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Cisco Catalyst 9100 and Wi-Fi 6/6E (802.11ax)

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Technology overview

Q: What is Wi-Fi 6?

A: The IEEE 802.11ax 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 802.11ax couples the freedom and high speed of Gigabit Ethernet wireless with the reliability and predictability we find in licensed radio.

Q: What is Wi-Fi 6E?

A: At its base, Wi-Fi 6E is simply an extension of Wi-Fi 6 into the 6-GHz spectrum. Since the spectrum is new and accepts only Wi-Fi 6E devices, it doesn't have any of the old issues currently clogging up existing networks. Wi-Fi 6E is part of the Wi-Fi 6 standard; it's a technology bump that provides a lot of network benefits.

Q: Is Wi-Fi 6 different from 802.11ax?

A: 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 which is the 5th Generation of 3GPP. The Wi-Fi 6 name is becoming very common now due to its simplicity. However, 802.11ax is interchangeable with Wi-Fi 6.

Q: How is Wi-Fi 6E different from Wi-Fi 6?

A: Wi-Fi 6E is not a new wireless standard; it's simply a new Wi-Fi Alliance (WFA) terminology that refers to an additional 1200 MHz of spectrum (in the US) and an additional 500 MHz of spectrum (in the EU and some Asian countries – as of Spring 2022) 6-GHz band (in the US) for Wi-Fi 6. Wi-Fi 6E has all the same great features of today's Wi-Fi 6, such as Orthogonal Frequency-Division Multiple Access (OFDMA) and Multiuser Multiple-Input Multiple-Output (MU-MIMO), except that it's capable of operating in the 60GHz band.

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

A: Cisco, along with other vendors, has been working with the Institute of Electrical and Electronics Engineers (IEEE) on the Wi-Fi 6 standard. Wi-Fi 6 builds 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 drives Wi-Fi toward the future as the growth of wireless continues. You can get more information about the standard from our technical white paper.

Q: Is Wi-Fi 6 backward compatible with previous generations of Wi-Fi?

A: 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.

Q: Will Wi-Fi 6E be backward compatible with previous generations of Wi-Fi?

A: No. Part of what makes Wi-Fi 6E so special is that it provides a new greenfield spectrum in the 6-GHz band, which can be dedicated for truly mission-critical applications that need the low latency, high speed, and additional security that come with having only Wi-Fi 6E devices on the network.

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

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

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

A: Yes and no. Agencies in some countries, including the regulatory agency for the United States (the FCC) have adopted rules opening a 1200-MHz spectrum in the 6-GHz band (from 5.925 GHz up to 7.125 GHz) for unlicensed Wi-Fi. In Europe, the regulatory bodies have released 500 MHz of 6-GHz spectrum (5.925 GHz to 6.425 GHz) for Wi-Fi use. And other countries haven't opened the spectrum at all. It is expected that other countries will follow suit and open portions of this band at future dates. However, it is important to check to see where your country lands when it comes to Wi-Fi 6E.

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

A: Leading mobile vendors and Cisco partners Apple, Intel, Microsoft, and Samsung have released a complete portfolio of Wi-Fi 6 products. Keep in mind that you need both an access point and clients that support Wi-Fi 6 in order to realize the benefits of this standard.

Q: Which 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: Which Cisco access points support Wi-Fi 6E?

A: Currently, the Cisco Catalyst 9136, 9166, 9166D1, 9164, 9162, and outdoor 9163E Series Access Points and the Cisco Meraki MR57 are the only APs from Cisco that support Wi-Fi 6E.

Q: Which Cisco access points support the Cisco RF ASIC?

A: The Cisco Catalyst 9120 and 9130 Series enterprise-class access points and the Cisco Catalyst 9124 outdoor 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.

Q: Will the Catalyst 9136 access point support the Cisco RF ASIC?

A: No. However, the Catalyst 9136 Access Point (as well as the Catalyst 9166, 9166D1, 9164, 9162, and outdoor 9163E Access Points) will have a new scanning radio that supports not only the 2.4- and 5-GHz bands, but also extends into the new 6-GHz band. This new scanning radio builds on the RF capabilities employed in the Cisco RF ASIC and adds new support for future software-based Machine Learning (ML) and Artificial Intelligence (AI) innovations to keep pace with the ever-changing wireless environment. In addition the Cisco Wi-Fi 6E access points employ CleanAir Pro, which employs most of the same features that Cisco CleanAir has but also has full 2.4, 5 and 6GHz band support, multiradio architecture, AI/ML-driven scan radio decoding HE frames and ML-based interferer classifications on AP. The above is also true for the Catalyst 9166, 9166D1, 9164, 9162, and outdoor 9163E access points.

