



# Cisco DNA Software Wireless Feature Matrix



	Network Essentials	Network Advantage	Cisco DNA Essentials	Cisco DNA Advantage
<b>License type</b>	Perpetual software, compatible with Cisco DNA Essentials subscription license. Can not be purchased as a standalone license.	Perpetual software compatible with Cisco DNA Advantage license. Can not be purchased as a standalone license.	3/5/7 year term subscription	Includes Cisco DNA Essentials, 3/5/7 year term subscription
<b>Management options</b>	CLI, WebUI	CLI, WebUI	CLI, WebUI, Cisco Catalyst Center	CLI, WebUI, Cisco Catalyst Center

Features				
	Network Essentials	Network Advantage	Cisco DNA Essentials	Cisco DNA Advantage
<b>Essential wireless capabilities</b> 802.1x authentications, Guest access, Device Onboarding, Infra and client IPv6, ACLs, QoS, Video Stream, Smart defaults, RRM, Spectrum intelligence, TrustSec® SXP, AP and client SSO, Dynamic QoS, Analytics, ADP, OpenDNS, mDNS, IPSec, Rogue Management and Detection on controller, Mobility.	✓○	✓○		
<b>High availability</b> AP and Client SSO, N+1 HA	✓○	✓○		
<b>DevOps integration</b> PnP Agent, NETCONF, Yang Data Models.	✓○	✓○		
<b>Optimized radio frequency</b> Flexible Radio Assignment (FRA), Client link, Cisco CleanAir®, Cisco CleanAir Pro®, NG-HDX, Predictive/Proactive RRM.	✓○	✓○		
<b>IoT optimized</b> Identity PSK, Enhanced Device profilers.	✓○	✓○		
<b>Telemetry and visibility</b> Model-driven telemetry lets you monitor your network by streaming data from network devices, continuously providing near-real-time access to operational statistics.	✓○	✓○		
<b>Cisco trustworthy solutions</b> Help ensure hardware and software authenticity for supply chain trust and strong mitigation against man-in-the-middle attacks that compromise software and firmware.	✓○	✓○		
<b>Advanced high availability and resiliency (patching) features</b> In-Service Software Upgrade (ISSU), AP Device Pack (APDP), AP Service Pack (APSP), Rolling AP upgrades, Hot Patching, SMU.		✓○		
<b>Network Plug and Play (PnP) provisioning</b> Zero-touch provisioning for new device installation allows off-the-shelf Cisco devices to be provisioned simply by connecting to the network, managed by Cisco Catalyst Center.			✓	✓
<b>Network Site Design and Device Provisioning</b> Design your wireless network for proper coverage and maximize the throughput. Provision wireless network appliances with the proper setting to maximize performance, managed by Cisco Catalyst Center.			✓	✓
<b>AP Power Optimization Configuration</b> Configure AP Power Save to reduce power consumption based on usage with the help of calendar and power profiles on C9800; also, leverage Power Distribution benefits by reallocating AP power to different radios while operating on PoE+.			✓○	✓○
<b>Software Image Management (SWIM)</b> Automatically manage software upgrades and control the consistency of image versions and configurations across your network, managed by Cisco Catalyst Center.			✓	✓
<b>Full Flexible NetFlow</b> This next generation in flow technology optimizes the network infrastructure, reducing operating costs and improving capacity planning and security incident detection.			✓○	✓○
<b>Cisco IOS Embedded Event Manager (EEM)</b> 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.			✓○	✓○
<b>Wireless automation</b> Automate configurations, workflows (RLAN, Config AP workflow, HA SSO, Mobility, AP refresh), model configurations and deployment of networks with Cisco Catalyst Center.			✓	✓
<b>Overall health dashboard</b> Gives a high-level overview of the health of every network device/client on the network, wired and wireless, applications managed by Cisco Catalyst Center.			✓	✓
<b>Network health dashboard</b> Provides operational status of every network device connected to Cisco Catalyst Center, with suggested remediation for any communication issues, managed by Cisco Catalyst Center.			✓	✓
<b>Client health dashboard</b> Displays operational status of every client connected to Cisco Catalyst Center, with suggested remediation for any issues, managed by Cisco Catalyst Center.			✓	✓
<b>Application health dashboard</b> Displays overall health of all applications on the network, with special section for business-relevant application issues and suggested remediation, using Cisco Catalyst Center.			✓	✓
<b>Wi-Fi 6/6E Dashboard</b> Prepares your network for the new Wi-Fi 6 and 6E standards, verifying your hardware and configuration compatibility and checking your capacity readiness. After upgrading, advanced wireless analytics will indicate performance and capacity gains due to Wi-Fi 6/6E deployments, using Cisco Catalyst Center.			✓	✓
