Delivers location-based insights, integration with Cisco infrastructure, and APIs and App Center for partner applications.	✓	✓
AP auto-location Automatically places access points on floor maps with relative positioning.	✓	✓
Cisco Spaces Act Includes Cisco applications for smart workspaces, guest onboarding and experience, and deployment and management of indoor IoT networks at scale.		✓
Adaptive policy Enables granular, IP-agnostic security policy and identity propagation.		✓
AI-Enhanced Radio Resource Management (AI-RRM) AI-powered radio resource management for simplified deployment and challenging or complex RF environments.		✓
Intelligent Capture – Proactive packet capture AI-powered troubleshooting tool to automatically detect and capture live issues.		✓
Essential wireless capabilities 802.1X authentications, guest access, device onboarding, infrastructure and client IPv6, Access Control Lists (ACLs), QoS, video stream, smart defaults, RRM, Spectrum Intelligence, TrustSec SGT Exchange Protocol (SXP), AP and client Single Sign-On (SSO), Dynamic QoS, analytics, ADP, OpenDNS, mDNS, IPsec, rogue management and detection on controller, mobility.	✓	✓

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High availability AP and client SSO, N+1 HA.	✓	✓
DevOps integration PnP agent, NETCONF, Yang data models.	✓	✓
Optimized radio frequency Flexible Radio Assignment (FRA), ClientLink, Cisco CleanAir, CleanAir Pro, NG-HDX, predictive/proactive RRM.	✓	✓
IoT optimized Identity Pre-Shared Key (PSK), enhanced device profilers.	✓	✓
Telemetry and visibility Model-driven telemetry enables you to monitor your network by streaming data from network devices, continuously providing near-real-time access to operational statistics.	✓	✓
Cisco trustworthy solutions Help ensure hardware and software authenticity for supply chain trust and strong mitigation against man-in-the-middle attacks that compromise software and firmware.	✓	✓
Network Plug and Play (PnP) provisioning Zero-touch provisioning for new device installation allows off-the-shelf Cisco devices to be provisioned simply by connecting them to the network, managed by Cisco Catalyst Center.	✓	✓
Network site design and device provisioning Design your wireless network for proper coverage and maximize the throughput. Provision wireless network appliances with the proper settings to maximize performance, managed by Cisco Catalyst Center.	✓	✓
AP power optimization configuration Configures AP Power Save to reduce power consumption based on usage with the help of calendar and power profiles on the Catalyst 9800 Series; also leverages power distribution benefits by reallocating access point power to different radios while operating on PoE+.	✓	✓
Software Image Management (SWIM) Automatically manages software upgrades and controls the consistency of image versions and configurations across your network, managed by Cisco Catalyst Center.	✓	✓
Full Flexible NetFlow Optimizes the network infrastructure, reducing operating costs and improving capacity planning and security incident detection.	✓	✓
Ultra Reliable Wireless Backhaul (URWB) Supports fixed infrastructure (point-to-multipoint links)	✓	✓
Cisco IOS Embedded Event Manager (EEM) EEM is a powerful and flexible subsystem that provides real-time network event detection and onboard automation. It gives you the ability to adapt the behavior of your network devices to align with your business needs.	✓	✓
Wireless automation Automates configurations, workflows (RLAN, Configure Access Points workflow, HA SSO, mobility, AP refresh), model configurations, and deployment of networks with Cisco Catalyst Center.	✓	✓
Overall health dashboard Gives a high-level overview of the health of every network device/client on the network, wired and wireless, and applications managed by Cisco Catalyst Center.	✓	✓
Network health dashboard Displays operational status of every network device connected to Cisco Catalyst Center, with suggested remediation for any communication issues, managed by Cisco Catalyst Center.	✓	✓
Client health dashboard Displays operational status of every client connected to Cisco Catalyst Center, with suggested remediation for any issues, managed by Cisco Catalyst Center.	✓	✓
Application health dashboard Displays overall health of all applications on the network, with a special section for business-relevant application issues and suggested remediation, using Cisco Catalyst Center.	✓	✓
Wi-Fi 7 dashboard Prepares your network for the new Wi-Fi 7 standards, verifying your hardware and configuration compatibility and checking your capacity readiness. After upgrading, advanced wireless analytics will indicate performance and capacity gains using Cisco Catalyst Center.	✓	✓
