

# Benefits of Upgrading to the Latest Cisco Wireless Controllers

## Why Upgrade to Cisco Catalyst 9800 Series Wireless Controllers?

Built from the ground up for the intent-based network, Cisco® Catalyst® 9800 Series Wireless Controllers are Cisco IOS® XE based and integrate Cisco RF excellence to create the best-in-class wireless experience for your evolving and growing organization.

The Cisco Catalyst 9800 Series Wireless Controllers are feature rich and enterprise ready to power your business-critical operations and transform end-customer experiences:

- High availability and seamless software updates, enabled by hot and cold patching, keep your clients and services always on during both planned and unplanned events.
- **Secure air**, devices, and users with the Cisco Catalyst 9800 Series. Wireless infrastructure becomes the strongest first line of defense with Cisco Encrypted Traffic Analytics and Software-Defined Access. The controllers come with built-in security: secure boot, runtime defenses, image signing, integrity verification, and hardware authenticity.
- **Deploy anywhere** to enable wireless connectivity everywhere. Whether on-premises, in a public or private cloud, or embedded on a switch, the Cisco Catalyst 9800 Series has multiple scale options to best meet your organization's needs.
- Built on a modular operating system, the controllers feature open and programmable APIs that enable **automation** of your day-0 to day-N network operations. Model-driven streaming telemetry provides deep insights into the **health of your network and clients**.

The Cisco Catalyst 9800 Series Wireless Controllers are available in multiple form factors:

- Cisco Catalyst 9800-40 with 40-Gbps throughput
- Cisco Catalyst 9800-80 with 80-Gbps throughput and optional modular uplinks
- Cisco Catalyst 9800 for private cloud (KVM, VMware, and Cisco ENCS)
- Cisco Catalyst 9800 for public cloud (Amazon Web Services)
- Cisco Catalyst 9800 embedded wireless (for the Cisco Catalyst 9300 Series Switch)



Network requirements for the digital organization	Features	Cisco Wireless LAN Controllers	Cisco Wireless LAN Controllers	Latest Cisco Wireless Controllers	Benefits
		Cisco 2504, 5508, 7510, and 8510	Cisco 3504, 5520, and 8540	Cisco Catalyst 9800 Series	
 <b>Always on</b>	High availability and resiliency	✓	✓	✓	Solid-state drives with no moving parts. Hardware redundancy for power supplies, drives, and fans. And a fast restart with enhanced uptime.
	Hot and cold patching	No	No	✓	Catalyst 9800 Series Wireless Controllers allow seamless software updates without shutting down the entire network.
	Seamless multisite upgrades	No	No	✓	Have a large network and don't have the time to deploy an upgrade? The new controllers allow you to deploy in different parts of the network—without taking the entire network offline.
 <b>Secure</b>	Encrypted Traffic Analytics	No	No	✓	Wireless infrastructure becomes a stronger first line of defense by detecting threats inside encrypted traffic.
	Cisco Software-Defined Access (SD-Access)	No	✓	✓	SD-Access allows users to optimize, personalize, and secure their wireless network and streamline service operations.
	Built-in security with trustworthy solutions	No	✓	✓	Security is built into all infrastructure hardware and software through Cisco trustworthy solutions.



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 <b>Deploy anywhere</b>	Embedded wireless controller on a switch	No	No	✓	Embed the wireless controller on a Cisco Catalyst 9300 Series Switch to bring your wired and wireless infrastructure together.
	Cloud agnostic	No	No	✓	Deploy the way you want. Whether it's in a public or private cloud, it's your choice.
	Multimode controller	✓	✓	✓	Determine which mode you want to deploy your network on: Centralized mode, Cisco FlexConnect® mode, or Mesh mode.
 <b>Open and Programmable</b>	Open and programmable APIs	No	No	✓	Leverage the power of Cisco IOS XE to consume insights and telemetry or automate your network operations.
	Streaming telemetry	No	✓	✓	Receive your network data quicker and easier.
	Native YANG models	No	No	✓	Superior to SNMP, YANG allows you to map and structure your data in the precise way you want it.
	Cisco DNA Center™	No	✓	✓	Simplifies network management by reducing risk and allows for automated device deployment. Plus it lowers costs.



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<p><b>Scale and Performance</b></p>	Greater throughput	Up to 10 GE	Up to 40 GE	Up to 80 GE	The Cisco Catalyst 9800 Series controllers support today's standard and are ready for tomorrow. This means they can handle your network now and later when the new standard is released.
	Application Visibility and Control	✓	✓	✓	Cisco Application Visibility and Control is integrated, giving you more visibility into and control over your network. Cisco TrustSec® and access control lists are also integrated and provide the ability to segregate resources without physical segmentation or managing virtual LANs.
	I/O support	Up to 10 GE	Up to 10 GE	Up to 100 GE	The Cisco Catalyst controllers are able to support 1 GE, 10 GE, 40 GE, and 100 GE I/O interfaces through modules. This gives you more flexibility when it comes to your connections.

## Cisco Services

Cisco Services for wireless and mobility delivers unmatched expertise, networking insights, industry-leading best practices, and innovative tools to effectively migrate, adopt, accelerate deployment, and securely manage your Cisco Wireless Controllers. We help you transition to advanced wireless or mobility solutions by enhancing your network's performance with a full lifecycle of advisory, implementation, optimization, technical, managed, and training services. Our team of experts identify architectural gaps to improve the reliability, security, and resiliency of your wireless network while reducing risks costs, complexity, and disruption for desired business outcomes.

Learn more about Cisco Services at <https://www.cisco.com/c/en/us/products/wireless/service-listing.html>.

Learn more about Cisco wireless solutions at <https://www.cisco.com/go/wireless>.