<b>Wireless Sensor dashboard</b> 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.			✓	✓
<b>Base Security - Rogue</b> A wireless security solution that uses Cisco Unified Access infrastructure to detect, classify, locate and contain wired and wireless rogue threats.			✓○	✓○
<b>Cisco Prime Infrastructure License*</b> Provides a single integrated solution for comprehensive lifecycle management of the wired or wireless access, campus, and branch networks, and rich visibility into end-user connectivity and application performance assurance issues.			✓○	✓○
<b>Wireless Map</b> Visualize 2D wireless network heatmaps with view of AP floor maps and coverage maps using Cisco Catalyst Center.			✓	✓
<b>Out of box reports</b> Cisco Catalyst Center pre-built reports that can be consumed directly or exported to third party tools such as Tableau.			✓	✓
<b>SD-Access and Network Health insights</b> Enables policy-based automation with secure segmentation, complete visibility, and delivery of new services quickly on SD-Access devices, managed by Cisco Catalyst Center.				✓
<b>Flexible network segmentation</b> VXLAN (Virtual Extensible LAN), wireless fabric.				✓○
<b>Wireless 3D Analyzer</b> High-definition 3D simulations for AP placement, heatmaps, and predictions of wireless LAN performance for network admins to reduce design flaws and mitigate future performance issues.				✓
<b>Cisco AI Endpoint Analytics</b> Identify and check compliance of endpoints and use AI/ML techniques to classify them into groups.				✓
<b>AI-Enhanced RRM</b> Leverage the power of Machine Learning to optimize your enterprise wireless configurations on the Catalyst 9800 controller automatically, be provided with complete visibility into the benefits through an aesthetic assurance dashboard, and much more.				✓
<b>Native Cloud Integrations (S3 support and Cloud Watch support)</b> WLC9800 Native integration to Amazon S3 Cloud and Amazon Cloud Watch.				✓
<b>Group-Based Policy Analytics</b> Get visual traffic flows between endpoint groups, so you can define the right segmentation policies.				✓
<b>Cisco User-Defined Network Plus</b> Allows IT to give end-users control of their very own wireless network partition. End-users can then remotely and securely deploy their devices on this network.				✓○
<b>Intelligent Capture and Spectrum Analyzer</b> A troubleshooting tool that allows you to capture packets view for an AP's surrounding RF spectrum, and both client and AP stats in live time.				✓
<b>Network Plug and Play</b> Helps to automate the onboarding of new devices on the network by applying configuration settings without manual intervention.				✓
<b>Automated ISE integration for guest</b> Cisco Identity Services Engine (ISE) guest services enable you to provide secure network access to guests such as visitors, contractors, consultants, and customers.				✓
<b>Third-party API integration</b> A flexible framework is provided to integrate third-party application software using Cisco Catalyst Center.				✓
<b>Cisco AI Network Analytics</b> AI and machine learning technologies are implemented on Cisco Catalyst Center and in the AI Network Analytics cloud to enhance the insight and remediation capabilities of Cisco Catalyst Center Assurance.				✓
<b>Network Services Analytics Dashboard</b> View 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' (Identity Services Engine, or 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.				✓
<b>Cisco Spaces Smart Operations (optional upgrade)</b> A powerful, end-to-end indoor location and IoT services cloud platform that harnesses data from your Cisco network to connect people and things to your physical spaces. Cisco Spaces Smart Operations includes advanced location services and applications for deployment and management of indoor IoT networks at scale.				✓○
<b>Cisco Spaces Smart Venues (optional upgrade)</b> A powerful, end-to-end indoor location and IoT services cloud platform that harnesses data from your Cisco network to connect people and things to your physical spaces. Cisco Spaces Smart Venues includes applications for guest onboarding and engagement across your physical spaces.				✓○
<b>Cisco Spaces Act (optional upgrade)</b> A powerful, end-to-end indoor location and IoT services cloud platform that harnesses data from your Cisco network to connect people and things to your physical spaces. Cisco Spaces Act includes Cisco applications for smart workspaces, guest onboarding and experience, and deployment and management of indoor IoT networks at scale.				✓○
<b>Cisco Spaces Extend</b> A powerful, end-to-end indoor location and IoT services cloud platform that harnesses data from your Cisco network to connect people and things to your physical spaces. Cisco Spaces Extend delivers location-based insights, integration with Cisco infrastructure, and API's and App Center for partner applications.				✓○
