

What Is the Value of Context-Aware Mobility?

As mobile networks become more pervasive and mobile devices evolve to support multiple wireless technologies, enterprises are challenged with meeting and exceeding their business mobility goals.

With context-aware mobility, mobile users can go beyond simple anytime, anywhere connectivity to determine valuable information about devices, assets, and users. For example, when moving into a new building, a mobile user will now be able to quickly consult an instant messaging application to determine the location of other team members, their availability, and the best method for reaching them. Mobile users will now be able to answer business-critical questions about mobile assets and users, such as: Where are they? Where is it? What is the current condition? What is the asset or person's status? Context-aware mobility can help enterprises enhance the experience of their mobile users and at the same time improve profitability.

What Problems Need to Be Solved?

The challenge is to provide the real-time data for the mobile assets and to do so automatically—in spite of having disparate networks and managing an increasing number of devices.

The primary business challenges include:

- **Zone or inventory management**—Need to define zones and track mobile assets when they enter or exit specified zones
- **Asset tracking**—Need to locate mobile assets anywhere in the campus, preventing the loss of equipment and monitoring the location of valuable assets
- **Condition tracking**—Need to monitor the environmental conditions of mobile assets, including fixed locations like room temperature
- **Presence**—Need to automatically update the status of employees and provide the best way to reach them

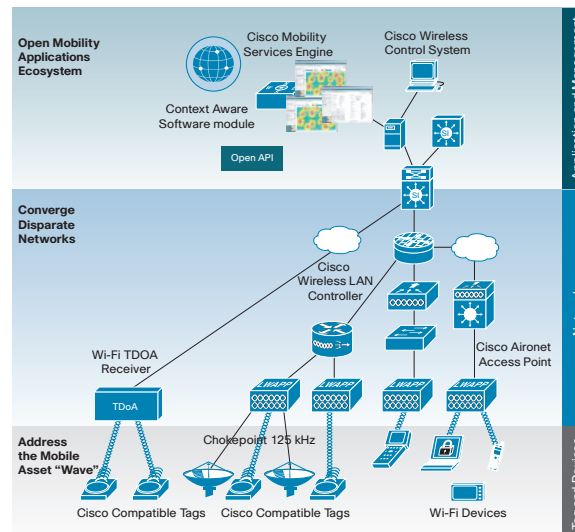
- **Network location services**—Need to identify interference zones, locate rogue devices, and associate network access with the physical location

Solution: Context-Aware Mobility

Context-aware mobility is the ability to dynamically capture and use contextual information about mobile assets. Contextual information can be automatically collected using the Wi-Fi connectivity of the asset (for example, laptops or Wi-Fi phones) or for assets that don't have intrinsic wireless, by attaching radio frequency (RFID) tags. In addition to ID information, the context data collected may include the date, the time of the day, its physical location, the surrounding temperature, humidity or pressure, whether the asset is in motion or not, and any other information relevant to the business process. Context information can be extracted from both indoor, high ceiling, and outdoor environments.

Figure 1 illustrates the new mobility architecture. The components of the Cisco Context Mobility Solution include mobile assets such as Wi-Fi devices and Wi-Fi tags from the Cisco Compatible Extensions program, the Cisco Unified Wireless Network, Cisco Mobility Services Engine, and the Cisco open API.

Figure 1 Cisco Context-Aware Mobility Architecture



What Are the Benefits of Context-Aware Mobility?

Deploying a context-aware mobility solution can benefit the entire corporation, including business decision makers, technical decision makers, and end users:

- **Greater efficiency in finding the right solution to business problems**—Context-aware mobility allows businesses to find the contextual information they need right away. For example, with sensors, the system can send an alert when the temperature of perishable goods exceeds a certain threshold.
- **Seamless integration with existing networks and applications for faster adoption**—Cisco offers an open API with the Context-Aware Mobility Service module, making it easier for technology partners to integrate their applications and for customers to choose the right application over the right network for particular users. The solution is especially appropriate for companies in which users and mobile assets move between indoor or outdoor wireless networks.
- **Centralized management and visualization to reduce complexity**—Corporations can gain more complete and accurate insight into the business. IT managers can use a single platform to manage and monitor their wireless networks and locate rogue devices.

Why Cisco?

Cisco is a leader in the industry in providing context-aware mobility and is a catalyst in transforming the wireless industry based on its innovation, participation, and collaboration. To learn more, visit: <http://www.cisco.com/go/contextaware> and <http://www.cisco.com/go/wireless>.