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Cisco Catalyst 9100 Access Points portfolio

Q: What is the portfolio transition from the Cisco Aironet Series to the Cisco Catalyst 9100 platform?

A: The Cisco Catalyst 9100 Access Points consist of the Cisco Catalyst 9105, 9115, 9120, 9130, 9136, 9162, 9164, 9166 and 9166D1, and outdoor 9163E Series. These access points are the follow-ups to the Cisco Aironet 1815, 1850, 2800, and 3800 Series Access Points, respectively. The Cisco Catalyst 9100 Access Points come equipped with Wi-Fi 6/6E 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 various hardware and software features. The individual access point data sheets list many of these features. Some software features are grouped into Essentials and Advantage packages. The Cisco DNA Center 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).

The Cisco Catalyst 9136, 9162, 9164, 9166, and 9166D1, and outdoor 9163E Series Access Points will support previous Wi-Fi standards in the 2.4- and 5-GHz bands, but legacy devices will not be able to take advantage of the 6-GHz spectrum.

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

A: Yes, the Cisco Catalyst 9800 Series 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 and Wi-Fi 6E.

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, the Catalyst 9100 Access Points (aside from the Catalyst 9136, 9162, 9164, 9166 and 9166D1, and outdoor 9163E APs) are supported by the Cisco 3504, 5520, and 8540 Wireless Controllers. Also, the Catalyst 9100 Access Points (aside from the Catalyst 9136, 9162, 9164, 9166 and 9166D1 APs) can run the Embedded Wireless Controller (EWC) and act as a controller.

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

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 6E radio with 6 GHz at 160 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). It should be noted that 802.3bt is the standard. You can find other options at: https://www.cisco.com/site/us/en/products/networking/switches/campus-lan-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 are capable of running the Catalyst 9800 as a virtual wireless controller function embedded on the access point. Embedded Wireless Controller is not an available option for Catalyst 9136, 9162, 9164 9166, and 9166D1 Access Points; Cisco provides Site Survey mode for the Wi-Fi 6E APs.

Q: Will the existing brackets for the Aironet APs work with the Catalyst 9100 APs?

A: Yes, aside from the 9105 access points, the Catalyst APs are designed to support the mounting brackets, AIR-AP-BRACKET-1 or AIR-AP-BRACKET-2, used for all Aironet access points, thus reducing installation costs.

For the Catalyst 9105 Access Points, the AIRBRACKET-8 bracket will be used for the Catalyst 9105 AP. For the Catalyst 9105w Access Point, the AIR-BRACKET-W4 will be used.

For the Catalyst 9166D1 the Articulating arm for bracket 2 (CW-MNT-ART2-00) can be used to offer additional pan and tilt options for ceiling or wall mount installations.

Q: Will any Catalyst 9100 access points support Intelligent Capture?

A: Yes. All Cisco Catalyst 9100 Access Point support the Intelligent Capture feature. This functionality probes your network and provides Cisco DNA Center with deep data analysis.

Q: What use cases does the Cisco Spaces IoT Services on the Catalyst 9100 access points and switches enable?

A: Cisco Spaces IoT Services on the Catalyst 9100 access points allows you to deploy IoT devices and applications rapidly, at scale, and at a significantly lower TCO. It enables use cases including asset management, environmental monitoring, space utilization, and indoor wayfinding.

Q: What end devices can be deployed with the Cisco Spaces IoT services?

A: Cisco Spaces, with gateway-enabled Catalyst 9000 infrastructure, acts as a middleware that supports end devices of multiple vendors. Customers can browse a wide range of BLE beacons, tags, and sensors (wireless and wired) on the IoT Device Marketplace. These devices are easy and quick to onboard, deploy, and manage, and can work with various partner applications from the App Center to drive industry-specific use cases.

For more on supported devices, visit the IoT Device Marketplace.

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+) or 802.3bt (UPOE) for full radio functionality. These access points can function with 802.3af power with reduced radio capabilities. NOTE: not all Catalyst 9100 Access Points need 802.3bt for full radio functionality.

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: Please consult the Compatibility Matrix.

Q: Which Catalyst 9100 access points can be teleworker/Office Extend Access Point (OEAP) enabled?

