Wired and Wireless LAN Solutions Comparison Guide

Uncover the differences: Juniper's AI-native vs traditional networking solutions for campus and branch

Juniper Networks

Explore Juniper's AI-native wired and wireless solutions

A side-by-side comparison with Cisco Meraki, Cisco Catalyst, Extreme Networks ExtremeCloud, and Arista CloudVision. Discover the key features to consider when building out your campus and branch network.

Essential wireless features

	Juniper Wired and Wireless Access ↗	Cisco Meraki	Cisco Catalyst	Extreme Networks ExtremeCloud	Arista CloudVision
Installation	●●●●● Mist installation app (iOS and Android) simplifies access point (AP) installation: • Scan QR code, claim AP, and place it on the site and map • "Top-of-ladder" pictures remain in AP record if there are building changes Auto provisioning increases provisioning speeds by more than 5x, enabling AP plug-and-play functionality for automatic: • Site assignment • Dynamic profile assignment • AP name generation AP auto placement and auto orientation reduce on-site validation requirements (fewer truck rolls): • Machine learning for AP placement • Automatically place all APs for greenfield, validate placements for brownfield • ServiceNow Day 0/1 integration for enhanced automated provisioning/ configuration workflows	● App just for monitoring, no installation help No AP auto placement ServiceNow integration is complex, limited capabilities, dependent on additional ServiceNow paid applications	●● No Catalyst Center App AP Auto Location • GPS required in APs (not available indoors) • More configuration requirements depending on environments • Cisco Spaces license required for AP auto location for on-premises	● ExtremeCloud IQ companion, medium-class app with inventory, location, basic visibility, and summaries No AP auto placement	N/A

Essential wireless features Day 1

	Juniper Wired and Wireless Access ↗	Cisco Meraki	Cisco Catalyst	Extreme Networks ExtremeCloud	Arista CloudVision
Fast AP boot	APs boot under 20 seconds (AP45 boots under 45 seconds)	Several minutes	Several minutes	Several minutes	Several minutes
Automation and optimization	AI for AX to automate and optimize Wi-Fi 7, 6E, and 6 network settings	Lacks AI capabilities Manual, static configuration of features Some basic automation, usually generating alerts	Lacks AI capabilities	No AI for optimization	Automation via CloudVision for wired No automation support for Wireless in Cognitive Unified Edge (CUE)
Inline microsegmentation	WLAN classifies IoT headless devices and segments by policy	Adaptive policy with proprietary protocols	Manual, static configuration of features Requires ISE Catalyst Center	Relies on a combination of several elements from Extreme Networks to provide microsegmentation Requires extra licenses, equipment, and/or software Containers supported on AP	Supported in wired Endpoint identity and microperimeter tags "Zero Trust" policy planning with traffic map Microperimeter enforcement in the network or redirect to Firewall Continuous Traffic monitoring and visibility of policy violations No Microsegmentation in wireless. They only have U-PSK

Essential wireless features Day 2

	Juniper Wired and Wireless Access ↗	Cisco Meraki	Cisco Catalyst	Extreme Networks ExtremeCloud	Arista CloudVision
Personal WLAN (private user groups)	●●●●● Self-serve personal WLAN for segmentation Unique PSK Scalable Watch video	● Shared PSK or requires one SSID per group	● Requires ISE ($$$) for user/role segmentation Shared PSK	●● Controller allows limited user/role segmentation. Shared PSK PPSK supported, but unable to find maximum supported keys	●●●● Unique PSK that share a single SSID and a single VLAN
AI-driven RF optimization (RRM)	●●●●● Based on reinforcement learning: Optimizes channel/power with AI-native reinforcement learning AI continuously optimizes user experience (Service Level Expectations (SLEs) and minimizes interference in real time Continuously and dynamically adapts and learns from client experiences as network capacity changes Learns and deprioritizes triggered DFS channels to boost network uptime Coverage SLE is an ongoing 'site survey' Watch video	●● Meraki's AI-Powered Auto RF is significantly different than the AI-Enhanced RRM on the Cisco Catalyst Center AI-Powered Auto RF provides basic RRM: Auto Channel dynamically adjusts the channels of the client-serving radios Will monitor DFS failure patterns APs remember their settings through power failures Won't make changes during 'busy hours'	●● 15-year-old algorithm Based on how APs hear each other Optimizes channel/ power based solely on AP interference graph RRM is performed on a static, periodic basis when the load is low AI-Enhanced RRM is only available on Cisco Catalyst Center for on-prem wireless solution	● No AI/ML Basic RRM that requires several days of tuning	●●● Only Basic RRM No AI Driven Dynamic Channel Selection Power Adjustment Self healing algorithm

