

Cisco Catalyst 9100 and Wi-Fi 6 (802.11ax) Customer FAQ

Technology overview



What is Wi-Fi 6?



The emerging IEEE Wi-Fi 6 standard is the latest step in a journey of nonstop innovation. It builds on the strengths of 802.11ac while adding flexibility and scalability that lets new and existing networks power next-generation applications. IEEE Wi-Fi 6 couples the freedom and high speed of Gigabit Ethernet wireless with the reliability and predictability we find in licensed radio.



What additional features can I expect from Wi-Fi 6?



Cisco, along with other vendors, has been working with the Institute of Electrical and Electronics Engineers (IEEE) on the Wi-Fi 6 standard. When ratified, Wi-Fi 6 will build on the success of 802.11ac, delivering a better experience in typical environments and more predictable performance for advanced applications such as 4K or 8K video; high-density, high-definition collaboration apps; all-wireless offices; and the Internet of Things (IoT). Wi-Fi 6 will drive Wi-Fi toward the future as the growth of wireless continues. You can get more information about the standard from our [technical white paper](#).



How is Wi-Fi 6 different from 802.11ax?



The Wi-Fi Alliance has started a campaign to use the term “Wi-Fi 6” when referring to the IEEE 802.11ax standard, indicating the sixth generation of Wi-Fi. The goal is to simplify the marketing message to better position Wi-Fi relative to the Third Generation Partnership Project (3GPP) standards used in cellular (such as 5G).



Will Wi-Fi 6 be backward compatible with 802.11a, 802.11b, 802.11g, 802.11n, and 802.11ac?



In Wi-Fi 6, all devices must also support all the mandatory 802.11a, b, g, n, and ac modes of operation. This ensures that Wi-Fi 6 Access Points (APs) and clients are backward compatible with legacy APs and clients.



Will Wi-Fi 6 be allowed in all countries and regulatory domains?



All countries and regulatory domains that allow 802.11n and 802.11ac will also allow Wi-Fi 6.

Q **When will Wi-Fi 6 be ratified (when will the standard be finalized)?**

A The IEEE is currently scheduled to ratify the Wi-Fi 6 amendment in the last quarter of 2019. The Wi-Fi Alliance has a similar timeline for a Wi-Fi 6 certification. The latest official estimate for ratification is always available at the 802 IEEE website in the “RevCom and Standards Board Final or Continuous Process Approval” column.

Q **Are my current mobile/client devices that use Wi-Fi 6 supported? When will mobile devices support Wi-Fi 6?**

A There aren’t any mobile devices currently on the market that support Wi-Fi 6. Cisco expects that there will be some clients starting in early 2019. However, the market will not see large numbers of mobile devices supporting Wi-Fi 6 until well into the second half of 2019 and potentially even 2020. Keep in mind that you need an access point that supports Wi-Fi 6 clients in order to realize the benefits of this new standard.

Q **What Cisco access points support Wi-Fi 6?**

A Cisco® Catalyst® 9100 enterprise-class access points support Wi-Fi 6 capabilities, extending the power of intent-based networking with hardware and software innovations. The Cisco Catalyst 9100 APs offer resiliency and security while enabling intelligence at the network edge.

Q **What Cisco access points support the Cisco RF ASIC?**

A Cisco Catalyst 9120 Series enterprise-class access points have an embedded Cisco RF Application-Specific Integrated Circuit (ASIC) that delivers capabilities and RF innovations that go beyond the Wi-Fi 6 standard.

Cisco Catalyst 9100 Access Points portfolio

Q **What is the portfolio transition from the Cisco Aironet® 1800 Series to the Cisco Catalyst 9100 platform?**

A The Cisco Catalyst 9100 Access Points consist of the Cisco Catalyst 9115, 9117, and 9120 Series. These access points are the follow-ups to the Cisco Aironet 1830, 1850, and 2800 Series Access Points, respectively. The Cisco Catalyst 9100 Access Points come equipped with Wi-Fi 6 capabilities, a better industrial design, and improved RF performance, and deliver reliability, security, and intelligence at scale.

Q **What feature sets do the Cisco Catalyst 9100 Access Points support?**

A The Cisco Catalyst 9100 Access Points support the packaging of features into Essentials and Advantage packages. The data sheets list the features in each package.

Q **Will Cisco Catalyst 9100 Access Points work with existing 802.11ac networks?**

A Yes. For Cisco, investment protection, ensuring that Wi-Fi 6 seamlessly coexists with existing 802.11ac Wave 1 and Wave 2 products is the number one priority. The industry has carefully designed Wi-Fi 6 to interact naturally with 802.11ac and older APs and clients. Cisco Catalyst 9100 APs supporting the Wi-Fi 6 standard adhere to the requirement that a Wi-Fi 6 device must support all the mandatory modes of 802.11a/g/n and 802.11ac. They can communicate with 802.11a/g/n and 802.11ac clients using 802.11a/g/n or 802.11ac formatted physical protocol data units (PPDUs).

