

Mobile software deployment comes of age

The FlexibleWare™ Handset software framework opens phone market rapidly to new services

Sophia Antipolis, France, February 1st, 2004 – A new software platform that will make the deployment process of mobile handsets faster, more robust and more flexible has been introduced by Open-Plug. Users will even be able to implement handset software upgrades in the field.

The FlexibleWare™ suite from Open-Plug is a software framework, consisting of the FlexibleWare™ tools and the FlexibleWare™ framework (a small embedded engine running on the phone). The tool suite, includes a SDK for partner networks, which supports proprietary API's as well as Open APIs (Linux/Java) targeted at software developers, chipset and handset makers, and network operators.

The FlexibleWare™ Tools Suite turns any type of software at object code level into components, which run then on top of a small engine integrated on the phone's processor. This not only makes configuration of new handset designs fast, easy and cost-effective, but also allows upgrades to be distributed to groups or individual users in the field without compromising firmware stability.

At the heart of the FlexibleWare™ framework is the OP-Engine, which controls communications and access rights of the software components, created and integrated with the help of the FlexibleWare™ tool suite. This makes inter-compatibility between software components easier to control and allows software components to be stored in a library and easily deployed on a various set of handsets. Typically, the FlexibleWare™ Framework occupies less than 40k bytes of code, and has no measurable RAM or MIPS overhead in its standard version. A complementary set of modules are also available, such as an accelerator which dynamically uses fast memory resources for critical components, a multi-processor module which allows to transparently distribute component based system on multi-processors architecture as well as a FireWall module, letting device maker/operators setting access rights to any component of the system.

According to Andreas Malzach, V.P sales and marketing, "OP's FlexibleWare™ suite reduces the design time, risk and cost of creating, integrating and managing mobile phone software. Finally new high end services can be quickly deployed on mass market phone platforms. Combined with the OP complementary Linux-Plug, it opens such platforms for the first time to world's large Linux developer community in a robust and efficient way."

The FlexibleWare™ suit is demonstrated at 3GSM congress based on the Texas Instrument Calypso chipset platform at Texas Instruments booth. The product will be deployed shortly after the 3GSM congress to a selected number of customer and partners, during the second quarter of 2004 the suite well become generally available.

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Development platform

For software developers, the FlexibleWare™ SDK enables them to generate components from scratch or to automatically convert existing code into distinct software components. These can be validated and optimised at a component level in the SDK's simulation environment supporting open Linux and Java APIs, as well as the proprietary APIs of major chipset providers.

Handset or chipset developers can drag and drop new phone features from a library of available software components, using the FlexibleWare™ Console. A range of complementary features that allow system validation and optimisation are made available. The FlexibleWare™ Framework can easily coexist with legacy code, and does not require any FlexibleWare™ dependent modifications to any legacy code

The OP-Update environment allows individual software components to be updated partially or entirely, once the phone is in the field. This can be done over the air, by wire or by add-on modules, using SMS, HTTP or any other available transportlayer to the mobile phone. OP-Update provides operators with a low-investment way to update individual or group phone firmware with complete security.

Malzach added, "Today's consumers want highly individual handset features. Manufacturers need to get stable products in the shops, quickly. Network operators and service providers must achieve faster routes to market and more revenue. By leveraging Open-Plug's expertise, new services can be designed-in record time, and then re-built even after the customer has taken delivery. Service providers can now respond tactically to their competitors without compromising the robustness or stability of their firmware. And because FlexibleWare™ can automatically optimise software from a wide variety of sources, developers' options are not restricted to Java offerings."

About Open-Plug:

Open-Plug was founded in the summer of 2002 by a team of developers with a strong background in embedded mobile software development, and familiar with the quickly expanding challenges associated with it. The company's aim is to provide to the mobile phone industry a tool framework, providing a unique software design flow, which seamlessly and efficiently supports the value chain of embedded software development for mass market mobile terminals.

Open-Plug , 2600 Route des Crêtes, BP 176, 06903 Sophia-Antipolis, France

Tel: +33 4 97 25 50 50 , Fax: +33 4 97 25 50 79

Email: general@open-plug.com

<http://www.open-plug.com>