Wireless sensor dashboard Shows overall tests, connectivity statistics, and top wireless issues discovered by Cisco Aironet Active Sensors. Tests include DHCP, DNS, host reachability, RADIUS, email, Microsoft Exchange Server, web, FTP, and a complete IP SLA for data throughput speed, latency, jitter, and packet loss. Provides guided remediation for any test failure using Cisco Catalyst Center.	✓	✓
Base Security - Rogue A wireless security solution that uses Cisco Unified Access infrastructure to detect, classify, locate, and contain wired and wireless rogue threats.	✓	✓
Wireless map Visualizes 2D wireless network heatmaps with view of AP floor maps and coverage maps using Cisco Catalyst Center.	✓	✓
Out-of-box reports Cisco Catalyst Center prebuilt reports that can be consumed directly or exported to third-party tools such as Tableau.	✓	✓
Client Analytics Apple, Intel, Samsung, Zebra	✓	✓
Cisco Spaces Extend Delivers location-based insights, integration with Cisco infrastructure, and APIs and App Center for partner applications.	✓	✓
Cisco Spaces Act Includes Cisco applications for smart workspaces, guest onboarding and experience, and deployment and management of indoor IoT networks at scale.		✓
Advanced high-availability and resiliency (patching) features In-Service Software Upgrade (ISSU), AP Device Pack (APDP), AP Service Pack (APSP), rolling AP upgrades, hot patching, Software Maintenance Upgrade (SMU).		✓
SD-Access and Network Health insights Enables policy-based automation with secure segmentation, complete visibility, and delivery of new services quickly on SD-Access devices, managed by Cisco Catalyst Center.		✓
Flexible network segmentation VXLAN, wireless fabric.		✓
Wireless 3D Analyzer High-definition 3D simulations for AP placement, heatmaps, and predictions of wireless LAN performance to help network admins reduce design flaws and mitigate future performance issues.		✓
Cisco AI Endpoint Analytics Identifies and checks compliance of endpoints and uses AI/ML techniques to classify them into groups.		✓
AI-RRM Automatically leverages the power of machine learning to optimize enterprise wireless configurations on the Catalyst 9800 controller, provides complete visibility into the benefits through an Assurance dashboard, and much more.		✓
Ultra Reliable Wireless Backhaul (URWB) Roaming Supports mobility (mobile assets) for roaming use cases		✓
Native cloud integrations (S3 support and CloudWatch support) Cisco Catalyst 9800 WLC native integration to Amazon S3 cloud and Amazon CloudWatch.		✓
Group-Based Policy Analytics Displays visual traffic flows between endpoint groups, so you can define the right segmentation policies.		✓
Cisco User-Defined Network Plus Enables IT to give end users control of their own wireless network partition. End users can then remotely and securely deploy their devices on this network.		✓
Intelligent Capture and Spectrum Analyzer A troubleshooting tool that allows you to capture a packet's view for an AP's surrounding RF spectrum, and both client and AP stats in live time.		✓
Network Plug and Play Helps to automate the onboarding of new devices on the network by applying configuration settings without manual intervention.		✓
Automated ISE integration for guest Enables you to provide secure network access to guests such as visitors, contractors, consultants, and customers.		✓
Third-party API integration A flexible framework for integrating third-party application software using Cisco Catalyst Center.		✓
Cisco AI Network Analytics Implements AI and machine learning technologies on Cisco Catalyst Center and in the AI Network Analytics cloud to enhance the insight and remediation capabilities of Cisco Catalyst Center Assurance.		✓
Network Services Analytics dashboard View Authentication, Authorization, and Accounting (AAA), DHCP, and DNS services for wireless devices across Cisco and all third-party servers in a comprehensive view while also accessing Cisco's AAA servers' (ISE) AI-based root cause analysis. Leverage a snapshot of the overall health of these critical services all in one place, highlighting the worst-performing service server, site-level impact, and scope of end-user impact.		✓
Encrypted Traffic Analytics (ETA) Detects malware within encrypted traffic. This is an optional feature of Cisco Secure Network Analytics (which can be purchased a la carte), managed by Cisco Catalyst Center.		✓
Adaptive Wireless Intrusion Prevention System (aWIPS) A wireless security solution that uses Cisco Unified Access infrastructure to detect threats based on aWIPS signatures. Cisco Catalyst Center allows you to customize the thresholds and capture packets for each signature.		✓
