New Features: SAP Mobile Platform Server

SAP Mobile Platform 3.0 SP02
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New Features Summary

SAP® Mobile Platform Server features SAP Lean Java Server, a lightweight OSGi based application server.

This OSGi framework is a modular system and services platform for Java that implements a dynamic component model. The service registry included in the framework allows bundles to detect the addition of new services, or the removal of services, and adapt accordingly, eliminating the need for bulky backup and recovery data.

This release of SAP Mobile Platform Server standardizes on the OData data model and HTTP protocol to provide common platform services to all applications with a unified authentication framework, policies and user/role management.

SAP Mobile Platform Server includes an updated administrative user interface based on HTML5. This new UI allows for faster application deployment, onboarding and configuration, and access to more graphic analytics, providing a richer overall experience for the admin user.

This release also introduces a multilayered approach for data integration that ensures seamless access to enterprise data systems for both internal and external mobile device users, while also ensuring that data transfer remains secure.

Server Documentation Updates for SAP Mobile Platform 3.0 SP02

SAP Mobile Platform 3.0 SP02 is a support package that provides fixes to the product. Server documentation has been updated to support the product fixes. In addition, some existing documentation has been expanded and/or reorganized to provide more complete information and improved access.

You can download SAP Mobile Platform 3.0 SP02 from the Support Portal on Service Marketplace at http://service.sap.com/support. You can find installation instructions in the SAP Note for the support package. To access the SAP Note, select the Info link on the package’s download page.
Table 1. Documentation Updates to Support Fixes

<table>
<thead>
<tr>
<th>Update</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Importing and exporting native, hybrid and Agentry applications.</td>
<td>Administrator &gt; Application Administration &gt; Managing and Monitoring Applications &gt; Importing and Exporting Applications</td>
</tr>
<tr>
<td>From the Management Cockpit, use importing and exporting to move applications from one server environment to another, for example, from the testing environment to the production environment. Exporting an application creates a ZIP file that you can import in the target environment. After importing, you must reconfigure some application settings for the target server environment.</td>
<td>Administrator &gt; Application Administration &gt; Managing and Monitoring Applications &gt; Importing and Exporting Applications</td>
</tr>
<tr>
<td>Uploading new or updated application data to an existing Agentry application definition.</td>
<td>Administrator &gt; Application Administration &gt; Deploying Applications &gt; Defining Application Specific Settings &gt; Publishing Agentry Applications</td>
</tr>
<tr>
<td>From the Management Cockpit, upload a ZIP file created by the developer using the Agentry Editor Production Publish process. After uploading, you can configure additional Agentry settings.</td>
<td>Administrator &gt; Application Administration &gt; Deploying Applications &gt; Defining Application Specific Settings &gt; Publishing Agentry Applications</td>
</tr>
<tr>
<td>Installing and configuring a Nginx reverse proxy for Agentry applications.</td>
<td>Administrator &gt; Security Administration &gt; Configuring Security Fundamentals in SAP Mobile Platform &gt; Using Nginx Reverse Proxy for Agentry Clients</td>
</tr>
<tr>
<td>Agentry clients use WebSockets for communicating with the server. Nginx is a WebSockets-aware HTTP reverse proxy.</td>
<td>Administrator &gt; Security Administration &gt; Configuring Security Fundamentals in SAP Mobile Platform &gt; Using Nginx Reverse Proxy for Agentry Clients</td>
</tr>
<tr>
<td>Provisioning native and hybrid applications using Afaria.</td>
<td>Administrator &gt; Application Administration &gt; Provisioning Applications &gt; Provisioning with Afaria</td>
</tr>
<tr>
<td>Provision applications to supported devices so users can install and log in to the applications to register with SAP Mobile Platform Server.</td>
<td>Administrator &gt; Application Administration &gt; Provisioning Applications &gt; Provisioning with Afaria</td>
</tr>
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Table 2. Documentation Improvements

