

ProSyst mBedded Server for Android v1.0.0

Release Notes

Version Information

Product: ProSyst mBedded Server OSGi for Android 1.5

Version: 1.0.0

Date: June 22, 2009

Supported Phones: All Android 1.5 (Cupcake) based devices

- T-Mobile G1 with 1.5 firmware upgrade
- Google Developer Phone
- HTC Magic
- Android SDK/Emulator 1.5
- Other Android devices

Release Contents

The zipped release contains the following:

- **/Doc:** Release Notes, Installation Instructions
- **/Install:** APK Package for installation on SDK and Device
- **/License:** License conditions for this deliverable
- **/Samples:** Bundles, DPs and Widgets that can be manually installed into the OSGi runtime:

The OSGi package deploys the following content into Android:

- **OSGi runtime:** Installed as Android Service
- **Service Management:** Application for setting remote configuration, managing lifecycle of the OSGi Service and Content management of the supported applications
- **Widgets Application:** A simple Widget application manager. These Widget are pre-installed:
 - Ninja Game

Supported Functionality

- Compliant to specifications OSGi Core 4.1 and OSGi Mobile 4.0 (JSR 232)
- Java Security Enabled
- Support for w3c & Opera based Web Widgets
 - Web widgets run in WebKit Browser based viewer
 - Installation and security verification executed through OSGi
- Server in Your Pocket & RMA (Rich MobileNet Application)
 - Local webserver functionality
 - Automated translation of OSGi services into local JSON based web services (provides Web Widgets access to platform capabilities)
 - JavaScript Convenience Library for finding, binding and using OSGi services within the browser
- Integration of Android Intents with OSGi Event Admin (bi-directional exchange of events/intends)
- Access to OSGi Services through Android IDL (enables Android developers to leverage OSGi services)
- Access to Android APIs from within OSGi
- OSGi runtime lifecycle management: User can select different OSGi runtime modes (Always On, Always Off, On if OSGi content installed).
- Content Management User Interface
 - Listing OSGi content packages
 - Installing content from SDCard
 - Uninstallation of content
- Installation of OSGi Content through WebKit Browser
- Full mobile device management support
 - OMA-DM 1.2 based remote management interface
 - All OSGi defined Management Objects: Logging, Monitoring, Policy
 - Software Component Management Object (SCOMO): Remote management of Android APK packages, OSGi Bundles, OSGi Deployment Packages, Widgets (push-install, update, uninstall)

Functionality to be Supported in Future Versions

These features are not supported in the Alpha drop and must be supported in future versions:

- Connectivity between OSGi runtime in Android with Eclipse IDE based OSGi Development Tools
- Extend OSGi Device Management Tree by Lock&Wipe Management Object

- Enabler OSGi Service APIs & JavaScript for accessing phone features like Camera, PIM, Messaging, etc.

Known Issues and Limitations

Reported Issues in Android Code Base

- Browser has hard coded property cache of 512 which is quickly consumed if Widgets are used heavily.
 - Reported here:
<http://code.google.com/p/android/issues/detail?id=2392>
 - Note: Depending on the android drop the OEM uses, this problem might be fixed already
- ClassLoader Problem in Android. We managed to work around this bug, fortunately.
 - Reported here:
<http://code.google.com/p/android/issues/detail?id=2289>
- ClassLoader Problem in Android. Checking methods from superclass.
 - Reported here:
<http://code.google.com/p/android/issues/detail?id=2711>

Known Issues in Deliverable

- Widgets cannot be closed with their in-app close buttons
- Update of Widgets and Bundles in Deployment Package not supported

Comments

Additional information about this release:

- Contents can be installed only from the SDCARD
- To uninstall OSGi from Android Emulator use: adb uninstall com.prosyst.mbs.android
- The Android LogCat is used for mBS logging
- Developer documentation is in the works