Release Notes for Cisco 2700 and 2710 Location Appliances for Software Release 2.0.48.0

June 2, 2006

These release notes describe features, enhancements, and caveats for software release 2.0.48.0 for Cisco Location Appliances. This release of location appliance software supports both Cisco 2700 and 2710 location appliances and operates with Cisco Wireless LAN Solution versions 3.2, 3.1, and 3.0.

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Introduction

Location appliance software release 2.0.48.0 supports Cisco 2700 and 2710 location appliances that operate with Cisco Wireless LAN Solution version 3.2, 3.1, and 3.0. Location appliances enhance the built-in Cisco WCS location capabilities by computing, collecting, and storing historical location data, which can be displayed in Cisco WCS. In this role, the location appliance acts as a server to one or more Cisco Wireless Control System (WCS) servers, collecting, storing, and passing on the location from its assigned Cisco wireless LAN controllers.

System Requirements

You can install this software release on any 2700 or 2710 location appliance.

Compatibility Matrix

Table 1 describes compatibility between WCS and location server versions.

Table 1 WCS and Location Server Compatibility Matrix

WCS \ Location Server	LOC 1.1	LOC 1.2	LOC 2.0
WCS 3.0	Supported	Supported[1]	Not supported
WCS 3.1	Supported[2]	Supported	Supported from WCS 3.1.35.0 onward[3]
WCS 3.2	Supported[2, 3, 4, 5]	Supported[3, 4, 5]	Supported

1. Certain antenna attributes are ignored by WCS.
2. Certain antenna attributes are ignored by the location server.
3. Asynchronous notification features are ignored by the location server.
4. Backup and restore operations for the location server may time out.
5. Searching for elements by a specific MAC address or asset name will not work until the location server SW is upgraded.

Upgrading to this Software Release

For instructions on using Cisco WCS to install this software on location appliances, refer to the *Cisco Wireless Control System Configuration Guide*.

Click this link to browse to that document:

http://www.cisco.com/en/US/products/ps6305/products_installation_and_configuration_guides_list.html

Backup of Release 2.0.x and Later Cannot Be Restored on Previous Releases

A backup from this release of location appliance software cannot be restored on a location appliance running an earlier release. Before you upgrade a location appliance to this release, Cisco recommends that you create a backup for the earlier release and archive it. This will allow you to convert an upgraded system to an earlier release, if necessary.

Location Appliance Image is Compressed

If you download the server image *.gz file, the location appliance automatically decompresses (unzips) it, and you can proceed with the installation as before. If you manually download the compressed *.gz file using FTP, you must first decompress the files before running the installer. These files have been compressed under the LINUX operating system and must be decompressed using the *gunzip* utility program. The unzip method you use is defined by the filename you are trying to unzip. To make the bin file executable, use the following command:

```
chmod +x filename.bin
```

Important Notes

This section describes important operational notes for the location appliance. There are no new features for this release.

Operational Notes

Please review the following operational notes for this release:

Recovering Lost Root Password

If you lose or forget the root password for the location appliance, you can recover the password by doing the following:

Step 1 When the GRUB screen comes up, press **Esc** to enter the boot menu.

Press **e** to edit.

Step 2 Navigate to the line beginning with "kernel," and press **e.**

At the end of the line enter a space and the number one (**1**). Press **Enter** to save this change.

Step 3 Press **b** to begin boot sequence.

At the end of the boot sequence, a shell prompt appears.

Step 4 You can change the root password by entering the **passwd** command.

Step 5 Enter and confirm the new password.

Step 6 Restart the machine.

Location History Timestamps Match Browser's Locale

The WCS timestamp is based on the browser's location and not on the location appliance settings. Changing the time zone of the WCS or on the location appliance does not change the timestamp for the location history.

Assign a Controller/Network Design/Event Group to a Location Appliance Before Using Auto-Synch

With auto-synchronization, controllers, network designs, and event groups that are detected as unsynchronized are synchronized automatically. Before this automatic synchronization can be enabled, you must assign a controller, event group, or network design to a location appliance.

Controller Name Must be Unique Before Synchronization

The assigned controller names must be unique. If the controller names are duplicated, the synchronization process occurs only on one controller.

Caveats

This section lists open caveats in location appliance release 2.0.48.0.

Open Caveats

The following caveats are open (unresolved) in this release.

- CSCsc09186—When you perform the location calibration, the process of taking data points can take up to one minute per point if a single controller is unreachable.

  Workaround: Verify that controllers are reachable during calibration or remove the controllers that are not accessible.

- CSCsc64772—When aggressive polling or historical parameters are configured in the location server, such as polling for all element categories every 10 seconds and saving history points every minute, the database operations can take longer to complete, and the server can momentarily take longer to respond to requests.

  Workaround: No known workaround.

- CSCsd05107—Conducting a client search using the 802.11b/g protocol filter will return the 802.11b users but not the 802.11g users.

  Workaround: Do not filter by the 802.11b/g protocol option. Select the all option.

- CSCsd29958—If you modify the SNMP access for a controller in WCS and push the changes to the location server, the changes do not take effect until you either restart the location server or unassign or reassign the controller to the location server on the synchronization page.

