



Sun Java System Mobile Enterprise Platform 1.0 Release Notes



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Sun Java System Mobile Enterprise Platform 1.0 Release Notes

This document provides late-breaking information about Sun Java System Mobile Enterprise Platform 1.0 (MEP).

MEP is a comprehensive mobility solution that enables offline data access, data synchronization, and secure access to EIS/EAI applications such as Siebel and SAP.

MEP is based entirely upon open standards, including the following:

- Java Platform, Mobile Edition (Java ME)
- Java Platform, Enterprise Edition (Java EE)
- The dominant industry standard OMA DS, formerly known as SyncML. The specifications for Open Mobile Alliance Data Synchronization V1.1.2 and V1.2.1 are available at http://www.openmobilealliance.org/Technical/release_program/ds_v112.aspx and http://www.openmobilealliance.org/Technical/release_program/ds_v12.aspx.

This document contains the following sections:

- “Hardware and Software Requirements” on page 5
- “Patches and Required Firmware Levels” on page 10
- “Mobile Enterprise Platform Documentation” on page 10
- “Related Documentation” on page 11
- “Known Issues and Bugs” on page 12

Hardware and Software Requirements

This section lists the requirements that must be met before installing the MEP software.

These requirements are in addition to the requirements for the sync database you use (either MySQL or Oracle). Consult the database documentation for information about those requirements. If you use Oracle software for the sync database, it is strongly recommended that you install it on a different system from the one where you install the MEP software. See the *Sun Java System Mobile Enterprise Platform 1.0 Installation Guide* for more information.

The requirements for MEP are similar to the requirements for Application Server, because the MEP software is deployed on Application Server. [Table 1–1](#) shows these requirements.

TABLE 1–1 Supported Operating Systems

Operating System	Minimum Memory	Recommended Memory	Minimum Disk Space	Recommended Disk Space	JVM
Sun Solaris 10 (SPARC, x86)	512 MB	1 GB	250 MB free	500 MB free	Java SE 6
Red Hat Enterprise Linux 4	512 MB	1 GB	250 MB free	500 MB free	Java SE 6
Microsoft Windows 2003, Microsoft Windows XP Professional	1 GB	2 GB	500 MB free	1 GB free	Java SE 6

Supported Mobile Devices

MEP is supported on all Java ME and GPRS/UMTS enabled mobile devices that support the following specifications:

- MIDP 2.0
- CLDC 1.1 or CDC 1.1.2
- JSR-75

See “[Client Device Requirements](#)” in *Sun Java System Mobile Enterprise Platform 1.0 Developer’s Guide for Client Applications* for details on the supported Java ME specifications.

MEP has been tested with the following mobile client devices:

- BlackBerry smartphone
- Palm Treo 700p or 755p device running the PalmOS software
- Palm Treo 700wx device running the Windows Mobile software

Before you can install the MEP client software on a Palm Treo device, the device must have the IBM J9 Java Virtual Machine (JVM) installed on it. You must obtain the J9 JVM from IBM.

A Palm Treo device running the PalmOS software must have a memory card.

Supported EIS/EAI Systems and Databases

MEP has been tested with the Siebel CRM and SAP ERP systems and with the MySQL and Oracle databases.

Configuring the Sun JCA Adapter for SAP

If your EIS/EAI system is SAP, you must download some libraries from SAP and must also configure the Application Server to work with the Sun JCA Adapter for SAP, as described in the following sections:

- “To Download the SAP Libraries” on page 7
- “To Configure the Application Server for the SAP Adapter” on page 7

▼ To Download the SAP Libraries

The SAP Java Connector toolkit (SAP JCo) is a middleware component that enables the Sun JCA Adapter for SAP to communicate directly with SAP. This component is required by the SAP BAPI OTD Wizard, which you use when you develop an Enterprise Connector that accesses a Sun JCA Adapter. (See “Accessing a Sun JCA Adapter for an EIS/EAI System” in *Sun Java System Mobile Enterprise Platform 1.0 Developer’s Guide for Enterprise Connectors* for details.)