<table>
<thead>
<tr>
<th>Improvement</th>
<th>Location</th>
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</thead>
<tbody>
<tr>
<td>Expanded content for security landscape, added post installation checklist, updated authentication provider information, and reorganized certificate aliases content. Added new content for using SSL to secure the HTTPS channel to the back end.</td>
<td>Administrator &gt; Security Administration</td>
</tr>
<tr>
<td>Upgrading information moved from Installation documentation to separate documentation.</td>
<td>Upgrade: SAP Mobile Platform Server for Windows</td>
</tr>
<tr>
<td></td>
<td>Upgrade: SAP Mobile Platform Server for Linux</td>
</tr>
</tbody>
</table>
Improvement | Location
--- | ---
Postinstallation tasks moved from Landscape Design and Integration documentation to Administrator documentation. | Administrator > Getting Started > Postinstallation Landscape Setup
Administrator > Security Administration > Security Postinstallation Checklist

Application Administration

SAP Mobile Platform Server features a new Administration UI with an enhanced interface for administration and application management and monitoring.

Management Cockpit

The Management Cockpit provides enhanced server administration and application management and monitoring.

Management Cockpit is a comprehensive HTML5-based administrative tool that replaces the Flash-based SAP Control Center in earlier versions. The interface features an application-centric design that provides a streamlined task flow with graphical options for application analytics, providing a better understanding of the applications being deployed through SAP Mobile Platform, and additional detail for runtime analysis.

Documented in Administrator > Application Administration and Administrator > Server Administration.

Application Versioning

SAP Mobile Platform Server 3.0 includes application versioning for hybrid apps.

When you upload and deploy a new or updated version of a hybrid app to SAP Mobile Platform Server, you can designate it as the current version, while maintaining older versions of the application. When a user who is using an older version of the application connects to the server, the server calculates the difference between the user's version and the new version, and downloads a patch that contains only the required changes. If the application implements the AppUpdate plugin, the server checks for updates when the application starts-up or is resumed.

Documented in Administrator > Application Administration > Deploying Applications > Defining Application Specific Settings > Uploading Hybrid Apps.

SAP Mobile Platform Server allows you to use REST APIs to automate application versioning management by integrating it into your application build or application artifact management processes.
Security Administration

SAP Mobile Platform Server 3.0 provides seamless end-to-end authentication and security policy integration.

You can configure end-to-end authentication from the client to the back end without a VPN. The server uses the standard HTTPS protocol to integrate into your existing security landscape without disruption. These authentication methods are supported:

- Basic Authentication
- Certificates
- Token-Based (i.e., CA SiteMinder cookies, SSO 2 tickets, etc.)

Documented in: Administration > Security Administration.

Agentry Security

SAP Mobile Platform includes enhanced security features for Agentry applications deployed through SAP Mobile Platform Server.

Database Encryption

Agentry application servers now feature an encrypted database that uses SQLite Encryption Extension. This allows users to decide if they want to use an encrypted database. The encrypted database resolves gaps in the way in which username/passwords are stored for offline authentication, and provides better security for application locking and passwords.

Documented in Administrator > Security Administration > Agentry Security.

WebSockets Support

Agentry application servers also implement the WebSockets protocol, which allows Agentry clients to communicate with SAP Mobile Platform Server over HTTPS. Agentry clients can work with HTTP proxy servers and relays, to utilize the SAP Mobile Platform Server authentication infrastructure via standard HTTP mechanisms.

Documented in Administrator > Security Administration > Agentry Security.

Application Services (Mobiliser)

Mobiliser is a fully integrated system with a back-end database, a set of application services as a middle-tier, and a front-end Web application for configuration, management and utilization.
It is based on the Open Services Gateway initiative (OSGi) modular architecture. These services provide mobile-commerce solutions to financial institutions, mobile operators, and merchants, enabling mobile users to bank, buy, pay, and remit money using a mobile device.

**Mobiliser Services**

- **Banking** – allows customers to use their mobile phones as microbanks, serving all basic banking services that demand instant information; for example, to inquire about account balances, configure notifications on account activity or threshold alerts, and manage accounts.
- **Payments** – enables consumers to make domestic peer-to-peer (P2P) payments to both known and unknown customers, make remote and proximity purchases at various merchant acceptance points, pay bills, and repay loans.
- **On-device charging** – provides the capability to store sensitive data, such as stored-value account (SVA) balances on a smartphone, which can interact with external systems through near-field communication.