Application policy configuration With an end-to-end effective QoS configuration, each part of the QoS policy is cohesive and compatible, achieving an end-to-end service level.		✓
Application policy dynamic monitoring Assigns policies to applications based on business relevance and business-critical QoS priority for life-saving devices, for example.		✓
Policy-based automation Policies, in the form of rules, can be used to automate various services provided by Cisco for policy-based network management.		✓
Patch lifecycle management Intelligent device management for lifecycle patching, managed by Cisco Catalyst Center.		✓
Issues, events, and guided remediation Cisco Catalyst Center Assurance provides both system-guided and self-guided troubleshooting. It provides the ability to gather issues (system and user defined) and event notifications when events are triggered. It also automates resolution to keep your network performing at an optimal level with less mundane troubleshooting work.		✓
Intel Connectivity, Apple, and Samsung Analytics Cisco's exclusive ecosystem partnerships enable enhanced insights into Intel Connectivity, Apple, and Samsung device connectivity and health in Cisco Catalyst Center. These impactful insights make it possible to deliver optimal performance and resolve issues faster by getting the client's point of view of the network – what access points it sees, the reasons for disconnections, and the current state of the user experience – all provided through Cisco Catalyst Center Assurance.		✓
Wide Area Bonjour A software-defined controller-based solution that enables devices to advertise and discover Bonjour services across Layer 2 domains, making it applicable to a wide variety of wired and wireless enterprise networks.		✓
Compliance Compliance reports are managed by Cisco Catalyst Center, providing compliance checks for startup versus running configuration, software image, critical security vulnerability, network profile, fabric, and application visibility.		✓
RCM (randomized and changing MAC) solution Allows Cisco Catalyst Center to properly track clients in the network that have an RCM and even provide a history of all MACs for a specific client. An RCM icon will be placed next to any clients with such behavior, allowing you to gain full control of the users in your network.		✓
Proactive issue detection Aironet Active Sensor tests, Intelligent Capture, client location heatmaps, and Spectrum Analyzer using Cisco Catalyst Center.		✓
Application performance and experience Tracks performance of predefined critical business applications. Shows user experience and performance metrics. Provides specialized rapid troubleshooting per application and client. Enables unparalleled visibility and performance control over the applications critical to your core business on a per-user basis.		✓
AP power savings insights Power visibility on Cisco Catalyst Center gives a view of energy usage across access points, including the impact of Power Save mode.		✓
Application hosting IOx applications can be deployed onto Cisco Catalyst access points, leveraging an RF USB dongle inserted into the AP's USB port to communicate with nearby IoT devices. This solution allows Cisco's enterprise wireless solution to go beyond Wi-Fi and solve use cases with IoT, such as retail management with electronic shelf labels, asset management with environmental sensors and real-time location software, and much more.		✓
Site Analytics Provides key client performance metrics (KPIs) about sites, buildings, and floors throughout the network. These metrics help identify opportunities to improve network performance or find problem areas. KPI thresholds are customizable and can be used to alert for network-wide issues.		✓
App 360, AP 360, WLC 360, and Client 360 Display devices and client connectivity from any angle or context, providing for very granular troubleshooting in seconds.		✓
Machine Reasoning Engine (MRE) for wireless serviceability Cisco Catalyst Center can grab AP and client debug logs needed for troubleshooting via the wireless client and AP data collection MRE workflows on the Network Reasoner page.		✓
Webex 360 Enhances the Webex by Cisco end-user experience by proactively identifying and troubleshooting Webex clients using Webex 360 to compare quality metrics across audio, video, and shared components.		✓
Microsoft Teams 360 Enhances Microsoft Teams end-users' experience by proactively identifying and troubleshooting Teams clients using Microsoft Teams 360 to compare quality metrics across audio, video, and shared components.		✓

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