SAP

**Installation: SAP Mobile Platform Server
for Windows**

SAP Mobile Platform 3.0

Windows

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Planning the Landscape

Successfully installing SAP® Mobile Platform for the first time requires a considerable amount of planning, a number of strategic decisions, and many specific pieces of information about the technical environment into which you are installing.

Before you run the installer for the first time, go through the SAP Mobile Platform *Landscape Design and Integration* document and:

1. Review the information for a single-server installation in *Choosing an Installation Scenario* in *Landscape Design and Integration*.
2. Complete the installation worksheet.

   Record the environment information you will need during installation. The worksheet is organized in the same order in which the installer asks you to provide information.Obtain the installation worksheet by clicking: *SMP3_Worksheets.zip*.
3. For a production installation using a custom database, make sure the database resources —number of connections, available space, permissions, and threads, plus any other parameters that you would tune to support a major application—can support SAP Mobile Platform.

   For example, make a minimum of 25 database connections available for SAP Mobile Platform Server.

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Installing SAP Mobile Platform on a Single Server

This scenario places all SAP Mobile Platform server components on a single host. This scenario is suitable for a developer environment, with shared SAP Mobile Platform server resources. It may also be suitable for an SAP Mobile Platform prototyping environment, or a low-volume production system that does not require load balancing or failover.

Prerequisites

The architecture, design characteristics, and use cases for this installation scenario are described in *Choosing an Installation Scenario* in *Landscape Design and Integration*. The installation instructions in this chapter assume that you have used the *Landscape Design and Integration* document to design the landscape.

Obtain the installation worksheet by clicking: *SMP3_Worksheets.zip*.

This diagram illustrates the single-server scenario:
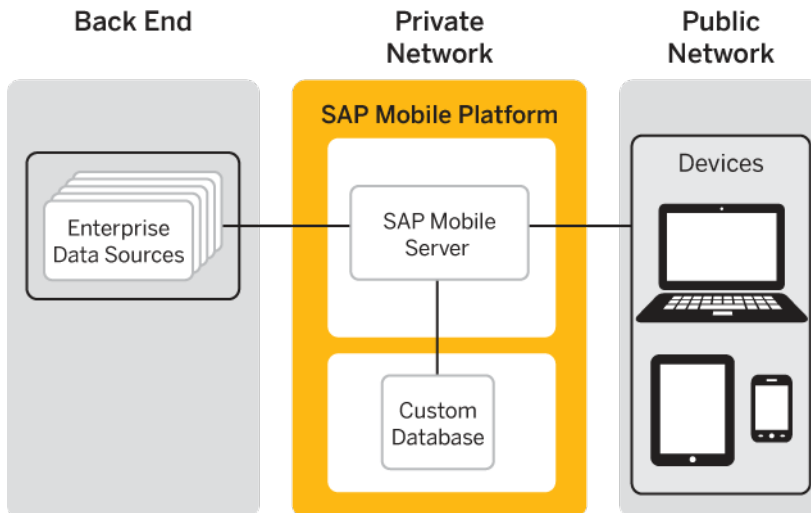
Task

1. *Preparing for Installation*

   Ensure that the host on which you are installing SAP Mobile Platform is ready for you to begin the installation.

2. *Acquiring the Installer*

The SAP Mobile Platform Server installer image is available as physical media and as a Web download.

3. *Using a Custom Database*

To use a custom database in a production installation, you must install and set up that database before running the SAP Mobile Platform installer.

4. *Running the Installer*

Start the SAP Mobile Platform Server installer, accept the end-user license agreement and specify installation options, then launch and complete the installation process.

5. *Verifying the Installation*

Check for errors in the installation logs, then verify that you can start the server and log in to Management Cockpit.

Preparing for Installation

Ensure that the host on which you are installing SAP Mobile Platform is ready for you to begin the installation.

1. Confirm that the installation target host meets minimum system requirements for all SAP Mobile Platform components you are installing.

See the SAP Product Availability Matrix (PAM) *http://service.sap.com/pam*. Click the **Mobile** link at the top of the page. Scroll to find the appropriate product and version in the product list.

2. Verify that you have Administrator privileges on the installation target host.

3. Remove the JAVA_TOOL_OPTIONS environment variable.

Check for JAVA_TOOL_OPTIONS in both User Variables and System Variables panes of the Environment Variables dialog.

   a) Right-click **My Computer** and select **Properties**.
   b) Select **Advanced System Settings**.
   c) Click the **Advanced** tab.
   d) Click **Environment Variables**.
   e) Select JAVA_TOOL_OPTIONS and click **Delete**.
   f) Click **OK** to exit all dialogs.

4. Shut down all Sybase® and SAP software and processes, and associated third-party processes, running on the installation target host.

To verify that services are stopped, open the Services pane from Windows Control Panel.

5. If User Account Control (UAC) is present in the version of Windows where you are installing, disable it. Restart the system for this change to take effect.

      a. Access the Control Panel option that manages User Account Control on your version of Windows.

      b. Set the user account to never be notified about changes to your computer.

      Reenable UAC after completing this installation.

6. To accommodate SAP Mobile Platform internal communications, you may need to reconfigure intrusion detection/prevention systems (either hardware- or software-based).

See *Intrusion Detection and Protection Requirements* in *Landscape Design and Integration*.

Acquiring the Installer

The SAP Mobile Platform Server installer image is available as physical media and as a Web download.

Use one of these methods:

- Insert the physical installation media.
- Download from the software distribution center on SAP Service Marketplace:
  a. Go to *http://service.sap.com/swdc*.
  b. Under "A-Z Index" click **Installations and Upgrades**.
  c. Click **M**.
  d. Click **SAP MOBILE PLATFORM**.
  e. Click the link for the current version.
  f. Download the package for the SAP Mobile Platform Server installer.
  g. Extract the entire contents of the installer `.zip` file to a temporary directory on a local disk on the target host.
  Use a short path, preferably a folder directly below the root directory, such as `C:\temp`. The path can include only ASCII alphanumeric characters, underscore (`_`), hyphen (`-`), and period (.). Two consecutive period characters are not allowed.

Using a Custom Database

To use a custom database in a production installation, you must install and set up that database before running the SAP Mobile Platform installer.

The SAP Mobile Platform database stores metadata—data about the data that passes through the SAP Mobile Platform system. This includes information about native and hybrid applications, execution requests between client and server, back-end notification requests, and usage statistics. You can view this data in the Management Cockpit, where you manage and monitor applications. You do not need to encrypt this data.

