

## **Agency Apps System Landscape and Publish Mechanism to SMP 3.0**

Provided by SAP Mobile - Rapid Innovation Group

Applicable Releases:

Agency apps with SAP Backend on SMP 3.0 on SP04+.

**Version 2.0**



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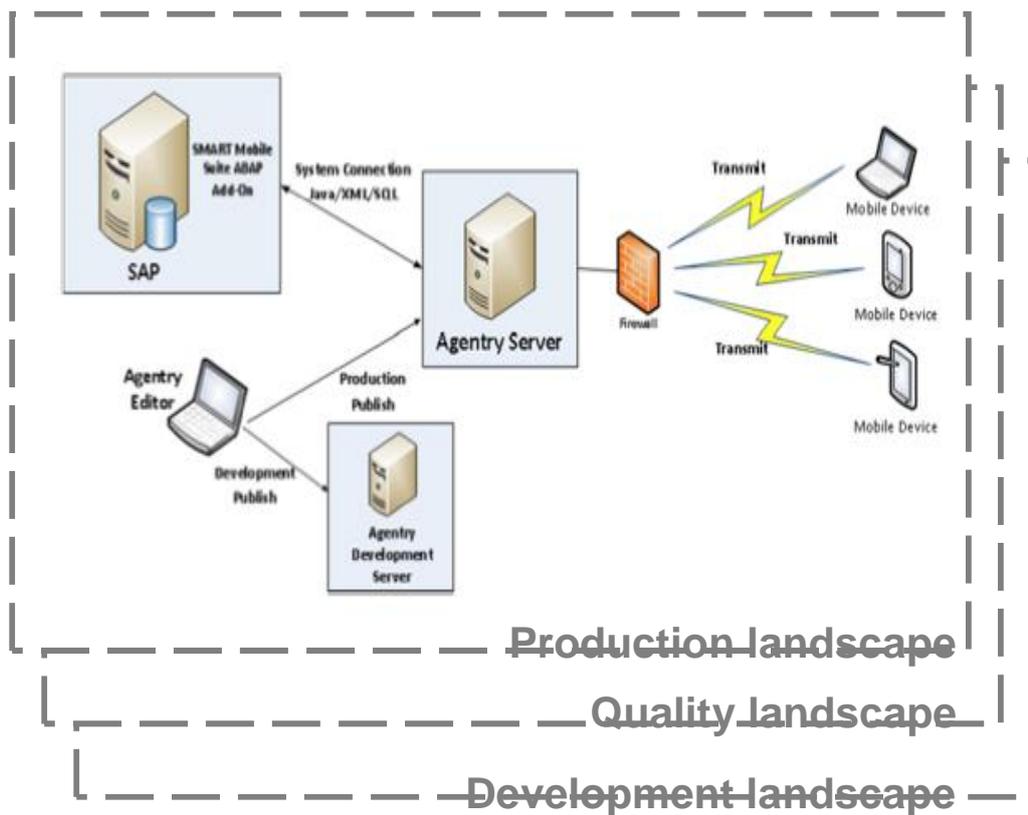
**SECTION 1: PURPOSE OF THIS DOCUMENT**

Purpose of this document to give overview of publish process and explain difference between development and production publish.

**SECTION 2: SMP 3.0 SERVER LANDSCAPE OVERVIEW**

When we use Agentry apps for SAP backend system. Typically we set-up three tier landscape development, quantity and production server for Agentry development and usage.

SAP system landscape dictates SMP 3.0 Server landscape set-up as shown in figure 3.



**Figure 1: SMP 3.0 System landscape**

Note: In the above figure Agentry Server represents SMP 3.0 Server.

Figure 2: SMP 3.0 Architecture

### **SECTION 3: PUBLISHING AGENCY APPLICATION OVERVIEW**

The Agentry Editor provides several features for creating, managing, and publishing the Agentry application project.

Publishing is the task performed when modifications within the application project are in a stable state and can then be either tested or deployed to end users. The process of publishing can include development publishes, production publishes to a single SMP 3.0 server instance, or production publishes to a cluster of SMP 3.0 servers.

Perform a development publish in Agentry Editor when performing development work, customizations, or configuration to an application project.

When you are ready to perform final quality assurance testing or need to deploy the application to users, you perform a production publish in the Agentry Editor, which zips the application files in preparation for importing in to SAP Mobile Platform Server.

Other options exist for the publish process, including the creation of files used for localization of the application. When performing a production publish, the publish version of the application must be set. Also during a production publish the option exists to delay the deployment from the SMP 3.0 Server to Agentry Clients until a specified date and time.

