Release Bulletin 2.3 SP03

SAP Mobile Platform 2.3 SP03

Contents

Overview

This release bulletin discusses known issues, workarounds, as well as late-breaking documentation updates for SAP® Mobile Platform version 2.3 SP03.

Patches Available for SAP Mobile Platform 2.3 SP02 and Later

In addition to new features introduced in version 2.3, SAP Mobile Platform includes a roll-up of fixes provided as private patches against the earlier releases of Sybase® Unwired Platform.

All private patches provided to customers for various releases prior to December 1, 2012 are included in the SAP Mobile Platform 2.3 release, and are not individually listed here.

Specific patches delivered after December 1, 2012 that are included in SAP Mobile Platform 2.3 release are:

- Patch_2.0_*XXXXXX*_729565_1_23_2013
- Patch_2.1_*XXXXXX*_727937_12_26_2012
- Patch_2.1EBF2_*XXXXXX*_725528_12_3_2012
- Patch_2.1EBF2_*XXXXXX*_726835_12_19_2012
- Patch_2.1EBF2_*XXXXXX*_727059_12_13_2012
- Patch_2.1EBF2_*XXXXXX*_724840_11_30_2012
- Patch_2.1EBF3_*XXXXXX*_726851_1_18_2013
- Patch_2.1EBF3_*XXXXXX*_730099_1_23_2013
- Patch_2.1EBF3_*XXXXXX*_727650_1_15_2013
- Patch_2.1EBF3_*XXXXXX*_723863_12_11_2012
- Patch_2.1EBF3_*XXXXXX*_728872_01_10_2013
- Patch_2.1EBF3_*XXXXXX*_729846_1_22_2013
- Patch_2.1SP03PL02_*XXXXXX*_715565_11_28_2012
- Patch_2.1SP03PL02_*XXXXXX*_725187_722101_12_3_2012
- Patch_2.1SP03PL02_*XXXXXX*_724345_12_3_2012
- Patch_2.1SP03PL02_*XXXXXX*_725575_12_11_2012
- Patch_2.1SP03PL02_*XXXXXX*_716993_12_20_2012
- Patch_2.1SP03PL02_iPhone_719328_12_7_2012
- Patch_2.1SP03PL02_iPhone_1_18_2013
- Patch_2.1SP03PL02_*XXXXXX*_729103_1_21_2013
- Patch_2.1SP03PL02_*XXXXXX*_724390_12_4_2012
- Patch_2.1SP03PL02_*XXXXXX*_727318_12_28_2012

Specific patches available for SAP Mobile Platform 2.3, and delivered after February 1, 2013 are:

- PATCH_10000_2.1SP03PL02
- PATCH_10001_2.1SP03PL02
- PATCH_10002_2.1SP03PL02
- PATCH_10003_2.1SP03PL02
- PATCH_10004_2.1
- PATCH-10171-2.2SP04
- PATCH-10179-2.2SP04
- PATCH-10180-2.2SP04
- PATCH-10193-2.2SP04
- PATCH-10199-2.2SP04
- PATCH-10201-2.2SP04
- PATCH-10211-2.2SP04
- PATCH-10227-2.2SP04
- PATCH-10229-2.2SP04
- PATCH-10087-2.3SP01
- PATCH-10169-2.3SP01
- PATCH-10186-2.3SP01
- PATCH-10206-2.3SP01
- PATCH-10208-2.3SP01
- PATCH-10210-2.3SP01
- PATCH-10213-2.3SP01
- PATCH-10215-2.3SP01

Note: *XXXXXX* represents unique names that are not shown explicitly here.

Known Issues for SAP Mobile SDK 2.3 SP03

Learn about known issues and apply workarounds for SAP Mobile SDK.

Key to issue types:

- **RTC** – SAP® Release to Customer tracking number.
- **CSN** – SAP Customer Services Network tracking number.
- **CR** – Sybase® Change Request number.
- **AG** – Agentry® tracking number.
- **N/A** – No tracking number.

Known Issues with Installing, Uninstalling, and Upgrading

Learn about known SDK installation, uninstallation, and upgrade issues, and workarounds for SAP Mobile Platform version 2.3.

See the *SAP Mobile Platform Installation Guide for SAP Mobile SDK* for installation and information regarding the SDK.

Issue #	Description
N/A	**Cannot install the Agentry server as a Windows service.** Beginning in SAP Mobile Platform 2.3 SP02, you cannot install the Agentry server as a Windows service. **Workaround**: None.
SMPONP-11025	**After upgrading to version 2.3 SP03, folders are not removed during uninstallation of SAP Mobile SDK.** Because of a problem with the uninstaller, when you uninstall the SAP Mobile SDK from a machine by silent installation or uninstallation wizard, the JDK folder is not removed. Additionally, in a Windows Server 2003 environment, when uninstalling the SAP Mobile SDK by silent installation the uninstall folder is also not removed. **Workaround**: Manually remove the remaining folders after uninstalling.
SMPONP-10280	**The 2.3 SDK uninstaller in GUI or silent mode does not check if Eclipse (in the SDK installation) is running or not.** The uninstaller requires all SAP Mobile Platform-related processes are stopped. However, the uninstaller cannot detect whether or not Eclipse is running. **Workaround**: Verify that all SAP Mobile Platform processes, including Eclipse, are stopped before running the uninstaller to uninstall the SAP Mobile SDK.
CR-665409	**The installation program cannot run in graphical mode.** If the `HKLM\SOFTWARE\Microsoft\Windows NT\CurrentVersion\AppCompatFlags` registry key contains an entry that is the path of the installer binary (for example, `C:\setup.exe`), you see this error, and the installation fails: `The installer is unable to run in graphical mode. Try running the installer with the -console or -silent flag.` **Workaround**: Remove the installer binary path from the `HKLM\SOFTWARE\Microsoft\Windows NT\CurrentVersion\AppCompatFlags` registry key.

Issue #	Description
CR-590885	**Uninstaller might not run on Windows Vista.**
	Sometimes, the uninstaller does not launch on Windows Vista. This may be caused by the operating system changing the launch command for the SAP Mobile Platform uninstaller, preventing it from using its own JVM to start itself.

	Workaround: Launch the uninstaller:
	<pre><jdk_installdir>\java -Dtemp.dir=%TEMP% -jar C:
	\SMP_HOME\Uninstallers\UnwiredPlatform\unin-
	stall.jar</pre>

	When you uninstall or cancel out of uninstalling SAP Mobile Platform, the Program Compatibility Assistant shows:
	<pre>This program might not have uninstalled correct-
	ly.</pre>

	Select **This program uninstalled correctly** instead of **Uninstall with recommended settings**.

Known Issues for SAP Mobile WorkSpace – Mobile Business Object Development

Learn about known issues and apply workarounds for SAP Mobile WorkSpace and mobile business object (MBO) development.

Issue #	Description
SMPONP-7499	**Inconsistency between refreshed structures and unrefreshed arguments/client parameters.**
	When multiple MBOs/operations reference the same EIS structure, if the structure changes in the EIS and the MBO Developer refreshes one of the MBOS/operations, the structure is also refreshed in SAP Mobile WorkSpace. But the arguments/client parameters for other MBOs/operations are not refreshed, leading to inconsistency between the structure and the arguments/client parameters that are not refreshed.
	Workaround: Manually refresh all MBOS/operations that reference the same structure to maintain consistency. This inconsistency does not affect deployment.
SMPONP-5418	**Unhandled event loop exceptions may be thrown when the MBO Developer deletes an operation from the mobile application diagram when the Input Mapping tab of the Operation Properties view is open.**
	Workaround: Do not open the Input Mapping tab of the Operation Properties view when deleting an operation from the mobile application diagram.

Issue #	Description
SMPONP-3086	**Deployment fails if a class or interface name in the java.lang package is used as a project package name.** **Workaround**: Change the package name to something not in the java.lang package.
N/A	<u>**When a cache group is defined with an "EIS managed" cache group policy with the "Notify EIS to fetch operation" option selected, if the EIS REST Web service requires authentication, define the credentials during package deployment or from SAP Control Center.**</u> **Workaround**: If the Web service pointed to by the REST connection profile requires HTTP authentication, supply the credentials (technical user name and password) either: • **During package deployment** – when deploying the package to the SAP Mobile Server, select the REST Web service connection to which you are mapping, if one exists, or **\<New Server Connection...\>** to create a new one from the Server Mapping Connection screen and define the **User** and **Password** properties. • **From SAP Control Center** – any EIS connections defined here, display during package deployment.
RTC-411	**SAP Mobile WorkSpace no longer automatically generates client parameter definitions and mappings to operation arguments.** Prior to SAP Mobile Platform version 2.2 SP02, SAP Mobile WorkSpace automatically generated client parameter definitions and mappings to operation arguments. In SAP Mobile Platform version 2.2 SP02 and later, when you create a new MBO operation, the client parameter is not automatically created, except for operations of type "Other". **Workaround**: If the MBO developer wants to map the client parameters to operation arguments, drag and drop the operation argument to the Client Parameters folder in the Input Mapping page in the MBO Operation wizard or Input Mapping tab in the Properties view.
RTC-350	**An MBO that is modeled and bound to a data source, then has all attributes deleted from the MBO at a later point, fails to deploy to SAP Mobile Server.** **Workaround**: Use the **Bind data source later** option to create an MBO that has no attributes.

Issue #	Description
CR-713043	**Foreign key constraint violation error message.**
	You see a foreign key constraint violation error message if you create an MBO by dragging and dropping a table in which the foreign key and the primary key are both "identity" types.
	Workaround: The MBO is created, and you can safely ignore these error messages.
CR-705643	**SAP Mobile WorkSpace does not refresh the attributes of a MBO based on a stored procedure after the stored procedure definition has been changed in the EIS.**
	Workaround: After changing the stored procedure definition in the EIS, re-create the JDBC MBO.
CR-703200	**MBO operations that include old value arguments that use large object types should be ignored, but SQL clauses still include the old value arguments.**
	SAP Mobile WorkSpace automatically creates an MBO with old value arguments for operations. If the datasource includes operation arguments with large object types (BigString/BigBinary), SAP Mobile WorkSpace shows a warning message that says the old value argument with large object types are ignored, but the SQL definition generated still includes the old value argument with the large object type.
	Workaround: Manually remove any SQL clauses that include old value arguments with large object types.
CR-689859	**The SAP Mobile WorkSpace Welcome page moves to standby mode after Eclipse is started.**
	This is due to a known Eclipse 3.7 bug (*https://bugs.eclipse.org/bugs/show_bug.cgi?id=355560*). In standby mode, the Welcome page is docked to the right as a view in the Mobile Development perspective, since the Problem view is part of the Mobile Development perspective.
	Workaround: Double-click the docked Welcome page to extend it to full screen.
CR-689707	**Default runtime values requirements.**
	For an MBO operation, a non-nullable argument must get its runtime value from one of the following: client parameter, personalization key, default value, or fill-from-attribute. If a non-nullable argument already uses a fill-from-attribute or client parameter, its default value is ignored. SAP Mobile WorkSpace still allows the user to input a default value.
	Workaround: In this case, you need not set the default value, because it is not used during runtime.

Issue #	Description

CR-688576	**The Oracle datatype NCLOB is not supported.**
	
	Workaround: Convert the CLOBS datatype to a `varchar` datatype. There are two ways to do this:
	
	• Create a stored procedure and call it from the MBO. In the stored procedure, convert the CLOBS to `varchar`:
	• Create this Transact-SQL® statement, which fetches 4000 bytes of the CLOB: `select dbms_lob.substr( x, 4000, 1 ) from T.`
	
	The maximum varchar length allowed in Transact-SQL statements is 4000 bytes. You can increase this to 32KB. SAP recommends that you use a stored procedure to process the BLOB in this way. For example:
	
	``
	declare
	  my_var long;
	begin
	  for x in (select X from t)
	  loop
	    my_var := dbms_lob.substr(x.X, 32000, 1);
	``

CR-676634	**For Web Service and other data sources with complex structures and deeply nested element trees, `StackOverflow` or `OutOfMemory` messages may occur, or some of the operation input parameters may not be generated properly.** In some cases, you see this error: ``` The assigned stack size and/or heap size is not sufficient for the attempted operation. ``` **Workaround**: Increase the stack and heap size of the Eclipse runtime parameter in `UnwiredWorkSpace.bat` with -Xmx, -Xms, -Xss arguments, or reduce the complexity or nested level of the Web Service definition of the MBO operation.
CR-642942	**Cannot generate code with Javadoc option enabled to a folder containing Chinese characters.** When using the Code Generation wizard, if you enable the option to generate Javadoc, you cannot generate the code to a folder containing Chinese characters without first changing the language for non-Unicode programs to Chinese. **Workaround:** 1. Select **Start > Settings > Control Panel**. 2. Double-click **Regional and Language Options**, then click the **Advanced** tab. 3. From the drop-down list, select **Chinese**, and click **Apply**. 4. Click **OK**.

