Cisco Mobility Services Engine and Services

The Cisco Mobility Services Engine supports various services within the overall Cisco Unified Wireless Network (CUWN).

The Cisco Mobility Services Engine currently supports the following services:

- Location Service—Also known as Context Aware Service (CAS). This is the core service of the Mobility Services Engine (MSE) that turns on Wi-Fi client tracking and location API functionality. Allows MSE to simultaneously track thousands of mobile assets and clients by retrieving contextual information such as presence, location, telemetry data, and historical information.
- Wireless Intrusion Protection Service—Provides wireless-specific network threat detection and mitigation against malicious attacks, security vulnerabilities, and sources of performance disruption within the CUWN infrastructure. wIPS visualizes, analyzes, and identifies wireless threats, and centrally manages mitigation and resolution of security and performance issues using Cisco monitor mode and Enhanced Local Mode (ELM) Access Points. Proactive threat prevention is also supported to create a hardened wireless network core that is impenetrable by most wireless attacks.
- Mobile Concierge—Mobile Concierge enables the Cisco Mobility Services Advertisement Protocol (MSAP). This protocol enables direct communication between the MSE and mobile devices, allowing content to be pushed directly to the mobile device pre-association. This functionality is dependent on the mobile device supporting 802.11u and MSAP.
- CMX Analytics Service—The CMX Analytics service analyzes wireless device location information in a particular network. The CMX Analytics service uses the data provided by the Cisco Mobility Services Engine (MSE) to calculate the location of Wi-Fi devices in the Wireless Local Area Network (WLAN). In addition, the FastLocate feature sends information about the RSSI strength of data packets to the Cisco WLC that can be used for location calculations.

  When a wireless device is enabled in a network, it transmits probe request packets to identify the wireless network in its neighborhood. Even after connecting to the access point in the WLAN, the client devices continue to transmit probe request packets to identify other access points for better quality of service. The access points gather these request and the associated RSSI from the various wireless devices and forwards them to the Wireless LAN Controller (WLC). The controller then forwards this information to the MSE.

  The basic data that is collected from various APs, when analyzed, produces information and knowledge about the movement and behavior patterns of people who are using Wi-Fi devices in the building. For example, the building can be an airport, shopping mall, city center, and so on. The CMX Analytics service helps the airport authorities or the building owners to understand the movement of passengers or customer within their building. This helps them improve the signage, make changes to the under utilized areas, and so on.

For more information about the Cisco MSE, see the Cisco Prime Infrastructure Classic View Configuration Guide for Wireless Devices, Release 2.2 at the following URL:

http://www.cisco.com/c/en/us/td/docs/wireless/prime_infrastructure/2-2/configuration/guide/pi_22_cg/mse.html