A: All of the Catalyst 9100 access points (as well as all of the Aironet access points) can be outfitted to support a teleworking initiative. With an OEAP, an employee at home or in a temporary micro-office will have access to the corporate SSID and the corporate network without any advanced technical know-how or the need to set up a VPN. Furthermore, any Cisco controller—virtual or physical—can be used for creating the secure tunnel from your employee's home to your office.

Q: Why are there two versions of the Cisco Catalyst 9105 Access Point?

A: There are two versions for the Cisco Catalyst 9105 access point, the Catalyst 9105i (for infra) and the 9105w (for wall). The major difference between these two access points are the mounting options. The 9105i will be traditionally mounted on the ceiling while the 9105w will be mounted on the wall. Wall mounted access points are a great solution for hospitality, residence halls or other multidwelling units.

Q: What antennas can be used with Catalyst 9120E and 9120P?

A: Catalyst 9120E can use the same dipole and 4-element antennas as previous Aironet APs: the 2800E and 380oE. Likewise, the Catalyst 9120P can use the same antennas as the 3800P. Both the 9120E and 9120P can use new Self-Identifying Antennas (SIA). These antennas have built-in EEPROM that can be read by the AP to automatically configure the antenna type and gain in the WLC. Refer to the Getting Started Guide and Antenna Reference Guide for details.

Q: Can external antennas be used with Wi-Fi 6E?

A: External antennas require AFC. If you need a directional antenna see the Catalyst 9166D1.

Q: What is the Cisco Catalyst 9166D1?

A: The Cisco Catalyst 9166D1 uses the same hardware and offers the same management flexibility as the Cisco Catalyst 9166 Series Access Points but makes use of a built-in directional antenna. The Catalyst 9166D1 Series Access Point is best suited for environments with high ceilings such as auditoriums, warehouses, and other large open areas where directional Wi-Fi 6E coverage is required.

Q: What is the Cisco Catalyst 9163E?

A: The Cisco Catalyst 9163E Series outdoor Wi-Fi 6E access point is designed with a weatherized and robust enclosure, ensuring uninterrupted wireless access even in the most challenging outdoor environments. The Catalyst 9163E is best suited for organizations looking to provide outdoor Wi-Fi 6E, the CW9163E enables 6GHz coverage with the flexibility of on prem or cloud management. The Cisco Catalyst 9163E rounds out the CW9100 series with outdoor 6GHz capabilities to support a number of use cases. Automated Frequency Coordination (AFC) is a requirement for use of the 6GHz band when using standard power.

Q: Where will the Catalyst 9163E be available?

A: At FCS, the AP will be available for all Tier A countries, however, 6GHz operation is only available on -B and in the US for -MR. The 9163E will operate as a dual band AP in countries outside of the US until local regulations allows 6GHz operation outdoors. Furthermore, 6GHz operation will be disabled initially in the US, since 6GHz operation in the US requires AFC service to be active. Our 3rd party AFC provider (Federated Wireless) is expected to be operational at the end of calendar year 2023.

Q: What antennas can be used with Catalyst 9163E?

A: The 6GHz antenna ports (ports A and B) can only be used with CW-ANT-O1-NS-00. All radios (2.4 GHz, 5 GHz, and 6 GHz) will be disabled if this antenna is not detected.

Q: Can the Catalyst 9163E operate in 2.4+5+5 GHz?

A: No, the 6GHz radio is not a flex radio and can only operate in 6 GHz.

Q: What mounts are compatible with the Catalyst 9163E?

A: The AP is compatible with existing AIR-MNT-VERT1 and MA-MNT-MR-16. The AP will come with MA-MNT-MR-16 mount.

Q: Is the CW-ANT-GPS2-S-00 required for GPS to work?

A: The CW9163E has an internal GPS antenna and does not require the optional CW-ANT-GPS2-S-00 to operate. The active external GPS antenna is only required if the customer requires stronger GPS reception.

Q: Can the Catalyst 9163E 6GHz radio operate in Low Power Indoor (LPI) mode?

A: No, the 6GHz radio can only operate in Standard Power (SP) mode and requires AFC. If AFC is not available, the 6GHz radio will be disabled. The AP can be used indoors, but will only operate in SP mode.

Q: Which firmware will be supported on the Catalyst 9163E?

A: At FCS, IOS-XE 17.13.1 or MR30.5 will be required for the AP.

Q: What is the POE power requirement for the Catalyst 9163E?

A: 802.3at POE+ power will be required to fully enable the AP.