Known Issues for SAP Mobile WorkSpace – Hybrid App Package Development

Learn about known issues and apply workarounds for SAP Mobile WorkSpace and Hybrid App development.

Issue #	Description
SMPONP-3552	**64-bit packaging tool cannot be launched on 64-bit Windows.** By default, SAP Mobile SDK installer configures the system to use the 32-bit packaging tool. If you try to run the 64-bit packaging tool (`Packaging-Tool64.bat`) after completing a new or upgrade installation of SAP Mobile SDK on a 64-bit Windows system, launching the tool fails with this message: `Cannot load 64-bit SWT libraries on 32-bit JVM` **Workaround**: Set up a 64-bit JDK to work with the 64-bit packaging tool. 1. Set system environment variables *CLASSPATH*, *JAVA_HOME*, and *Path* to point to the 64-bit JDK installed by SAP Mobile Platform at `SAP_HOME\MobilePlatform\JDK1.6.0_31-x64`. 2. Verify that the `SAP_HOME\ObjectAPI\Utils\bin\set-java-home.bat` has been modified to point to the installed 64-bit JDK (where SAP_HOME is the installation directory for SAP Mobile SDK on the 64-bit system). 3. Launch `PackagingTool64.bat`.
RTC-333	**Updating null values to non-null not supported on Windows Mobile.** Null values are not supported for the Windows Mobile platform. For example, the Allows null property in Designer has no effect on a Hybrid Apps running on Windows Mobile devices. **Workaround**: None.

Issue #	Description
CR-707123	**Cannot upload large image files using the File Manager application on some Android devices.** Although image previews and uploads continue to work, you may see this message after selecting an image in a Hybrid App: `File type is not supported!` **Workaround**: Use a different gallery application by resetting the default: 1. Open the Settings application. 2. Click **Applications > Manage applications**. 3. Click **All**. 4. Select the current default gallery application. 5. For the **Launch by default** setting, click **Clear defaults**.
CR-699341	**BlackBerry 7 form labels do not use specified theme.** On BlackBerry 7 devices, in a form that uses labels on the left, if the first field is editable, the second label does not initially use the theme set in the form. **Workaround:** Type in the field to change the label to the appropriate theme.
CR-698779	**DatePicker control does not reopen in BlackBerry 7+.** In a BlackBerry 7 or later device, if you invoke the DatePicker control in a Hybrid App by clicking in a date field, click **Cancel** in the DatePicker, and then click again in the same field, the DatePicker control does not reopen. **Workaround**: After clicking **Cancel** in the DatePicker, click in another field that is not of type `DATETIME` or `TIME`. You can then click in the original date field to open the DatePicker.
CR-694665	**AsyncRequestErrorLogs key not generated in a migrated project.** If you migrated a Hybrid App project that previously contained a submit Hybrid App action, setting its error screen property does not generate the AsyncRequestErrorLogs list key. **Workaround**: Create a new Submit Hybrid App action, or click the **Generate Error Screen** button.

Issue #	Description
CR-690438	**A workflow does not initiate an operation.** This might happen if the workflow is not constructed correctly. On a Listview details screen, you cannot invoke a submit workflow to invoke an MBO operation that uses child keys of the list key that is bound to that listview. To prevent developers from performing an illegal operation, the keys are removed from the list. However, you can see those keys before making the workflow type operation a Listview details screen because it is not illegal in that circumstance; it is only illegal once you make it a Listview details screen. If you use those keys when it is not a Listview details screen and then make it a Listview details screen, the workflow operation fails without any indication of the problem. **Workaround:** **Client-initiated workflow:** verify that no online request operations (such as **findall**) precede the submit workflow type operation. If there are such operations, remove them. **Server-initiated workflow:** verify that no links (between the start point and the first screen saved) precede the submit workflow operation. If there are such links, remove them.
CR-684635	**Choice controls with a large number of rows do not behave as expected on some platforms.** **Workaround**: For best performance, keep the number of rows in choice controls smaller than 200.
CR-682741	**"Validate controls as soon as the user tries to change focus away from them" option in Hybrid App Package generation wizard is not supported on Windows Mobile.** **Workaround**: None.
CR-681918	**When you click the Hybrid App icon on iOS devices, you see the message** `Hybrid App please go to the settings application and enter your configuration...`. This happens if you attempt to open a version 2.0 workflow on the iOS device and connect to version 2.1 of SAP Mobile Server. **Workaround**: In SAP Control Center, use the HWC template to create an application connection, and leave the application identifier empty.

Issue #	Description
CR-677684	**Locale properties file is not updated if screens, controls, menu items and so on are removed.** During Hybrid App package generation, you see a warning that validation keys are missing from the `<locale>.properties` file if the number of screens, controls, or menu items, have changed, for example, if you deleted a menu item. Resource strings associated with screens, controls, and menu items do not correctly update the sequence. **Workaround**: Either do not remove screens, controls, menu items and so on after localizing, or manually correct the localization `.properties` file after making the changes.
CR-675904	**Object queries in the Online cache group are case-sensitive.** If the enterprise information system (EIS) to which an object query is associated with has case-sensitive parameters, the client must pass matching parameters or no data is returned. For example, if the Customer MBO is in an Online cache group, has a load parameter "state" that is propagated to the attribute "state," and a findByParameter object query defined as: `SELECT x.* FROM Customer x WHERE x.state = :state` No data is returned to the client if the user enters `state=Ca`, since the database parameter is case-sensitive (requiring "CA"). This is not an issue for object queries in other types of cache groups. **Workaround**: None.

Issue #	Description
CR-674149	**Exception received with large amounts of data.** When the amount of data is too large to download to the Hybrid App client device, you may get an exception similar to: ``` "iAnywhere.MobileOffice.AMP.ResponseRetryException" on device, and following error in WorkflowClient.log: 20110616T110249.554|4|My:1 -- ExecuteRequest- > Out 20110616T110249.694|1|iAnywhere.MobileOffice.AMP.Re- sponseRetryException: Exception of type 'iAnywhere.MobileOffice.AMP.ResponseRetryException' was thrown. 20110616T110249.694|1| at Sybase.UnwiredPlat- form.WorkflowClient.Utils.CheckMessageSize (String serializedMessage, ContextData oContextData, Boolean fromResponder) 20110616T110249.694|1| at Sybase.UnwiredPlat- form.WorkflowClient.Responder.ProcessMessageFromDe- vice (ContextData oContextData, String sData, Boolean is- Synchronous) 20110616T110249.694|1| at Sybase.UnwiredPlat- form.WorkflowClient.Responder.ProcessSyncRequest (ContextData oContextData, String sData) 20110616T110249.694|4|My:1 -- ProcessSyncRequest- > Out ``` **Workaround**: Increase the allowed maximum message size (SupMaximumMessageLength). From SAP Control Center, expand Hybrid Apps and select the Hybrid App. Select the **Context Variables** tab. Modify the property.
CR-673572	**Hybrid Apps do not work with Android simulators version 2.3.3.** See *http://code.google.com/p/android/issues/detail?id=12987* for a description of this issue. **Workaround**: Use an earlier version of the Android simulator. Alternatively, use Android simulator version 4.0 or later.
CR-671242	**If a Hybrid App uses a Web Service that takes a structure as its input, submit operation is empty.** While you can add items to a listview and save the list, when you submit the operation, it is empty. Array/list fields in structure parameters are not supported. You can have a top-level parameter that is an array/list, and you can have a top-level parameter that is a structure that has non-array/list fields and substructures. **Workaround**: None.

Issue #	Description
CR-667187	**The BlackBerry Bold 9700 device simulator sometimes does not allow the user to have full control of the screen for an application, and may perform the incorrect operations, and return the wrong results. Physical devices work correctly.** **Workaround**: None.

Known Issues for Native Object API

Learn about known issues and apply workarounds for Native Object API and custom development.

Issue #	Description
SMPONP-13170	**MBO left in inconsistent state, or errors thrown during iOS refresh** If an iOS refresh is called on an MBO object before it has been created in the client database, the object may be left in an inconsistent state, or an exception may be thrown. **Workaround**: Prevent this by adding code to your application that only calls refresh on an object that was previously created or saved in the database. • *Create Operation* on page 17 • *Refresh Operation* on page 18
SMPONP-10752	**Synchronization via relay server fails with MobiLink communication error (216) if basic auth is enabled for native Object API applications on iOS, Android, WM, and Win32 devices.** The cause is that the challenge response is being cached in persistent HTTP. **Workaround**: From the relay server (IIS) configuration tool, select the **Web Site** tab and disable persistent HTTP, by self-selecting **Enable HTTP Keep-Alives**.
SMPONP-9367	**Resumable synchronization works only in a single server environment without Relay Server.** When a client performs a resumable synchronization through Relay Server (either in a single node or in a cluster environment), the SAP Mobile Server restarts automatically and the buffered restartable download data on SAP Mobile Server is lost, and resumable synchronization fails. **Workaround**: Use resumable synchronization only in a single node environment that does not use Relay Server. This issue will be fixed in a future release.

Issue #	Description
SMPONP-6340	**For iOS Object API applications, Code generation (command line and wizard) no longer generates `KeyGeneratorPK.m` and `LocalKeyGeneratorPK.m` files, since they are not used.**
	Workaround: Remove any references to these files before compiling your project or you will get compilation errors and build failures.
SMPONP-3552	**64-bit packaging tool cannot be launched on 64-bit Windows.**
	By default, SAP Mobile SDK installer configures the system to use the 32-bit packaging tool. If you try to run the 64-bit packaging tool (`Packaging-Tool64.bat`) after completing a new or upgrade installation of SAP Mobile SDK on a 64-bit Windows system, launching the tool fails with this message:
	`Cannot load 64-bit SWT libraries on 32-bit JVM`
	Workaround: Set up a 64-bit JDK to work with the 64-bit packaging tool.
	1. Set system environment variables *CLASSPATH*, *JAVA_HOME*, and *Path* to point to the 64-bit JDK installed by SAP Mobile Platform at SUP_HOME \UnwiredPlatform\JDK1.6.0_31-x64.
	2. Verify that the `SUP_HOME\ObjectAPI\Utils\bin\set-java-home.bat` has been modified to point to the installed 64-bit JDK (where SUP_HOME is the installation directory for Sybase Mobile SDK on the 64-bit system).
	3. Launch `PackagingTool64.bat`.
RTC-347	**iOS client requests might fail with an HTTP 500 error when using Apache as a reverse proxy.**
	The cause is that Apache implements the HTTP 1.1 specification in such a way that the HTTP header coming from the client, Transfer-Encoding: "Chunked" is not accepted due to the capitalized "c" in "Chunked".
	Workaround: Change Apache configuration to rewrite incoming HTTP headers. Use `mod_headers` and add this to the Apache configuration:
	`RequestHeader edit Transfer-Encoding Chunked chunked early`
RTC-282	**Memory warnings from autoreleased objects.**
	You receive memory warnings in your application because of too many autoreleased objects. One example is when there are many objects at the application level through the `findAll` method.
	Workaround: To reduce memory growth, use the appropriate autorelease pool. For more information, see this document from Apple: *https://developer.apple.com/library/mac/#documentation/Cocoa/Conceptual/MemoryMgmt/Articles/mmAutoreleasePools.html* .