<b>Encrypted Traffic Analytics (ETA)</b> Detect malware within encrypted traffic. This is an optional feature of Cisco Stealthwatch (which can be purchased a-la-carte), managed by Cisco Catalyst Center.				✓○
<b>Adaptive Wireless Intrusion Prevention System (aWIPS)</b> 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.				✓
<b>EasyQoS configuration</b> 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.				✓
<b>EasyQoS dynamic monitoring</b> Assign policies to applications based on business relevance and business-critical QoS priority for life-saving devices, for example.				✓
<b>Policy-based automation</b> Policies, in the form of rules, can be used to automate various services provided by Cisco for policy-based network management.				✓
<b>Patch lifecycle management</b> Intelligent device management for lifecycle patching, managed by Cisco Catalyst Center.				✓
<b>Issues, Events and Guided remediation</b> Cisco Catalyst Center Assurance provides both system-guided as well as self-guided troubleshooting. It provides the ability to gather issues (system and user defined) and event notifications when events are triggered. Also, automates resolution to keep your network performing at an optimal level with less mundane troubleshooting work.				✓
<b>Intel Connectivity, Apple, and Samsung Analytics</b> Cisco's exclusive ecosystem partnerships enable enhanced insights on 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.				✓○
<b>Wide Area Bonjour</b> This is 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.				✓
<b>Compliance</b> Compliance reports are managed by Cisco Catalyst Center. Catalyst Center provides compliance checks for Startup versus Running Configuration, Software Image, Critical Security Vulnerability, Network Profile, Fabric and Application Visibility.				✓
<b>RCM (Randomized and Changing MAC) Solutions</b> This solution allows Cisco Catalyst Center to properly track clients in the network that have a 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.				✓
<b>Proactive issue detection</b> Aironet Active Sensor Tests, Intelligent capture, Client Location Heatmaps, Spectrum Analyzer using Cisco Catalyst Center.				✓
<b>Application performance and experience</b> 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.				✓
<b>AP Power Savings Insights</b> Power visibility on Cisco Catalyst Center gives a view of energy usage across APs, including impact of power save mode.				✓
<b>Application hosting</b> IOx Applications can be deployed onto Cisco Catalyst APs, leveraging an RF USB dongle inserted into the AP's USB 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.				✓
<b>Site Analytics</b> 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.				✓
<b>App 360, AP 360, WLC 360, and Client 360</b> Display devices and client connectivity from any angle or context, providing for very granular troubleshooting in seconds.				✓
<b>MRE for Wireless Serviceability</b> 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.				✓
<b>Webex 360</b> Enhance Webex end-users experience by proactively identifying and troubleshooting Webex clients using Webex 360 to compare quality metrics across audio, video, and shared components.				✓
<b>MS Teams 360</b> Enhance MS Teams end-users experience by proactively identifying and troubleshooting MS Teams clients using MS Teams 360 to compare quality metrics across audio, video, and shared components.				✓

Support				
<b>SWSS</b> Software Support Service in the subscription software stack and OS software on the AP (requires SNTC on the WLC), and includes 24-hour TAC support and software updates and upgrades in Cisco DNA Center.				✓
<b>SNTC</b> Smart Net Total Care, 24-hour hardware and network software stack support provided by TAC.		Optional	Optional	

○ Does not require Cisco Catalyst Center. However, Cisco Catalyst Center is highly recommended for complete value realization of the feature.

\* Cisco Prime Infrastructure license EOS September 29th, 2023

The [Cisco DNA Expansion Pack](#) is a flexible way to purchase Cisco ISE, Cisco Spaces, Secure Network Analytics (Stealthwatch), ThousandEyes and other licenses, appliances, and services in one convenient bundle. Enhance your Cisco networking solutions such as SD-Access, Zero Trust solutions, Encrypted Traffic Analytics (ETA), location analytics, and assurance. You can add the pack to your Cisco DNA software licenses and choose the license count that fits your needs. For more details, [contact](#) a Cisco sales or Cisco registered partner.