Q: Is there a USB port on the Catalyst 9163E?

A: No. There is no USB support.

Q: What antennas can be used with Catalyst 9130E?

A: The Catalyst 9130E supports 8x8 and thus needs new 8-element antennas. The external antennas will connect through a unique Smart Antenna Connector. Cisco will have a new set of 8-element antenna, including omni and directional antennas. Refer to the Getting Started Guide and Antenna Reference Guide for details.

Q: Why is the P SKU is not needed for C9130?

A: C9130AXE employs the Smart Antenna Connector that automatically detects the information for the Antenna and sets the radio transmit power appropriately, thus removing the regulatory requirement for professional installation.

Q: Does the Catalyst 9130E support tri-radio operation?

A: Yes, the Catalyst 9130E can support tri-radio operation. A special break-out cable (either with RP-TNC or N-Type connectors) is required to split the 8x8 configuration into two 4x4 paths. Note that the 2.4 GHz radio is only directed to one set of the 4x4 breakout. Refer to the Getting Started Guide and Antenna Reference Guide for details.

Q: What is Application Hosting of Catalyst 9100 Access Points?

A: A solution allowing the ability to future-proof deployments by turning the access point into a development platform. It simplifies the traditional deployment of enterprise IoT solutions by eliminating the need to install and manage an overlay network.

Q: How does Application Hosting work?

A: The access point becomes the IoT gateway, providing the connectivity layer for tags, devices, and more. It eliminates the need for a physical overlay network which, is both time-consuming and expensive, reducing overall TCO. The third-party applications are often built on an open, standards-based container architecture to streamline deployments and simplify management.

Q: Is Application Hosting available on all Catalyst 9100 Access Points?

A: It is available on most Catalyst 9100 access points, including the Catalyst 9130, Catalyst 9120, Catalyst 9117, Catalyst 9115 and Catalyst 9105i. Due to the position of the USB port on the 9105w wall-mounted AP, this solution is not supported on that particular access point.

Q: How do I find the IoT application for my Catalyst 9100 Access Point?

A: You can find Cisco compatible applications for the access points on Cisco Partner Ecosystem page: https://developer.cisco.com/ecosystem.

Q: Does Cisco provide support for third-party apps?

A: Cisco TAC does not provide support to third-party apps and open source apps unless specifically called out. however, will be validated for compatibility on Cisco APs.

Q: Does Cisco have outdoor access points that adhere to the Wi-Fi 6 standard?

A: Yes. The Cisco Catalyst 9124 Access Points completes your campus' Wi-Fi 6 (802.11ax) network. It offers the same resiliency, security and intelligence found in the Catalyst 9100 indoor access points but in a rugged casing.

Q: Is there just one Cisco Catalyst 9124 Access Point?

A: No. There are three, one that employs an internal omni antenna, one that has an internal directional antenna and one that has an external antenna. The antenna in the Catalyst 9124I means that the coverage is perfect for a wide area and used for general purposes. The use cases for the Catalyst 9124I are college campuses and corporate offices with multiple buildings. The antenna found in the Catalyst 9124D is an internal directional antenna feature and this access point fits the bill for a high-density area. Its best use cases are for stadia, outdoor concert halls and large parks. The Catalyst 9124E is also an omnidirectional antenna, but its antennas are located outside the access point. These access points are best for outdoor warehouse, shopping malls and truck stops.

Q: Does the Cisco Catalyst 9124 Access Points support Cisco RF ASIC?

A: Yes. Much like the indoor Catalyst 9120 and 9130 access points, the Catalyst 9124 APs support RF ASIC, allowing for next-generation Cisco CleanAir. Among other supported features are Flexible Radio Assignment, WPA3, trustworthy systems, Wireless Intrusion Prevention Systems (WIPS), Dynamic Frequency Selection (DFS) detection, Target Wake Time among others.

Q: How many clients per radio does the Catalyst 9124 support?

A: The Cisco Catalyst 9124 access point supports 200 clients per radio. The dual radios are 2.4GHz (4x4:4) and 5GHz (4x4:4) with another built-in BLE radio that is perfect for IoT deployments. The Catalyst 9124 provides both OFDMA and MU-MIMO support.

Q: Will the same Aironet 1560 Access Point brackets be supported for use with the Catalyst 9124 Access Points?

A: The vertical and vertical articulating brackets that support the Aironet 1560 APs can be used. But if using strand or horizontal brackets, these have to be upgraded to fit the Catalyst 9124 Access Points.

