

Mobility Service-Oriented Architecture (mSOA)

Extending the SOA to the Mobile Lifestyle

Highlights

- Dynamic deployment of end-to-end services
- Single gateway for all services
- IMS ready
- Quick development of connected services
- Personalized set of services, with multiple profiles per user
- Data and services are accessible anywhere
- Easy-to-use development tools
- Runs on today's mass-market devices

Introducing the mobility SOA

The mobility service-oriented architecture (mSOA) is an end-to-end framework based on Java™ technology and other open standards-based technologies that provides the ability to quickly and easily deploy dynamic network-based services. The mSOA platform delivers benefits for all the key players in the Java technology ecosphere, including end users, service providers, and content providers.

Overview

Today's rapidly evolving wireless market demands new and dynamic network-based applications. Time to market is a critical factor, but creating applications for both new and existing devices requires expertise in communications and user interfaces (UI).

The pragmatic mSOA approach speeds application development of interoperable applications and systems by providing a framework for dynamically adding and removing services to and from a handset. The framework also offers a compelling UI framework, communications and event management, and advanced developer tools.

Service provider benefits

Enables dynamic deployment of end-to-end services

The mSOA framework enables service providers to quickly deploy personalized service bundles targeted at specific market segments and deliver these services dynamically, decoupled from the phone launch.

Runs on mass-market devices

The mSOA framework can run on today's mass-market devices. This enables the roll-out of new services to existing devices.

IP Multimedia Subsystem (IMS) ready

The mSOA framework is IMS ready. As IMS services are rolled out, the mSOA framework can be used to grant mass-market devices access to these new services.

Content developer benefits

Quick development of connected services

The mSOA framework shortens the time to develop network-based services by providing developer tools that simplify client-server communication and access to Web services.

Consistent UI with theme support

The mSOA client framework provides a consistent look and feel for all services deployed and provides theme support.

Architecture components

Services manager

The services manager provides one point of entry for all services. Available services are received from the server and can be dynamically changed (add or remove). Services are treated as components and can therefore be updated, added, and removed separately. The services manager is built using the UI and communication managers, ensuring that it runs on mass-market devices. And it also implements a smart caching mechanism that minimizes network traffic while ensuring that the user has the latest service updates.

Event manager

The mSOA framework provides an event manager that enables back-end processes to send events to the client. The event manager provides a single point of contact for all events received by the client and allows users to respond to events by launching the appropriate service.

Communication manager

mSOA provides an HTTP communications manager that allows applications to communicate easily with back-end services. The communication manager ensures that the client runs on all-mass market devices. The framework uses an optimized binary protocol for passing objects to provide high-performance network operations. The framework also deals with the security aspects of end-user authentication and authorization with the back-end system.

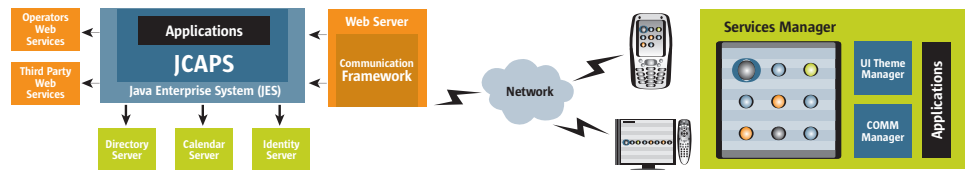
UI manager

The mSOA framework includes an advanced UI library/manager. The framework is pure Java technology and runs on any MIDP 2.0 device. The UI manager allows mSOA client applications to maintain a consistent look and feel across multiple devices and services. In addition, it provides a theme manager, allowing service providers to brand their mSOA applications with their corporate theme.

NetBeans™ Mobility Plug-in

The mSOA framework comes with a set of development tools based on the NetBeans™ Mobility Pack that make the creation of mSOA applications quick and simple.

Visual designer — Allows developers to create the UI by simply dragging and dropping components onto the canvas and setting up the layout manager.



MSOA Framework

Network integration wizard — A wizard that generates all the code needed to communicate with back-end services.

Application creation wizard — A wizard that generates a skeleton mSOA application — developers just need to fill in the blanks.

The mSOA mobile user experience

mSOA users experience real-time applications and content hosted on reliable IT services. Data and applications don't require sync with PC or other stateful devices as they live in the network. User data and applications can be accessed from multiple platforms with absolute certainty that everything is up to date and current.

Single gateway for all services

Users have a single source where they can access all their Java based network services in an easy and consistent way.

Centralized event management

Users have one place where they can see all their events (calendar, location, and so on) and respond to them.

Dynamic, personalized services

Each user's set of services can be personalized so that they receive just the services they want. Personal and business profiles can be set up so that users see different applications depending on whether they are at work or at home.

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