Issue #	Description
RTC-280	**Failure to start a connection after a shutdown of SAP Mobile Server.** For Windows, Windows Mobile, Android and BlackBerry Object API clients, when the device application connects to the Unwired Server, the Unwired Server shuts down, and the device application calls `startConnection` again immediately after the shutdown occurs, an `ApplicationRuntimeException` may be thrown indicating `Client state error. Client is already started`, without attempting to reconnect to the server. **Workaround:** You can catch the exception in the device application, sleep a few hundreds of milliseconds, and retry by calling `Application.startConnection(timeout)` again. After one or two seconds, try to reconnect.
RTC-265	**Cannot change the database file path.** You create a database for your application with the default database file path, delete the database, and then change the database file path in the connection profile to another value so that you can create a new database file for your application. After you invoke the `createDatabase` operation again, however, the database is created with the old default database file path, not with the new one. **Workaround:** None.
RTC-261	**When using an Apache server as a reverse proxy without SAP Hosted Relay Server to proxy Object API Applications or HTML5/JS Hybrid Apps against SAP Mobile Server verion 2.2 and newer, if a custom URL suffix is used, the client may report connection failures.** **Workaround:** Clients should specify a custom URL suffix including a trailing forward slash "/". For example, "/myApp/" instead of "/myApp"

RTC-258	**Exception when calling `update` on a new MBO instance.**
	
	When you call the `update` method on a new MBO instance, an ObjectNotSaved exception is thrown. For example:
	
	``
	MBO instance = new MBO();
	instance.${UpdateMethod}(); //UpdateMethod is a update method defined in the model.
	``
	
	Workaround: Do not call the `update` method for a new instance. Only call `update` when creating or saving an instance.

RTC-206	**Root certificate required for synchronization with an HTTPS server.** The Android Object API cannot synchronize with an HTTPS server unless the device has access to the root certificate of the certificate used to sign the certificate presented by the server. **Workaround:** Use the root certificate on the device.

Issue #	Description
CR-709353	**Cannot pass cookies through personalization keys using replication-based synchronization (RBS).** **Workaround:** Use this code: ``` SUPStringProperties *cookies = [smnwTests cookie- Name]; [[[SUPApplication getInstance] connectionProperties] setHttpCookies:cookies]; ```
CR-708707	**Best practice for deleting the client database.** By default, asynchronous operation replay is enabled. When an application is connected (by `Application.StartConnection()` or `Application.RegisterApplication`), it may receive background notifications, and trigger a `synchronize` or other database operation. If you try to delete the database, you may receive database exceptions. **Workaround:** Before deleting the database, stop the application connection (`Application.StopConnection()`).
CR-692374	**Enabling compression incurs additional processing on the device and the server side to optimize the amount of data to be transferred over the network**. **Workaround**: Carefully evaluate whether the compression trade-off is appropriate in the deployment environment, and carefully size the server capacity to support it. If appropriate in a particular environment, follow the *SAP Mobile Platform Developer Guides* to enable compression.

CR-690308	**The query.getRow() API may not return the correct row to BlackBerry clients.**
	
	For example, in this connected result set for a BlackBerry client, `rs.getRow()` may not return the correct value:
	
	``
	Query query = new Query();
	query.select("c.id as Id, c.fname as Fname, c.state
	as countState");
	query.from("Customer", "c");
	query.setConnectedResultSetEnabled(true);
	QueryResultSet rs = MyDatabase.executeQuery(query);
	rs.executeQuery();
	rs.last();
	rs.afterLast();
	rs.previous();
	``
	
	Workaround: Do not use the query.getRow() API QueryResultSet.previous \next return Boolean to indicate if the current position is valid. Rely only on the return value.

Issue #	Description
CR-675716	**SQLite cannot support create operations with more than 3MB of data, which is roughly 128 columns at 64KB per column on Windows Mobile devices.**
	In Windows Mobile applications that use message-based synchronization, when a row reaches 3MB or more, and the client invokes the SQLite create operation during subscription, an internal exception is generated, data import fails, and the import operation fails to commit the transaction.
	Workaround: None.

Create Operation

The createCreate operation allows the client to create a new record in the local database. To execute a create operation on an MBO, create a new MBO instance, and set the MBO attributes, then call the save()Save() or create()Create() operation. To propagate the changes to the server, call submitPendingSubmitPending.

```
Customer cust = new Customer();
cust.setFname ( "supAdmin" );
cust.setCompany_name( "SAP" );
cust.setPhone( "777-8888" );
cust.create();// or cust.save();
cust.submitPending();
SMP101DB.synchronize();
// or SMP101DB.synchronize (String synchronizationGroup)
```

```
Customer cust = new Customer();
cust.Fname  =  "supAdmin" ;
cust.Company_name =   "SAP";
cust.Phone = "777-8888";
cust.Create();// or cust.Save();
cust.SubmitPending();
```

(void)create

Example 1: Supports create operations on parent entities. The sequence of calls is:

```
SMP101Customer *newcustomer = [[SMP101Customer alloc] init];
newcustomer.fname = @"John";
... //Set the required fields for the customer
[newcustomer create];
[newcustomer submitPending];
[SMP101SMP101DB synchronize];
```

Example 2: Supports create operations on child entities.

```
SMP101Sales_Order *order = [[SMP101Sales_Order alloc] init];
[order autorelease];
//Set the other required fields for the order
order.region = @"Eastern";
order.xxx = yyy;
```

```
SMP101Customer *customer = [SMP101Customer find:1008];
[order setCustomer:customer];
[order create];
[order.customer refresh]; //refresh the parent
[order.customer submitPending];  //call submitPending on the parent.
[SMP101SMP101DB synchronize];
```

Note: If `refresh` is called on an MBO object before it has been created in the client database, the object may be left in an inconsistent state, or an exception may be thrown. Prevent this from occurring by adding code to your application that only calls `refresh` on an object that was previously created or saved in the database. For example:

```
if (!(mboInstance.isNew))
[mboInstance refresh];
```

Refresh Operation

The refresh operation of an MBO allows you to refresh the MBO state from the client database.

For example:

```
Customer cust = Customer.findById(101);
cust.setFname("newName");
cust.refresh();// newName is discarded
```

```
Customer cust = Customer.FindByPrimaryKey(101);
cust.Fname = "newName";
cust.Refresh();// newName is discarded
```

```
Customer *cust = [Customer findById:101];
cust.fname = @"newName";
[cust refresh]; // newName is discarded
```

Note: If `refresh` is called on an MBO object before it has been created in the client database, the object may be left in an inconsistent state, or an exception may be thrown. Prevent this from occurring by adding code to your application that only calls `refresh` on an object that was previously created or saved in the database. For example:

```
if (!(mboInstance.isNew))
[mboInstance refresh];
```

Known Issues for Hybrid Web Container

Learn about known issues and apply workarounds for Hybrid Web Container (HWC) development.

Issue #	Description
SMPONP-11056	**If the Use backwards-compatiable API for generation (deprecated) option is selected when generating the Hybrid App with the Hybrid App Designer, the generated UI may look like the iOS style UI even if run on Android and BlackBerry devices.**
	The **Use backwards-compatiable API for generation (deprecated)** option is used to generate JavaScript code using the SUP 2.1.3/2.2 naming convention, i.e. without hwc prefix for all JavaScript functions. These API signatures have been deprecated beginning with SAP Mobile Platform version 2.2 SP02.
	Workaround: Before generating the Hybrid App:
	1. Go to the **File Order** tab in **Application** properties.
	2. Click **Restore Default**.
	3. Manually remove the js files listed in the table which do not exist in the project, such as `js/makit/Sybase.MA-22.min.js`, and so on.
SMPONP-11047	**After filling setting information on an iOS simulator, the Hybrid Web Container displays "Unable to start client engine" and fails to connect to SAP Mobile Server. After filling in the setting information again, Hybrid Web Container connects to the server successfully.**
	When using iOS simulators, you may get the error "Unable to start client engine" when attempting to connect to SAP Mobile Server, after all connection information has been entered correctly in the Settings screen. This only happens on the simulator and not on real devices.
	Workaround: Enter the connection information again and restart the application on the simulator, or use a real iOS device during development.
SMPONP-10777	**Android and Blackberry connection failure when using HttpsConnection.**
	Depending on HTTP server behavior, client connection failures may occur when using the https-proxy plugin's HttpsConnection the first time (compared to the browser's default XMLHttpRequest) to send a HTTP(s) request to a remote server. When the client attempts to authenticate itself using basic authentication, failure may occur even when the user name and password are properly set in the header, with the server returning a 401 error.
	Workaround: Send the request with username and password a second time.

Issue #	Description
SMPONP-10766	**An iOS device loops infinitely between HWC and an Afaria client when trying to use Afaria registration in flight mode.**
	Workaround: None. Keep the device online while performing registration with Afaria.
RTC-387	**Sencha Touch 2.1 does not load in the Hybrid Web Container**
	Workaround: Use a Sencha Touch version other than 2.1, such as 2.0.1 or 2.1.1.
RTC-334	If you migrate or otherwise generate a Hybrid App with the Use Backwards Compatible API option set one way, for example, off, and then afterwards change that setting, for example, to on, certain key files, namely `API.js`, `Utils.js`, `WorkflowMessage.js`, and `Custom.js`, are not regenerated and, thus, use the wrong API setting compared to the other generated files.
	Workaround: SAP recommends that you decide prior to migration (or, in the case of newly written Hybrid Apps, prior to generation) which API setting you want to use. Failing that, after changing the API setting, manually delete the `API.js`, `Utils.js`, `WorkflowMessage.js`, and `Custom.js` files and regenerate the Hybrid App with the desired API setting.
RTC-287	**On BlackBerry 7 simulators, when a Hybrid App is deployed from the Hybrid App Designer, the simulator fails**.
	See *http://forum.jquery.com/topic/jquery-mobile-demo-page-causes-blackberry-7-1-simulator-browser-to-crash* for information. This does not happen on an actual device.
	Workaround: Use a BlackBerry 7 device for deploying Hybrid Apps.
RTC-266	**JavaScript functions deprecated.**
	• `showAlertDialog()` – the title parameter is no longer used on iOS. It is already ignored on other platforms. This is true only for Sybase Unwired Platform versions 2.1.3 and 2.2 SP02 (2.2.0 and 2.2 SP01 work as before). • `showConfirmDialog()` – this function does nothing.
	Workaround:
	• `showAlertDialog()` – use the native JavaScript `alert()` function. • `showConfirmDialog()` – use the native JavaScript `confirm()` function.
	Alternatively, you can use PhoneGap APIs to display an alert or confirmation dialog. Although the PhoneGap APIs allow you to set the title of the alert and confirmation dialogs, and buttons, the APIs are asynchronous, so you cannot use them as a direct substitute for the `showAlertDialog()` unless you refactored the code in each instance where it is used.

Issue #	Description
RTC-240	**On Android, PhoneGap Media play function does not play sound when the source is a Web server. This is a known PhoneGap issue and is fixed in PhoneGap (Cordova) version 2.1.0 so that sound files that are stored on the device play correctly.** **Workaround**: Include the sound files with the application. See the discussion about this problem at: *https://groups.google.com/forum/?fromgroups=#!topic/phonegap/xCOwgKh0IQ0*
RTC-236	**When a 2.1.3 or older client tries to connect to a 2.2 or newer server using an invalid URL suffix (such as '/'), the client receives an HTTP authentication challenge and the connection fails.** **Workaround**: Use a valid URL suffix when attempting to connect a 2.1.3 or older client to a 2.2 or newer server.
RTC-220	**In a page of the Hybrid App, the Save or Submit Hybrid App action fails to save the credential information to the local store by providing only the "credential cached user name" without a corresponding "credential cached password."** **Workaround**: Use the `hwc.saveLoginCredentials()` JavaScript API to save the user name.
RTC-205	**On BlackBerry Torch and Storm devices, when using the Camera API, any picture taken is always rotated 90 degrees to the right.** **Workaround:** None. This is a known problem with RIM APIs on these devices. See *https://www.blackberry.com/jira/browse/JAVAAPI-701* (requires a log-in) and *http://supportforums.blackberry.com/t5/Java-Development/Storm-Torch-camera-getSnapshot-orientation-issue/td-p/1316867*.
RTC-171	**If a password is used for automatic device registration using the `hwc.saveSettings()` API, the password is used only once and is not saved in the Hybrid Web Container.** Upon successful automatic registration, subsequent connections to the server uses the userid+deviceid+authcode combination (the password is not required). This is by design. **Workaround**: To save the password in the application, do so in the application code with the secured storage `SUPStorage` API.