Q: Will Mesh deployment be supported on the Catalyst 9124 Access Points?

A: Yes. Mesh deployments will be supported on the Catalyst 9124 Access Points. Embedded Wireless Controller deployment is also supported with the Catalyst 9124 Access Point acting as a controller for up to 100 APs.

Q: Are the Catalyst 9124 access points interoperable with 802.11ac Wave 2 APs?

A: Yes. As long as the 802.11ac Wave 2 Aironet Access Points are run through a Catalyst 9800 Series controller, the Catalyst 9124 APs are interoperable with the previous standard AP.

Q: I want to be able to deploy my Catalyst 9100 access points on-premises or in the cloud without changing my hardware. Can I do that?

A: Yes. With the Cisco Catalyst 9166, 9166D1, 9164, and 9162 access points, customers have the flexibility to choose the type of deployment they want without having to purchase different access points. Cisco has brought together two industry-leading solutions with the Catalyst network architecture and Meraki cloud IT platform, allowing for a choice between operating your network on-premises or in the cloud.

Q: How will the access point hardware be ordered?

A: The Catalyst 9166, 9166D1, 9164, and 9162 access points will be orderable with either a Meraki management mode or a Cisco DNA management mode based on the SKU selected. From there customers can convert between management modes.

Q: What if I have a Catalyst 916x access point deployed on-premises on my network and have decided that I wanted that AP to be cloud-based (or vice versa). Could I change the way I deployed it?

A: Yes. You can make deployment changes whenever you want.

Q: What if I ordered a Catalyst 916x cloud-managed access point and decided before the device was delivered that I wanted to deploy it on-premises—is that allowable?

A: Yes. Customers can decide to deploy the access points via cloud or on-premises whenever they wish. Note: it is important to understand that the Catalyst 916x Access Points must connect to their respective management modes for the first time before they can migrate.

Q: Will the Catalyst 9136 Series or other Catalyst 9100 access points have this functionality too?

A: No. This access is currently available only for the Catalyst 9166, 9166D1, 9164, and 9162 access points.

Q: What is the difference between cloud management and cloud monitoring, and what does it mean for the Catalyst 9166, 9166D1, 9164, and 9162 access points?

A: Cloud monitoring provides comprehensive network visibility; device, client, and traffic observability and insights; and issue diagnosis and troubleshooting. Cloud management has extended network visibility and device, client, and traffic observability and insights. Added capabilities include automation, zero-trust security, and programmability through APIs and ecosystem integration. Cloud management is currently available on the Catalyst 9166, 9166D1, 9164, and 9162 access points, while cloud monitoring will be available in the future.

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Q: What is the difference between Cisco CleanAir and Cisco CleanAir Pro?

A: Cisco CleanAir Pro is spectrum management that can be found on Cisco Catalyst 9100 Wi-Fi 6E access points and thus includes the 6GHz band. It provides zero-wait DFS support on these access points and eliminates the need for one-minute channel availability checks. Instead, the AI/ML-driven scanning radio performs a channel availability check on DFS channels for radar activity. If no radar is found, the channel is added to a list so that the AP can change to that channel and operate on it immediately.

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 9105 Series Access Points: Data sheet.
- Cisco Catalyst 9115 Series Access Points: Data sheet.
- Cisco Catalyst 9120 Series Access Points: Data sheet.
- Cisco Catalyst 9130 Series Access Points: Data sheet.
- Cisco Catalyst 9124 Series Access Points: Data sheet.
- Cisco Catalyst 9136 Series Access Points: Data sheet.
- Cisco Catalyst 9162 Series Access Points: Data sheet.
- Cisco Catalyst 9164 Series Access Points: Data sheet.
- Cisco Catalyst 9166 and 9166D1 Series Access Points: Data sheet.

Q: Where can I find more details on how to order the Cisco Catalyst 9100 Access Points?

A: Please check the ordering guide.

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.

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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 with the purchase of Cisco Catalyst 9100 Access Points (except when connection to the AireOS controllers with a sufficient number of perpetual AP/C1 licenses).

Note: Cisco DNA licenses are required for connecting any access point to the Catalyst 9800 Series Controllers, Cisco DNA Center.

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 9800 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: Customer Smart Accounts allow for existing Cisco DNA licenses to be easily migrated to new access points. The remaining Cisco DNA license term will be consumed on the new access point.

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 and 9130 Access Points both support Flexible Radio Assignment.

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.

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