Essential wired features

	Juniper Wired and Wireless Access ↗	Cisco Meraki	Cisco Catalyst	Extreme Networks ExtremeCloud	Arista CloudVision
Wired assurance for provisioning and management	●●●●● Measure wired experiences with SLEs Switch templates offered within UI; use CLI for corner cases Dynamic port config that works with any RADIUS server Port profiles with manual or dynamic config based on endpoint type	● Limited insight into wired experience Switch templates are model-specific Dynamic port config only works for Meraki APs No concept of port profiles; ports must be tagged individually	● Requires on-premises Catalyst Center appliance No UI-based templates and CLI is switch model- and version-specific Expertise required in template builder Dynamic port config not supported, but supported in greenfield with Cisco-only devices and ISE No port profiles	● Limited insight into wired experience Many features require CLI templates Port profiles very limited configurations No automatic RMA No user/client experience supported	●● Wired Assurance is managed through CloudVision Monitors jitter and latency of applications
Telemetry	●●●●● API-driven and leverages telemetry data from Juniper EX Series Switches to offer anomaly detection and identify when switch health is trending negatively	●● Limited telemetry	●●● Limited telemetry No telemetry for user/device connections or experience	● Telemetry for wireless and limited for wired switching	●●● Real-time streaming of telemetry data from switch to CloudVision on Wired network No telemetry on wireless
Stacking capabilities	●●●●● 10-member stacking with standards DAC and flexible optics of various lengths up to 960 Gbps	●●● 8-member stacking	●●● 8-member StackWise with proprietary cables and max of 3m length	●●●● 8-member stacking high bandwidth Can support up to 40km stacking distance Supports different Gbps links	● No stacking concept CloudVision can manage multiple switches as entity

Essential wired features

	Juniper Wired and Wireless Access ↗	Cisco Meraki	Cisco Catalyst	Extreme Networks ExtremeCloud	Arista CloudVision
High availability for redundancy	Virtual Chassis leads the wiring closet solution with NSSU, GRES, high-capacity backplane, and more Juniper switches support redundant hot-swappable power supplies and fans Offers a variety of choices: MC-LAG, ESI-LAG, EVPN- VXLAN	Only stacking	Only stacking on Catalyst switching with stack power	Virtual chassis: SummitStack Field-replaceable PSUs and fans Supports rolling stack upgrades	Wired supports HA MLAG VRRP
Multigigabit	1/2.5/5/10GbE speeds	1/2.5/5/10GbE speeds	1/2.5/5/10GbE speeds	1/2.5/5/10/40GbE speeds	10M/1G/2.5G/5G/10G speeds
Power over Ethernet	UPoE/PoE/PoE+	UPoE/PoE/PoE+	UPoE/PoE/PoE+	UPoE/PoE/PoE+/UPoE+	UPoE/PoE/PoE+
Integrated network access control	Compatible with third parties, including Forescout, ClearPass, ISE, FreeRADIUS, and more	Only ISE integration	ISE and Catalyst Center do not work with third parties	Supported unified policy management For cloud-native management, ExtremeCloud IQ only supports Extreme Universal ZTNA with cloud-hosted RADIUS server	NAC is achieved through AGNI for wired Better than ClearPass/ISE Good number of integration points But configuration is in separate portal

