



Consolidated Technology Services • WA

# CTS Wireless Service

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## Frequently Asked Questions (FAQ)

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This document lists the CTS Wireless Service's most frequently asked questions and their responses. The intent of compiling and publishing these FAQs is to build and promote a common knowledge base for all project stakeholders.

These FAQs are presented in order by general service offering area or related topic.

# CTS Wireless Service Frequently Asked Questions (FAQ)

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# CTS Wireless Service Frequently Asked Questions (FAQ)

## GENERAL SERVICE QUESTIONS

### Are there any prerequisites to being a customer of the CTS Wireless Service?

Yes. In order to participate in the CTS Wireless Service, agencies must meet the below requirements:

Basic Requirements for the CTS Wireless Service	Local Agency	Roaming	Guests
✓ Connectivity to the State Government Network (SGN)	Required	Required	Required
✓ Member of the CTS Enterprise Active Directory Forest (EAD)	Required	Required	-
✓ Connectivity to the CTS MPLS Wide Area Network (Agency VRF)	Required	Required	-

### Can the general public access the internet via the CTS Wireless Service?

The CTS Wireless Service is available to the customers of CTS (state agencies, boards, and commissions) and their guests. CTS Wireless does not offer unfettered public access to the internet. There are four wireless networks available for customers.

The following wireless networks will be available for agencies to provide to their users. Users will connect by choosing one of the “SSIDs” (Service Set Identifiers) in their devices wi-fi settings. Agencies may choose which SSIDs they prefer to broadcast.

Wireless Networks/SSIDs	Users	Access to	Authentication
<Local Agency Name>	Employees	Agency resources (i.e., State Government Network or “SGN”, agency specific resources, public resources, web browsing, etc.)	Active Directory & User Certificate
Roaming	Employees	Agency resources while visiting another agency using CTS Wireless service	Active Directory & User Certificate
Sponsored Guest	Guests	Internet	Assigned Username & Password
Guest	Guests	Internet	Pre-Shared Key

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## How do my guests gain access to the wireless network?

Customer agencies have two options for providing their guests with access. They may choose one or both.

1. **Guest** – this wireless network is accessible by entering a pre-shared key. CTS will configure the pre-shared key, communicate the current key with customer agencies, and update the key periodically.
2. **Sponsored Guest** – this wireless network is accessible by entering an assigned username and password. Customer agencies will designate a “sponsor” who will log in to the Sponsor Portal to create accounts for guest users. The guests will receive an email with their assigned username and password.

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## TECHNICAL ADMINISTRATION QUESTIONS

### What do I do if I forgot my password for my Cisco Prime administrative or Sponsor Portal account?

Step 1 Contact CTS Service desk (Service desk will create a call ticket and send to Wireless Team)

- Provide application administrative account username.
- Identify the application you are experiencing issues with.
- Provide contact information: phone number/email.

Step 2 Wireless team receives call ticket

- Contacts Customer for further assistance.

#### CTS Servicedesk Contact Information

Telephone: (360) 753-2454 or toll free 1-888-241-7597

Email: [ServiceDesk@cts.wa.gov](mailto:ServiceDesk@cts.wa.gov)

### What web browsers are supported with Prime version 1.4?

The following web browsers work with Prime 1.4.

- Chrome – 25, 26, 27, and later releases
- Firefox - 17 and later releases
- Internet Explorer – 8 or 9 with Chrome Frame plug-in. Chrome Frame plug-in is no longer supported as of 2014. Native Internet Explorer is not supported.

Note that Adobe Flash Player browser flash plug in 10.2 and later versions are required.

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## What are the technical specifications on the Aironet 2700 series Access Point?

Cisco's link to the Aironet 2700 series data sheet:

<http://www.cisco.com/c/en/us/products/collateral/wireless/aironet-2700-series-access-point/datasheet-c78-730593.html>

## How do I mount the wireless access points?

Link to Cisco's Aironet Series 2700/3700 Access Point Deployment Guide:

[http://www.cisco.com/c/en/us/td/docs/wireless/technology/apdeploy/7-6/Cisco\\_Aironet\\_3700AP.html](http://www.cisco.com/c/en/us/td/docs/wireless/technology/apdeploy/7-6/Cisco_Aironet_3700AP.html)

## Can access points be installed on table tops and desks?

Yes. Cisco recommends access points with integrated antennas perform best when the access point is mounted on horizontal surfaces such as a table top or ceiling. For advanced features such as voice, location, and rogue access point detection, ceiling mounting is strongly recommended. However, for smaller areas such as conference rooms, kiosks, transportation environments, or hot-spot usage where data coverage is the primary concern, the unit may be wall mounted using an Oberon Right-Angle mounting bracket. Some things to consider when planning APs on table tops and desks are possible damage from the AP being knocked off structure, APs being moved without IT knowledge, or theft.