Issue #	Description
RTC-169	**Using the Hybrid Web Container on older BlackBerry devices may result in warnings or errors from the operating system, such as `The memory available on your device is low. Close some of the items below.`** **Workaround**: Run the BlackBerry Hybrid Web Container on newer OS 6.x or OS 7.x devices with more memory. There is no fix available from RIM for Java-based platforms. See the following Blackberry sites, which require a login. *https://www.blackberry.com/jira/browse/JAVAAPI-2275*.
RTC-139	**iOS issue in opening apps and messages with the Javascript Metadata API.** On iOS, when using the JavaScript API functions (`hwc.openApp` and `hwc.openMessage`) that allow the user to open a Hybrid App or message from within another Hybrid App, when opening the Hybrid App from within another application, the previously opened application closes. On platforms other than iOS, when the user closes the newly opened application, the previously opened application is still open. **Workaround**: None.
RTC-135	**On BlackBerry 5.0, the HTML5 sessionStorage object is not supported.** On both `window.open()` and `window.location.href` the HTML5 sessionStorage values are not carried to the next page. **Workaround**: None.
RTC-115	**Cannot update prepackaged Hybrid Apps**. The version number of the new Hybrid App must be later than the current version number. **Workaround:** Edit the `manifest.xml` file to update the version number and repackage the Hybrid App files.
RTC-111	**On Android devices, when attempting to upload log files from the Hybrid Web Container after re-registering the device user, an `Upload Failed` message is returned periodically.** **Workaround**: Upload the log files again.
RTC-91	**In Hybrid Apps running on iOS devices, when a user enters a string in a numeric field, no error message is given, which allows the user to incorrectly enter string data in a numeric field.** In Hybrid Apps running on iOS, numeric edit boxes do not validate user entries. **Workaround**: None.

Issue #	Description
RTC-90	**On all Hybrid Web Container device platforms, when an expired certificate is used for device registration, the error message is `MMS Authentication Failed`, which does not indicate the root cause of the error.** **Workaround:** Make sure your certificate is not expired.
RTC-73	**On all platforms, in manual registration mode, after calling the `hwc.saveSettings` API in `hwc-api.js`, the client cannot connect to the server.** **Workaround**: To connect to the server by manual registration, call the `hwc.startClient` API after the `hwc.saveSettings` invocation.

Issue #	Description
RTC-53	**On iOS, some APIs, such as SUPStorage, perform slowly when using WiFi with an HTTP proxy.** This happens only when all of the following conditions are true: • The Hybrid Web Container experiences long (10 - 75 seconds) delays while processing the JavaScript of Hybrid Apps and navigating between screens. • The Hybrid Web Container is running on a device connecting to the network through WiFi. • The WiFi access point is using a network HTTP proxy (**Settings > WiFi > Choose a Network > HTTP Proxy**). If all of these conditions are true, these workarounds are available depending upon whether the Hybrid App is using JavaScript generated by the Hybrid App Forms Designer or using the Packaging Tool in conjunction with the JavaScript container code that ships with SAP Mobile Platform 2.2. **Workaround #1**: If you are using the JavaScript files generated by the Hybrid App Forms Designer, you must edit `API.js`, `SUPStorage.js`, and `Utils.js`, which are located in the `html/js` directory of the generated application code. For each file:

1. Search for POST. Each instance is within a function, and typically there is a unique code path per platform.
2. Identify the isIOS() code branch where an xmlHttpRequest is being opened, and change the last parameter of the open function call for the xmlHttpRequest to change it from false to true.
   For example, in `SUPStorage.js`, change line 171 from:
   ```
   xmlHttpReq.open("POST", "/sup.amp?querytype=work-
   flowstorage&" + versionURLParam, false);
   ```
   to:
   ```
   xmlHttpReq.open("POST", "/sup.amp?querytype=work-
   flowstorage&" + versionURLParam, true);
   ```

   Note: If you are deploying the Hybrid App to multiple platforms, make sure these changes affect only the iOS code path, which might mean creating a new "elseif" clause.
3. Regenerate the Hybrid App package.

Workaround #2: Modify `hwc_api.js` (usually installed in `SMP_HOME\UnwiredPlatform\MobileSDK<version>\HybridApp\Container`) in the Hybrid App to look like the following example, and redeploy the application to the Hybrid Web Container.

```
/**
    * Encapsulate the HTTP post method. This function
is called internally
    */
```

Issue #	Description

```
   hwc.postDataToContainer = function( queryType, da-
ta)
   {
              try
 {
          var response = "";
          if (hwc.isWindowsMobile()) {
          xmlhttp = hwc.getXMLHTTPRequest();
        xmlhttp.open("POST", "/sup.amp?querytype="
+ queryType + "&" + hwc.versionURLParam, false);

          xmlhttp.send(data);
          response = xmlhttp.responseText;
                 }
              else if (hwc.isAndroid()) {
                response = _HWC.postData("http://
localhost/sup.amp?querytype=" + queryType + "&" +
hwc.versionURLParam, data);
                  }
                  else if (hwc.isBlackBerry()) {
                    var xmlhttp = hwc.getXMLHTTPRe-
quest();
                    xmlhttp.open("POST",
       "http://localhost/sup.amp?querytype=" + quer-
yType + "&" + hwc.versionURLParam, false);
                        xmlhttp.send(data);
                        response = xmlhttp.response-
Text;
                  }
                else if (hwc.isIOS())
       {
                   var xmlhttp = hwc.getXMLHTTPRe-
quest();
                   xmlhttp.open("POST", "http://local-
host/sup.amp?querytype=" + queryType + "&" + hwc.ver-
sionURLParam, true);
                       try
                       {
                          xmlhttp.send(data);
                       }
                       catch (ex)
                       {
                         if (ex.message.search(/XMLHttpRe-
quest Exception 101/) == -1)
                          {
                             throw ex;
                          }
                  }
          }
       return response;
    }
    catch (ex)
```

Issue #	Description
	```\n {\n hwc.log("hwc.postDataToContainer error: " +\nex.message, "ERROR", false);\n }\n };\n```
RTC-52	**A Hybrid App fails to deploy to the device.** If the SAP Mobile Platform is installed in a cluster, and different paths are used on each application service node, the Hybrid App log may contain a message similar to `Updated failed for Hybrid App` item. SAP Mobile Platform currently assumes that application service nodes are installed in the same path on all the nodes in the cluster, that is, that all application server nodes are installed in the same path on all cluster nodes. It stores full paths in the database during Hybrid App package installation. When the client connects, it looks for those paths in the file system. If the node it is connecting to does not have one of those paths, you see the error. **Workaround**: Install SAP Mobile Platform using the same installation path for each node of the cluster.
RTC-51	**iOS Hybrid Web Container fails when an Afaria client is not setup for seeding.** If you do not provision the Afaria server with the iOS Hybrid Web Container seeding file, and if the Afaria iOS client is installed on the iOS device and not configured with the connection settings in the iOS Hybrid Web Container, the Hybrid Web Container fails upon start-up. This happens because the Hybrid Web Container launches the Afaria client application to get the seeding file (settings) that can be used to connect to the Afaria server. The Afaria client application fails before relaunching the iOS Hybrid Web Container. **Workaround**: If you do not provision the Afaria server with the iOS Hybrid Web Container seeding file, the user must manually enter the connection settings for the Hybrid Web Container before launching it. This issue does not occur if the Afaria client is not installed on the iOS device.
RTC-37	**On Android 3.x devices, when proxy is enabled on the WiFi connection, connecting to SAP Mobile Server directly using the HTTPS protocol makes the Hybrid Web Container client fails.** This is an Android bug. See *http://code.google.com/p/android/issues/detail? id=37050* for details. **Workaround**: Either turn off the proxy or connect through SAP Relay Server.

Issue #	Description
CR-708173	**When the Hybrid Web Container tries to retrieve data from the MBO package, an `Invalid application id <***> for package` error appears**. **Workaround:** In SAP Control Center, manually add an application ID for the MBO package's application list. 1. Log in to SAP Control Center. 2. Go to **hostname@localhost > Applications** and click the **Applications** tab. 3. Click **Properties**. 4. In **Domains and Packages**, select the domain that contains the applicable MBO package. 5. Assign the application ID to the MBO's package's applications list.
CR-705895	**After adding JavaScript code in the customAfterMenuItemClick method to update the check box (using JQuery Mobile) state on the screen, the check-box fails to update**. **Workaround**: When you use JavaScript to update the check box (using JQueryMobile) value, you must also add the refresh code. For example: ```\nWhole sample in "customAfterMenuItemClick" method of\nCustom.js\n\nfunction customAfterMenuItemClick(screen, menuItem) {\n if (screen === "Start" && menuItem === "setCheck-\nbox") {\n var checkbox1 = document.getElement-\nById('checkbox1');\n checkbox1.checked = true;\n\n var checkbox2 = document.getElement-\nById('checkbox2');\n checkbox2.checked = false;\n\n if (isJQueryMobileLookAndFeel) {\n $("input[type='checkbox']").checkboxra-\ndio("refresh");\n }\n }\n}\n```

Issue #	Description
CR-705219	**When the iOS Hybrid Web Container application tries to retrieve seeding information from an Afaria iOS App store hosted package you see this error message: Afaria client application is installed but not configured.**
	Workaround: Configure Afaria client application and try again or go to the Settings application and enter your configuration information.
	• Seed Enterprise-hosted packages on the Afaria server.
	• Manually configure the connection information.
CR-703883	**Switching from one edit box to another on a BlackBerry 7.0 simulator or device using the touch screen or mouse requires two clicks or touches.**
	Workaround: None for BlackBerry 7.0. Upgrading to BlackBerry 7.1 eliminates the problem.
CR-702603	**BlackBerry 7.0 users see a white screen until the Workflow application's activation screen opens**. See *https://www.blackberry.com/jira/browse/JAVAA-PI-119*. Note this URL requires a login.
	Workaround: None.
CR-693907	**Hybrid Web Container occasionally fails on Android 2.2.**
	This can happen when all of these conditions are present:
	• There is only one read-only edit box control on a single screen, and
	• The application is using jQueryMobile GA version, and
	• You are using an Android 2.2 simulator or Samsung Galaxy device with Android 2.2.
	Workaround:
	• Upgrade the OS on the device to Android 2.3, or,
	• If using an Android 3.x simulator, see CR 673572, or,
	• Add one or more controls to the screen.
CR-691005	**Image upload may fail on BlackBerry 6 simulators older than version 6.0.0.499.**
	Workaround: Use a BlackBerry 9800 simulator with version 6.0.0.499 or later.

Issue #	Description
CR-686465	**Camera feature is supported on some device simulators/emulators.** • iOS - not supported. • Android 2.2 - not supported. See *http://code.google.com/p/android/issues/detail?id=9376.* • BlackBerry - supported. • Windows Mobile - supported; however, can photograph only a grey/black screen. **Workaround**: Use a physical device.
CR-680253	**Images do not appear correctly on mobile devices.** Hybrid Web Container/Workflow applications can display pictures from binary enterprise information system (EIS) data. But when a MBO developer drags and drops a table that contains an image field to create the MBO, the image field maps to a Binary datatype that has a length of approximately 3KB, which may not be large enough for the entire image. At runtime, the binary data of the image may be truncated in the cache database (CDB), and appear incorrectly on the device. **Workaround**: When creating the MBO, manually modify the length of the binary field to make sure it is large enough to hold the image binary data, or use the BigBinary datatype instead.

Known Issues for Hybrid Web Container for Windows Mobile

Learn about known issues and apply workarounds for Hybrid Web Container (HWC) development for Windows Mobile.

Issue #	Description
RTC-300	**On Windows Mobile, calling a save or submit action to a persisted cached password causes the Hybrid Web Container to crash if the Hybrid Web Container was not registered to Unwired Server**. **Workaround**: Register the Windows Mobile device to Unwired Server before saving credential information to the device.
RTC-236	**When a 2.1.3 or older client tries to connect to a 2.2 or newer server using an invalid URL suffix (such as '/'), the client receives an HTTP authentication challenge and the connection fails**. **Workaround**: Use a valid URL suffix when attempting to connect a 2.1.3 or older client to a 2.2 or newer server.

Issue #	Description

RTC-222	**After loading Hybrid Web Container JavaScript files (for example, datajs), a memory leak occurs.**
	
	 Within a closure code, when adding a new window property that references an object, the object is not correctly identified as garbage collection (GC) after closing the Hybrid App.
	
	 For example, the `datajs-1.0.3.js` file contains a code pattern:
	
	 ```(function (window, undefined) {\nif (!window.OData) {\nwindow.OData = {};\n}\n\nvar odata = window.OData;\n\nodata.defaultHttpClient = {\nrequest: function () { xhr = new ActiveXObject("Micro-\nsoft.XMLHTTP"); }\n};\n})(this);```
	
	 When exiting the Hybrid App, `window.OData` still occupies the memory. After the Hybrid App is opened and closed several times, an "Out of Memory" error occurs.
	