Essential wired features

	Juniper Wired and Wireless Access ↗	Cisco Meraki	Cisco Catalyst	Extreme Networks ExtremeCloud	Arista CloudVision
Security	●●●●● Juniper Connected Security brings visibility and enforcement to every part of the network SecIntel leverages EX switches to quarantine compromised devices and Juniper APs to monitor signs of compromise in connected devices MACsec 256 on Select platforms FedRAMP	●●● ISE and Cisco Secure Cloud Analytics Integration with Open DNS	●●●● ISE and Cisco Secure Cloud Analytics integration with Open DNS Additional licenses on top of DNA Essentials and DNA Advantage licenses, plus enterprise agreements	●●● Radsec IPSec	●● Needs 3rd party products like PaloAlto or Zscaler for security
Common hardware building blocks	●●●●● One operating system (Junos OS) across the Juniper hardware portfolio Common building blocks for WAN, WLAN, and wired networks	●●● One OS but requires complete different set of hardware (MX/MS/MR) Catalyst switching and wireless platforms only monitored from Meraki platform	●● Multiple non-integrated products that each have their own OS Some components can be migrated to the Meraki Cloud (losing features) Hardware dependencies force upgrades to be Catalyst Center-ready; Meraki requires a completely different set of hardware	●●● Different depending on the line New version of white-box- like open switch Two different switch OSs to choose from: ExtremeXOS (XOS) or VOSS (fabric OS), depending on the use case	●●● Wired: Switches runs on single EOS Wireless: Different APs might need different versions of code to run on them
Fabric architectures	●●●●● EVPN-VXLAN, GPB, MC-LAG, ESI-LAG, VC supports 10 devices for stacking and microsegmentation	–	●●●● SDA only has support for EVPN-VXLAN (proprietary using LISP) EVPN-VXLAN supported on platforms, but no automation platform for large deployments	●●● Virtual Chassis for enterprise supports BPG-EVPN Lacks deep visibility on ExtremeCloud IQ	●●● EVPN for campus and wireless terminate on the switch

Essential wired features

	Juniper Wired and Wireless Access ↗	Cisco Meraki	Cisco Catalyst	Extreme Networks ExtremeCloud	Arista CloudVision
Multivendor support	●●●●● Built on open standard technologies, such as EVPN-VXLAN, and NAC	●● No fabric (EVPN-VXLAN) support in Meraki cloud	●●● Proprietary protocols	●● Built with open standards but options are limited Extreme's on-premises solution, ExtremeCloud IQ-Site Engine, supports third-party devices using SNMP Supports visibility of third-party devices in ExtremeCloud IQ	● CloudVision, CUE, and AGNI works only with Arista products

Essential access features

	Juniper Wired and Wireless Access ↗	Cisco Meraki	Cisco Catalyst	Extreme Networks ExtremeCloud	Arista CloudVision
Cloud-native NAC	●●●●● Juniper Access Assurance provides: Automatic scaling Built-in redundancy and Geo redundancy Built-in Geo Affinity for lowest possible latency Automatic periodic hitless feature and security updates with no downtime Easy cloud-to-cloud integrations	● In Beta release No third-party support, only Meraki managed MRs/Switches. No migration plans for customers No support for true enterprise-grade use cases - Cloud-native vs "Shard-cloud" architecture	● Customers need to design, plan, and deploy NAC infrastructure considering: Number of client devices Redundancy requirements Geo-affinity requirements Feature and security updates require: Downtime planning Manual execution for every server in the cluster	● Customers need to design, plan, and deploy NAC infrastructure considering: Number of client devices Redundancy requirements Geo-affinity requirements Feature or security updates require: Downtime planning Manual execution for every server in the cluster	●●●● Cloud-native NAC AGNI CV-CUE for wireless