The location of the application definitions will be in the SMP 3.0 Server's configuration directory, in either the subdirectory Application\Development for a development publish, or Application\Production\Version for a production publish.

#### **Refer on-line help for Agentry development set-up:**

[http://help.sap.com/saphelp\\_smp307sdk/helpdata/en/7c/1c8bd1700610148278be00e002816b/content.htm?frameset=/en/7c/1c8bd1700610148278be00e002816b/frameset.htm&current\\_toc=/en/7c/01cda6700610149b10c2f2a86d335b/plain.htm&node\\_id=4310&show\\_children=true#jump4310](http://help.sap.com/saphelp_smp307sdk/helpdata/en/7c/1c8bd1700610148278be00e002816b/content.htm?frameset=/en/7c/1c8bd1700610148278be00e002816b/frameset.htm&current_toc=/en/7c/01cda6700610149b10c2f2a86d335b/plain.htm&node_id=4310&show_children=true#jump4310)

### Prerequisites

- Access to a development version of SAP Mobile Platform Server.
- Create an Agentry application in the management cockpit. Be sure to set the developmentServer configuration property in Agentry.ini to true. Agentry.ini is located in <SMP\_HOME>\Server\configuration\sap.mobile.platform.server.agentry.application.
- An agentry application project that is ready for testing.
- An application project that is ready for production use, or user acceptance and quality assurance testing.
- Obtain the location to publish the project from the system administrator, and verify that you have read-write access to it.

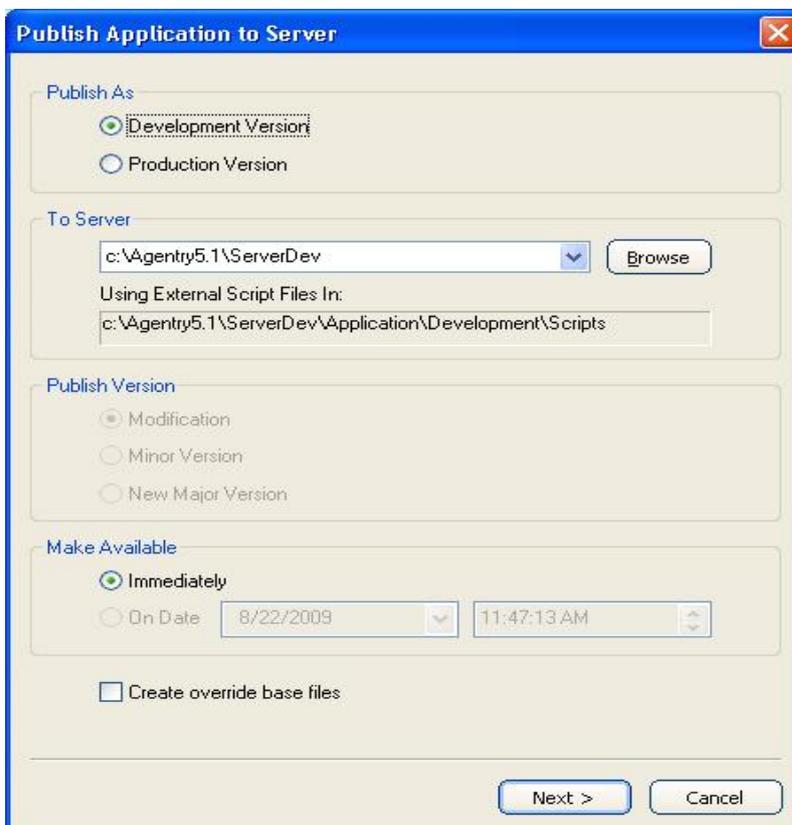
## SECTION 4: DEVELOPMENT PUBLISH

During the development phase, you publish to a development server for testing purposes.

A development publish will transfer the definition files in the application project from the Agentry Editor to the SMP 3.0 development Server. The files are stored on the file system at the installation location of the SAP Mobile Server; specifically within the configuration directory of the SMP 3.0 Server in the sub-directory Application\Development. A development server has no concept of application versions. The first time you publish, all files are written to a location on the development server. Subsequent development publishes overwrite only the files that have changed.

Note: - Development publish should only be performed to an SMP 3.0 development Server.

Begin the publish by clicking the toolbar Publish  button in Eclipse.



The publish process checks the overall integrity of the application project. Agentry Editor list errors or warnings in the Problems View. Prepare for the possibility of needing to correct these issues to perform a successful publish. You can publish an application with warnings, but not with errors. Warnings should be corrected prior to deploying to end users.