**Mobiliser Core**

The core components are:

- **Messaging framework** – provides the ability to send correspondence to customers.
- **Preferences** – standard mechanism for application configuration.
- **Persistence layer** – stores and retrieves information from database systems.
- **Events** – components have individual requirements for responding to specific states that may occur during the life cycle of requests and transactions.

**Mobiliser Database**

The database captures and stores data for:

- **Customers** – names and phone numbers, PINS and passwords, and payment instruments.
- **Payment instruments** – instrument types, restrictions, booking, and settlement modes.
- **Transactions** – types, success or failure, authentication, and the life cycle of transactions.
- **Fees** – payers and payees, fee types, amounts, exchange rates, and currency.
- **Limits** – daily, weekly, and monthly limits, and total debits and credits.
- **Invoices** – payable invoices, amount due, currency, status, and due date.

**Operations Dashboard**

Partners, agents, and merchants can monitor and manage servers in a deployment; manage and administer preferences; track system-level details; and control jobs.

Documented in *Administrator > Application Services (Mobiliser) Administration*. 
SAP Mobile Server Feature Management

SAP Mobile Platform Server 3.0 allows you to manage groups of functionality (that is, features or bundles) both at product build time, and after installation.

Features are installed but not enabled, to keep the server lightweight and easy to manage. Beginning with version 3.0, SAP Mobile Platform Server allows you to enable optional features as required for your environment. You can also integrate and enable custom features as required for your specific environment.

Documented in Administrator > Server Administration > Managing SAP Mobile Platform Server Features.

Data Integration in SAP Mobile Platform

Integration Gateway is deployed on SAP Mobile Platform Server 3.0 to provide standardized data integration across a range of backends.

Integration Gateway supports both SAP and non-SAP backends using non-OData REST Services, JDBC, SOAP, and OData process integration. Integration Gateway also provides core platform services using JAVA and RESTful APIs. These are common services used by all applications.

Documented in: Data Integration using Integration Gateway

Data Synchronization with the Agentry SAP Framework

Agentry SAP Framework is an ABAP Add-On that is installed separate from SAP Mobile Platform Server.

The framework facilitates data synchronization for Agentry applications that are developed in the SAP Mobile Platform Agentry archetype and includes an Administration and Monitoring Portal as well as an Integration Framework. The Administration and Monitoring Portal provides tools you can use to configure and administer the Agentry SAP Foundation tasks. The Integration Framework provides an integration point to SAP Mobile Platform Server and a Configuration Portal used during implementation to facilitate data synchronization for Agentry applications.

Changes to Documentation

Documentation organization is modified to reflect the product structure.

This release of SAP Mobile Platform separates SAP Mobile Platform Server and SAP Mobile Platform SDK, so that each is provided as a separate product. For consistency, the documentation is organized to reflect that separation, with separate documents for SAP Mobile Platform Server and SAP Mobile Platform SDK. Additionally, the content is organized by the key roles of Developer and Administrator. This provides you with comprehensive details for an end-to-end experience that is specific to your role, allowing you to focus on the content that is most important to you.

Troubleshooting and New Features are now separate for SAP Mobile Platform Server and SAP Mobile Platform SDK, with content that is specific to the experiences for each product.

Supported Versions for SAP Mobile Platform Server

Supported Versions for SAP Mobile Platform Server can now be accessed through the SAP Product Availability Matrix (PAM).

The Supported Hardware and Software Guide is no longer included in the core documentation. Supported operating systems, development environments, devices, and third-party compatibility is now accessible from 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.


Additional hardware and software requirements for this SAP Mobile Platform Server release are accessible through the Product Availability Matrix, but they are maintained in SAP Notes through the SAP Service Marketplace, which also requires a login.

SAP Note 1904213 lists:

- SAP Mobile Platform Server minimum hardware requirements
- Supported Web Browsers for Management Cockpit
- Supported JDK versions
- Reverse Proxy Support
- Afaria support
- Introscope support
- Virtual machine support.

SAP Note 1934552 lists Persistence Database Support

New Features: SAP Mobile Platform Server
Changes to Documentation

*SAP Note 1904620* lists:

- SAP Backend Support
- Webservices Support
- Back-end Database Support