



New Features

SAP Mobile Platform 2.3 SP02

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New Platform Features

This release introduces SAP® Mobile Platform, which incorporates both the Sybase® Unwired Platform and Syclo Agentry development environments. SAP Mobile Platform version 2.3 includes new features that support development and management of the system.

Several product names have also changed in this release. See *Rebranding* on page 8.

Note: See *Supported Hardware and Software* for the list of devices, operating systems, APIs, and tools that SAP Mobile Platform currently supports.

Agentry Development Archetype

A new development archetype for Agentry applications is now integrated with SAP Mobile Platform. Developers use the Agentry Editor to create and modify applications, then deploy them to SAP Mobile Server. System administrators deploy, manage, and monitor applications using SAP Control Center.

Agentry applications provide the ability to:

- Support one or more client device types, and one or more enterprise information systems (EISs) of varying types, from a single application project.
- Configure and modify applications with minimal user impact.
- Develop simple or complex multi-screen workflows.
- Store high data volumes on client devices.

Each Agentry application has its own Agentry Server instance that runs on a SAP Mobile Server node.

Note:

- End-to-End Trace, Solution Manager, and LoadRunner are not currently supported for Agentry.
 - Native push is supported for Apple Push Notification Service (APNS) and Google Cloud Messaging (GCM).
 - The current SAP Mobile Platform scale-out node architecture supports the Agentry Server.
 - Agentry applications are now included under the SAP Mobile Platform license; you can no longer use the Syclo licensing method.
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Quick Start: Agentry Documentation

Agentry information is now incorporated in the SAP Mobile Platform documentation set. In *Fundamentals*, see *Agentry Applications* for an overview of the Agentry development archetype.

Install

Core Agentry components are installed as part of SAP Mobile Platform 2.3.

- *Installation Guide for SAP Mobile SDK*
- *Installation Guide for Runtime*

Configure

Use SAP Control Center to configure the Agentry Server and back-end system connection, and the Agentry Server and application client security connections. Setting up these configurations modifies the `agentry.ini` file.

Each Agentry application server instance is configured based on the information that is loaded from the Agentry Server configuration files that are installed with the SAP Mobile Server. You can modify the configuration for individual Agentry applications using the SAP Control Center. To modify the Agentry Server configuration files installed with the SAP Mobile Server, you must edit the files directly.

- *Landscape Design and Integration*, see *Agentry Server Host System Connectivity* to identify EIS connectivity requirements. [In SAP Mobile Platform documentation, enterprise information system (EIS) is equivalent to "back end"].
- *System Administration*, see:
 - *Agentry Server Configuration Overview*
 - *Configuring Back End Communications*
 - *Configuring Client-Server Communications*

Migrate

Migrate your existing Agentry Mobile Platform development environment to SAP Mobile Platform. In *Developer Guide: Migrating to SAP Mobile SDK*, see *Migrate Agentry Applications*, and follow the steps in the order presented to set up your environment, and deploy your existing applications.

Develop

Install a standalone version of Eclipse, separate from SAP Mobile WorkSpace, and the Agentry Editor plug-in. Use the Agentry Editor to design applications, define authentication and security settings, and define EIS connections and operations. Use the Branding SDK to modify the client application package (for example, icons, application name, and so forth).

- *Installation Guide for SAP Mobile SDK*, see *Installing the Agentry Editor Plug-In and Eclipse Platform*

- *Developer Guide: Agentry Applications*
- *Developer Guide: Agentry Language Reference*
- *Developer Guide: Agentry Device Client Branding SDK*

Deploy

Use the SAP Control Center application creation wizard to create an application definition. Specify the application file, import the Agentry application, and configure the Agentry Server instance associated with the application. You can manage multiple Agentry application versions. Security settings are autogenerated, picking up configuration settings from Agentry Editor.

In *SAP Control Center for SAP Mobile Platform*, see:

- *Agentry Applications*
- *Creating Agentry Application Definitions*

Manage

Use SAP Control Center to manage applications and the application life cycle. Create application definitions, deploy them immediately or later, and update definitions over time.

- *SAP Control Center for SAP Mobile Platform*, see:
 - *Creating Agentry Application Definitions*
 - *Maintaining Activated Applications*
- *Security*, see *Agentry Server Security*
- For system administrators supporting customers in the field, see *Installation Guide: Agentry Device Clients*.