Use a custom database for a production installation: ASE, DB2, or Oracle. Install the database before you install SAP Mobile Platform Server, using the instructions for your selected database in the sections that follow.

For a development installation, the default Derby database included with SAP Mobile Platform requires no separate installation or setup. To use the default Derby database in a development installation, skip this section and continue with *Running the Installer* on page 17.

See also
* *Running the Installer* on page 17

Setting Up a Custom ASE Database

To use Adaptive Server® Enterprise (ASE), modify some properties files, and run scripts to configure it to work with SAP Mobile Platform.

Note: In the steps below, *<installer_root>* is the root directory in the installer image.

1. Verify that SAP Mobile Platform supports the version of ASE you are planning to use.
   a) Go to the SAP Product Availability Matrix (PAM) *http://service.sap.com/pam*. Click the **Mobile** link at the top of the page. Scroll to find the appropriate product and version in the product list.
   b) Under the Essentials heading in the upper right corner, click the "Open in New Window" link to open the *Support Matrices...* PowerPoint file.
   c) Click through to the SAP Note for persistence databases supported by SAP Mobile Platform 3.0.
2. Install ASE anywhere on the same network where you will be installing SAP Mobile Platform. Consult with your company's database administrator, or have the database administrator perform the installation for you.

   If you are not sure what values to specify when you install or configure your database, use the settings below to get started.

Setting	Value
Page size	16 KB

   Record the values for these parameters:
   * Host name – the host system on which the database software is installed.
   * Login – the admin login for the database software.
   * Port number – the port number the database software uses.
3. If you installed ASE on a different server from the one where you will install SAP Mobile Platform Server, copy the db_tools directory (and all subdirectories) from the SAP Mobile Platform Server installer image to a temporary location on the database server.

In the steps below, *<installer_root>* will refer to the directory into which you copied db_tools.

4. Edit the 001_SMP3_drop_and_create_user.DDL script:

   a) Use a text editor to open the *<installer_root>*\db_tools\db\ase \smp3\sql\001_SMP3_drop_and_create_user.DDL file.

   b) Locate the following two lines and replace c:\Sybase\data\ with the path to where you want your SAP Mobile Platform database to be created.

   ```
   physname = "c:\Sybase\data\smp3.dat",
   ...
   physname = "c:\Sybase\data\smp3.log",
   ```

   Note: The path for your SAP Mobile Platform data is independent of the path that you set for your SAP Mobile Platform installation directory. If you place your database files within the SAP Mobile Platform installation directory tree, the SAP Mobile Platform uninstaller will not remove them.

   c) (Optional) Change database name, user name, and password.

   This example shows a contiguous block of the noncomment lines in the 001_SMP3_drop_and_create_user.DDL file for ASE:

   Replace:
   - **smp3** with the new database name.
   - **gomobile** with the new database user name.
   - **secret** with the new database user password.

   Be sure to:
   - Refer to your database documentation for limitations on length and allowable characters for these parameters.
   - Replace all instances of each default text string in the 001_SMP3_drop_and_create_user.DDL script with the same value.
   - Make note of the changes you make. You will need to enter the changed values during SAP Mobile Platform Server installation.

   Replace highlighted items below as needed to implement the changes you wish to make.

   ```
   ...
   disk init
   name = "smp3data",
   physname = "c:\Sybase\data\smp3.dat"
   size = "256M",
   directio = true
   go
   disk init
   name = "smp3log",
   physname = "c:\Sybase\data\smp3.log",
   size = "256M",
   directio = true
   go
   ```

```
sp_addlogin "gomobile","secret"
go
sp_configure "lock scheme", 0, datarows
go
drop database smp3
go
create database smp3
    on smp3data="256M"
    log on smp3log="256M"
go
exec sp_dboption 'smp3', 'select into/bulkcopy/pllsort', true
go
sp_configure 'enable functionality group', 1
go
use smp3
go
checkpoint
go
sp_adduser gomobile
go
grant all to gomobile
go
...
```

5. Save and close the file.

6. Run the `001_SMP3_drop_and_create_user.DDL` script.

    a. Open a Windows command prompt.

    b. In the SAP Mobile Platform installer image, navigate to:

    `<installer_root>\db_tools\db\ase\smp3\sql`

    c. Enter:

```
isql -S<servername> -U<username> -P<password> -
i001_SMP3_drop_and_create_user.DDL
```

    where:

- *<servername>* is the server where ASE is installed.
- *<username>* is an admin user, such as `sa`.
- *<password>* is the password for *<username>*.

7. Make a minimum of 25 database connections available for SAP Mobile Platform Server.

8. (Optional) Configure your ASE database to support Mobiliser.

See *Configuring ASE to Support Mobiliser* on page 9.

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                                                                  SAP Mobile Platform

Configuring ASE to Support Mobiliser

To support Mobiliser applications with Adaptive Server Enterprise (ASE) on your SAP Mobile Platform Server, make ASE-specific changes to the `dbmaintain` script and execute it.

Prerequisites

Install SAP Mobile Platform Server to work with ASE.

Task

1. Edit the `dbmaintain` script.

   a) Make a backup copy of `<installer_root>\db_tools\db\ase\smp3\sql \dbmaintain.properties.ase`.

   b) Use a text editor to open `<installer_root>\db_tools\db\ase \smp3\sql\dbmaintain.properties.ase<installer_root>/ db_tools/db/ase/smp3/sql/dbmaintain.properties.ase`.

   c) Edit these lines:

   ```
   database.url=jdbc:sybase:Tds:{HOST}:{PORT}/{DBNAME}

   database.userName={USER}
   database.schemaNames={USER}
   database.password={PASSWORD}
   ```

   Make thes replacements, including the braces ("{" and "}"):
   - `{HOST}` with the host name for your database
   - `{PORT}` with the port number for your database
   - `(DBNAME}` with `smp3`, or the new database name, if you changed it from the "smp3" default.
   - `{USER}` with `gomobile`, or the new user name if you changed it from the "gomobile" default (two replacements)
   - `{PASSWORD}` with `secret`

   d) Save and close the file.