	 Workaround: Manually release the object. For example, add "window.OData = null;" in the `hwc.close()` function that is invoked when exiting the Hybrid App. Add these lines in `hwc.close()` to avoid the memory leak:
	
	 ```//datajs\nif (window.datajs) { window.ActiveXObject = window.oldAc-\ntiveXObject; window.datajs = null; window.OData = null;\nwindow.oldActiveXObject = null; }\n//hwc\nwindow.CallbackSet = null;\nwindow._Picture = null;\n//cordova\nwindow.console = null;\nwindow.PhoneGap = null;\nwindow.Cordova = null;\nwindow.plugins = null;\nwindow.addEventListener = null;\nwindow.removeEventListener = null;```
	
	 On Windows Mobile, if you experience a memory leak under these conditions, restart the device.

RTC-220	**In a page of the Hybrid App, the Save or Submit Hybrid App action fails to save the credential information to the local store by providing only the "credential cached user name" without a corresponding "credential cached password."** **Workaround**: Use the `hwc.saveLoginCredentials()` JavaScript API to save the user name.

Issue #	Description
RTC-197	**On Windows Mobile, when changing between landscape and portrait orientation, the spinner disappears.** **Workaround**: None.
RTC-171	**If a password is used for automatic device registration using the `hwc.save-Settings()` API, the password is used only once and is not saved in the Hybrid Web Container**. Upon successful automatic registration, subsequent connections to the server uses the userid+deviceid+authcode combination (the password is not required). This is by design. **Workaround**: To save the password in the application, do so in the application code with the secured storage `SUPStorage` API.
RTC-156	**On Windows Mobile 6.0, if you use the task manager to end the Hybrid Web Container process, you cannot restart the Hybrid Web Container.** **Workaround**: Do not end the Hybrid Web Container process on Windows Mobile 6.0. It works as expected on Windows Mobile 6.5.
RTC-147	**On Windows Mobile, when using the Media Cache function, `hwc.MediaCache.getUrl()`, a large media resource, such as an image, may not appear correctly if the user opens and closes the Hybrid App frequently.** **Workaround**: None.
RTC-115	**Cannot update prepackaged Hybrid Apps**. The version number of the new Hybrid App must be later than the current version number. **Workaround:** Edit the `manifest.xml` file to update the version number and repackage the Hybrid App files.
RTC-93	**On Windows Mobile, the `removeMenuItem() JavaScript` API in `API.js` does not work**. **Workaround**: None.
RTC-90	**On all Hybrid Web Container device platforms, when an expired certificate is used for device registration, the error message is `MMS Authentication Failed`, which does not indicate the root cause of the error.** **Workaround:** Make sure your certificate is not expired.
RTC-88	**After changing the default Hybrid App in SAP Control Center, invoking the Hybrid Web Container on Windows Mobile devices does not automatically open the new default Hybrid App.** **Workaround:** After changing the default Hybrid App in SAP Control Center, restart the device.

Issue #	Description
RTC-73	**On all platforms, in manual registration mode, after calling the `hwc.save-Settings` API in `hwc-api.js`, the client cannot connect to the server.** **Workaround**: To connect to the server by manual registration, call the `hwc.startClient` API after the `hwc.saveSettings` invocation.
RTC-52	**A Hybrid App fails to deploy to the device.** If the SAP Mobile Platform is installed in a cluster, and different paths are used on each application service node, the Hybrid App log may contain a message similar to `Updated failed for Hybrid App` item. SAP Mobile Platform currently assumes that application service nodes are installed in the same path on all the nodes in the cluster, that is, that all application server nodes are installed in the same path on all cluster nodes. It stores full paths in the database during Hybrid App package installation. When the client connects, it looks for those paths in the file system. If the node it is connecting to does not have one of those paths, you see the error. **Workaround**: Install SAP Mobile Platform using the same installation path for each node of the cluster.
RTC-49	**On Windows Mobile devices and emulators, Cordova cannot play audio files.** **Workaround**: None.
CR-708173	**When the Hybrid Web Container tries to retrieve data from the MBO package, an `Invalid application id <***> for package` error appears**. **Workaround:** In SAP Control Center, manually add an application ID for the MBO package's application list. 1. Log in to SAP Control Center. 2. Go to **hostname@localhost > Applications** and click the **Applications** tab. 3. Click **Properties**. 4. In **Domains and Packages**, select the domain that contains the applicable MBO package. 5. Assign the application ID to the MBO's package's applications list.

Issue #	Description
CR-708122	**Native application on Windows Mobile device receives an error, `Can't find an Entry Point 'DLL_setMclCallbacks' in a PInvoke DLL 'CMessagingCLient.dll`.** This can occur if a 2.1.2 (or older) version of the Hybrid Web Container (HWC) is installed on the same device as a native application using the Sybase Unwired Platform 2.1.3 libraries. The HWC and native applications share a common CMessaging-CLient.dll. **Workaround**: In order for a 2.1.2 (or older) HWC and a 2.1.3 native app to coexist and both successfully run on the same Windows Mobile device, install only the 2.1.3 version of `CMessagingCLient.dll`, and load it into memory on the device. Before starting either version of the application, verify that older versions of that DLL are removed from the device.
CR-705895	**After adding JavaScript code in the customAfterMenuItemClick method to update the check box (using JQuery Mobile) state on the screen, the checkbox fails to update**. **Workaround**: When you use JavaScript to update the check box (using JQueryMobile) value, you must also add the refresh code. For example: ```Whole sample in "customAfterMenuItemClick" method of Custom.js

function customAfterMenuItemClick(screen, menuItem) {
    if (screen === "Start" && menuItem === "setCheckbox")
{
        var checkbox1 = document.getElementById('checkbox1');
        checkbox1.checked = true;

        var checkbox2 = document.getElementById('checkbox2');
        checkbox2.checked = false;

        if (isJQueryMobileLookAndFeel) {
           $("input[type='checkbox']").checkboxradio("refresh");
        }
    }
}``` |

Issue #	Description
CR-693381	**Cannot preview a selected picture On Windows Mobile emulator.** When using the imageElement.src = imageUri in the getPicture function, you cannot preview the selected image on the Windows Mobile emulator. This is because the HTML browser adds an unexpected prefix to the URI, so the Hybrid Web Container cannot find the file to which the URI refers. **Workaround**: • Preview the image using an actual device instead of the emulator, or, • Assign image data instead of an image URI to the image element so the image data can be retrieved through the JavaScript API.
CR-688399	**On Windows Mobile devices, thumbnails do not show properly if an image has a large size.**. The root cause is that Internet Explorer cannot load a large image; try one of these solutions to address the image size: **Workaround #1**: Specify a small-sized image as the thumbnail instead of using the original large image, for example: ``` ``` **Workaround #2**: Pass the width and height as the parameters in the source of the image control, so the container compresses the original image on the fly, for example: ``` ``` The width and height parameters are supported only on Windows Mobile and may cause display issues on other platforms.
CR-686465	**Camera feature is supported on some device simulators/emulators.** • iOS - not supported. • Android 2.2 - not supported. See *http://code.google.com/p/android/issues/detail?id=9376*. • BlackBerry - supported. • Windows Mobile - supported; however, can photograph only a grey/black screen. **Workaround**: Use a physical device.

Issue #	Description
CR-680253	**Images do not appear correctly on mobile devices.** Hybrid Web Container/Workflow applications can display pictures from binary enterprise information system (EIS) data. But when a MBO developer drags and drops a table that contains an image field to create the MBO, the image field maps to a Binary datatype that has a length of approximately 3KB, which may not be large enough for the entire image. At runtime, the binary data of the image may be truncated in the cache database (CDB), and appear incorrectly on the device. **Workaround**: When creating the MBO, manually modify the length of the binary field to make sure it is large enough to hold the image binary data, or use the BigBinary datatype instead.

Known Issues for Mobile Devices

Learn about known issues and apply workarounds for various mobile devices.

Issue #	Description
RTC-87	**When the Windows Mobile emulator is uncradled then cradled again, the first attempt to retrieve data from the server fails.** This happens only on the emulator. **Workaround:** The subsequent request succeeds.
RTC-85	**Windows Mobile devices fail with a `the connection template is not found` message when there are multiple application connection templates with the same App ID but different security configurations, trying to register.** **Workaround**: You must append the specific security configuration to the user name in this format: `user@securityconfig`. The user name field in the Windows Mobile Hybrid Web Container settings screen is disabled when the registration type is Certificate. Enable it by building a customized container using the template source code.
RTC-43	**On Windows 7 virtual machines, the Windows Mobile emulator cannot connect to Windows Mobile Device Center**. **Workaround**: When using Windows 7, do not use a virtual machine to run the Windows Mobile emulator.

Known Issues for MAKit

Learn about known issues and apply workarounds for MAKit development.

Issue #	Description
N/A	**When opening a MAKit PDF from the Product Documentation Web site, some users may be prompted to update Adobe Flash Player.** When some users attempt to open the MAKit Developer Guides at *http://sybooks.sybase.com/sybooks/sybooks.xhtml?id=1289&c=firsttab&a=0&p=categories*, they may get an error stating an updated version of Flash is required to view the PDF package. **Workaround**: Update to the most recent version of both Adobe Reader and Adobe Flash Player by visiting the Adobe Downloads Web site at *http://www.adobe.com/downloads/.*

RTC-137	**Orientation issues when running MAKit 2.2 code example in the iOS6.0 iPad Device.**
	
	When the iPad's orientation changes from portrait to landscape or vice versa, the MAKit code example's orientation does not change.
	
	Workaround: Follow these steps:
	
	1. In the `MAKitCodeExamplesAppDelegate`, replace this line:
	`[self.window addSubview:navController.view];`
	with this line:
	`[self.wndow setRootViewController:navController];`
	2. In the `MAKitCodeExamples-info.plist` file, delete the sub items (item 0 and item 1) under **Supported interface orientations**.

CR-703197	**SUPContainer iOS (iPad) what-if integer columns turns blank after clearing the value.** When the MAKit what-if feature is used in the SAP Mobile Platform Workflow container environment on iOS (iPad devices), the `what-if` integer column becomes blank and the slider does not reposition when the value is cleared using device keyboard input and the user taps out of the field. This field should have a value of 0 after clearing and the slider control should be synchronized to the 0 position. **Workaround**: Users can use the slider control to change the what-if column values.

Known Issues for OData SDK

Learn about known issues and apply workarounds for the OData SDK.

Issue #	Description
SMPONP-11143	**The HTTP channel returns a 404 error when a request URL includes ".jsp".**
	The HTTP channel returns a 404 error when a request URL includes ".jsp". For example, *http://supServer:8000/ProxyEndpoint/backendFile.jsp? para1=val1&para2=val2*
	Workaround: In the *SMP_HOME*\deploy\webapps\httpchan- nel\WEB-INF\web.xml file, replace: ``` <servlet-mapping> <servlet-name>JspServlet</servlet-name> <url-pattern>*.jsp</url-pattern> </servlet-mapping> ``` with: ``` <servlet-mapping> <servlet-name>DispatcherServlet</servlet-name> <url-pattern>*.jsp</url-pattern> </servlet-mapping> ```

Issue #	Description
RTC-328	**Relay Server: Server response containing header with empty value is considered malformed.** When there is a PUT request passing through Relay Server to a SAP Mobile Platform proxy connection, you get an error message `400 - Bad request with no response from back end server.` The root cause is whenever the GW server receives an HTTP request with an empty value in the header (for example, below HttpRespond contains the header key Vary and its values are empty), this issue occurs. **Example** ```~~~~~~~~~~~~~~~~~~~~~~A sample respond message header~~~~~~~~~~~~~~~~~~~~~HTTP/1.1 204 No ContentExpires: Thu, 01 Jan 1970 00:00:00 GMTSet-Cookie: X-SUP-APPCID=283ec655-deaf-4ae6-8fe7-92dbbca4cf2fDate: Fri, 18 Jan 2013 01:49:19 GMTVary:Content-Encoding:Cache-Control: no-cache, no-store, no-transformX-AUSERNAME: zxiongX-ASESSIONID: 1chn8gfSet-Cookie: atlassian.xsrf.token=BOC2-AB74-RK7A-C5C|b5297c7d951949fea3f91ccdd7025ff61c7e434c|lin; Path=/X-Seraph-LoginReason: OKSet-Cookie: JSESSIO-NID=4A49B145411AE327021EE424EDB0B4F3; Path=/; HttpOn-lyX-AREQUESTID: 1069x403945x1....``` **Workaround:** None.
RTC-155	**Push notification does not work with any security configuration other than "admin" for certificate-based mutual SSL authentication.** If you use any other security configuration, you get an error message `403 - User not in required role.` **Workaround:** Use single SSL with any security configuration or use **"admin"** as the security configuration for mutual SSL to enable Push notifications.

Known Issues for Agentry

Learn about known issues and apply workarounds for Agentry clients.

Issue #	Description
AG-11592	**Agentry iOS and Android clients authenticate to the server, regardless of the certificates.** **Workaround**: This issue will be fixed in SAP Mobile Platform version 2.3 SP03 PL01.
AG-24407	**duration control spinner "headers" overlap the number fields in iOS 7 clients.** **Workaround**: This issue will be fixed in SAP Mobile Platform version 2.3 SP03 PL01.
AG-23541	**Agentry clients support searching and filtering of child collections for List Tile control, but the filters section does not show the field name.** When a field from a child collection object is added to the Tile Filters section of a Tile List View field, the search box can filter through the collection based on the child property specified. However, the filters section does not show the field name. It shows up as a blank value. Also, the values drop down does not include the list of possible values from the property from the child collection. **Workaround**: This issue will be fixed in SAP Mobile Platform version 2.3 SP03 PL01.
AG-23848	**Agentry iOS and Android clients does not provide the capability to place a field label above the field instead of next to the field.** **Workaround**: This issue will be fixed in SAP Mobile Platform version 2.3 SP03 PL01.
AG-24984	**Android clients do not allow screen capture.** **Workaround**: This issue will be fixed in SAP Mobile Platform version 2.3 SP03 PL01.
AG-24132	**Images and PDFs do not display in HTML control with Sales Manager 2.5 on Windows Desktop Clients.** **Workaround**: Open attachments from My Documents. This issue will be fixed in SAP Mobile Platform version 2.3 SP03 PL01.

Documentation Issues and Updates for SAP Mobile SDK

Read about updates, corrections, and clarifications to the documentation released with SAP Mobile Platform Mobile SDK.

Issue #	Description
SMPONP-14477	**Update Operation** A code check has been added to the iOS API. If a previous non-default Create/ Update/Delete operation is pending for an object, and **submitPending** synchronize has not been called, invoking Update on the object now throws an exception. **Workaround**: See the iOS version of *Update Operation* on page 41.
SMPONP-14737 (BCP 65287 2014)	**Agentry Client Installation Overview** This *Installation Guide: Agentry Device Clients* topic no longer correctly describes how to install Android, iOS, and other clients. **Workaround**: Instead, install iOS clients from the Apple App Store, and install Android and other device clients from the SAP Service Marketplace. See *Installing the Agentry Client on Supported Devices* on page 41.
SMPONP-11248	**Object API Application Tutorials not updated for 2.3 SP03** Only the *Tutorial: iOS Object API Application Development* is updated in the 2.3 SP03 release. The following tutorials have not been updated for SAP Mobile Platform version 2.3 SP03, and contain references to previous versions of SAP Mobile Platform. However the tutorials are still valid for 2.3 SP03: • *Tutorial: Hybrid App Package Development > Developing a Hybrid App Package* • *Tutorial: Windows Mobile Object API Application Development > Developing a Windows Mobile Device Application > Creating the User Interface for the Windows Mobile Device Application* • *Tutorial: BlackBerry Object API Application Development > Developing a BlackBerry Application > Creating the BlackBerry Project* • *Tutorial: Windows Mobile Object API Application Development > Developing a Windows Mobile Device Application* In addition, the topic: *Tutorial: BlackBerry Object API Application Development > Developing a BlackBerry Application > Creating the BlackBerry Project* contains a reference to "SUP 2.2" which should be "SUP 2.3".

Issue #	Description
CR-710608	**onHttpCommunicationError returns an unexpected code**. In an environment configured for SiteMinder authentication, the expectation is that onHttpCommunicationError is called back for error condition 302. This condition is not currently fulfilled by the Windows and Windows Mobile platforms; instead, they return 404 errors. **Workaround**: None.

Installing the Agentry Client on Supported Devices

Install supported Agentry clients from SAP® Service Marketplace, except for the Agentry iOS Client, which is available on the Apple App Store.

1. Navigate to *SAP Service Marketplace* (authorization required).
2. Select the **Products** link at the top of the page.
3. Select **Software Download**.
4. Select **Support Packages and Patches**.
5. Select **Browse our Download Catalog**.
6. Scroll down the page and select **Sybase Products** from the lower right side.
7. Select **SAP Mobile Platform SDK**.
8. From the next page, select **SAP Mobile Platform SDK <version>**.
9. Select either the **32bit** or **64bit** link (depending on your configuration).
10. Download the desired zip file (for example, `SMPSDK23003P_1-21011048.zip, for SP03 Patch1`).Within the zip file are two zip files:
    - Agentry-Clients-2.3SPxx-dropxxpx.zip
    - Another zip for the development/sdk installers (such as the Agentry Editor).
11. Extract the client file (for example, `Agentry_6.1.x.xxx_Client-Android.apk`) from the `Agentry-Clients` zip file

Update Operation

The `updateUpdate` operation updates a record in the local database on the device. To execute update operations on an MBO, get an instance of the MBO, set the MBO attributes, then call either the `save()Save()` or `update()Update()` operation. To propagate the changes to the server, call `submitPendingSubmitPending`.

If there are previous non-default Create/Update/Delete operations pending for an object, and `submitPending` or `synchronize` have not been called, invoking `update` on the same object throws the exception:

```
SUPPersistenceException: Attempt to update an object
that was already changed by a non-default CUD operation.
```

Note: Calling `updateUpdate` on an orphaned instance (a row that no longer exists) causes a PersistenceException.

```
Customer cust = Customer.findById(101);
cust.setFname("supAdmin");
cust.setCompany_name("SAP");
cust.setPhone("777-8888");
cust.save(); // or cust.update();
cust.submitPending();
SMP101DB.synchronize();
// or SMP101DB.synchronize (String synchronizationGroup)
```

To update multiple MBOs in a relationship, call `submitPending()` on the parent MBO, or call `submitPending()` on the changed child MBO:

```
Customer cust = Customer.findById(101);
com.sybase.collections.ObjectList orders = cust.getSalesOrders();
SalesOrder order = (SalesOrder)orders.getByIndex(0);
order.setOrder_date(new Date(System.currentTimeMillis()));
order.save();
cust.submitPending();
```

```
Customer cust = Customer.FindByPrimaryKey(101);
cust.Fname = "supAdmin";
cust.Company_name = "SAP";
cust.Phone = "777-8888";
cust.Update();// or cust.Save();
cust.SubmitPending();
```

To update multiple MBOs in a relationship, if the relationship is a composite, call `SubmitPending()` on the parent MBO. If the relationship is not a composite, call `SubmitPending()` on each MBO within the relationship:

```
Customer cust = Customer.FindByPrimaryKey(101);
Sybase.Collections.GenericList<SalesOrder> orders = cust.Orders;
SalesOrder order = orders[0];
order.Order_date = DateTime.Now;
order.Save();
cust.SubmitPending();
```

In the following examples, the Customer and SalesOrder MBOs have a parent-child relationship.

Example 1: Supports `update` operations to parent entities. The sequence of calls is as follows:

```
SMP101Customer *customer = [ SMP101Customer find: 32]
//find by the unique id
customer.city = @"Dublin"; //update any field to a new value
[customer update];
[customer submitPending];
[SMP101SMP101DB synchronize];
```

Example 2: Supports `update` operations to child entities. The sequence of calls is:

```
SMP101Sales_Order* order = [SMP101Sales_Order find: 1220];
order.region = @"SA"; //update any field
[order update]; //call update on the child record
[order refresh];
[order.customer submitPending]; //call submitPending on the parent
[SMP101SMP101DB synchronize];
```

Example 3: Calling save() on a parent also saves any modifications made to its children:

```
SMP101Customer *customer = [ SMP101Customer find: 32]
SUPObjectList* orderlist = customer.orders;
SMP101Sales_Order* order = [orderlist item:0];
order.sales_rep = @"Ram";
customer.state = @"MA" ;
[customer save];
[customer submitPending];
[SMP101SMP101DB synchronize];
```

Known Issues for SAP Mobile Platform Runtime 2.3 SP03

Learn about known issues and apply workarounds for SAP Mobile Platform Runtime components.

Key to issue types:

- **RTC** – SAP® Release to Customer tracking number.
- **CSN** – SAP Customer Services Network tracking number.
- **CR** – Sybase® Change Request number.
- **AG** – Agentry® tracking number.
- **N/A** – No tracking number.

Issue #	Description
RTC-113	**Login fails when the value of the "tm_max_no" parameter in the SAP® EIS is less than the number of users concurrently logged in.** The value of the **tm_max_no** parameter in the SAP EIS limits the maximum number of active logins. If the number of concurrent users logged in is larger than this value, SAP Mobile Server shows a R3_LOGIN_FAILED error. **Workaround**: Increase the value of the **tm_max_no** parameter in the SAP EIS to a suitable value.

Issue #	Description
CR-717585	**When assigning a personalization key using binary datatype to an operation argument or load argument with BigBinary type, if the data in the personalization key exceeds 35K, the server throws exceptions during synchronization:** ```[LNSupController+Finalize.m:61] Send data ExceptionSUP-PersistenceException: SUPPersistenceException from synchronize: -- SUPSynchronizeException: loginFail,Sync failed: -1497 (ERROR) %1:4 %2:4000``` **Workaround**:When a binary personalization is assigned to an operation argument or a load argument, its size cannot exceed 35K. Additionally, do not map a personalization key to big object types such as `BigString` or `BigBinary`. The length of all personalization key values combined is a maximum of 64,000 bytes. Binary values are base64 encoded, so their length must be multiplied by 1.5 to account for encoding overhead.
CR-714679	**SAP Control Center stops responding and shows `Connecting with the SCC Managed Object Server` message after login.** **Workaround**: Instead of using the standard URL (`https:// < hostname > :8283/scc`), if you are accessing SAP Control Center from the same host, use `https://localhost:8283/scc` or `https:// < host name.domain > :8283/scc`. Alternatively, try accessing SAP Control Center from a remote machine.

Known Issues with Installing, Uninstalling, and Upgrading

Learn about known runtime installation, uninstallation, and upgrade issues and workarounds.

Issue #	Description
SMPONP-12571	**Upgrade path for 2.2.x to 2.3 SP03** Upgrading from 2.2.x to 2.3 SP03 is a two-part process: 1. Install 2.3, using the instructions in *Installation Guide for Runtime*, *Performing a Full Upgrade*. 2. Install SP03, using the instructions in *Installation Guide for Runtime*, *Performing a Support Package Upgrade*.

Issue #	Description
SMPONP-11499	**Extracting install images with Windows Explorer can cause an upgrade failure.** When installing SAP Mobile Platform version 2.3, or upgrading to 2.3 SP03, you must extract the installer images prior to installation. Extracting the images with Windows Explorer marks all files as read-only, resulting in an upgrade failure. **Workaround**: To ensure a successful upgrade, extract the files as follows: • Use an extraction utility such WinZip or WinRAR. • If you used the default Windows utility to extract the 2.3 installer image and the image was used to install the base 2.3 version of SAP Mobile Platform, make sure that all files in the base 2.3 installation are set to read/write instead of read-only before you perform an upgrade to SAP Mobile Platform 2.3 SP03.
SMPONP-11220	**A cluster node fails to start because other nodes were in an abnormal state.** Error messages similar to these in the bootstrap log file are an indication of this problem: `2013-09-17 23:07:18.694 INFO MMS main [com.syb-ase.sup.cache.impl.CacheService] [] [] Members of distributed cache: [/10.172.157.69, /10.172.157.72, /10.172.180.46] 2013-09-17 23:07:18.694 INFO MMS main [com.syb-ase.sup.cache.impl.CacheService] [] [] Expected members: [10.172.180.46, 10.172.180.47, 10.172.157.69, 10.172.157.72]` In this case, the mismatch node (10.172.180.47) indicates an abnormal status, and one in which the node does not start. **Workaround**: Restart the problematic node.

Issue #	Description
SMPONP-11042	**Error retrieving packages while resynchronizing in the server log.**
	After upgrading from SAP Mobile Platform version 2.3 to 2.3 SP03, if you find the following errors in the server log, perform one of the workarounds.

