OSGi™ Alliance

Challenges for Today's Mobile Electronics Operators and Service Providers

There are more than 1 billion mobile phones – and more than 300 models – in the world today that download and run Java applications. While still primarily used for voice, a market for compelling system and business applications is emerging, requiring a new service platform lean enough to fit in a mobile handset, robust enough to accommodate business applications and standardized to promote application development.

Operators and service providers are anxious to deploy new devices into this emerging marketplace that can deliver high value data services to their customers. The enterprise market is adopting mobile devices as productivity tools for employees, releasing them from fixed locations and equipping them to be more responsive to customer needs.

Many device platforms compete in the mobile environment, and typically the applications on top of these platforms are incompatible and do not interoperate. For enterprises, this means mobile applications must fit onto a single platform to keep support, management and training costs in check. From IT managers' perspective, mobile applications must evolve to support the requirements of the fastest moving industry segment in order to meet the rapidly changing needs of the business.

Operators, as well as IT managers, are looking for cost-effective ways to manage their subscribers' or employees' devices and applications. Application interoperability is also important for operators since is usually encourages greater usage. Device manufacturers face difficult choices today since more device and application customization increases development costs and extends time-to-market. Consumers' experiences improve with application interoperability and remote management of applications.

For the mobile industry to be effective, an active, robust application developer community is also important including operators, service providers, developers and device manufacturers. Currently, cost-conscious application developers need to predict which platform will dominate since each different platform they support increases their development costs. In order to create the robust value chain, the industry needs a standardized platform and tool environment, which can be used for developing, deploying and managing applications across multiple devices on different operating systems.

The OSGi™ Service Platform

The OSGi specifications fulfill the requirements of developers, operators and enterprises to develop, deploy and run mobile Java components in a multi-vendor mobile environment. The OSGi Service Platform is an open platform,

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Flexible integration based on open standards that are modular, configurable, and scalable.

which provides advanced component management capabilities for dynamically deployable applications, libraries and services.

The OSGi Service Platform was specifically designed to be:

- **Secure**, so you can trust it with your valuable data and programs
- **Reliable**, so there are no unnecessary support calls
- **Remotely manageable**, so that the platform can be adapted to the wishes of its owner without great cost
- **Universal**, so it is usable on a large variety of hardware and operating systems. Since Java technology provides a virtual machine environment, it means that the OSGi Service Platform can run on almost any operating system or processor in existence.
- **Supportive of interoperable application bundles** so developers can re-use and re-purpose existing applications, reducing the development cycle.

Serving as a platform for universal middleware, the OSGi Service Platform creates new opportunities across the value chain and enables fast innovation and service deployment.

This architecture allows enterprises, device manufacturers, operators and service providers to extend the platform features after a mobile device has left the factory. Services, applications and service-oriented application programming interfaces (APIs) can be remotely downloaded to, upgraded in or even removed from mobile devices. This capability is the cornerstone that will allow the new marketplace for device middleware to emerge.

Device middleware is expected to have the same effect on the device industry that it has had on the server industry, providing value to all members of the value chain. This new middleware marketplace will create new business models, enable easier and more predictable development, and leverage mobile connected devices to rapidly penetrate vertical solution markets with deployments on multiple platforms.

Who is behind this technology? Whose supports the service platform? Is it already deployed and how can your company benefit from it?

About the OSGi Alliance.

The OSGi Alliance is a worldwide consortium of technology innovators that advances a proven and mature process to assure interoperability of applications and services based on its component integration platform. The Alliance provides specifications, reference implementations, test suites and certification to foster a valuable cross-industry ecosystem. OSGi technology is delivered in many Fortune Global 500 company products and services. Member companies collaborate within an egalitarian, equitable and transparent environment and promote adoption of OSGi technology through business benefits, user experiences and forums. For more information on the non-profit technology corporation, visit **http://www.osgi.org**.