Q What controller and management options are available for the Cisco Catalyst 9100 Access Points?

A The Cisco Catalyst 9100 Access Points can be managed by all Cisco Catalyst 9800 Series Wireless Controllers. In addition, they are supported by the Cisco 3504, 5520, and 8540 Wireless Controllers and the Cisco Virtual Wireless Controller (vWLC) in local, flex, and fabric modes. Support for the Cisco Catalyst 9100 Access Points will be available in Mobility Express in the future. will be available in the future.

The Cisco Catalyst 9100 Access Points are designed to work with Cisco DNA Center (Release 1.2.10 and later) for simplified network management and orchestration, with automation, assurance, and topology support. They can also be managed by Cisco Prime® Infrastructure (Release 3.6 and later).

Q What cable category will be needed to connect the Cisco Catalyst 9100 Access Points?

A An 80-MHz, 8-Spatial-Stream (8SS), 1024-Quadrature Amplitude Modulation (1024- QAM) Wi-Fi 6 radio, plus a second Wi-Fi 6 radio with 5 GHz at 80 MHz, 4SS, and 1024-QAM approaches 5 Gbps of wired traffic. For this reason, Cisco recommends using Category 6a cables to each AP and suggests 2.5- or 5-Gbps Cisco Catalyst Multigigabit ports for the access switch.

Q What are Cisco's solutions for 2.5-Gbps and 5-Gbps connections to access points?

A Cisco offers stackable Cisco Catalyst 9300 Series Switch models that support 10-, 5-, 2.5-, and 1-Gbps and 100-Mbps interfaces. This dense solution will allow a single stack of eight units to support up to 384 ports, connected using the industry's highest stack bandwidth, Cisco StackWise®-480. All ports also support Cisco Universal Power over Ethernet (Cisco UPoE+ and Cisco UPoE®), Power over Ethernet Plus (PoE+), and Power over Ethernet (PoE). You can find other options at <https://www.cisco.com/c/en/us/products/switches/campus-lan-switches-access/index.html>.

Q What are the options for site survey for Cisco Catalyst 9100 deployment?

A Customers can choose third-party planning and site survey tools for initial deployments. In addition, Cisco Catalyst 9100 Access Points will be capable of running Cisco Mobility Express, which is a virtual wireless controller function embedded on an access point. Mobility Express also supports an internal Dynamic Host Configuration Protocol (DHCP) server, which enables an access point to be used for a site survey. Mobility Express support is not currently available on the Cisco Catalyst 9115, 9117 and 9120 Series.

Q Will the mounting brackets of the Aironet 1850 Series work with Cisco Catalyst 9100 Access Points?

A Yes, the new access points are designed to support the mounting brackets, AIR-AP-BRACKET-1 or AIR-AP-BRACKET-2, used for the 1850 Series, thus reducing installation costs.

Q Will the Cisco Catalyst 9100 Access Points support the new Cisco Catalyst 9800 Series Wireless Controllers?

A Yes, The new Cisco Catalyst 9800 Wireless Controllers will be fully supported by both the Cisco Catalyst 9100 and existing 802.11ac Access Points. With the Cisco Catalyst 9800 Series, your infrastructure Wi-Fi network will be ready to be upgraded to Wi-Fi 6.

Q Do Cisco Catalyst 9100 Access Points support Bluetooth?

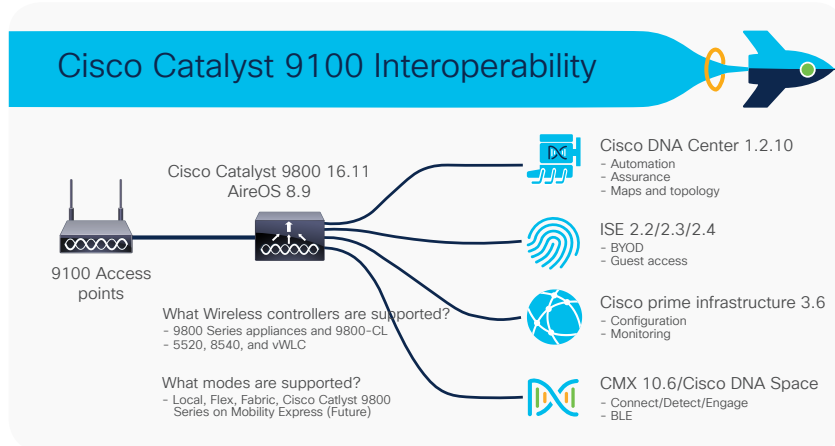
A Yes, all models have native hardware support for Bluetooth 5.

Q What type of PoE will be needed to power the Cisco Catalyst 9100 Access Points?