2. Run the `dbmaintain` script against your database.

   a) In a command prompt, go to `<installer_root>\db_tools\db\ase \smp3\sql`.

   b) Enter:

   ```
   java -jar
   com.sap.mobile.platform.server.db.ase.dbmaintain-
   <version>-scriptarchive-ase.jar -c
   dbmaintain.properties.ase
   ```

   Where *<version>* is the actual version text in the file name on your system.

> **Note:** Use Java 7 to invoke this command: either the Java instance that is installed with SAP Mobile Platform Server, or any other available instance.

c) Respond to the `Are you sure you want to continue?` prompt.

When the `dbmaintain` script has successfully connected to your database, if the `dbMaintainer.fromScratch.enabled` parameter is true, the script warns you that any existing objects in the database will be dropped if you continue.

- If this is a fresh installation on a new system, you may safely answer yes to this prompt, and the script continues.
- To preserve existing objects in your database:
    1. Answer no to the prompt.
    2. Edit this line in the `dbmaintain` script, replacing true with false:
       ```
       dbMaintainer.fromScratch.enabled=true
       ```
    3. Re-run the `dbmaintain` script.

d) Review the "Dry Run Results" and continue if there are no issues.

The script takes several minutes to complete, then ends with:
```
The database has been updated successfully.
```

Setting Up a Custom DB2 Database

If you plan to use DB2, modify some properties files, and run scripts to configure it to work with SAP Mobile Platform.

> **Note:** In the steps below, *<installer_root>* is the root directory in the installer image.

1. Verify that SAP Mobile Platform supports the version of DB2 you are planning to use.
   a) Go to the SAP Product Availability Matrix (PAM) *http://service.sap.com/pam*. Click the **Mobile** link at the top of the page. Scroll to find the appropriate product and version in the product list.
   b) Under the Essentials heading in the upper right corner, click the "Open in New Window" link to open the *Support Matrices...* PowerPoint file.
   c) Click through to the SAP Note for persistence databases supported by SAP Mobile Platform 3.0.

2. Install DB2 anywhere on the same network where you will be installing SAP Mobile Platform. Consult with your company's database administrator, or have the database administrator perform the installation for you.

   Record the values for these parameters:
   - Host name – the host system on which the database software is installed.
   - Login – the admin login for the database software.
   - Port number – the port number the database software uses.

3. If you installed DB2 on a different server from the one where you will install SAP Mobile Platform Server, copy the db_tools directory (and all subdirectories) from the SAP Mobile Platform Server installer image to a temporary location on the database server.

In the steps below, *<installer_root>* will refer to the directory into which you copied db_tools.

4. (Optional) Change database name and user name.

   a) Use a text editor to open the *<installer_root>*\db_tools\db \db2\smp3\sql\001_SMP3_drop_and_create_user.DDL file.

   b) Change default values for database name and user name.

      This example shows a contiguous block of the noncomment lines in the 001_SMP3_drop_and_create_user.DDL file for ASE is shown below. Replace:
      - **smp3** with the new database name.
      - **gomobile** with the new database user name.

      Be sure to:
      - Refer to your database documentation for limitations on length and allowable characters for these parameters.
      - Replace all instances of each default text string in the 001_SMP3_drop_and_create_user.DDL script with the same value.
      - Make note of the changes you make. You will need to enter the changed values during SAP Mobile Platform Server installation.

      Replace highlighted items below as needed to implement the changes you wish to make.

      ```
      ...
      CREATE DATABASE smp3 AUTOMATIC STORAGE YES USINGCODESET UTF-8
      TERRITORY US
      COLLATE USING SYSTEM PAGESIZE 32 K;
      CONNECT TO smp3;
      CREATE SCHEMA gomobile AUTHORIZATION gomobile;
      CREATE ROLE SY365_OBJOWNER;
      GRANT CREATEIN ON SCHEMA smp3 TO SY365_OBJOWNER;
      GRANT SY365_OBJOWNER TO USER gomobile;
      ...
      ```

      Note: You create the DB2 user name and set the password at the operating system level and, by convention, DB2 uses the same name for the schema. The default 001_SMP3_drop_and_create_user.DDL file assumes that "gomobile" is the user name created for DB2.

   c) Save and close the file.

5. Run the 001_SMP3_drop_and_create_user.DDL script.

   a. Open a Windows command prompt.

   b. In the SAP Mobile Platform installer image, navigate to:

      <installer_root>\db_tools\db\db2\smp3\sql

   c. Enter:

      db2 -tvsf 001_SMP3_drop_and_create_user.DDL

6. Make a minimum of 25 database connections available for SAP Mobile Platform Server.

7. (Optional) Configure your DB2 database to support Mobiliser.

   See *Configuring DB2 to Support Mobiliser* on page 12.

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Configuring DB2 to Support Mobiliser

To support Mobiliser applications with DB2 on your SAP Mobile Platform Server, make DB2-specific changes to the `dbmaintain` script and execute it.

Prerequisites

Install SAP Mobile Platform Server to work with DB2.

Task

1. Edit the `dbmaintain` script.

   a) Make a backup copy of `<installer_root>`\db_tools\db\db2\smp3\sql \dbmaintain.properties.db2.

   b) Use a text editor to open `<installer_root>`\db_tools\db \db2\smp3\sql\dbmaintain.properties.db2.

   c) Edit these lines:

   ```
   database.url=jdbc:db2://{HOST}:{PORT}/{DBNAME}

   database.userName={USER}
   database.schemaNames={USER}
   database.password={PASSWORD}
   ```

   Make thes replacements, including the braces ("{" and "}"):
   - `{HOST}` with the host name for your database
   - `{PORT}` with the port number for your database
   - `{DBNAME}` with smp3, or the new database name, if you changed it from the "smp3" default.
   - `{USER}` with gomobile, or the new user name if you changed it from the "gomobile" default (two replacements)
   - `{PASSWORD}` with secret

   d) Save and close the file.

2. Run the `dbmaintain` script against your database.

   a) In a command prompt, go to `<installer_root>`\db_tools\db \db2\smp3\sql.

   b) Enter:

```
java -jar
com.sap.mobile.platform.server.db.db2.dbmaintain-
<version>-scriptarchive-db2.jar -c
dbmaintain.properties.db2
```

Where *<version>* is the actual version text in the file name on your system.

Note: Use Java 7 to invoke this command: either the Java instance that is installed with SAP Mobile Platform Server, or any other available instance.

c) Respond to the `Are you sure you want to continue?` prompt.

