

Openwave® Location Studio

Openwave® Location Studio makes launching location-based services simple, secure and scalable. Location Studio enables delivery of commercial services by providing a fully-mediated connection between any number of third-party location-based applications and the underlying service enablers within the communications service provider (CSP) network. Location Studio ensures proper authentication of third-party application requests along with the enforcement of opt-in subscriber privacy policies. In addition, optional service enablers are provided for mediated third-party access to messaging, billing and subscription validation functions, which are vital components of the service offering. Location Studio is compatible with other Openwave products, and allows for simple integration into the CSP's environment, including value-added services infrastructure, subscriber portal and operational support systems.

Benefits

- Privacy controls are in the hands of subscribers, promoting trust between the CSP and the subscriber and increasing usage of the service, thereby reducing churn and increasing ARPU
- Efficiently scales to tens of millions of users with a distributed architecture
- Based on open standards, providing a flexible and extensible solution
- Easily integrates with and leverages existing Openwave® Mobile Access Gateway infrastructure
- Integrate once with network infrastructure (location server, SMSC, WAP gateway) and operational support systems (billing, provisioning, surveillance and portal) and not with every new application
- Third-party request mediation delivers a safe, secure service access point
- Abstracted service access points allow application partners to integrate once to Location Studio rather than separately with each CSP
- APIs are fully supported with best-in-class application partners and solution providers through the Openwave Developer Program
- Opt-in subscriber privacy policies satisfy regulatory and standards-based requirements

Features

Third-party Request Mediation

Location Studio is built to handle hundreds of location applications and millions of subscriber requests, authenticating each one and preventing unauthorized access. XML and Web-services interfaces provide access for location requests, messaging, subscription validation and service billing. Mediation of third-party access ensures secure authentication and authorization of all requests. Application profiles allow access privileges to be established and maintained on a per-application basis.

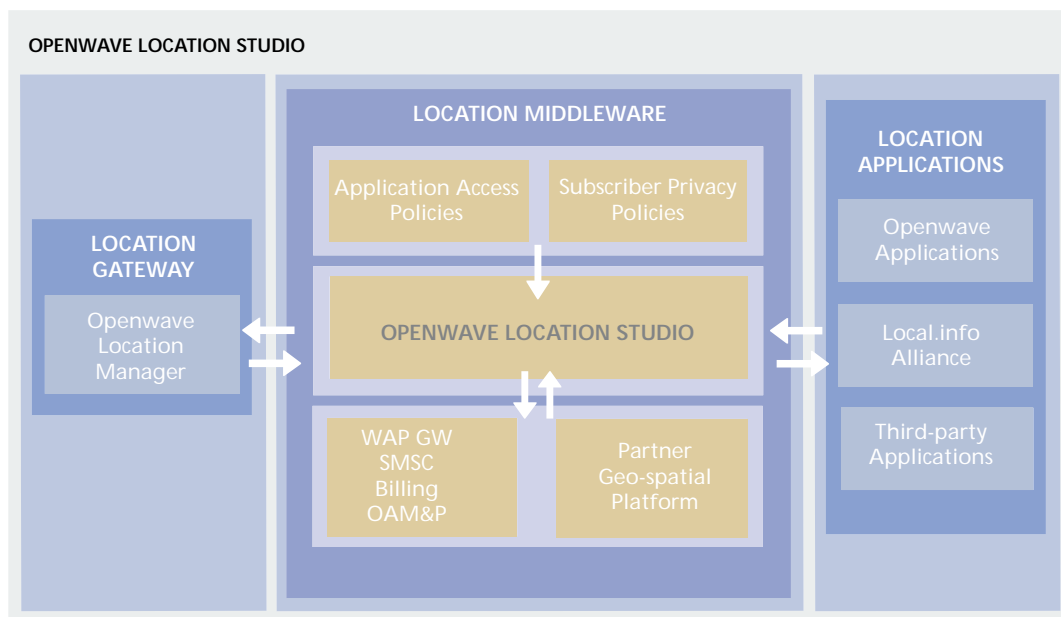
Privacy Policy Personalization and Enforcement

Location Studio integrates with the CSP subscriber portal, allowing subscribers to create and update personal profiles via the Web or their mobile phones, with Wireless Application Protocol (WAP) or short message service (SMS). Location Studio's subscriber privacy features allow mobile subscribers to control which services have access to their location. Subscribers can control how, when and where specific location-based services can receive their location and can even become "invisible" if they choose to. Notification options allow a subscriber to be notified of positioning attempts, and give the subscriber the power to authorize requests in real-time.

Subscription Management

Location Studio provides features that allow CSPs to manage services that are available to the subscriber and prevent access to and by unauthorized services. External applications can use the subscriber validation service to verify if a potential subscriber is a customer of the CSP and

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authorized to use the service. With appropriate integration, the subscriber validation service can also check if the subscriber has adequate pre-pay credits for a requested service.

Supports Industry Standard Interfaces

Openwave is a founding member of the WAP Forum and involved in other applicable industry and standards organizations. Location Studio is compatible with the globally recognized WAP as well as location industry specific standard interfaces, such as Location Interoperability Forum, Mobile Location Protocol (LIF-MLP) and Open GIS Consortium's OpenLS.

Integration with Third-party Geo-spatial Servers

Privacy and access capabilities of Location Studio are extended to trusted partners (for example, providers of spatial and content engines). CSPs may integrate one or more third-party platforms with Location Studio to provide additional services to external applications, allowing for the rapid and

consistent introduction of services. Location Studio provides consistent authorization, accounting and monitoring functions to all requests.

Operations, Administration and Maintenance Integration

Location Studio integrates with key support systems, including billing, provisioning and network management. It provides detailed accounting of all basic service requests, including location, messaging and spatial/content toolkit services. The provisioning API of Location Studio provides a connection to the CSPs customer activation and support systems. A combination of Web-based graphical user interfaces and an XML provisioning API allow both manual and electronic modifications to subscriber and client profiles. Location Studio provides SNMP v2 alarm and error management functions for easy integration with existing monitoring tools.

About Openwave

Openwave Systems Inc. is the worldwide leader of open, Internet-based communication infrastructure software and applications. Openwave provides communications service providers, including wireless and wireline carriers, ISPs, portals and broadband providers worldwide, with the IP-based software infrastructure to rapidly enter the Internet economy by building boundary-free, multi-network communications services for their subscribers.

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1400 Seaport Boulevard
Redwood City, California 94063 U.S.A.
Corporate +1 650 480 8000
Europe +44 1442 258 8000
Japan +81 3 5909 6100
<http://www.openwave.com>