You must be a licensed SAP customer in order to gain access to these SAP libraries.

- 1 **Log in to the SAP site** <http://service.sap.com/connectors> **using your authorized login.**
- 2 **Click SAP Java Connector.**
- 3 **In the left-hand menu, click Tools and Services.**
- 4 **Download the SAP JCo archive file for your operating system.**
- 5 **Unzip the archive file into a directory of your choice.**

After you unzip the archive, you will find a JAR file named `sapjco.jar`. You will also find one or two libraries specific to your operating system (the number varies depending on the version of SAP you are using).

- 6 **Copy all these files into the Application Server `lib` directory.**

This directory is `as-install/lib`, where `as-install` is the directory where you installed the Application Server.

▼ To Configure the Application Server for the SAP Adapter

You need to create a connector connection pool and a connector resource for the Sun JCA Adapter for SAP, and then set properties for the connector connection pool. On a two-tier MEP installation, this task must be performed on the Enterprise tier (the second tier).

1 Create the `sappool` connection pool.

- a. In a browser, go to `http://hostname:4848/` and log in to the Application Server Admin Console as `admin`.**

The default password is `adminpass`.

For a single-tier installation, *hostname* is the name of the system where MEP is installed. For a two-tier installation, *hostname* is the name of the system where the Enterprise tier (the second tier) is installed.

- b. In the tree view, expand Resources, then Connectors, and then select Connector Connection Pools.**

- c. Click New.**

The New Connector Connection Pool panel appears.

- d. Type `sappool` in the Name field.**

- e. Choose `sun-sap-adapter` from the Resource Adapter drop-down list.**

- f. Click Next.**

- g. Click Finish.**

2 Create the `jcaps/sap` connector resource.

- a. In the tree view, expand Resources, then Connectors, and then select Connector Resources.**

- b. Click New.**

The New Connector Resource panel appears.

- c. Type `jcaps/sap` in the JNDI Name field.**

- d. Choose `sappool` from the Pool Name drop-down list.**

- e. Click OK.**

3 Modify the settings for the `sappool` connection pool.

- a. In the tree view, expand CAPS, then expand Connector Connection Pools.**

- b. Click `sappool`.**

If the `sappool` connector connection pool does not appear in the tree view, expand another node, then expand Connector Connection Pools once again. You should now see `sappool`.

c. Specify Client Connection Settings as indicated in the following table.

Name	Description
Client Connection Mode	Choose Automatic if it is not already selected
Application Server Hostname	The name of your SAP server
System Number	The system number given you by SAP (often 00)
Client Number	The client number given you by SAP
User	Your SAP user name
Password	Your SAP password
Language	The language you use for SAP access
System ID	The system ID of your SAP installation

Use the default values for all other settings.

d. Click Save.

4 If you are using a 64-bit JDK, add a JVM setting.

a. In the tree view, select the Application Server node.

b. Click the JVM Settings tab, then click the JVM Options sub-tab.

c. Click Add JVM Option.

d. In the Value field, type -d64.

e. Click Save.

f. Click the Restart Required link.

g. Click Stop Instance.

h. Restart the Application Server from the command line:

```
as-install/bin/asadmin start-domain mep
```

Patches and Required Firmware Levels

It is recommended that Solaris 10 (x86, SPARC) users have the “Sun recommended patch cluster” installed. This patch cluster is available under “Recommended and Security Patches” on SunSolve (<http://sunsolve.sun.com/show.do?target=patchpage>).

Mobile Enterprise Platform Documentation

The Mobile Enterprise Platform documentation set is available at <http://docs.sun.com/coll/1780.1>. To learn about Mobile Enterprise Platform, refer to the books listed in the following table.