Essential access features

	Juniper Wired and Wireless Access ↗	Cisco Meraki	Cisco Catalyst	Extreme Networks ExtremeCloud	Arista CloudVision
Simplified policy management	●●●●● Single page for policy creation and management with unified labels Automated policy logic Hit count to maintain clean policy structure AI-infused device fingerprinting that is tied to policies	● In beta release No template-based port management Cumbersome hierarchical policy framework Error-prone policies that provide no visibility Policy pile-up is a common problem No Eduroam	●● Multiple pages in the UI to configure various policy elements (e.g., authorization profiles, dictionaries, and conditions) No unified view to see all the policies Understanding and debugging hierarchy is complicated	●● Multiple tabs and no unified view to see all the policies Understanding and debugging hierarchy is difficult	●●● CloudVision for Wired CUE for wireless and AGNI for NAC does not talk to each other, you have to configure separately
End-to-end visibility	●●●●● Client visibility across wired, wireless, and NAC Complete visibility from onboarding to sequences of events	● In beta release No end-to-end client visibility	● No end-to-end client-event visibility and no sequence of events across wired, wireless, and NAC When troubleshooting client connectivity experience issues, customers must check debug Live Logs on ISE for authentication failures and use a different product to troubleshoot the network (e.g., WLC, DNAC)	●● Limited end-to-end client-connection experience visibility in case of using Extreme Management Center and Extreme Control Not available inside the Extreme XIQ cloud No visibility into granular client network connectivity experience like DHCP, ARP, and DNS	●● No end-to-end visibility Have to look at CUE for data related to AP and check CloudVision for wired

Essential access features

	Juniper Wired and Wireless Access ↗	Cisco Meraki	Cisco Catalyst	Extreme Networks ExtremeCloud	Arista CloudVision
AI-infused NAC	●●●●● Marvis AI Assistant validates every user networking experience across wired, wireless, WAN, and NAC Automatically identifies issues that could impact network and user experience Highlights persistently failing clients or offenders Allows admins to take action and ignore distracting “noise” Provides easy hierarchical debugging and troubleshooting	● In beta release No conversational interface or hierarchical debugging No built-in CMDB	● No conversational interface or hierarchical debugging Troubleshooting processes require manual investigation of per-client logs in different products, such as ISE, Catalyst Center, and WLC	● No conversational interface or hierarchical debugging All troubleshooting processes require manual investigation of per-client logs in either Extreme Management Center or Extreme XIQ Cloud, with limited visibility provided by the logs Extreme XIQ AI-like features are still in early days and do not provide any substantial benefit	●●● No equivalent for Marvis Minis Sensor testing based by converting an AP

Architecture

	Juniper Wired and Wireless Access ↗	Cisco Meraki	Cisco Catalyst	Extreme Networks ExtremeCloud	Arista CloudVision
Core design	Controller-free modern microservices architecture Service containerization Quick and focused low risk feature updates Near-real-time bug fixing without network disruption Watch video	Server (data center) based cloud Legacy sharded database in hosted database “cloud” (containerized) Virtual controller-based Trying to implement shard-based microservices	Controller-based legacy monolithic software architecture Catalyst Center requires lots of hardware and boxes all needing proper versions Confusing cloud solution, if managed by Meraki (a new option)	Third-generation cloud Legacy sharded database in hosted database “cloud” Virtual controller-based Controller-based legacy monolithic software architecture Lack of strong cloud solution Lots of hardware and boxes all needing proper versions	Server (DC) based cloud Legacy sharded database in hosted database ‘cloud’ (containerized) No microservices
Scalability	Elastic vertical and horizontal scale No expensive hardware required	Complex and non-elastic Virtual controllers (containers) hosted in co-located data centers	Non-elastic with more controllers required	Complex and non-elastic Virtual controllers hosted in co-located data centers Require separate servers and controllers to scale On-site controllers stacked	Non elastic More complex
User interface	Easy to configure with complete flexibility on what is visible and in what order	Attractive dashboard with limited customizability	Bulky user interface Non-intuitive Basic things are hard to find	Attractive dashboard with limited customizability	CloudVision, CUE, AGNI looks similar but needs training and time to pick up, not as intuitive as Meraki

