Wi-Fi CERTIFIED Passpoint®

Wi-Fi demand continues upward trajectory

The growth and demand for Wi-Fi® is well documented - more than 13 billion Wi-Fi devices will be in use by the end of 2019 and more than half of all internet traffic already traverses Wi-Fi networks[1]. The demand for constant connectivity has led a growing array of service providers to integrate Wi-Fi into their core offering and wireless coverage plans, driving an explosion in the number of Wi-Fi hotspots and data carried over Wi-Fi networks. By 2022, global public Wi-Fi hotspots will grow to nearly 550 million and video will represent 79% of all mobile data traffic[2]. Wi-Fi hotspot networks may consist of a single access point (AP) at a café or vast public managed networks such as those found at airports, hotel chains, and stadiums, all contributing to the effort to connect everyone and everything, everywhere.

Wi-Fi CERTIFIED Passpoint® provides seamless, secure access to Wi-Fi hotspots

Developed by Wi-Fi Alliance®, Passpoint® brings seamless, secure Wi-Fi connectivity to any network employing Passpoint enabled Wi-Fi hotspots. Using pre-provisioned credentials or the SIM card in a mobile device to automatically connect, Passpoint provides simple, fast online sign-up and provisioning that is only required upon a user's first visit to a hotspot. Once a Passpoint enabled device contains the hotspot or network credentials, it will discover and securely connect when the user is nearby without requiring additional user action. This makes staying connected while mobile infinitely easier, and because Passpoint employs enterprise-level security, users can feel confident their data is better protected.

Passpoint is already supported by most enterprise-class APs on the market today, and natively supported by major mobile operating systems including Android, iOS, macOS, and Windows 10. With active support from a wide ecosystem of device manufacturers, mobile operators, and service providers, Passpoint benefits both users and Wi-Fi network providers.

Passpoint features

- Automatic network discovery and selection based on user preferences, operator policy, and network availablity

- Simplified online sign-up and account provisioning using a standardized process that works across vendors

- Seamless network access and roaming after initial provisioning has occurred, including to different hotspot networks where carrier and service provider Wi-Fi roaming agreements are in place

- Enterprise-level security through support of WPA2™-Enterprise and WPA3™-Enterprise, with Protected Management Frames (PMF) and additional Wi-Fi Alliance defined security mechanisms

- Operator-specific policies are easily implemented, including network owner terms and conditions policies

- Venue-specific information can be delivered to the user to provide information or monetize the network

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[1] IDC, 2019; Cisco VNI, 2018
[2] Cisco VNI, 2019

Passpoint benefits many types of service providers

Passpoint brings a host of benefits to nearly every type of Wi-Fi service provider:

Telecommunications carriers: Passpoint allows operators to offload data traffic from congested cellular networks, thereby improving the subscriber experience. Some carriers extend their networks by providing managed Wi-Fi service in large facilities such as stadiums and shopping malls. Passpoint can also be utilized for Wi-Fi calling services, bringing users the ability to use their mobile number for texts and calls over Wi-Fi.

Wireline broadband service providers: Cable and other fixed-line operators can deliver more benefits to subscribers, including Wi-Fi service as an enhancement to current in-home wired service offerings, and expanding networks to locations beyond the home. These operators can also offer wholesale Wi-Fi access to roaming partners.

Public Wi-Fi network operators: The importance of public Wi-Fi access has led to new businesses focused on offering Wi-Fi access for restaurants, retail locations, transportation hubs, and cities. Wi-Fi has become a tool to attract and retain customers, and encourage direct purchases of goods or services. Public Wi-Fi operators can also partner with telecommunications service providers seeking to expand Wi-Fi offerings.

Managed network providers: Enterprises and other private networks, such as hotel chains, are experiencing increasing volumes of devices seeking to connect, emerging use cases and device classes to support, and stringent network security requirements to meet. These network administrators can rely on Passpoint's powerful device registration and certificate-based credential management tools to simplify network management and device on-boarding.

Passpoint and Wi-Fi CERTIFIED Vantage™

Passpoint is a key component of Wi-Fi CERTIFIED Vantage, a suite of technologies that drastically improve the user experience in managed networks. Wi-Fi Vantage™ devices layer the benefits of Passpoint's seamless light-touch authentication, better resource management, enterprise-level security, and high performance Wi-Fi to bring a better user experience in challenging network environments.

Wi-Fi CERTIFIED™: Technology to trust

Since 2000, Wi-Fi Alliance has been driving the adoption and evolution of Wi-Fi through the Wi-Fi CERTIFIED program. The Wi-Fi CERTIFIED logo designates products with proven interoperability, backward compatibility, and the highest industry-standard security protections in place. Wi-Fi CERTIFIED devices can communicate with previous and future generations of Wi-Fi technologies, enabling Wi-Fi CERTIFIED devices to provide a seamless, interoperable experience with a multitude of other Wi-Fi devices for years to come.

Wi-Fi performance has advanced by more than 100 times since its inception and continues to evolve over time. Wi-Fi CERTIFIED devices give consumers confidence that the product they purchase will deliver a good user experience, with the security protections needed for current and emerging uses.

Learn more: https://www.wi-fi.org/passpoint