**For further details:**

[http://help.sap.com/saphelp\\_smp307sdk/helpdata/en/7c/1a2bcd70061014be6ef7567f938646/content.htm](http://help.sap.com/saphelp_smp307sdk/helpdata/en/7c/1a2bcd70061014be6ef7567f938646/content.htm)

**SECTION 5: PRODUCTION PUBLISH**

When development and testing are complete, you can perform a production publish, which creates a zip file of all specified application files, which you can then import into SAP Mobile Platform Server. A production publish enables you to indicate a version number, which must increment during subsequent production publishes. You can also include additional project files, such as Java resource files, application-specific DLL files, JAR files for the back end, and other back-end configuration files.

An Agentry project's production publish version contains the three components major, minor, and modification number. In the publish version of app for example SAPWM-v1-0-2-app, the 1 is the major version, 0 is the minor version, and mod 2 is the modification number. The publish wizard will contain a section where the developer will specify which of these should be changed. This selection impacts the behavior of the application during the next synchronization by the Agentry Clients.

**Guidelines for choosing the version**

- **New Major Version:** the only choice when performing the first production publish for an application. When you select a new major version, the server processes each transaction sent by a client using the old version of the application to avoid incompatibilities with new versions of the same transactions. Once the server process all pending transactions, it provides the updated application to the Agentry Clients.
- **Minor Version:** indicates minor updates or bug fixes that do not affect transaction processing.
- **Modification:** a modification to a major or minor version that does not affect transaction processing

Because of the above application behavior, it is the responsibility of the developer performing the publish to determine which behavior is desired, and to then select the proper change to the publish version of the application.

During production publish you need to specify temporary folder to store production publish files. You can later create deployment zip file from this temporary location once all the required auxiliary project files are available.

The production publish process produces a zip file which only contains your Agentry definitions. You do have option to include associated auxiliary project files to include in the zip file, such Java resource files, application-specific DLL files, JAR files for the back end, and other back-end configuration files.to produced deployable production zip file.

If you don't want to include associated auxiliary project files during the publish process then you can copy all related project files to production publish application folder to create deployable production zip file.

Begin the publish by clicking the toolbar Publish  button in Eclipse.

**Note: - A production publishes is performed to an instance of the SMP 3.0 Production Server**

**Note:** Right-click in the field under Publish Folder Structure to include auxiliary project files with the application project.

**Further help on production publish:**

[http://help.sap.com/saphelp\\_smp307sdk/helpdata/en/7c/1a300370061014b70aff251250df86/content.htm](http://help.sap.com/saphelp_smp307sdk/helpdata/en/7c/1a300370061014b70aff251250df86/content.htm)

Screen shot of sample production application folder along with auxiliary project files.

| Name                       | Date modified      | Type                  | Size                          |
|----------------------------|--------------------|-----------------------|-------------------------------|
| Application                | 1/22/2015 9:57 AM  | File folder           | Application Production folder |
| Java                       | 1/22/2015 9:57 AM  | File folder           |                               |
| pseudoFiles                | 1/22/2015 9:57 AM  | File folder           |                               |
| Agentry.ini                | 11/12/2014 8:43 AM | Configuration sett... | 2 KB                          |
| ApplicationBase.ini        | 11/12/2014 8:40 AM | Configuration sett... | 3,964 KB                      |
| branding.ini               | 11/12/2014 8:40 AM | Configuration sett... | 1 KB                          |
| ClientText.ini             | 11/12/2014 8:40 AM | Configuration sett... | 1 KB                          |
| connectTest.bat            | 1/22/2015 9:56 AM  | Windows Batch File    | 1 KB                          |
| Enables.ini                | 11/12/2014 8:40 AM | Configuration sett... | 829 KB                        |
| Globals.ini                | 11/12/2014 8:40 AM | Configuration sett... | 71 KB                         |
| ImagePrecedence.ini        | 11/12/2014 8:40 AM | Configuration sett... | 11 KB                         |
| ini4j.jar                  | 11/12/2014 8:40 AM | Executable Jar File   | 95 KB                         |
| JavaBE.ini                 | 1/22/2015 9:56 AM  | Configuration sett... | 8 KB                          |
| librfc32.dll               | 11/12/2014 8:40 AM | Application extens... | 5,676 KB                      |
| librfccm.so                | 11/12/2014 8:40 AM | SO File               | 4,506 KB                      |
| libsapjco3.so              | 11/12/2014 8:40 AM | SO File               | 5,220 KB                      |
| sapjco3.dll                | 11/12/2014 8:40 AM | Application extens... | 4,825 KB                      |
| sapjco3.jar                | 11/12/2014 8:40 AM | Executable Jar File   | 1,355 KB                      |
| ScreenSets.ini             | 11/12/2014 8:40 AM | Configuration sett... | 11 KB                         |
| StylePrecedence.ini        | 11/12/2014 8:40 AM | Configuration sett... | 12 KB                         |
| TransmitConfigurations.ini | 11/12/2014 8:40 AM | Configuration sett... | 2 KB                          |
| WM62.zip                   | 1/22/2015 9:58 AM  | WinRAR ZIP archive    | 15,221 KB                     |