Monitor

Use SAP Control Center domain-level event and message application logs, and server log files to monitor end-to-end communications from client applications to the EIS.

- *System Administration*, see:
 - *Agentry Server Logs*
 - *Agentry Application Logs*
- *SAP Control Center for SAP Mobile Platform*, see *Retrieving Application Logs*

Agentry Features

New and changed features for Agentry development.

Dynamic Screen Enable

You can now define screen sets that contain multiple screens to dynamically display or hide those screens at runtime on the client via a rule that is evaluated by the platform definition.

Documented in: *Developer Guide: Agentry Language Reference*, see *List Screen*

Screen Selection Rule

A rule attribute supports the ability to display one of a selection of screens within the parent screen set. This is intended for use with transaction and fetch screen sets where one of the screens within the screen set is displayed based on the return value of the rule, which is expected to be the name of the screen to display. This allows for one of multiple different screens to be displayed for transaction or fetch data capture that is based on some condition.

Documented in: *Developer Guide: Agentry Language Reference*, see *Action Step Type: List Selection*

Calendar Control Support (Android and iOS)

The Calendar detail screen field edit type is now fully supported on both iOS and Android client platforms.

Documented in:

- *Developer Guide: Agentry Applications*, see *Agentry User Interface Definitions Overview*
- *Developer Guide: Agentry Language Reference*, see *Detail Screen Field Edit Types*

OData SDK

New or changed features for OData SDK. REST client libraries are available with 2.3 SP02 to provide REST SDK support for OData applications for iOS and Android platforms.

REST SDK Support for OData Applications

New REST client libraries are available with 2.3 SP02. The REST SDK libraries enable consumption of SAP Mobile Platform REST services with pure HTTP (by default in on-premise) connectivity. The REST SDK provides simplified APIs for registration, exchange settings between client and server, and end-to-end tracing. The SDK also supports native push notifications.

Three new classes have been added for iOS and Android for registration, exchange setting, end-to-end tracing, and native push notifications:

- iOS – new classes: `SMPClientConnection`, `SMPUserManager`, and `SMPAppSettings`.
- Android – new classes: `ClientConnection`, `UserManager`, and `AppSettings`.

Documented in: *Developer Guide: OData SDK*, see the *REST SDK API Usage* sections (for Android and iOS)

REST API Applications

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- Android – new classes: `ClientConnection`, `UserManager`, and `AppSettings`.

Documented in:

- *Developer Guide: REST API Applications (On-Premise)*, see *REST Services Applications*
- *Developer Guide: OData SDK*, see:
 - *REST SDK Components – General Description*
 - *Development Task Flow Using REST SDK (HTTP Channel)* (Android and iOS)

EIS Defined Cache

This release includes enhancements that give an enterprise information system (EIS) more control over data partitioning, and client operation replay requests.

A new cache policy—EIS Managed—has been added to SAP Mobile Platform. This policy enables the EIS to use data change notification messages to manage data refresh, including managing data partitions (similar to the existing “Requester Partition” functionality), user subscriptions to those partitions, and data updates. Options are available for the EIS to control when and how it processes client operation replay requests, and to have more control over what data is loaded to and from a device.

A partition key is "defined" by the EIS, and the allowed "OTHER" operation under this new cache group policy is, conceptually, fetched and executed by the EIS, which is different from the normal operation replay. Data change notification (DCN) includes the `partition` attribute that identifies an EIS-defined cache partition, which users can subscribe to based on the EIS partition key. The EIS defined cache partition is a collection of data from multiple

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MBOs and provides an alternative subscribe/unsubscribe model compared to the per-MBO synchronization parameter model (client-defined partition).

SAP Mobile WorkSpace provides user interface support for EIS-defined cache.

Documented in:

- *Mobile Data Models: Using Mobile Business Objects*, see:
 - *EIS Defined Cache Partitions*
 - *Controlling Notifications for Native Applications With Cache Partitions*
- *SAP Mobile WorkSpace - Mobile Business Object Development*, see *Creating Cache Groups*
- *SAP Control Center for SAP Mobile Platform*, see *EIS Managed Refresh Policy*

Performance Best Practices

New best practices information has been added to the documentation, to help improve synchronization performance, and optimize object query performance.

Synchronization Performance

Improve synchronization performance and free resources by deleting log records from SAP Mobile Server and the client when they are no longer needed. You can calculate the log file record size, then take steps to reduce the size.

