

Cisco Location Solution Version 4.2 Enhancements

Executive Summary

More companies are beginning to deploy location solutions to track mobile devices wirelessly in order to streamline business processes and improve employee responsiveness. While the number of proprietary location solutions available in the industry is increasing, it is important for companies to choose a solution that is flexible, high-performing and manageable.

The Cisco Location Solution

With the latest enhancements of the Cisco® Location Solution, companies now have more flexibility than ever when they are choosing a location solution. The Cisco Location Solution allows customers to locate devices wirelessly across the Cisco Unified Wireless Network. Cisco has added new features to provide better coverage and easier management.

New Features

Inter-floor Differentiation

Cisco now allows customers to determine the floor location of a mobile asset more precisely with inter-floor differentiation. For instance, it is possible to determine the location of a person with a Wi-Fi tag on a specific floor of the building and know when they entered the floor. It is also possible to track laptops, Wi-Fi phones, and telemetry-enabled devices as they move throughout the WLAN. This feature is especially beneficial in buildings with unconventional shapes such as hospitals shown in Figure 1.

Figure 1. Hospital Building



Organizations have the flexibility to choose from the following inter-floor location configurations to meet their specific needs:

- **Chokepoint location method**—Notifications are triggered by the chokepoint as the Cisco Compatible Extensions Wi-Fi tags come within range of a chokepoint. Once the tag gets excited by chokepoint, it sends a notification to location appliance Chokepoints are typically deployed in areas such as an entry or exit of a floor.

- **Wi-Fi location methods**—Updated location algorithms provide inter-floor location accuracy without the need to install chokepoints.
- **Simultaneous use of both methods**—The solution supports both chokepoints and the Cisco Wireless Location Appliance inter-floor methods simultaneously for higher accuracy.

Element Partitioning and Access Control Lists

Cisco now offers customers the ability to choose which type of devices to locate and track. Wi-Fi devices and tags can now be divided into groups for simplified tracking and optimization with resource allocation. Once placed in a group, a device or tag is tracked as a member of the group instead of as an individual device. This simplifies device management by reducing the number of devices that are being tracked individually in the Cisco Wireless Location Appliance shown in Figure 2.

Figure 2. Cisco Wireless Location Appliance



In addition to partitioning devices, it is also possible to filter and exclude devices from being tracked by the location appliance. Filters can be created using a range of MAC addresses, which can be imported from a comma-separated values (CSV) or text file to provide easier management. For example, an employee with a Wi-Fi phone and laptop can be tracked from just the Wi-Fi phone in order to track only one device instead of two per user and thus allot space on the Cisco Wireless Location Appliance for other mobile assets. Improved utilization and control through the Cisco Wireless Location Appliance enhances the overall manageability of the Cisco Location Solution.

Benefits

The Cisco Location Solution offers the following critical benefits:

- **Increased flexibility**—Customers can choose the location solution that best fits their specific needs, scalability requirements, and desired accuracy level.
- **Enhanced building coverage**—Inter-floor differentiation allows customers to more accurately assess the location of mobile assets (for example, laptops, Wi-Fi tags, Wi-Fi phones, and telemetry-enabled devices) as they move throughout the wireless LAN.
- **Manageability**—Element partitioning and access control lists offer effective resource management and control of resources by tracking only desired elements.

Summary

The latest enhancements of the Cisco Location Solution allow customers to deploy a location solution that offers increased flexibility, enhanced building coverage and better manageability. Customers can determine the floor location of a mobile asset more precisely with inter-floor differentiation and manage the location solution easier with element partitioning and access control lists.



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