```
2013-09-10 11:20:02.100 INFO DOEC sup.mbs.3 [com.syb-
ase.vader.djc.jms.DSMessageListener] [] [] (sup.mbs.
3) com.sybase.vader.djc.jms.DSMessageListener.onMes-
sage:104 - Invoking DataServices with package name:
d2_sap_crm.1_0
2013-09-10 11:20:02.842 ERROR MMS Thread-156
[com.sybase.sup.admin.server.DOEServerStatusUpdate-
Task] [] [] Error retrieving packages while resynch-
ronizing.
com.sybase.sup.doec.admin.DOECAdminException
  at com.sybase.sup.doec.admin.impl.DOECAdmi-
nImpl.sendDOECMessage(DOECAdminImpl.java:779)
  at com.sybase.sup.doec.admin.impl.DOECAdminImpl.re-
syncPackage(DOECAdminImpl.java:372)
  at com.sybase.sup.admin.server.DOEServerStatusUpda-
teTask.resyncPackages(DOEServerStatusUpdate-
Task.java:74)
  at com.sybase.sup.admin.server.DOEServerStatusUpda-
teTask.run(DOEServerStatusUpdateTask.java:28)
  at sun.reflect.NativeMethodAccessorImpl.invoke0(Na-
tive Method)
  at sun.reflect.NativeMethodAccessorImpl.invoke(Na-
tiveMethodAccessorImpl.java:57)
  at sun.reflect.DelegatingMethodAccessorImpl.in-
voke(DelegatingMethodAccessorImpl.java:43)
  at java.lang.reflect.Method.invoke(Method.java:
601)
  at com.sybase.djc.server.ServiceComponent.runSer-
vice(ServiceComponent.java:469)
  at com.sybase.djc.server.ServiceComponent_DJC.run-
Service(ServiceComponent_DJC.java:203)
```

Workaround 1: Manually modify the `Servers\UnwiredServer\Re-pository\Package\d{domainId}\sup\components \d{domainId}_{packageName}\{packageVer-sion}.properties` file to input the `techuser-password` property value as plain text, and restart the server.

Workaround 2: Update the password in SAP Control Center:

1. Select **localhost@localhost (running) > Domains >{your domain}-> Connections**.
2. Select the connection in the connections list.
3. Click the **Properties** button.
4. Update the user name and password, and save.

Issue #	Description
SMPONP-10782	**Various errors in the uninstall log file after uninstalling a server node.**
	Workaround: You can safely ignore these error messages when uninstalling a server node:

```
com.sybase.stf.install.uep.wizardaction.ExecUnwired-
ServerConfig, dbg, null: command: C:\SAP\MobilePlat-
form\Servers\UnwiredServer\bin\run-ant-config.bat
```

```
com.sybase.stf.install.uep.wizardaction.ExecUnwired-
ServerConfig, dbg, null: arguments: delete-cdb-dsn
configure-sup -Dsqlany12.bin=C:\SAP\MobilePlatform
\Servers\SQLAnywhere12\Bin64
```

```
com.sybase.stf.install.uep.wizardaction.ExecUnwired-
ServerConfig, err, ERROR: return value: 1
```

```
com.sybase.stf.install.uep.wizardaction.ExecUnwired-
ServerConfig, err, ERROR: C:\SAP\MobilePlatform\Serv-
ers\UnwiredServer\bin\run-ant-config.bat failed
```

```
com.sybase.stf.install.uep.wizardaction.ExecUnwired-
ServerConfig, dbg, null: command: C:\SAP\MobilePlat-
form\Servers\UnwiredServer\bin\run-ant-config.bat
```

```
com.sybase.stf.install.uep.wizardaction.ExecUnwired-
ServerConfig, dbg, null: arguments: delete-clusterdb-
dsn configure-sup -Dsqlany12.bin=C:\SAP\MobilePlat-
form\Servers\SQLAnywh ere12\Bin64
```

```
com.sybase.stf.install.uep.wizardaction.ExecUnwired-
ServerConfig, err, ERROR: return value: 1
```

```
com.sybase.stf.install.uep.wizardaction.ExecUnwired-
ServerConfig, err, ERROR: C:\SAP\MobilePlatform\Serv-
ers\UnwiredServer\bin\run-ant-config.bat failed
```

```
com.sybase.stf.install.uep.wizardaction.ExecUnwired-
ServerConfig, dbg, null: command: C:\SAP\MobilePlat-
form\Servers\UnwiredServer\bin\run-ant-config.bat
```

```
com.sybase.stf.install.uep.wizardaction.ExecUnwired-
ServerConfig, dbg, null: arguments: delete-32bit-cdb-
dsn configure-sup -Dsqlany12_32.bin=C:\SAP\Mobile-
Platform\Servers\SQLAnywhere12\Bin32
```

```
com.sybase.stf.install.uep.wizardaction.ExecUnwired-
ServerConfig, err, ERROR: return value: 1
```

```
com.sybase.stf.install.uep.wizardaction.ExecUnwired-
ServerConfig, err, ERROR: C:\SAP\MobilePlatform\Serv-
```

Issue #	Description

	`ers\UnwiredServer\bin\run-ant-config.bat failed`
	
	`com.sybase.stf.install.uep.wizardaction.ExecUnwired-`
	`ServerConfig, dbg, null: command: C:\SAP\MobilePlat-`
	`form \Servers\UnwiredServer\bin\run-ant-config.ba! t`
	
	`com.sybase.stf.install.uep.wizardaction.ExecUnwired-`
	`ServerConfig, dbg, null: arguments: delete-32bit-`
	`clusterdb-dsn configure-sup -Dsqlany12_32.bin=C:\SAP`
	`\MobilePlatform\Servers\SQLAnywhere12\Bin32`
	
	`com.sybase.stf.install.uep.wizardaction.ExecUnwired-`
	`ServerConfig, err, ERROR: return value: 1`
	
	`com.sybase.stf.install.uep.wizardaction.ExecUnwired-`
	`ServerConfig, err, ERROR: C:\SAP\MobilePlatform\Serv-`
	`ers\UnwiredServer\bin\run-ant-config.bat failed`
	
	`com.sybase.stf.install.uep.wizardaction.ExecUnwired-`
	`ServerConfig, dbg, null: command: C:\SAP\MobilePlat-`
	`form\Servers\UnwiredServer\bin\run-ant-config.bat`
	
	`com.sybase.stf.install.uep.wizardaction.ExecUnwired-`
	`ServerConfig, dbg, null: arguments: delete-32bit-mon-`
	`itordb-dsn configure-sup -Dsqlany12_32.bin=C:\SAP\Mo-`
	`bilePlatform\Servers\SQLAnywhere12\Bin32`
	
	`com.sybase.stf.install.uep.wizardaction.ExecUnwired-`
	`ServerConfig, err, ERROR: return value: 1`
	
	`com.sybase.stf.install.uep.wizardaction.ExecUnwired-`
	`ServerConfig, err, ERROR: C:\SAP\MobilePlatform\Serv-`
	`ers\UnwiredServer\bin\run-ant-config.bat failed`

SMPONP-10775	**Visual C 2005 installation log error in `SMPUpgrade.log` when upgrading Development and Test (DT) edition of SAP Mobile Platform from version 2.3 to 2.3 SP03.**
	
	The actual error codes returned during the upgrade are:
	`ERROR: return value: 3010`
	
	and:
	`ERROR: VC Runtime 2005 failed.`
	
	Workaround: You can safely ignore these errors. Return code from running **vcredist** indicates that the installation was successful and requires a system restart.

Issue #	Description
| **SMPONP-10112** | **After installing a cluster, and upgrading from version 2.3 SP02 to 2.3 SP03, the error removeDataTierServices.err appears in the silent Install log.**<br><br>These errors may appear in the silent install log after the upgrade:<br><br>```
The service has not been started.
Error stopping service "SAPMobilePlatformConsolida-
tedDatabase".
The service has not been started.
Error stopping service "SAPMobilePlatformClusterData-
base".
The service has not been started.
Error stopping service "SAPMobilePlatformMonitorData-
base".
```<br><br>**Workaround**: You can safely ignore these errors. |
| **SMPONP-10094** | **Server node fails to upgrade to version 2.3.3 as the Messaging Server upgrade fails.**

This issue happens when you place the installation image on a mapped network drive. The installation requires the image to be placed on a local drive.

Workaround: Move the upgrade scripts to the local drive. Re-run the scripts. |
| **SMPONP-9950** | **After adding a Scale-Out or Application node and upgrading to version 2.3 SP03, the server status in SAP Control Center shows the need to restart.**

This happens when adding a node to an existing cluster, where the cluster's initial version does not equal the new node's initial version. For example: install a 2.2 cluster and upgrade the cluster form **2.2 > 2.2 SP04 > 2.3 > 2.3 SP03**. Then add a 2.3 node and upgrade the node from **2.3** to **2.3 SP03**.

This is not an issue when installing a 2.3 cluster and adding a new 2.3 node.

Workaround: Restart SAP Mobile Server after upgrading the Scale-Out node. |

Issue #	Description
SMPONP-4059	**Error message after upgrade**
	After upgrading a cluster installation to 2.3 SP03, the following error message appears in `SMP_HOME\SCC-3_2\sccRepoPwdChange\supA-TUpgrade.log` for each Application Node:
| | ```
2013-01-27 18:38:34,815 [ INFO] [main] (SCCRepositoryPwdUpdater.java:29) - Begin database password update.
2013-01-27 18:39:48,245 [ERROR] [main] (SCCRepositoryPwdUpdater.java:45) - ASAEngine: The "scc_repository" dataserver Engine could not be started
java.lang.Exception: ASAEngine: The "scc_repository" dataserver Engine could not be started
    at com.sybase.sup.sysadmin.asa.ASAEngine.startEngine(ASAEngine.java:145)
    at com.sybase.sup.sysadmin.sccconfig.SCCRepositoryASAInstance.startEngine(SCCRepositoryASAInstance.java:36)
    at com.sybase.sup.sysadmin.sccconfig.SCCRepositoryASAInstance.open(SCCRepositoryASAInstance.java:29)
    at com.sybase.sup.sysadmin.sccconfig.apps.repoPwdUpdate.SCCRepositoryPwdUpdater.update(SCCRepositoryyPwdUpdater.java:32)
    at com.sybase.sup.sysadmin.sccconfig.apps.SCCRepositoryPwdUpdate.main(SCCRepositoryPwdUpdate.java:28)
``` |
	Workaround: Ignore the error message. This error does not have any functional impact.
RTC-434	**Scale Out node fails to start after upgrading from SAP Mobile Platform version 2.3 to version 2.3 SP03 using services panel.**
	Starting SAP Mobile Server services after the upgrade generates an error similar to:
| | ```
2013-11-21 05:41:59.101 CONSOLE MMS main [com.sybase.sup.server.Console]
[] [] Exception in thread "main" java.lang.NoClassDefFoundError:
com/hazelcast/config/Config
``` |
| | **Workaround**: The first time you start SAP Mobile Server after the upgrade should be from either the desktop shortcut or by running `start-mobile-services.bat` from the command line, instead of starting SAP Mobile Server services directly. |

Issue #	Description
RTC-397	**QueueNotReadyException appears in *server1* log** A `QueueNotReadyException` appears in *server1* log when installing SAP Mobile Platform with primary install *node1* and secondary *node2*, but starting *node2* before *node1*. **Workaround:**Ensure `node1.properties` appears in the *SMP_HOME/*`repository/Instance/com/sybase/djc/server/Ap-plicationServer` folder, then restart *node1*.
RTC-393	**Sybase Unwired Platform services must be set to start automatically before upgrading to SAP Mobile Platform 2.3.** The SAP Mobile Platform 2.3 installer waits unnecessarily when upgrading from Sybase Unwired Platform 2.2.X to SAP Mobile Platform 2.3 if services in the 2.2.X installation are set to manual. **Workaround 1**: Workaround 1: When upgrading your 2.2.X installation to 2.3, set the startup mode for Sybase Unwired Platform services to automatic before running the SAP Mobile Platform 2.3 installer **Workaround 2**: If the 2.3 installer was started without setting the Sybase Unwired Platform services startup mode to automatic, and the installer status displays `Pinging server using the secure management port ...` for a long time, then the upgrade has completed normally. At this point, the installer can be stopped manually using Windows Task Manger.
RTC-363	**Potential locked file may cause upgrade to fail.** When upgrading, there is a potential problem with a process holding a lock on one of the 12 Adaptive Server Anywhere (ASA) libraries (DLLs), even though all the ASA processes have shut down. This causes the upgrade to fail because the upgrade cannot overwrite the file. **Workaround**: 1. Shut down all SAP Mobile Platform processes. 2. If services were set to automatic, set the start-up for the SAP Mobile Platform services to manual. 3. Restart the system. 4. Run the upgrade after the system has restarted. 5. If step 2 was performed prior to upgrade, set the start-up for the services back to automatic. **Note:** This is an issue when upgrading from 2.2.X to 2.3.X using the GUI installer.