Documented in: *System Administration, Improve Synchronization Performance by Reducing the Log Record Size*.

Object Query Performance

Investigate complex object queries that are used in Object API applications (Android, BlackBerry, iOS, and Windows Mobile). Examine the database schema and data size, review the SQL statement generated from the query, and review the execution plan for your code. Use the information to optimize object query performance, and develop best practices.

Documented in: *Mobile Data Models: Using Mobile Business Objects*, see the *Improve Object Query Performance* topic group.

Administration

New or changed features for administration.

Manage Agency Applications

Use SAP Control Center to administer Agency applications. Define the Agency application definition and deploy the application files that are developed in Agency Editor. Modify the configuration properties for the Agency Server instance. Start and stop the Agency Server

instance. Once the application is enabled and the Agentry Server instance is running, the application is available to end users.

View and disconnect active users for an Agentry application, and enable logging to capture information for debugging, issue tracking, and benchmarking. Deploy updated application files to the Agentry application. Package specific Agentry application metadata for deploying in another server environment. Export Agentry application files for transporting between server environments. Incrementally deploy localization files or other resources, inspect deployed files, and download files.

Additionally, SAP Mobile Platform supports automatic cluster-wide replication of Agentry applications, and multiple Agentry application instances in a single SAP Mobile Platform cluster.

New SAP Mobile Server APIs are available for working with Agentry applications.

Documented in:

- *SAP Control Center for SAP Mobile Platform*, see *Applications* and *Agentry Applications*
- *Developer Guide: SAP Mobile Server Runtime*, see *Managing Applications*

Manage Applications by SDK Type

Use SAP Control Center to manage applications by SDK type. When creating application definitions in SAP Control Center, you select the SDK type of the application. Only fields that are applicable to that application type appear. All applications are shown in the Applications node of the navigation pane. Select an application to manage or modify it in the administration pane.

Documented in: *Applications* in *SAP Control Center for SAP Mobile Platform*.

Manage EIS Partition Cache

Use SAP Control Center to manage the EIS partition cache. You can deploy an MBO package that is contained in an EIS partition cache group. The EIS cache group is listed along with the other cache groups for the package. You can change the Web connection endpoint used for the cache. The endpoint sends client updates for MBOs in the cache group to the EIS for batch processing. When you purge a cache, you can set the purge parameters for unused and unreferenced EIS partitions.

Documented in: *MBO Package Management* and *Domains* in *SAP Control Center for SAP Mobile Platform*.

Log Correlation Utility

SAP Mobile Platform now includes a command line utility (`consolidate-logs.bat`) to consolidate, correlate, and filter the content of the server logs. The utility is limited to the SAP Mobile Server and cluster logs. The utility is typically used by the SAP Mobile Platform support team, but can be used by administrators to collect data for analysis or reporting to the support team.

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Documented in: *Log Correlation Command Line Utility (consolidate-logs.bat)* in *System Administration*.

Rebranding

Sybase Unwired Platform and the Syclo Agency development platform have been integrated, and the product rebranded to SAP Mobile Platform. Changes have been made to the user interface, and product documentation.

See the key for new product names introduced in version SAP Mobile Platform 2.3.

Table 1. Product Name Change Key

Original Name	Rebranded Name	Comments
Sybase	SAP	In some cases, Sybase continues to appear as a file, directory, or API name
Sybase Unwired Platform Unwired Platform	SAP Mobile Platform	In some cases Sybase Unwired Platform continues to appear in a file, directory, or API name.
Unwired Server	SAP Mobile Server	In some cases Unwired Server continues to appear in a lower level directory name.
Sybase Unwired WorkSpace Unwired WorkSpace	SAP Mobile WorkSpace	
Sybase Control Center	SAP Control Center	
Sybase Hosted Relay Service	SAP Hosted Relay Service	
Sybase Hosted Relay Server	SAP Hosted Relay Server	
Sybase Mobile SDK	SAP Mobile SDK	
Sybase Unwired Platform Run- time	SAP Mobile Platform Runtime	

Documentation Changes

Documentation changes include new Agentry documentation, new device client error reference documentation. OData SDK and REST API development documentation has been updated for 2.3 SP02. A reference section describes changes implemented over time.