TABLE 1-2 Books in the Mobile Enterprise Platform Documentation Set

Book Title	Description
<i>Sun Java System Mobile Enterprise Platform 1.0 Release Notes</i>	Late-breaking information about the software and the documentation. Includes a comprehensive summary of the supported hardware, operating systems, application server, Java™ Development Kit (JDK™), databases, and EIS/EAI systems.
<i>Sun Java System Mobile Enterprise Platform 1.0 Architectural Overview</i>	Introduction to the architecture of Mobile Enterprise Platform.
<i>Sun Java System Mobile Enterprise Platform 1.0 Installation Guide</i>	Installing the software and its components, and running a simple application to verify that installation succeeded.
<i>Sun Java System Mobile Enterprise Platform 1.0 Deployment Guide</i>	Deployment of applications and application components to Mobile Enterprise Platform.
<i>Sun Java System Mobile Enterprise Platform 1.0 Developer's Guide for Client Applications</i>	Creating and implementing Java Platform, Mobile Edition (Java ME platform) applications for Mobile Enterprise Platform that run on mobile devices.
<i>Sun Java System Mobile Enterprise Platform 1.0 Developer's Guide for Enterprise Connectors</i>	Creating and implementing Enterprise Connectors for Mobile Enterprise Platform intended to run on Sun Java System Application Server.
<i>Sun Java System Mobile Enterprise Platform 1.0 Administration Guide</i>	System administration for Mobile Enterprise Platform, focusing on the use of the MEP Administration Console.

For up-to-the-minute information about MEP from the MEP technical team at Sun, see the Enterprise Mobility Blog at <http://blogs.sun.com/mobility/>.

Related Documentation

When you install MEP, it is deployed to Sun Java System Application Server 9.1 Update 2.

The Application Server documentation set describes deployment planning and system installation. The Uniform Resource Locator (URL) for Application Server documentation is <http://docs.sun.com/coll/1343.5>. For an introduction to Application Server, refer to the books in the order in which they are listed in the following table.

TABLE 1-3 Books in the Application Server Documentation Set

Book Title	Description
<i>Documentation Center</i>	Application Server documentation topics organized by task and subject.
<i>Release Notes</i>	Late-breaking information about the software and the documentation. Includes a comprehensive, table-based summary of the supported hardware, operating system, Java Development Kit (JDK), and database drivers.
<i>Quick Start Guide</i>	How to get started with the Application Server product.
<i>Installation Guide</i>	Installing the software and its components.
<i>Deployment Planning Guide</i>	Evaluating your system needs and enterprise to ensure that you deploy the Application Server in a manner that best suits your site. General issues and concerns that you must be aware of when deploying the server are also discussed.
<i>Application Deployment Guide</i>	Deployment of applications and application components to the Application Server. Includes information about deployment descriptors.
<i>Developer's Guide</i>	Creating and implementing Java Platform, Enterprise Edition (Java EE platform) applications intended to run on the Application Server that follow the open Java standards model for Java EE components and APIs. Includes information about developer tools, security, debugging, and creating lifecycle modules.
<i>Java EE 5 Tutorial</i>	Using Java EE 5 platform technologies and APIs to develop Java EE applications.
<i>Java WSIT Tutorial</i>	Developing web applications using the Web Service Interoperability Technologies (WSIT). Describes how, when, and why to use the WSIT technologies and the features and options that each technology supports.
<i>Administration Guide</i>	System administration for the Application Server, including configuration, monitoring, security, resource management, and web services management.
<i>High Availability Administration Guide</i>	Post-installation configuration and administration instructions for the high-availability database.
<i>Administration Reference</i>	Editing the Application Server configuration file, <code>domain.xml</code> .

TABLE 1-3 Books in the Application Server Documentation Set (Continued)

Book Title	Description
<i>Upgrade and Migration Guide</i>	Upgrading from an older version of Application Server or migrating Java EE applications from competitive application servers. This guide also describes differences between adjacent product releases and configuration options that can result in incompatibility with the product specifications.
<i>Performance Tuning Guide</i>	Tuning the Application Server to improve performance.
<i>Troubleshooting Guide</i>	Solving Application Server problems.
<i>Error Message Reference</i>	Solving Application Server error messages.
<i>Reference Manual</i>	Utility commands available with the Application Server; written in man page style. Includes the <code>asadmin</code> command line interface.