Architecture

	Juniper Wired and Wireless Access ↗	Cisco Meraki	Cisco Catalyst	Extreme Networks ExtremeCloud	Arista CloudVision
Programmability	100% accessible through APIs Support for complete IT automation, such as ticketing or web alerts Watch video	Limited set of APIs Configuration scale is only available via their APIs	Limited set of APIs	API portal under ExtremeCloud IQ (the no-cost UI is not based on APIs) Limited set of APIs to input information Very confusing depending on the type of the controller and Swagger availability	Wired – yes Switches have advanced programmability (Python, VI, linux) Wireless, no support
Deployment flexibility and cloud management	Scale from the largest to the smallest enterprise businesses for rapid updates Single-click activation for streamlined rollouts Wired, Wi-Fi, and WAN Assurance for full lifecycle management ZTP Configuration across AP, Switch, and WAN gateway Template-driven Use site variables to easily customize as needed	Virtual controllers hosted in co-located data centers	On-premises with no cloud offering for SDA Relies on a centralized, proprietary controller	Microservices co-located data centers Controller/gateway for large customers; monolithic architecture Offers on-premises and cloud solutions Offered across different applications	ZTP on wired No wireless ZTP Templates for Wired and Wireless
Resiliency	Microservice containerization The failure of one service doesn't impact others Network remains running if not connected to cloud	Redundant virtual controllers Microservices implementation is in infancy	Complex with more hardware required Each piece of hardware needs proper software versions Requires Cisco Catalyst Center (3+) appliances Version compatibility matrix is complex and requires manual translation Complex licensing	On-prem with more hardware required Each piece of hardware needs proper software versions Version compatibility matrix supports only some controllers, not all ExtremeCloud IQ not defined	Arista has resiliency for Wired: VSS and ISSU

Architecture

	Juniper Wired and Wireless Access ↗	Cisco Meraki	Cisco Catalyst	Extreme Networks ExtremeCloud	Arista CloudVision
Agility	Modern, microservices-based cloud, instead of monolithic code base Rapid updates without network disruption	Still building data centers Beginning to use microservices for specific applications such as 'splash pages'	Cisco Catalyst Center Monolithic (brittle) software with poor ability to update for new devices/apps/fixes Multiple servers that all need right code versions High risk to update Steep learning curve	Controllers and hypervisors Slow updates Microservices architecture	Sharded architecture Cloud down for upgrades Management won't be available during upgrade of cloud

Artificial Intelligence

	Juniper Wired and Wireless Access ↗	Cisco Meraki	Cisco Catalyst	Extreme Networks ExtremeCloud	Arista CloudVision
Virtual network assistant	Performs root cause analysis for most detected network issues Supports wireless, wired, and WAN at site level Troubleshoots issues instead of pulling logs Accessible through WebUI or API Built on 10+ years of continuous learning and rich data science toolbox	No virtual assistant	No virtual assistant	Dashboard and network assistant only on cloud ExtremeCloud IQ CoPilot chatbot provides limited support: No AI Allows NLP version 1.0 No query In beta since 2022	Arista's AVA is not as advanced as Juniper's

Artificial Intelligence

	Juniper Wired and Wireless Access ↗	Cisco Meraki	Cisco Catalyst	Extreme Networks ExtremeCloud	Arista CloudVision
Digital experience twins	●●●●● Full stack (wireless, wired, and WAN) Proactive digital simulation of user connection Auto learn scope Auto expands validation scope to identify if failure is specific to a device, switch, or site Included in Marvis AI Assistant subscription (no additional hardware or software needed)	● Requires a separate subscription for ThousandEyes support on MX	●●● Requires a separate subscription for ThousandEyes, support on Catalyst 9K switch	● CoPilot Digital Twin helps build network in demo mode No Day 1-365 applicability	● No equivalent for Marvis Minis
Application Experience Insights (Large Experience Model – LEM)	●●●●● Application experience insights: Provide cloud integration with Zoom and Teams Identify bad user Call experience minutes Combine Teams and Zoom metrics with network and client parameters to provide a root cause for a bad user experience minute	No support for classifying good/bad voice call user minutes	●● Provides a list of MS Teams calls Shows network performance trends (latency, loss, jitter)	No support for classifying good/bad voice call user minutes	● No MS Teams or Zoom integration