Note: Check the Product Documentation Web site regularly for updates: <http://sybooks.sybase.com/sybooks/sybooks.xhtml?id=1289&c=firsttab&a=0&p=categories>, then navigate to the most current version.

In *Fundamentals*, see *Documentation Roadmap* to learn more about product documentation for developers and administrators.

New for Development – Agentry Applications

Documents have been added to support the Agentry development option available with SAP Mobile Platform:

- *Developer Guide: Agentry Applications* – development guide with information on working with the Agentry Editor, and some procedures on implementing certain kinds of functionality within an application; includes general guidance on Agentry development concepts.
- *Developer Guide: Agentry Language Reference* – reference guide with details on the granular components of an Agentry application, including definition types and attributes; rule functions within the rule definition; SDML data tags and function tags; and the Agentry Test Script language used in the Agentry Test Environment.
- *Developer Guide: Agentry Device Client Branding SDK* – instructions on using the branding SDK provided with the Agentry clients to brand the Agentry Client with product-specific names and images.
- *Installation Guide: Agentry Device Clients* – user guide describing how to install Agentry Clients on Windows CE or Desktops, using ActiveSync and a docking station or network connection. This is useful for system administrators helping users in the field.

Note: Technical bulletins and white papers are still available.

New for Development – Device Client Error Reference

A new document has been added to provide device client error information. See *Developer Guide: Device Client Error Reference* for a collection of error codes. Codes identify the domain from which the error originated, message label, platform, and message displayed on the device, with information to further diagnose or solve the problem.

Errors are organized into categories, including Hybrid Apps, REST API Applications, OData SDK Applications, and Object API Applications. You can either check the appropriate category for a problem, or you can search the *Developer Guide: Device Client Error Reference*

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online help for the error you have experienced, or for an error message or label you have observed for your particular application type.

New for Online Data Proxy

New topics have been added to *Developer Guide: OData SDK* in 2.3 SP02, to provide high-level conceptual and procedural information:

- *REST SDK Components - General Description*
- *Development Task Flow Using REST SDK (HTTP Channel)*, Android section
- *Development Task Flow Using REST SDK (HTTP Channel)*, iOS section

New for REST Development

New information has been added to *Developer Guide: REST API Applications* for 2.3 SP02. A section called *REST SDK Library* has been added to the topic *REST Services Applications* to provide high-level conceptual information.

New Tutorials for OData with REST

Two new tutorials are available to guide you through OData projects with REST, enabling you to run the applications on premise, or in the cloud. Available with SAP Mobile Platform 2.3 SP02 (for Android and iOS).

Documented in:

- *Tutorial: Android OData Application Development with REST Services*
- *Tutorial: iOS OData Application Development with REST Services*

Documentation Change Reference

Reference for changes made throughout the documentation, sometimes over the span of several releases:

- **Installation Path Variable** – the shorter installation path variable continues to be implemented:
 - *SMP_HOME* – represents the SAP Mobile SDK installation directory. Note:
 - The default installation directory is: C:\SAP\MobilePlatform
 - In previous versions, this was represented as: *SUP_HOME* or `<UnwiredPlatform_InstallDir>\UnwiredPlatform\`
 - *SCC_HOME* – represents the SAP Mobile Platform Runtime installation directory. Note:
 - The default installation directory is: C:\SAP\SCC-XX
 - In previous versions, this was represented as: `<UnwiredPlatform_InstallDir>\SCC-XX\`
- **Hybrid App and Hybrid Web Container Name Changes** – Several name changes have been made to SAP Mobile Platform to reflect the change from a workflow emphasis, to Hybrid Apps and Hybrid Web Container. These name changes can be seen in the Designer

user interface, and the product documentation. See the key for new product names introduced in version SAP Mobile Platform 2.2.

Table 2. Hybrid App and Hybrid Web Container Name Change Key

Original Name	New Name	Comments
Workflow Workflow application	Hybrid App	
Mobile Workflow package Workflow package	Hybrid App package	
Mobile Workflow Designer Mobile Workflow Forms Editor	Hybrid App Designer, or Designer	
Mobile Workflow form	Hybrid App form	
Mobile Workflow Forms Editor Design palette	Hybrid App Designer palette	
Close Workflow	Close	Menuitem type
Submit Workflow	Submit	Menuitem type
Mobile Workflow Container	Hybrid Web Container	
Sybase Messaging Client	Hybrid Web Container	