When the `dbmaintain` script has successfully connected to your database, if the `dbMaintainer.fromScratch.enabled` parameter is true, the script warns you that any existing objects in the database will be dropped if you continue.

- If this is a fresh installation on a new system, you may safely answer yes to this prompt, and the script continues.
- To preserve existing objects in your database:
  1. Answer no to the prompt.
  2. Edit this line in the `dbmaintain` script, replacing true with false:
     ```
     dbMaintainer.fromScratch.enabled=true
     ```
  3. Re-run the `dbmaintain` script. again.

d) Review the "Dry Run Results" and continue if there are no issues.

The script takes several minutes to complete, then ends with:
```
The database has been updated successfully.
```

Setting Up a Custom Oracle Database

If you plan to use Oracle, create and run the `smp3.sql` script and download the Oracle JDBC driver.

Note: In the steps below, *<installer_root>* is the root directory in the installer image.

1. Verify that SAP Mobile Platform supports the version of Oracle you are planning to use.
   a) Go to the SAP Product Availability Matrix (PAM) *http://service.sap.com/pam*. Click the **Mobile** link at the top of the page. Scroll to find the appropriate product and version in the product list.
   b) Under the Essentials heading in the upper right corner, click the "Open in New Window" link to open the *Support Matrices...* PowerPoint file.
   c) Click through to the SAP Note for persistence databases supported by SAP Mobile Platform 3.0.
2. Install Oracle anywhere on the same network where you will be installing SAP Mobile Platform. Consult with your company's database administrator, or have the database administrator perform the installation for you.

   Record the values for these parameters:

- Host name – the host system on which the database software is installed.
- Login – the admin login for the database software.
- Port number – the port number the database software uses.

3. If you installed Oracle on a different server from the one where you will install SAP Mobile Platform Server, copy the `db_tools` directory (and all subdirectories) from the SAP Mobile Platform Server installer image to a temporary location on the database server.

   In the steps below, `<installer_root>` will refer to the directory into which you copied `db_tools`.

4. Create and run the `smp3.sql` script.

   a. Open a Windows command prompt.
   b. In the SAP Mobile Platform installer image, navigate to:

      ```
      <installer_root>\db_tools\db\oracle\smp3\sql
      ```
   c. Use a text editor to create a `smp3.sql` file in this location.
   d. Use a text editor to open `001_SMP3_drop_and_create_user.DDL` from this location and copy its entire contents into the `smp3.sql` file.
   e. As the last line in the `smp3.sql` file, enter:

      ```
      EXIT;
      ```
   f. (Optional) Change user name and password.
      This example shows a contiguous block of the noncomment lines in the `001_SMP3_drop_and_create_user.DDL` file for ASE is shown below. Replace:
      - **gomobile** with the new database user name.
      - **secret** with the new database user password.

      Be sure to:
      - Refer to your database documentation for limitations on length and allowable characters for these parameters.
      - Replace all instances of each default text string in the `001_SMP3_drop_and_create_user.DDL` script with the same value.
      - Make note of the changes you make. You will need to enter the changed values during SAP Mobile Platform Server installation.

      Replace highlighted items below as needed to implement the changes you wish to make.

      ```
      ...
      DROP USER gomobile CASCADE;
      CREATE USER gomobile
          IDENTIFIED BY secret
          DEFAULT TABLESPACE USERS
          TEMPORARY TABLESPACE TEMP
          PROFILE DEFAULT
          ACCOUNT UNLOCK;
          GRANT SY365_OBJOWNER TO gomobile;
          GRANT CREATE SESSION TO gomobile;
      ```

```
     GRANT CONNECT TO gomobile;
     ALTER USER gomobile DEFAULT ROLE ALL;
     ALTER USER gomobile QUOTA UNLIMITED ON USERS;
```

Note: Oracle does not define a database name as such, and by convention uses the same name for the user and the schema. The SAP Mobile Platform Server installer needs either the Oracle service name or SID to connect to your Oracle database.

   g. Save and close `smp3.sql`.

   h. Enter:

```
sqlplus <username>/<password>@<servername> @smp3.sql > smp3.log
```

   Where:
- *<servername>* is the server where Oracle is installed.
- *<username>* is an admin user, such as `sa`.
- *<password>* is the password for *<username>*.

5. (Optional) Configure your Oracle database to support Mobiliser.

   See *Configuring Oracle to Support Mobiliser* on page 15.

6. Download the JDBC driver from oracle.com for the version of Oracle you are using.

   The installer will ask you for the path to this driver.

7. Make a minimum of 25 database connections available for SAP Mobile Platform Server.

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Configuring Oracle to Support Mobiliser
To support Mobiliser applications with Oracle on your SAP Mobile Platform Server, make Oracle-specific changes to the `dbmaintain` script and execute it.

Prerequisites

Install SAP Mobile Platform Server to work with Oracle.

Task

1. Edit the `dbmaintain` script.

   a) Make a backup copy of *<installer_root>*\db_tools\db\oracle \smp3\sql\dbmaintain.properties.oracle-*xxx*.

   b) Use a text editor to open *<installer_root>*\db_tools\db\oracle \smp3\sql\dbmaintain.properties.oracle-*xxx*.

   c) Enter the location of the JDBC driver that was downloaded for use with SAP Mobile Platform Server.

   Locate this line and enter the JDBC driver location after the equal sign:

```
database.driverLocation=
```

> **Note:** Use "\\" to represent each "\" in the path. For example, enter `C:\temp\ojdb6.jar` as `C:\\temp\\ojdb6.jar`.

d) Replace terms in braces with appropriate values for your system.

Make thes replacements, including the braces ("{" and "}"):

- `{HOST}` with the host name for your database
- `{PORT}` with the port number for your database
- `{SERVICE}` or `{SID}` with `smp3`, or the new database name, if you changed it from the "smp3" default.
- `{USER}` with `gomobile`, or the new user name if you changed it from the "gomobile" default (two replacements)
- `{PASSWORD}` with `secret`

e) Save and close the file.

2. Run the `dbmaintain` script against your database.

a) In a command prompt, go to `<installer_root>\db_tools\db\oracle\smp3\sql`.

b) Enter:

```
java -jar
com.sap.mobile.platform.server.db.oracle.dbmaintain-
<version>-scriptarchive-oracle.jar -c
dbmaintain.properties.oracle
```

Where *<version>* is the actual version text in the file name on your system.