Artificial Intelligence

	Juniper Wired and Wireless Access ↗	Cisco Meraki	Cisco Catalyst	Extreme Networks ExtremeCloud	Arista CloudVision
Location finding of devices and clients	AI-native creation of probability surfaces in the cloud and ongoing unsupervised machine learning to constantly update the model	First-generation anomaly detection algorithm using six weeks of historic data	Requires CMX appliance onsite (even for Cisco Spaces) Requires third-party BLE integration Triangulation dependent on accurate map placement Errors introduced by variance in BLE clients	Not available	Supported for wireless
LLM integration	Advanced NLP for user intent: Marvis AI Assistant leverages advanced Natural Language Processing (NLP) to understand the root of user questions and goals Conversational troubleshooting and insights: The conversational interface supports natural language inquiries for troubleshooting network issues or seeking user experience insights Human-like support with LLM: Juniper has integrated LLM capabilities to enhance Marvis AI Assistant's conversational interface, offering more human-like interactions for documentation and support needs	Very early stages of LLM usage	Very early stages of LLM usage	Very early stages of LLM usage	Very early stages of LLM usage

Artificial Intelligence

	Juniper Wired and Wireless Access ↗	Cisco Meraki	Cisco Catalyst	Extreme Networks ExtremeCloud	Arista CloudVision
Anomaly detection	Proactively identifies anomalies and uses data science tools to determine root cause Leverages both wired and wireless SLEs for anomaly detection Third-generation algorithm with autoregressive integrated moving average (ARIMA) boosts efficacy Performs anomaly detection across Wi-Fi, LAN, WAN, data center, and security domains	First-generation anomaly detection algorithm using six weeks of historic data	First-generation anomaly detection algorithm Limited anomaly detection (DHCP, AAA, association, throughput)	Client 360 tracks basic anomalies Pilot and CoPilot supported First-generation anomaly detection algorithm Limited anomaly detection (latency, throughput, airtime)	N/A
Self-driving capabilities	Marvis Actions Framework for self-driving or driver-assist mode (e.g., RF optimization, proactive RMA, unhealthy APs, missing VLANs, bad cables, port stuck, misconfigured VLAN, and switch config errors) Validated by Marvis AI Customer service to solve or help train system Closed-loop feedback providing actionable intel to administrators “bottoms up”	Dashboards No self-driving capabilities Will offer “suggestions” Top-down digging	Dashboards No self-driving capabilities Top-down: Requires “nomination” of a troubled user to begin any active monitoring	Dashboards generated by basic math Relies on “drive-assist” capabilities to provide recommendations to IT Limited self-driving capabilities (latency, throughput, airtime)	No equivelant

Artificial Intelligence

	Juniper Wired and Wireless Access ↗	Cisco Meraki	Cisco Catalyst	Extreme Networks ExtremeCloud	Arista CloudVision
AI-driven support	 The Juniper Mist platform Support utilizes Marvis AI Assistant, the industry's only AI-native virtual network assistant, to troubleshoot issues Juniper continuously evaluates Marvis AI Assistant's efficacy When data or an answer is not available for a given support issue, we train Marvis AI Assistant or add the missing data When Marvis AI Assistant detects a hardware failure in an AP, it can perform an automatic RMA, minimizing the need to escalate issues with a vendor along with the "burden of proof" on IT teams Even with a rapid increase in AP deployments, Marvis has eliminated support ticket growth AI Care provides an AI- native support experience as part of Juniper Wi-Fi, Wired, or WAN Assurance subscription	 Dashboards No use of AI to automate support or support operations	 Dashboards No use of AI to automate support or support operations	 Dashboards Lacks automated support capabilities driven by AI	 CV/AVA is not as advanced as Juniper