  Workaround: Restart the location server or reassign to or unassign the controller from the location server on the synchronization page.

- CSCsd36689—Access points in monitor mode do not detect probing clients as efficiently as when configured for local mode. These access points do not track the clients' RSSI values and do not contribute location information to the location appliance.

  Workaround: Configure the access points for local mode.

- CSCsd95125—Client list will display client on the correct floor; however, the mini-map will display the client on a different, incorrect floor. Links to a client's resident floor are also incorrect.

  Workaround: Upgrade to release 2.1.x and resynchronize WCS and the location appliance to correct the mistaken placement.

- CSCsd95144—Location History may report an incorrect 802.11 state for clients in the Location History table and in the Client Details page when you change from associated to disassociated.

  Workaround: No current workaround.

Resolved Caveats

The following caveats are resolved in this release:

- CSCsd18053—Prior to this release, when WCS was configured to use a location appliance to get client statistics via polling and the time difference between WCS and the location was greater than the polling interval, the client statistics would not get new data from the location.
- CSCsd30763—Prior to this release, a period (.) in the name of a summary building or campus name would cause a synchronization error.
- CSCsd59889—When a customer network was configured with 6,500 elements on a single location server and history was being tracked every 30 minutes, network performance issues occurred.

  Two issues addressed this issue (1) reminder that version 2.0.x of the location appliance is only designed to support 1,500 elements, and; (2) a recommendation to upgrade to version 2.1.x which provides support for 2,500 elements.
- CSCsd67122—Prior to this release, changes associated with removal of an element (e.g. switch) from a location server were not recognized by the location server until the location server was restarted.

If You Need More Information

If you need information about a specific caveat that does not appear in these release notes, you can use the Cisco Bug Toolkit to find caveats of any severity. Click this URL to browse to the Bug Toolkit:

http://tools.cisco.com/Support/BugToolKit/

(If you request a defect that cannot be displayed, the defect number might not exist, the defect might not yet have a customer-visible description, or the defect might be marked Cisco Confidential.)

Troubleshooting

For the most up-to-date, detailed troubleshooting information, refer to the Cisco TAC website at http://www.cisco.com/cisco/web/support/index.html. Click **Technology Support**, choose **Wireless** from the menu on the left, and click **Wireless LAN**.

Documentation Updates

Addition to the Quick Install Guide

The *Quick Start Guide: Cisco 2700 Series Location Appliance* should include the following information for location appliances.

When you have a non-default port or HTTPS turned on, you must pass the correct information along with the command. For example, *getserverinfo* must include *-port <<port>> -protocol <<HTTP/HTTPS>>*. Similarly, for stopping the server, *stoplocserver - port <<port>> -protocol <HTTP/HTTPS>>*.

Additional Sections for the Location Appliance Installation Guide

Configuring NTP Server

You can configure NTP servers to set up the time and date of the 2700 location appliance.

The /etc/ntp.conf file is the main configuration file in which you place the IP addresses or DNS names of the NTP servers you want to use (see the following example).

```
server ntp.mydomain.com # my corporate NTP
server 192.168.2.5 # my second NTP
```

To get NTP configured to start at bootup, enter the following:

```
[root@loc-server1]# chkconfig ntpd on
```

To start, stop, and restart NTP after booting, follow these examples:

```
[root@loc-server1]# service ntpd start
[root@loc-server1]# service ntpd stop
[root@loc-server1]# service ntpd restart
```

After configuring and starting NTP, make sure it is working properly. To test whether the NTP process is running, use the following command:

```
[root@loc-server1]# pgrep ntpd
```

You should get a response of plain old process ID numbers.

Enter the *ntpdate -u<serverIP>* command to force your server to become instantly synchronized with its NTP servers before starting the NTP deamon for the first time (see the following example).

```
[root@loc-server1]# service ntpd stop
[root@loc-server1] ntpdate -u 192.168.1.100
Looking for host 192.168.1.100 and service ntp
host found: ntp1.my-site.com
12 Aug 08:03:38 ntpdate[2472]: step time server 192.168.1.100 offset 28993.084943 sec
[root@smallfry tmp]# service ntpd start
```

For more information on the NTP configuration, consult the Linux configuration guides.

Connecting to the Console

The DB9 pinout to connect to the console is as follows:

Table 2 Pin Assignments for DB9 Pinout

Pin	Assignments	Description
1	DCD	Data Carrier Detect
2	RD	Receive Data
3	TD	Transmit Data
4	DTR	Data Terminal Ready
5	SG	Signal Ground
6	DSR	Data Set Ready
7	RTS	Request to Send
8	CTS	Clear to Send
9	Ring	Ring Indicator

Related Documentation

This section lists documents related to location appliances:

- *Cisco Wireless Control System Configuration Guide*
- *Cisco Wireless LAN Controller Command Reference*
- *Cisco 2700 Series Location Appliance Installation and Configuration Guide*

Obtaining Documentation and Submitting a Service Request

For information on obtaining documentation, submitting a service request, and gathering additional information, see the monthly *What's New in Cisco Product Documentation*, which also lists all new and revised Cisco technical documentation, at:

http://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html

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