> **Note:** Use Java 7 to invoke this command: either the Java instance that is installed with SAP Mobile Platform Server, or any other available instance.

c) Respond to the `Are you sure you want to continue?` prompt.

When the `dbmaintain` script has successfully connected to your database, if the `dbMaintainer.fromScratch.enabled` parameter is true, the script warns you that any existing objects in the database will be dropped if you continue.

- If this is a fresh installation on a new system, you may safely answer yes to this prompt, and the script continues.
- To preserve existing objects in your database:
  1. Answer no to the prompt.
  2. Edit this line in the `dbmaintain` script, replacing true with false:
     ```
     dbMaintainer.fromScratch.enabled=true
     ```
  3. Re-run the `dbmaintain` script.

d) Review the "Dry Run Results" and if there are no issues.

The script takes several minutes to complete, then ends with:

```
The database has been updated successfully.
```

Running the Installer

Start the SAP Mobile Platform Server installer, accept the end-user license agreement and specify installation options, then launch and complete the installation process.

The installation path you specify below is referred to as *SMP_HOME* in the rest of these installation instructions.

1. Browse to the root directory of the SAP Mobile Platform installer, right-click the **setupAMD64.exe** file and select **Run as Administrator**.

   Note: The installer displays an `Initializing wizard...` message while it verifies the integrity of the installation image. It may take a few minutes for the first installer panel to appear.

2. On the installer welcome page, click **Next**.

3. On the end-user license agreement page, select your country, accept the terms of the license agreement and click **Next**.

4. Specify the absolute path to the installation location, which must be on a local drive on the target host.

   The total length of the path must be 38 characters or less.

   Directory names in the path can contain only:
   - ASCII alphanumeric characters.
   - Underscore (_), hyphen (-), and period (.) characters. Two consecutive period characters are not allowed, and none of these characters may appear as the first character in a folder name.
   - No characters between "Mobile Platform" and the preceding "\" character.

5. Select the type of installation you want to perform, then click **Next**.

Installation Type	Description
Developer installation	Installs the SAP Mobile Platform components with default settings, using the default Derby database for development. You cannot specify any additional installation options. For a developer installation that uses ASE, DB2, or Oracle as the database, select the **Production installation** , then accept the defaults for everything except the database.
Production installation	Allows you to specify various settings for your SAP Mobile Platform installation, including the production database manager.

6. Enter admin user credentials for your SAP Mobile Platform installation.

   All these entries are case-sensitive.

- Admin user name – the admin user who will manage SAP Mobile Platform through the Management Cockpit.
- Admin password – the password for the admin user.
- Keystore password – the password that will be required to access the keystore, where SAP Mobile Platform Server stores certificates and private keys.

For both the admin password and the keystore password, only alphabetic and numeric characters, space, period, colon, dash, and hyphen are allowed. The following characters are not allowed: ! ? , ; " ' ` + * ^ / \ | = ~ < > @ # $ % & ( ) [ ] { }

7. (Optional) If you selected Production installation, specify the port numbers to use for the SAP Mobile Platform Server HTTP and HTTPS communication ports and click **Next**.
8. (Optional) If you selected Production installation, on the database server configuration panel, specify your database information:
   - Use the default Derby database – select this for a development installation of SAP Mobile Platform.

     Note: Derby is supported only for developer and proof-of-concept installations; Derby is not supported in production installations.

   - Use another database you have already installed – select this for a production installation of SAP Mobile Platform, where you have installed your own database management software.
     - Select database type – select the specific database type you have installed: **ASE**, **DB2**, **Oracle (Service Name)**, or **Oracle (SID)**.
     - Host name – the fully qualified domain name or static IP address of the database server.
     - Port number – the listening port of the database server. Default values:
       - ASE – 5000
       - DB2 – 50000
       - Oracle – 1521
     - Login – enter `gomobile`, or the new user name if you changed it from the default.
     - Password – enter `secret`, or the new user password if you changed it from the default.
     - Database name (ASE or DB2), Service name (Oracle accessed by service name), or SID (Oracle accessed by SID) – enter `smp3`, or the new database name, if you changed it from the default.
       - Oracle service name is the TNS alias used for a remote connection.
       - Oracle SID is a name that uniquely identifies the database instance on the database server.
     - Path to Oracle JDBC driver – (Oracle only) enter the fully qualified path, including the JAR file name, to the type 4 Oracle JDBC driver.

   If the installer displays a `Cannot connect to database` error:

    a. Verify that the database server is running.

       If it is not running, start it, then click **Retry** in the message box.

    b. If the database server is running, check all the values entered on the database server configuration panel.

       If any are incorrect, click **Cancel** in the message box, correct the entries, and click **Next** on the database server configuration panel.

    c. If the database server is running and all entries on the database server configuration panel appear to be correct, check the log at `SMP_HOME\InstallLogs\SMPInstall<date-time>.log`.

       1. Examine the messages in the log file, starting at the end and working backward, to find more information about the database connection failure.

       2. Correct any problems logged.

       3. Return to the database server configuration panel and click **Retry** in the message box.

9. On the summary information page, click **Install**.

10. Click **Finish**.

See also
*   *Using a Custom Database* on page 5

Verifying the Installation

Check for errors in the installation logs, then verify that you can start the server and log in to Management Cockpit.

1. Check the installation log at `SMP_HOME\InstallLogs\SMPInstall<date-time>.log`.

    `SMP_HOME` is the installation location you specified (the default is `C:\SAP\MobilePlatformXX`).

    A search for "error" should not find anything.

2. Open the Services panel from Windows Control Panel. If SAP Mobile Platform Server service is not started, verify that you can start it manually.

3. From Windows, select **Start > (All) Programs > SAP > Management Cockpit**.

Next

Use the *Upgrade: SAP Mobile Platform Server for Windows* for the support package to upgrade your SAP Mobile Platform installation.

Uninstalling

Uninstall SAP Mobile Platform server components before reinstalling them.

Preparing to Uninstall

Ensure that the host from which you are uninstalling SAP Mobile Platform Server is ready for the uninstallation.

Note: If you have been using an external production database, uninstalling SAP Mobile Platform Server leaves that database intact.

If you have been using the Derby database in a development installation, uninstalling SAP Mobile Platform Server deletes it.

1. While SAP Mobile Platform Server is running, first uninstall any other SAP products that require SAP Mobile Platform, including:
   - SAP Mobile Sales for SAP CRM
   - SAP Mobile Workflow for SAP Business Suite

   See the product-specific *Installation Guide*.