Known Issues and Bugs

The following known issues and bugs affect the operation of the MEP 1.0 release.

Client MIDlet Disappears on Palm Treo (Windows Mobile)

Problem Summary: When you launch a MIDlet on the Palm Treo with Windows Mobile and the IBM J9 JVM, the client GUI display seems to disappear; it is in the background.

Workaround: To bring the MIDlet to the foreground, close the Windows Mobile file explorer by clicking the X in the upper right hand corner.

Running the BlackBerry Client Sample Applications

The BlackBerry client applications all use the same directory on the filesystem: `/home/user/pictures`. The files are not removed when you erase a client application. Be aware that files written to the filesystem by the secure client will be visible to the nonsecure client, but will not be readable, since they will be encrypted.

Incorrect SMS User Name or Password Causes `IllegalStateException`

If you configure an incorrect Username or Password with the SMS tab of the Admin Console, and you try to send an SMS message to all user accounts from the Upload sub-tab of the

Provisioning tab, you see a misleading error message in the synchronica.log file that reports an `IllegalStateException`. It does not mention the incorrect username or password that is the real problem. The error message looks something like this:

```
ERROR [StandardSendShortMessageUseCase] Send SMS to phone number '+17815551212' with
short message 'Hello! There is a new MEP client available for download at
http://129.148.71.115:8080/sync/admin/client' has failed: Failed to send text SMS;
nested exception is: java.lang.IllegalStateException: not bound
```

Installation of Enterprise Tier Generates Database Warnings

When you install the second tier (the Enterprise tier) of a two-tier MEP installation, two warnings appear near the end of the installation process, as a result of the execution of a `deployRar` and a `deployWar` target. The warnings look like this:

Command deploy executed successfully with following warning messages: WARNING:

JD076614: Deployment encountered SQL Exceptions:

```
JD076609: Got SQLException executing statement "CREATE TABLE DBCREDENTIALS
(USERNAME VARCHAR(255) NOT NULL, BACKENDUSERNAME VARCHAR(255), BACKENDPASSWORD
VARCHAR(255), PRIMARY KEY (USERNAME))": java.sql.SQLException: Table 'dbcredentials'
already exists
```

You can safely ignore these warnings.

MySQL Character Set Value Can Cause Installation Errors

If you use MySQL as the MEP Sync database, make sure that the default character set is `latin1`. A setting of `utf8` causes installation errors that look like this:

JD076614: Deployment encountered SQL Exceptions:

```
JD076609: Got SQLException executing statement "CREATE TABLE PARSTAMPBEAN
(TIMESTAMP9 BIGINT NULL, PARFILE VARCHAR(256) NOT NULL, CONSTRAINT PK_PARSTAMPBEAN
PRIMARY KEY (PARFILE)) ENGINE=InnoDB": java.sql.SQLException: Specified key was too
long; max key length is 767 bytes
```

```
JD076609: Got SQLException executing statement "CREATE TABLE PARCOUNTERBEAN
(COUNTER BIGINT NULL, COUNTERNAME VARCHAR(256) NOT NULL, CONSTRAINT PK_PARCOUNTERBEAN
PRIMARY KEY (COUNTERNAME)) ENGINE=InnoDB": java.sql.SQLException: Specified key was too
long; max key length is 767 bytes
```

To change the character set, you can restart MySQL with a particular character set, as described in [Server Character Set and Collation](#) (<http://dev.mysql.com/doc/refman/5.0/en/charset-server.html>). On Windows, you can run the MySQL Server Instance Config Wizard to change the character set.

Use of Apache Ant 1.7 Causes Installation to Hang

MEP installation does not work with Apache Ant 1.7 releases. The installer script is designed to use the copy of Ant 1.6.5 that is built into the version of Application Server installed with MEP. You may have a release of Ant 1.7 on your system, but do not set the ANT_HOME environment variable to point to it; otherwise, MEP installation will hang.