A This depends primarily on the mode of operation. For the current Cisco Catalyst 9100 SKUs, we recommend 802.3at (PoE+) for full functionality. Some of these APs may have restricted functionality when 802.3af (PoE) is provided.

Q What are the minimum software requirements to deploy the Cisco Catalyst 9100 Access Points with Cisco DNA Center and Cisco Catalyst 9800 Series Wireless Controllers?

A



Warranty and support

Q What is the warranty coverage on the Cisco Catalyst 9100 Access Points?

A

The Cisco Catalyst 9100 Access Points come with a limited lifetime warranty, similar to the Cisco Aironet access points. The warranty includes 10-day advance hardware replacement and ensures that software media are defect-free for 90 days. For more details, visit <https://www.cisco.com/go/warranty>.

Ordering

Q Where can I find the complete SKU list, shipping list, or data sheets for the Cisco Catalyst 9100 Access Points?

A

A complete list of product IDs is available in the platform-specific data sheets:

Cisco Catalyst 9115 Series Access Points: [Data sheet](#)

Cisco Catalyst 9117 Series Access Points: [Data sheet](#)

Cisco Catalyst 9120 Series Access Points: [Data sheet](#)

Services

Q Are any services available to support the Cisco Catalyst 9100 Access Points?

A

Yes. With Cisco Services, you can achieve infrastructure excellence faster with less risk. From initial WLAN readiness assessment to implementation, full solution support, and in-depth training, our services for the Cisco Catalyst 9100 Access Points provide expert guidance to help you successfully plan, deploy, manage, and support your new access points. With unmatched networking expertise, best practices, and innovative tools, Cisco Services can help you reduce overall upgrade, refresh, and migration costs as you introduce new hardware, software, and protocols into the network. With a comprehensive lifecycle of services, Cisco experts will help you minimize disruption and improve operational efficiency to extract maximum value from your Cisco DNA ready infrastructure. [Learn more.](#)

Licensing and migration

Q What are the licensing options for the Cisco Catalyst 9100 Access Points?

A Cisco DNA term-based licenses (AIR-Cisco DNA licenses) are mandatory at the purchase of Cisco Catalyst 9100 Access Points. These access points support three types of Cisco DNA Licenses: Cisco DNA Essentials, Cisco DNA Advantage, and Cisco DNA Premier. Cisco DNA subscription licenses have to be purchased for a 3-, 5-, or 7-year subscription term. Upon expiration of the Cisco DNA license, the Cisco DNA features will expire, whereas Network Essentials and Network Advantage features will remain.

Q Can Cisco Catalyst 9100 Access Points connect to AireOS and Cisco Catalyst 9800 Series controllers? If so, what are the licensing options?

A Cisco Catalyst 9100 Access Points can connect to both AireOS 3504, 5520, and 8540 controllers and Cisco Catalyst 9800 Series controllers. These access points require a mandatory Cisco DNA license to connect to either AireOS controllers or Cisco Catalyst controllers.

Q Are Cisco Catalyst 9100 Access Points' licenses portable?

A Cisco DNA licenses for Cisco Catalyst 9100 Access Points are portable across the Cisco Catalyst 9100 product family, AireOS controllers, and Cisco Catalyst wireless controllers.

Q What are the options for migrating existing Cisco DNA licenses when purchasing the Cisco Catalyst 9100 Access Points?

A Customers who have purchased Cisco DNA licenses may receive credits for the unused term. These credits can be used to purchase Cisco DNA licenses with Cisco Catalyst 9100 Access Points. Also, the credits may be applicable when moving to the same license tier or higher.

Q Are Cisco DNA licenses eligible for the Cisco Enterprise Agreement?

A Yes. Cisco DNA licenses are currently eligible for the Enterprise Agreement.

Q Will the 9100 Access Points support Flexible Radio Assignment (FRA)?

A The Catalyst 9120 access point supports Flexible Radio Assignment. The Catalyst 9115 and 9117 access points do not support this feature. To learn more about FRA click [here](#).

Q What options do I have after the Cisco DNA term expires?

A You can renew the Cisco DNA license. If you choose not to renew the license, you should purchase Cisco Smart Net Total Care® Service on APs and controllers to continue receiving Cisco Technical Assistance Center (TAC) support and software updates and upgrades.

Q Can I port APs from one controller to another after the Cisco DNA term expires?

A Yes. You will need to ensure the following:

1. A Smart Account is already set up.
2. Network Essentials or Network Advantage licenses are deposited into that Smart Account.
3. Controllers are registered to that Smart Account.

Q If I need an evaluation license, how do I get it?

A There is no evaluation license. The evaluation period is automatically triggered when a device is in the unidentified state and not registered to a Smart Account. The device will not attempt to communicate with Cisco in this state. Evaluation mode is available for only 90 days, after which out-of-compliance messages will be triggered.

Q Do I need to purchase licenses on both controllers for a high-availability pair or an N+1 redundancy scenario?

A No, licenses are purchased per AP.