2. Shut down all SAP software and processes, and associated third-party processes that are running on the host.

   Open the Windows Services panel to confirm that the SAP Mobile Platform Server service is stopped. If it is started, stop it manually.

3. Move or copy any user-created files and log files that you want to keep, from the SAP Mobile Platform Server installation directories to another location.

   If you have been using the Derby database in a development installation and you plan to reinstall SAP Mobile Platform Server, preserve data by backing up the SAP Mobile Platform Server databases.

   With SAP Mobile Platform Server stopped, use operating system commands to copy the entire directory structure from `SMP_HOME\Server\db\derby\smp3\` to a backup location. For alternative ways of backing up the Derby database, see *http://db.apache.org/derby/docs/10.0/manuals/admin/hubprnt43.html*.

4. Prevent backups from interfering, by either excluding the existing SAP Mobile Platform Server installation directory from backup processes or by temporarily disabling them..

5. Prevent virus scans from interfering, by either excluding the existing SAP Mobile Platform Server installation directory from virus scans or by temporarily disabling them.

Running the Uninstaller

Start the SAP Mobile Platform Server uninstaller through the Windows Start menu.

1. From the Windows Start menu, select **(All) Programs > SAP Mobile Platform 3.0 > Uninstall SAP Mobile Platform 3.0**.

2. On the welcome panel, click **Next**.

3. Review the summary information, then click **Uninstall**.

4. Click **Finish** when you see:

   ```
   The InstallShield wizard has successfully uninstalled SAP
   Mobile Platform ...
   ```

5. Delete any folders and files remaining in the SAP Mobile Platform Server installation directory.

6. If you are using a custom database, archive your data, then execute the appropriate command below to delete the SAP Mobile Platform database tables.

   • ASE – at the **isql** prompt (if you changed the default database name, replace smp3 with the new name):

   ```
   drop database smp3;
   ```

   • DB2 – at DB2 prompt (if you changed the default database user name, replace gomobile with the new name):

   ```
   drop schema gomobile;
   ```

   • Oracle – at SQL*Plus prompt (if you changed the default database user name, replace gomobile with the new name):

   ```
   drop user gomobile cascade;
   ```

Troubleshooting

Review information about common problems that arise in the SAP Mobile Platform Runtime installation process.

For information about contacting SAP Technical Support, see *Issues Requiring Product Support* on page 29.

Quick Fixes to Simple Problems

Quick fixes are usually common, single-cause problems that you can solve with minimal overhead or additional support.

Fix List

Installation Fails after Canceling Installation

Problem
When you run the installer again after canceling the installation process, the installation fails with a message about files or folders, such as `sapjvm_7`, that already exist.

Workaround
1. Cancel the installation.
2. Manually delete all files and folders under *SMP_HOME*, the installation directory you selected.
3. Restart the installer.

Windows Displays Incorrect Error After Completing or Canceling Installation

Problem
After you complete or cancel the installation process, you see this message from the Windows Program Compatibility Assistant: `This program might not have installed correctly.`

Workaround
1. In the Program Compatibility Assistant window where the message appears, click **This program installed correctly** to close the window without further actions.
2. If you see this message after canceling the installation, it is probably caused by user account control (UAC) being enabled. Disable UAC:

   a. Access the Control Panel option that manages User Account Control on your version of Windows.

   b. Set the user account to never be notified about changes to your computer.

   Reenable UAC after completing this installation.

  3. If appropriate, restart the installer when you are ready.

Accessing Management Cockpit Displays Certificate Error

Problem

You cannot access Management Cockpit without seeing and ignoring a certificate error.

Workaround

Add the Management Cockpit certificate to Windows certificate store. See *Setting Up Browser Certificates for Management Cockpit* in *Administrator*

Issues Requiring Root Cause Analysis

Problems that have multiple solutions may require you to investigate an identified incident, problem, concern, or nonconformity. Try to understand the fundamental or underlying causes of the situation and correct them right, thereby preventing reoccurrence of the same issue.

Cannot Access Management Cockpit

After successfully installing SAP Mobile Platform Server, you cannot access Management Cockpit in a browser window.

Detect

After installing SAP Mobile Platform Server, when you try to access Management Cockpit, your Web browser displays an error message.

Problem Overview

The error message varies, depending on the browser you are using and the underlying cause.

- **Environment** – this can occur with SAP Mobile Platform Server installed on any supported server operating system, when attempting to access Management Cockpit remotely or from the same system where the server is installed.
- **Notable symptoms** – the admin ID and password prompt never appears.
- **Triage characteristics** – use severity and complexity characteristics to determine the IT resources you may need to assign to remediate this problem.

Attribute	Classification
Severity	High. Major system administration functions are unavailable.
Complexity	Simple to assess and to resolve.

Next: Assess the issue to determine your root cause.

See also
- *Assess* on page 25
- *Correct Server Not Started* on page 27
- *Correct Management Cockpit URL* on page 28
- *Correct Browser Version* on page 28
- *Correct Browser Proxy Settings* on page 29

Assess
You may not be able to access Management Cockpit if the server is not started, the URL is incorrect, or the browser is not supported.

Root Cause Diagnostic Assessment
Check the most likely causes first. You may have to resolve more than one root cause.

Table 1. Diagnostic Assessment and Correction Summary

Root Cause	Assessment	Correction

(Likely) SAP Mobile Platform Server is not started.	1. Log in to the desktop of the computer where SAP Mobile Platform Server is installed.
	2. Check the server start-up state:
	  a. In Windows Services Control Panel, check status of SAP Mobile Platform Server service.
	  b. If SAP Mobile Platform Server is not started, SAP Mobile Platform Server is not started.
		If server is not started, see *Correct Server Not Started* on page 27.
		
		If server is started, assess the next root cause.