AIOps

	Juniper Wired and Wireless Access ↗	Cisco Meraki	Cisco Catalyst	Extreme Networks ExtremeCloud	Arista CloudVision
Service level monitoring	●●●●● Throughput, time to connect, roaming, coverage, capacity, AP uptime, switch health, switch bandwidth User, site, and device-level monitoring 150+ states monitored Reduce “mean time to innocence” Zoom Insights, Microsoft Teams integration Watch video	●● Meraki Health provides a basic overview of wireless network connections and performance (latency, packet loss, and SNR)	● Dashboards provide basic non-real-time event log monitoring Requires DNA appliances $$$	●●●● Provides monitoring of services, but with false positives that may not be correlated	● No SLEs
Virtual assistant to accelerate help desk	●●●●● Simple queries with integrated helpdesk based on Marvis Continuous learning and evolution Watch video	N/A	N/A	N/A	VNA in Arista not as advanced as Marvis
Root cause identification	●●●●● Automated event correlation using machine learning across wireless, wired, and device domains Provides real, actionable intelligence Watch video	●●● Basic root cause analysis (RCA) based on event logs for DHCP, DNS, and radius failures	● Limited RCA Requires DNA appliances $$$	●● Can detect root cause, but with some false positives that may not be correlated	●● Limited Root cause analysis for DHCP, Bas PSK key, 802.1x failure, radius server down

AIOps

	Juniper Wired and Wireless Access ↗	Cisco Meraki	Cisco Catalyst	Extreme Networks ExtremeCloud	Arista CloudVision
Dynamic packet capture	●●●●● Proactively captures packets in real time when an error event occurs Eliminates need to reproduce issues as every failure has a PCAP starting before the failure and playing though it No more sending out staff with sniffers after the problem has happened Little to no config necessary Available in Wi-Fi, switching, and WAN Marvis Minis can trigger a PCAP Watch video	●●● Proactive packet capture on initial connection or roam only Does not automatically capture re-auth, DHCP renewal, or other events that occur after a join or roaming event Intelligent Packet Capture - needs manual configuration Requires additional license, needs feature to be manually enabled on specific apps or whole network Captures 1500-2000 frames - not very contextual, fails to provide detail drill downs to get to root cause	●● Non-automated intelligent packet capture that requires a client to file a ticket to tag data collection for the client going forward	●● N/A	●●●● Yes
Dynamic spectrum capture	●●●●● Industry-first Dynamic Spectrum Capture brings network rewind to wireless interference: Unprecedented visibility into RF spectrum that accelerates and minimizes site visits to identify root cause wireless interference issues	N/A	N/A	N/A	N/A
Baselining and anomaly detection	●●●●● Proactive device and OS baselining and anomaly detection by Marvis AI Watch video	●●● Medium anomaly detection	●●● Limited anomaly detection with MRE Requires DNA appliances $$$	●●● Anomaly detection by Pilot and CoPilot	●●●● Supports industry standard IPS/IDS

AIOps

	Juniper Wired and Wireless Access ↗	Cisco Meraki	Cisco Catalyst	Extreme Networks ExtremeCloud	Arista CloudVision
Network analytics	●●●●● Deep end user data, Freemium, and subscription (Premium Analytics) offering	●●● Full stack, very basic implementation	●●● Wi-Fi only Requires additional appliance (DNAC)	●●● Requires additional software, licenses, and support	●●● Supports network analytics

Location Engagement and Insights

	Juniper Wired and Wireless Access ↗	Cisco Meraki	Cisco Catalyst	Extreme Networks ExtremeCloud	Arista CloudVision
BLE antenna in APs	●●●●● Patented 16-element BLE antenna array enables dynamic beam forming See the product	● Single integrated omni-directional BLE antenna Additional third-party battery-powered BLE beacons required for coverage	● Single integrated omni-directional BLE antenna Additional third-party battery-powered BLE beacons required for coverage	● Single integrated omni-directional BLE antenna	●●● HADM enabled BLE for high accuracy location
Virtual beacons	●●●●● Unlimited virtual beacons per AP Watch the video	No virtual beacons	No virtual beacons	No virtual beacons	No virtual beacons
Site calibration (unsupervised machine learning)	●●●●● Unsupervised machine learning Site and device calibration without administrator input	● Requires third-party integration, not native Does not adapt/learn radio performance for new devices	Requires third-party BLE integration Does not adapt/learn radio performance for new devices	● Wi-Fi/AP BLE and BLE beacon for integration Does not adapt/learn or auto calibrate GPS location	● Basic