Annotations in the image:  
 - A green box highlights the 'Application' folder.  
 - A green arrow points to the 'Application' folder.  
 - A blue box highlights the files from 'Java' to 'TransmitConfigurations.ini'.  
 - A green arrow points to this blue box with the label 'Auxiliary project files'.  
 - A green box highlights the 'WM62.zip' file.  
 - A black arrow points to this file with the label 'Application deployment zip folder'.

Figure 3: Agentry apps. Deployment folder structure

**SECTION 6: SMP 3.0 DEVELOPMENT VS. PRODUCTION SERVER FOR AGENTRY APPS**

An SMP 3.0 server is identified as type “Development” or “Production” during installation. Important distinctions of an SMP 3.0 development Server is only a single, latest version of an application is kept on the server. Agentry application definitions stored in multiple files not intended for large, concurrent users (because of logging and other parameters tuned for development purposes). Important distinctions of an SMP 3.0 production Server, Application versions are stored on the server.

Application versions consist of three part naming components.

- Major
  - Minor
  - Modification
- For example - SAPWM-v1-0-2-app

Perform a development publish in Agentry editor to SMP 3.0 development server when performing development work, customizations, or configuration to an application project.

When you are ready to perform final quality assurance testing or need to deploy the application to users, you perform a production publish in the Agentry Editor to SMP 3.0 production Server, which zips the application files in preparation for importing in to SAP Mobile Platform Server.

**Note:** - Generally it is not recommended to store more than 3 versions of application versions on SMP 3.0 production server. Application versions which are not needed can be deleted from management cockpit.

To delete any published application version simply select required version and click on delete button.

**PUBLISH**

Publish Agentry App

**PUBLISHED VERSIONS**

|           |                                       |
|-----------|---------------------------------------|
| SAPWM 1.0 | <input type="button" value="Delete"/> |
|           |                                       |
|           |                                       |
|           |                                       |

**SECTION 7: AGENCY FILE TYPES**

- Agentry File Types
- Agentry Project File - .apj
- Agentry Development File - .agd
- Agentry Development File Compressed - .agdz
- Agentry Production File - .agp
- Agentry Production File Compressed - .agpz
- Agentry Export File - .agx
- Agentry Export File Compressed - .agxz