Root Cause	Assessment	Correction
(Possible) Management Cockpit URL is incorrect.	If you used the desktop shortcut or the Windows Start menu to access Management Cockpit on the server where SAP Mobile Platform Server is installed, the URL is predefined. Continue with the next assessment. If you manually entered the URL to access Management Cockpit remotely, verify the correct URL for Management Cockpit: 1. Log in to the desktop of the computer where SAP Mobile Platform Server is installed. 2. Start Management Cockpit through the Windows Start menu or the desktop shortcut. 3. a. Copy the URL from the browser window where SAP Mobile Platform Server opened. b. Use email, chat, or clipboard to make the copied URL available on the computer from which you want to access Management Cockpit remotely. 4. Log in to the desktop of the computer from which you wamt to access Management Cockpit remotely. 5. Compare the URL you copied from the server where SAP Mobile Platform Server is installed with the URL you were using to access Management Cockpit.	If the URLs are different, see *Correct Management Cockpit URL* on page 28. If not, assess the next root cause.
(Possible) Browser version is not supported.	See *http://service.sap.com/pam* for the correct browser versions. If your browser version is not listed, it is not supported.	If the browser version you are using is not supported, see *Correct Browser Version* on page 28. If the browser version is supported, assess the next root cause.

Root Cause	Assessment	Correction
(Possible) Browser proxy settings prevent access	Even if your browser does not display an error message indicating that proxy settings are blocking access to the Management Cockpit URL, check with your company's IT support to determine whether browser proxy settings need to be changed.	If your company's IT support determines that your browser proxy settings are preventing access, see *Correct Browser Proxy Settings* on page 29.
(Unknown) None of the root causes have been validated.	Check other knowledge and support assets on SAP Service Marketplace. If no other causes are documented by Product Support, collect the data and outcomes of this assessment.	Assistance required. Create a help ticket with Product Support on SAP Service Marketplace.

See also
- *Detect* on page 24
- *Correct Server Not Started* on page 27
- *Correct Management Cockpit URL* on page 28
- *Correct Browser Version* on page 28
- *Correct Browser Proxy Settings* on page 29

Correct Server Not Started
If your assessment confirms this root cause, start the server.

Correct

1. Log in to the desktop of the computer where SAP Mobile Platform Server is installed.
2. Start the server using any of these methods:
   - Desktop shortcut – right-click the **Start SAP Mobile Platform Server** icon on the Windows desktop and select **Run as Administrator**.
   - Windows Start menu – select **Start > (All) Programs > SAP Mobile Platform 3.0 > Start SAP Mobile Platform Server**.
   - Windows Services Control Panel – start the **SAP Mobile Platform Server** service.

Validate

1. Try again to access Management Cockpit.
2. If the login screen for Management Cockpit still does not appear, assess the next root cause.

See also
- *Detect* on page 24
- *Assess* on page 25
- *Correct Management Cockpit URL* on page 28

- *Correct Browser Version* on page 28
- *Correct Browser Proxy Settings* on page 29

Correct Management Cockpit URL
If your assessment confirms the root cause, correct the URL used to access Management Cockpit.

Correct

1. Select and copy the URL you copied from the Management Cockpit's browser window on the server where SAP Mobile Platform Server is installed.
2. Paste the URL into your browser's address bar and press **Enter**.

Validate
If the login screen for Management Cockpit still does not appear, assess the next root cause.

See also
- *Detect* on page 24
- *Assess* on page 25
- *Correct Server Not Started* on page 27
- *Correct Browser Version* on page 28
- *Correct Browser Proxy Settings* on page 29

Correct Browser Version
If your assessment confirms this root cause, install a supported browser.

Correct

1. Select a supported browser version from those listed in *http://service.sap.com/pam*.
2. Download that browser version from the vendor's Web site and install it on the computer from which you want to access Management Cockpit.

Validate

1. Try again to access Management Cockpit.
2. If the login screen for Management Cockpit still does not appear, assess the next root cause.

See also
- *Detect* on page 24
- *Assess* on page 25
- *Correct Server Not Started* on page 27
- *Correct Management Cockpit URL* on page 28

- *Correct Browser Proxy Settings* on page 29

Correct Browser Proxy Settings
If your assessment confirms this root cause, correct browser proxy settings.

Correct

1. Consult with your company's IT support to determine the correct browser proxy settings.
2. Change browser proxy settings to match settings provided by your company's IT support..

Validate

1. Try again to access Management Cockpit.
2. If the login screen for Management Cockpit still does not appear, assess the next root cause.

See also
- *Detect* on page 24
- *Assess* on page 25
- *Correct Server Not Started* on page 27
- *Correct Management Cockpit URL* on page 28
- *Correct Browser Version* on page 28

Issues Requiring Product Support

Your SAP support ID gives you access to enterprise-level incident support as part of your support plan on SAP Service Marketplace.

Product Support can help you resolve new undocumented incidents with software installation, start-up, and overall use, as well as providing diagnostic and troubleshooting assistance for known problems with a new or undocumented cause.

Product Support Engagement Requirements

If you use SAP Service Marketplace to engage with Product Support, you must meet certain requirements.

Service Marketplace Case Creation Requirements
Be prepared to provide:

- A valid installation number for SAP Mobile Platform
- A valid service contract with SAP
- A valid system ID (S-User ID)

- An enabled NetViewer connection.

SAP Mobile Platform Incident Requirements

- Configure your logs to an appropriate level for your issue. Product Support requires details from one or more of the system logs.
- Capture these basic incident details to help Product Support analyze the problem, and determine any next steps:
    - Environment summary: product version, back end, client type (device and OS), proxy connections. These details help isolate component that is causing the failure. If you have an architecture diagram, share it with SAP.
    - Problem description: what were the actions preceded the incident. Capture all details that allow Product Support to reproduce the issue.
- Locate the server version in the SMP_HOME\Server\version.properties file.

Creating an Incident on SAP Service Marketplace

If you cannot resolve problems with the troubleshooting documentation for SAP Mobile Platform, go to SAP Service Marketplace for additional help.

Use SAP Service Marketplace to create an incident message for Product Support. Keywords from this message return related articles from the Knowledge Base. Before you submit a message, review these articles to see if they resolve your problem.

1. Go to *http://service.sap.com/message*.
2. Create a message using the wizard.

   Note: You must know the component ID for SAP Mobile Platform to return the correct scope of Knowledge Base Articles and to correctly route the message to Product Support. On-premise installations of SAP Mobile Platform use a different ID than cloud instances. See Knowledge Base Article *1915061- How to Choose a Component for SAP Mobile Platform 3.x in Service Marketplace* .

3. Once the message is processed, you receive an e-mail notification of the solution.

System Deployment Reference

Reference information that supports SAP Mobile Platform system deployment tasks.

Port Number Reference

Components of SAP Mobile Platform rely on communication ports for inter-process coordination, data transfer, and administrative access.