Location Engagement and Insights

	Juniper Wired and Wireless Access ↗	Cisco Meraki	Cisco Catalyst	Extreme Networks ExtremeCloud	Arista CloudVision
Location algorithm	Unsupervised machine learning Triangulates and adapts to varying BLE clients and changing RF	Triangulation dependent on accurate map placement Errors introduced by variance in BLE clients	Requires third-party BLE integration Triangulation dependent on accurate map placement Errors introduced by variance in BLE clients	Triangulation dependent on accurate map placement Errors introduced by variance in BLE clients GPS location with microlocation support	Very basic
Location analytics	BLE and Wi-Fi Freemium and subscription services available API-first for ease of data sharing Watch video	Wi-Fi only	Wi-Fi only Requires additional appliance (DNAC) Requires Cisco DNA Spaces	Wi-Fi and BLE beacons Wi-Fi based proximity tracing that has no BLE antenna array, no machine learning, and poor accuracy Supports real time and historical analytics	Can show user's location as they travel through the floor map No visitor counter
Asset tracking	Tracking of third-party BLE asset tags	No asset tracking	Wi-Fi RFID tags only Requires additional appliance (DNAC operational visibility) Requires Cisco Spaces	Wi-Fi, BLE, 802.15.4 Requires additional software and third-party integration	Yes
BLE overlay for existing Wi-Fi deployments	vBLE APs available	No BLE overlay solution	No BLE overlay solution	BLE beacons require licenses, software, and support	Yes

Location Engagement and Insights

	Juniper Wired and Wireless Access ↗	Cisco Meraki	Cisco Catalyst	Extreme Networks ExtremeCloud	Arista CloudVision
Open standards economics	●●●●● Interoperability, vendor-neutral, efficient use of existing resources	●● Mulitiple solution offering	●● Mulitiple solution offering	●● RESTful APIs	●●● Supports Rest API
Comprehensive built-in applications	●●●●● Best-of-breed solution via partnerships	●● Mulitiple solution offering	●●● Workflow Asset visibility rules engine	●● Presence, zone tracking, and asset visibility rules engine	● No
Technology versatility	●●●●● Native: Wi-Fi, vBLE Third-party integration: BLE, UWB LiDAR, Wi-Fi, RADAR	●● Native: Wi-Fi Third-party integration: BLE, UWB	●●●● Native: Wi-Fi Third-party integration: BLE, UWB	●● Wi-Fi, BLE, Thread 802.15.4	● No

Future Proofing

	Juniper Wired and Wireless Access ↗	Cisco Meraki	Cisco Catalyst	Extreme Networks ExtremeCloud	Arista CloudVision
Architectural upgrades	●●●●● Microservices-based, always upgrading	●● Quarterly upgrades	● Monolithic upgrades to the Catalyst Center appliances Optional Meraki monitoring for apps Option to change Catalyst AP 'persona' to Meraki (results in feature loss)	●● Extreme tries to release a cloud update every 30 days, although this has been inconsistent Past feature releases are very hard to find	● Monolithic architecture based on sharded architecture

Why Juniper

Juniper Networks believes that connectivity is not the same as experiencing a great connection. Mist™, Juniper's AI-native networking platform, is built from the ground up to leverage AI to deliver exceptional, highly secure, and sustainable user experiences from the edge to the data center and cloud. Additional information can be found at Juniper Networks (juniper.net) or connect with Juniper on X (Twitter), LinkedIn, and Facebook.

More information

To learn about our solutions, contact your Juniper Networks representative or visit our website at juniper.com.

Juniper Networks

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