**SECTION 8: AGENCY DEVELOPMENT LANDSCAPE**

**Figure 5: Agentry development landscape and various components**

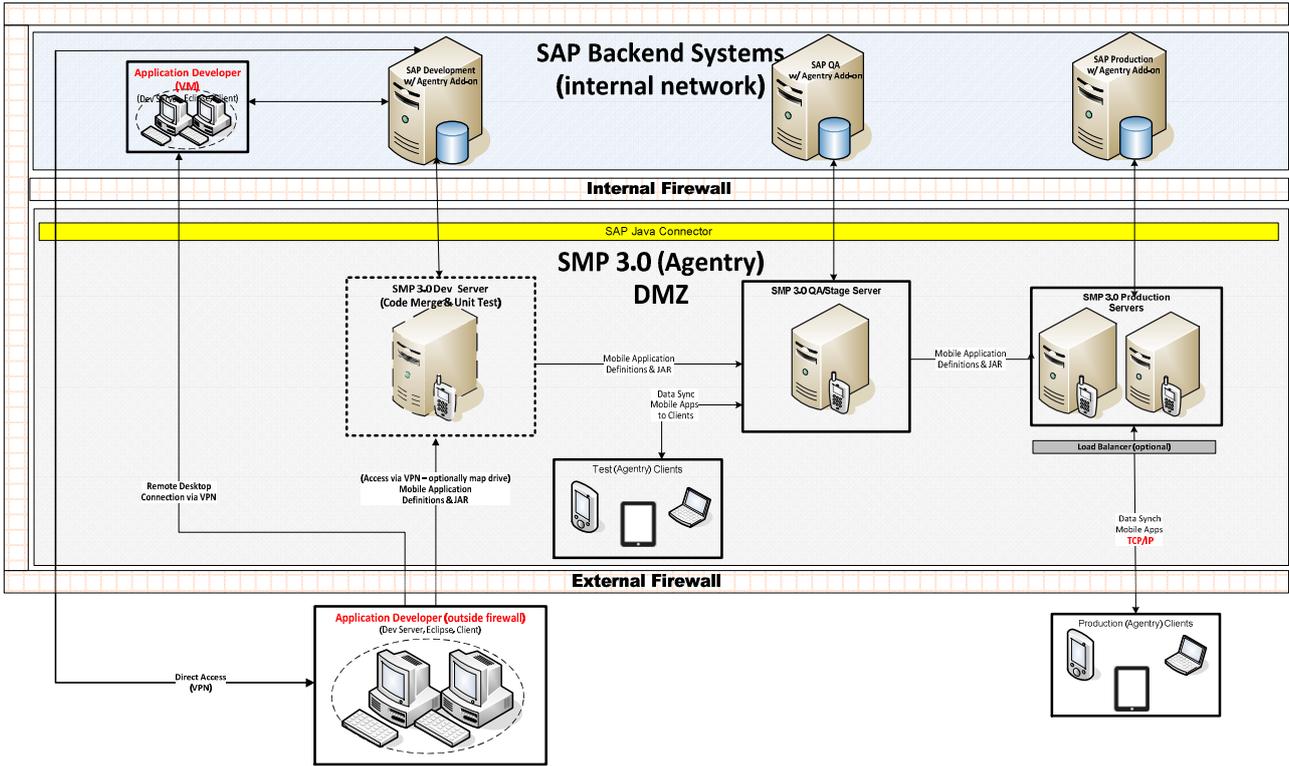
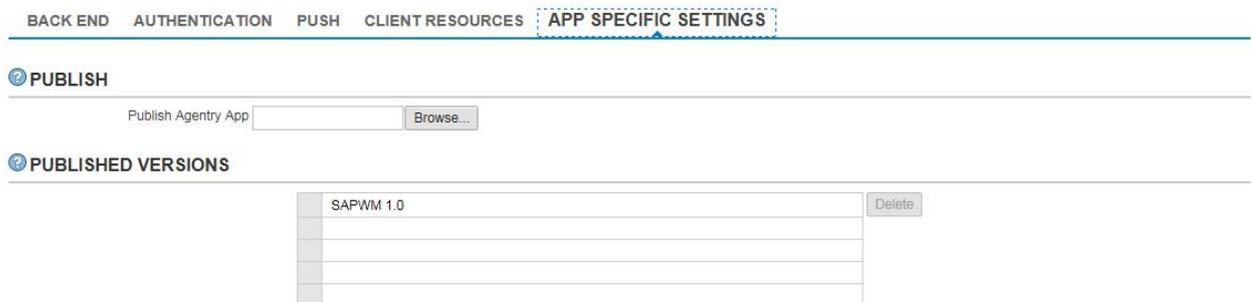


Figure 6: SMP 3.0 Server Technical landscape (Logical)

SECTION 9: APPLICATION DEPLOYMENT PROCESS

The movement of the mobile application through the customer landscape requires the coordination of following activities:

1. The movement of the ECC transports for the project, including both workbench requests and customizing requests.
2. Deployment of Agentry apps from management cockpit by specifying application zip folder generated in figure 3. ( Refer: **Section 11 for step-by-step guide**)



3. Any custom or application specific that is required.

## **SECTION 10: GENERAL CONSIDERATIONS**

- 1 Develop and unit test by publishing to a development server
- 2 Publish production mode application to staging server or unit test development server and perform end-to-end testing. When a version of the application is ready to be released, the development team will create a deployment zip folder with any JAR file for the custom java code, JAVABE.ini file populated with right SAP system connection and other auxiliary files packaged into deployment folder.
- 3 Create Service users and required authorization for mobile users in respective SAP systems.
- 4 SAP Mobile Platform Server installation including adding Cluster Nodes (optional) and Single-host node along with custom database for production install.
- 5 Installation and configuration of any Reverse Proxy or load balancer ( optional )
- 6 Deploy Agentry application zip folder on the target SMP 3.0 Server.
- 7 Once Agentry application is deployed modify any URL paths. Time zone settings, Agentry.ini file entries from management cockpit or changes can be done before creating deployment folder.
- 8 Export certificate from SMP 3.0 server for Agentry clients to connect.

Note: - Agentry.ini file can't be found under application folder once application is deployed on production server.

## **SECTION 11: FUTHER REFERENCES**

- 1) For step-by step guide to install WM 6.X apps on SMP 3.0

<http://scn.sap.com/community/mobile/blog/2014/08/30/quick-start-guide-sap-work-manager-6x-with-smp-agentry>

- 2) Refer any product specific installation and configuration guide.

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