HTTP/HTTPS Port Number Reference

HTTP and HTTPS ports, default assignments, and protocols.

Type	Default	Pro-tocol	Where Configured
client communications, unsecured	8080	HTTP	File: *SMP_HOME*\Server\con-fig_master \org.eclipse.gemi-ni.web.tomcat\default-server.xml Setting: `<Connector port="8080" ...`
client communications with one way SSL au-thentication	8081 (secure)	HTTPS	File: *SMP_HOME*\Server\con-fig_master \org.eclipse.gemi-ni.web.tomcat\default-server.xml Setting: `<Connector proto-col="com.sap.mobile.plat-form.coy-ote.http11.SapHttp11Proto-col" port="8081" ...`

Type	Default	Pro-tocol	Where Configured
client communications with mutual SSL authentication	8082 (secure)	HTTPS	File: *SMP_HOME*\Server\config_master\org.eclipse.gemini.web.tomcat\default-server.xml Setting: `<Connector protocol="com.sap.mobile.platform.coyote.http11.SapHttp11Protocol" port="8082" ...`
administration port, Management Cockpit and Kapsel command line interface (CLI) communications with one way SSL authentication	8083 (secure)	HTTPS	File: *SMP_HOME*\Server\config_master\org.eclipse.gemini.web.tomcat\default-server.xml Setting: `<Connector protocol="com.sap.mobile.platform.coyote.http11.SapHttp11Protocol" port="8083" ...`

Note: Keystore certificates are used for SSL authentication of SAP Mobile Platform Server communication ports.

TCP Port Number Reference

TCP ports, default assignments, and protocols.

Type	Default	Pro-tocol	Where Configured
JMX	1717	TCP	File: *SMP_HOME*\Server\config_master \com.sap.ljs.commandline.parame-ters\ljs.properties Setting: jmxremote.port=1717 File: *SMP_HOME*\Server\config_master\ com.sap.mobile.platform.serv-er.foundation.security.jmx \com.sap.mobile.platform.serv-er.foundation.security.jmx.proper-ties Settings: • jmxPort=1717 • serviceUrl=service:jmx:rmi:// 127.0.0.1:1717/jndi/rmi:// 127.0.0.1:1717/jmxrmi
Derby database (only when Der-by is used as the SAP Mobile Platform Server database)	1527 (localhost only)	TCP	File: *SMP_HOME*\Server\derby.proper-ties Setting: #derby.drda.portNumber=1527 **Note:** Line is commented out (defaults internally to 1527). Uncomment the line when changing the port number.
OSGi console	2401 (localhost only)	TCP	File: *SMP_HOME*\Server\props.ini Setting: -console localhost:2401
Mobiliser TCP	8088	TCP	File: *SMP_HOME*\Server\config_master\ com.sybase365.mobiliser.frame-work.gateway.tcp/com.sybase365.mo-biliser.framework.gateway.tcp.prop-erties Setting: port=8088

Installation Directories

File organization of your SAP Mobile Platform Server installation.

The table below shows the top-level directories created under *SMP_HOME* when you install SAP Mobile Platform Server. *SMP_HOME* is the installation location you specified (the default is `C:\SAP\MobilePlatformXX`).

Table 2. SAP Mobile Platform Installation Subdirectories

Directory	Description
_smpjvm	JVM used by the uninstaller
InstallLogs	Log files created each time the SAP Mobile Platform Server installer is used. Use these logs to troubleshoot installer issues.
sapjvm7	SAP Java virtual machine files used by SAP Mobile Platform Server
Server	SAP Mobile Platform Server components
ThirdParty	License terms of third-party components included in SAP Mobile Platform
Uninstaller	Uninstallers for SAP Mobile Platform Server components
Uninstaller\Server	SAP Mobile Platform Server uninstaller
Util	Utilities used by the SAP Mobile Platform Server installer

Service Reference

Services are installed on the SAP Mobile Platform Server host to manage and coordinate component processes.

Service	Description
SAP Mobile Platform Server	Top-level SAP Mobile Platform Server process. Coordinates other processes that handle interactions with back-end services, supports messaging and synchronization service to mobile clients, and provides SAP Mobile Platform system management facilities.

Starting and Stopping SAP Mobile Platform Server on Windows

You can start and stop SAP Mobile Platform Server on Windows in different ways.

Note: If you are using a custom database with SAP Mobile Platform, starting and stopping SAP Mobile Platform Server has no effect on the database. Only the Derby database is automatically stopped and started in sync with SAP Mobile Platform Server.

Starting SAP Mobile Platform Server
Use any of these methods to start SAP Mobile Platform Server:

- Desktop shortcut – right-click the **Start SAP Mobile Platform Server** icon on the Windows desktop and select **Run as Administrator**.
- Windows Start menu – select **Start > (All) Programs > SAP Mobile Platform 3.0 > Start SAP Mobile Platform Server**.
- Windows Services Control Panel – start the **SAP Mobile Platform Server** service.

Server start-up may take several minutes. The start-up process is complete when you see:
```
The SMP server has initialized and is ready.
```

Stopping SAP Mobile Platform Server
Use any of these methods to stop SAP Mobile Platform Server:

- Desktop shortcut – double-click the **Stop SAP Mobile Platform Server** icon on the Windows desktop.
- Windows Start menu – select **Start > (All) Programs > SAP Mobile Platform 3.0 > Stop SAP Mobile Platform Server**.
- Windows Services Control Panel – stop the **SAP Mobile Platform Server** service.

Starting and Stopping the Management Cockpit on Windows

You can start and stop Management Cockpit in different ways.

Note: SAP Mobile Platform Server must be started before you can start Management Cockpit.

Starting Management Cockpit from Any Computer on the Network
On any computer on the network, in a supported browser, enter:

```
https://host_name:https_admin_port/Admin/
```

then log in with the administrative user name and password.

Starting Management Cockpit on the Server Host
On the server host, you can also use any of these options to start Management Cockpit, then log in with the administrative user name and password:

*   Desktop icon – double-click the **SAP Management Cockpit** icon on the Windows desktop.
*   Windows Start menu – select **Start > (All) Programs > SAP Mobile Platform** *version* **> Management Cockpit**.
*   Web browser – in a supported browser, enter:
    ```
    https://localhost:https_admin_port/Admin/
    ```

Stopping Management Cockpit
To stop Management Cockpit, click the **Logout** icon, in the upper right corner.

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