## What is a wireless site survey?

A wireless site survey is the process of planning and designing a wireless network. A site survey assesses the Radio Frequency (RF) behavior in a specific environment. Many issues can arise in a wireless network due to poor planning coverage. CTS offers three types of wireless site surveys: predictive, pre-deployment, and post deployment.

Predictive site surveys are performed through a software program to estimate coverage areas and AP placement based on RF algorithms. Predictive site surveys do not occur at the customer site. During a predictive survey, a model of the RF environment is created using simulation tools. It is essential that the correct information on the environment is entered into the RF modeling tool, including location and RF characteristics of barriers like walls or large objects. Virtual access points are then placed on the floor plan to estimate expected coverage and adjust their number and location.

Predictive site surveys are used:

- When the deployment environment has not yet been built.
- In order to obtain a budgetary estimate for WLAN-related hardware
- When roaming requirements are less stringent.

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Pre-deployment site surveys are performed at the customer location before APs are installed. During a pre-deployment site survey, a site survey application passively listens to WLAN traffic to detect active access points, measure signal strength and noise level. Pre-deployment site surveys accomplish the following tasks:

- Identify rogue devices
- Locate RF trouble zones
- Validate final RF settings

For system design purposes, one or more temporary access points are deployed to identify and qualify access point locations. Pre-deployment site surveys are also known as passive site surveys.

Post deployment site surveys are conducted at the customer location after the APs are installed to validate Wi-Fi performance. Post deployment site surveys are performed with a survey client associated to the APs to measure round-trip time, throughput rates, packet loss, and retransmissions. Post deployment site surveys are also known as active site surveys.

Wikipedia link to wireless site survey: [http://en.wikipedia.org/wiki/Wireless\\_site\\_survey](http://en.wikipedia.org/wiki/Wireless_site_survey)

Ekahau wireless site survey best practices: [http://www.ekahau.com/userData/ekahau/wifi-design/Best\\_practices\\_for\\_WLAN\\_design.pdf](http://www.ekahau.com/userData/ekahau/wifi-design/Best_practices_for_WLAN_design.pdf)

Cisco Wireless FAQ: <http://www.cisco.com/c/en/us/support/docs/wireless-mobility/wireless-lan-wlan/68666-wireless-site-survey-faq.html#qa1>

Cisco Wireless Site Survey Guidelines: <http://www.cisco.com/c/en/us/support/docs/wireless/5500-series-wireless-controllers/116057-site-survey-guidelines-wlan-00.html#anc6>

## What is FlexConnect?

FlexConnect is a wireless solution for branch office and remote office deployments. It enables you to configure and control APs in a branch or remote office from the corporate office through a WAN link without the deployment of a controller in each office. The FlexConnect APs can switch client data traffic locally and perform client authentication locally. When they are connected to the controller, they can also send traffic back to the controller. FlexConnect is for small/medium remote office deployments with less than 50 AP's and less than 200-300 devices. There are limitations so be sure and talk to your wireless service representative and review the FlexConnect Feature Matrix link below.

Comparison of FlexConnect and Local mode APs

	FlexConnect Mode Local Switching	Local Mode Central Switching
Latency between AP and Controller	100ms RTT for Voice/ 300ms Max RTT for data	100ms RTT for Voice/ 300ms RTT for data
Good for small-medium offices <b>without</b> high-speed WAN back to CTS and many local network resources	YES	NO

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	FlexConnect Mode Local Switching	Local Mode Central Switching
Layer 3 seamless roaming between access points	NO	YES
Layer 2 seamless roaming between access points	YES	YES
Multicast support	NO (not recommended for service providers)	YES
Apple Bonjour and mDNS services	NO	Yes
Requires local site to support 802.1Q trunking and create new wireless network for FlexConnect Users	YES (requires 802.1Q trunk port)	NO (requires access port)
Quality of Service	YES (but QoS markings are done on the local switches in each office)	YES
Application Visibility and Control (AVC) via wireless	NO	YES
Device Profiling	YES (very limited profiling capabilities No HTTP or DHCP profiling)	YES
Mesh APs	NO	YES

Cisco's link to the FlexConnect Feature Matrix:

<http://www.cisco.com/c/en/us/support/docs/wireless/5500-series-wireless-controllers/112042-technote-product-00.html>