



Consolidated Technology Services • WA

# CTS Wireless Service

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## Frequently Asked Questions (FAQ)

Version 2  
February 18, 2015

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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## 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. Customers have the option to broadcast the Guest Network using a pre-shared key.

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: one, some or all.

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

### How do my guests gain access to the internet?

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

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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 every 120 days.
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.

## Does CTS offer unfettered public access to the internet?

CTS Wireless does not offer unfettered public access to the internet at this time.

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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>

## What are the performance benefits to using PoE+ vs PoE with the 2700 series access point?

When using PoE+ an additional transceiver is available in the access point, which will result in less retries and faster connection speeds at greater distances than with the PoE.

## Are we doing any kind of monitoring for rogue devices?

Yes, CTS is currently monitoring rogue devices through the Cisco Prime application. Customers with Cisco Prime Admin accounts also have the ability to monitor rogue devices.

Below is a Cisco guide with some more information about how Rogue devices are detected.

[http://www.cisco.com/c/en/us/td/docs/wireless/mse/3350/5-2/wIPS/configuration/guide/msecg\\_wIPS/msecg\\_appB\\_wIPS.html](http://www.cisco.com/c/en/us/td/docs/wireless/mse/3350/5-2/wIPS/configuration/guide/msecg_wIPS/msecg_appB_wIPS.html)

## How do I mount the wireless access points?

In the Customer Readiness Documents Library on the ASK Wireless SharePoint site you'll find the [Access Point Mounting Options](#) document. The purpose of the document is to identify and illustrate which access point brackets are included in the CTS Wireless Service along with mounting instructions.

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. Although access points with integrated antennas perform best when the access point is mounted on horizontal surfaces such as a table top or ceiling. CTS Wireless provides this option for the Lite deployment scenario (conference room or to pilot the service at a customer site). Ceiling mounting is strongly recommended for advanced features such as voice, location, and rogue access point detection.

Some things to consider when deploying access points on table tops:

- Possible damage from the access point being knocked off the structure,
- Access points being moved without IT knowledge, or
- Theft.

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Customers who deploy access points on tabletops must secure them using a lock. Cisco recommends any of the following locks:

- Kensington Notebook Microsaver (Model number 64068)
- Master pad locks model 120T
- Master pad locks model 121T

## FLEXCONNECT

### What is FlexConnect?

FlexConnect is a wireless solution for branch office and remote office deployments. It enables you to configure and control access points 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 access points 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 access points 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 Access Points

	FlexConnect Mode Local Switching	Local Mode Central Switching
Latency between Access Point 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
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	YES

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	FlexConnect Mode Local Switching (but QoS markings are done on the local switches in each office)	Local Mode Central Switching
Application Visibility and Control (AVC) via wireless	NO	YES
Device Profiling	YES (very limited profiling capabilities No HTTP or DHCP profiling)	YES
Mesh Access Points	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>

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## SITE SURVEYS

### 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. The CTS Wireless Service 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 access point 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.

Pre-deployment site surveys are performed at the customer location before access points 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

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- Validate final RF settings

Post deployment site surveys are conducted at the customer location after the access points are installed to validate the design requirements were met. Post deployment site surveys are performed with a survey client associated to the access point 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>

## Can we do our own Site Surveys?

Only CTS' site surveys will be used for the CTS Wireless Service. Similar to any network provider, CTS needs to do our due diligence to warrant the best wireless experience for our customers.

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## SECURITY

### Can we change the SSIDs for access points from their factory defaults?

The CTS Wireless Service technicians create each SSID; therefore, there are no factory default SSID's that need to be changed.