Issue #	Description
RTC-360	**Backing up the SAP Mobile Platform Runtime installation fails because the SAP Control Center path is too long.**
	The path to the Embedded Web Container in the `SCC-3_2` folder is too long for Windows to process.
	Workaround: Before backing up the SAP Mobile Platform Runtime installation, you must delete the contents of *SMP_HOME*`\services\Embedded-WebContainer\container\Jet-ty-7.6.2.v20120308\work`. Delete the contents of this folder from the command prompt, and not from Windows Explorer.
	Note: For more information, see *SAP Note 1835740: Backup of SAP Mobile Platform Runtime*, which requires an SAP Market Place login.
RTC-318	**Installation or upgrade cannot continue host name of system resolves to local link address.**
	In a new or upgrade installation, the installer displays this error message:
	<pre>The host name of the system resolves to a local link address. This suggests an incorrect binding order of network adapters. The install/upgrade cannot proceed. Once the binding order is corrected, restart the installer. Click OK to exit the installer.</pre>
	The upgrade version of the message displays the "local link address" in parentheses.
	Explanation: If no usable IP addresses are available on the system where you are installing SAP Mobile Platform, Windows assigns a "local link" IP address in the range 169.254.0.0/16. The installer detects that the system's IP address is only usable locally, and stops.
	Workaround: Execute the commands below from the command prompt, restart the server, and restart the installer.

	<pre>netsh interface ipv6 set prefix ::1/128 50 5
	netsh interface ipv6 add prefix ::1/128 50 5
	netsh interface ipv6 set prefix ::1/96 40 4
	netsh interface ipv6 add prefix ::1/96 40 4
	netsh interface ipv6 set prefix ::ffff:0:0/96 30 3
	netsh interface ipv6 add prefix ::ffff:0:0/96 30 3
	netsh interface ipv6 set prefix ::/0 20 2
	netsh interface ipv6 add prefix ::/0 20 2
	netsh interface ipv6 add prefix ::ffff:
	169.254.0.0/112 10 1
	netsh interface ipv6 set prefix ::ffff:
	169.254.0.0/112 10 1</pre>

Issue #	Description
RTC-306	**During the first start of a cluster, the secondary node cannot start because the primary node is bound to an unreachable address.**
	Rarely, during the first start of the first node of a cluster, the cluster configuration cache binds itself erroneously to an IP address that cannot be reached by secondary nodes in the cluster. When this happens, the secondary nodes appear to stop responding during installation (if the primary or secondary nodes are running), and may not initially start.
	Workaround: Stop the unresponsive secondary server. Restart the primary server, and then restart the secondary server.
RTC-299	**Uninstallation leaves undeleted registry entry if upgrade of Unwired Platform 2.2.x to SAP Mobile Platform 2.3 required cluster name to be truncated.**
	The Unwired Platform 2.2.x installation created a registry value for the name of the cluster, `clusterdb_<clustername>`. SAP Mobile Platform 2.3 limits cluster names to no more than 16 characters in length. If the upgrade installer encountered a cluster name that was longer than 16 characters, it cloned the `clusterdb_<clustername>` registry entry with the name `clusterdb`, and did not delete the original `clusterdb_<clustername>` registry entry. SAP Mobile Platform 2.3 does not delete that entry.
	Workaround: Manually delete the `clusterdb_<clustername>` registry entry if you want to; however, leaving it in place will not cause any problems with future reinstallation of SAP Mobile Platform.
RTC-267	**Upgrade process stops responding when calling `start-unwired-services.bat`.**
	The upgrade process stops responding after upgrading the first server node if all nodes were not shut down before the upgrade.
	Workaround: Online upgrade is not supported. Stop all the SAP Mobile Platform services, including the data tier, before running the upgrade installer.
RTC-34	**Warning messages when installing secondary SAP Mobile Server node.**
	When installing a secondary SAP Mobile Server node before the primary server successfully installs, you see a warning similar to this in the server log: `2012-08-21 01:26:15.753 WARN MMS ScheduledTask:SynchronizeNode...`
	Workaround: Ignore this warning, or install the secondary SAP Mobile Server node after the primary server installation completes.

Issue #	Description
CR-692901	**SAP® JCo 3 in Unwired WorkSpace running on Windows XP requires Microsoft Visual C++ 2005 Service Pack 1 Redistributable.**
	Note: This is not a requirement for Windows 7, or 64-bit Windows Server 2008 system.
	Workaround: Obtain the Microsoft Visual C++ 2005 Service Pack 1 Redistributable from:
	http://www.microsoft.com/download/en/details.aspx?displaylang=en&id=14431.
CR-665409	**The installation program cannot run in graphical mode.**
	If the `HKLM\SOFTWARE\Microsoft\Windows NT\CurrentVersion\AppCompatFlags` registry key contains an entry that is the path of the installer binary (for example, `C:\setup.exe`), you see this error, and the installation fails:
| | ```
The installer is unable to run in graphical mode. Try running the installer with the -console or -silent flag.
``` |
	Workaround: Remove the installer binary path from the `HKLM\SOFTWARE\Microsoft\Windows NT\CurrentVersion\AppCompatFlags` registry key.
CR-590885	**Uninstaller might not run on Windows Vista.**
	This may be caused by the operating system changing the launch command for the SAP Mobile Platform uninstaller, preventing it from using its own JVM to start itself.
	Workaround: Launch the uninstaller:
| | ```
<jdk_installdir>\java -Dtemp.dir=%TEMP% -jar C:\Sybase\UnwiredPlatform\Uninstallers\UnwiredPlatform\uninstall.jar
``` |
| | When you uninstall or cancel out of uninstalling SAP Mobile Platform, the Program Compatibility Assistant shows: |
| | ```
This program might not have uninstalled correctly.
``` |
| | Select **This program uninstalled correctly** instead of **Uninstall with recommended settings**. |

Known Issues for Security

Learn about known issues and apply workarounds for SAP Mobile Platform security.

Issue #	Description
SMPONP-13496	**HTTPS port has SSLv3/TLS renegotiation vulnerability** The SAP Control Center HTTPS port (default value is 8283) is susceptible to the SSLv3/TLS renegotiation vulnerability. The way in which SSL and TLS protocols handle renegotiation requests may allow an attacker to inject plaintext into an application protocol stream, resulting in a situation where the attacker may be able to issue commands to the server that appear to be coming from a legitimate source. For vulnerability details see: • *Vulnerability Note VU#120541* • *Common Vulnerabilities and Exposures* **Workaround**: Fixed in 2.3 SP04. Upgrade is recommended.
SMPONP-12442	**Changes to SQL Anywhere Server and Utility** See *SQL Anywhere Servers and Utilities Use OpenSSL* on page 55.
RTC-60	**SAP Mobile Server restart is needed after changing keystore.** **Workaround**: If you change anything relating to keys or certificates in the keystore, you must always restart the server. Changes only take effect after a server restart.
CR-708833	**External authentication token is not properly handled by iOS Hybrid Web Container (HWC).** **Workaround**: For an external token to be passed to and used by iOS Hybrid Web Container for performing single sign-on (SSO), make the call to setHttpHeaders before starting the client engine by placing `[self setHttpHeaders]` in the first line in the startEngine function. See *Setting HTTP Headers* in *Developer Guide: Hybrid App Packages*.

SQL Anywhere Servers and Utilities Use OpenSSL

SQL Anywhere Servers and Utilities Use Cryptographic Software Provided by OpenSSL, which introduce behavioral changes described here.

SQL Anywhere Server and Utility changes include:

1. Server identity uses AES encryption, previously it used 3DES encryption. Server certificates used by older servers (using FIPS) had private keys encrypted with 3DES

which is no longer allowed. See *Converting certificates for use with FIPS* on page 56 for instructions on modifying existing certificates so they can be used with a new server.
2. Self-signed server certificates must now have the "Certificate Signing" attribute set.
3. TLS/SSL connections to a MobiLink server using client-side certificates now require the client-side certificate to have the "Digital Signature" attribute set, otherwise the connection fails.
4. Utility changes:
   - The **createcert** utility now encrypts the private key of the certificate it creates with AES rather than the less secure 3DES. Certificates using AES cannot be used by older SQL Anywhere software. If you need such compatibility, specify the new "-3des" switch to instruct createcert to use 3DES instead.
   - The **viewcert** utility now uses AES rather than 3DES to encrypt the private key when using -p to PEM -encode the output and -ip / -op to set the password. You can specify the new "-3des" switch to tell viewcert to use 3DES instead.

Converting certificates for use with FIPS

Certificates used by servers using FIPS are no longer accepted. This is because the older FIPS module only accepted certificates with private keys encrypted with 3DES. The OpenSSL FIPS module does not allow 3DES to be used, so the private keys must be encrypted with AES. It is possible to re-encrypt the private key, rather than generating new certificates, using the viewcert utility. Use this syntax: `viewcert -p -o <new file> -op <new password> -ip <old password> <old file>`

This creates a new certificate file with an AES-encrypted private key. The new and old passwords can be the same. The server must then use the new file instead of the old one. The certificate files used by clients do not need to change.

You can run the OpenSSL viewcert command against your certificate to determine if the "Key Usage" attributes are set appropriately. For example: `viewcert -ip sql client_id.pem`

```
SQL Anywhere X.509 Certificate Viewer Version 16.0.0.1642

X.509 Certificate
-----------------
Common Name: iAnywhere
Country Code: CA
State/Province: Ontario
Locality: Waterloo
Organization: SAP
Organizational Unit: Sybase
Issuer: iAnywhere
Serial Number: 1ff932e3bb534398810066d26678f80e
Issued: Oct 17, 2013 10:55:00
Expires: Oct 18, 2033 10:55:00
Signature Algorithm: RSA, SHA256
Key Type: RSA
Key Size: 1024 bits
Basic Constraints: Is not a certificate authority
Key Usage: Digital Signature, Key Encipherment, Data Encipherment,
```

```
Key Agreement, Certificate Signing

Private Key
-----------
Key Type: RSA
Key Size: 1024 bits
```

Known Issues for SAP Mobile Server

Learn about known issues and apply workarounds for SAP Mobile Server.

Issue #	Description
SMPONP-12328	**`jetty-web.xml` was removed from `..\DCN\WEB-INF` folder** **Problem:** DCN POST results in error message that the form is too large. **Workaround:** Set the maxFormContentSize property to 100 MB: 1. In SAP Control Center, select **Configuration**. 2. Set the value of **Max form content size(byte)** to `10000000`. 3. Restart the server.
SMPONP-11956	**Select socket timeout property** In the connection pool, select a socket timeout property from the drop-down list: • **0** overrides the socket time out property and ensures that request response will go through • **higher than the gateway response time** ensures that request response goes through successfully • **lower than the gateway response time** - ensures that the request fails and throws – `500 ( Internal server error)`
SMPONP-7973	**Disregard `"Error applying pending settings..."` in logs under `..\APNSProvider` and `..\BlackBerryNotifier`** `"Error applying pending settings, using old set-tings instead"` messages can be found in `..\Servers\Unwir-edServer\logs\APNSProvider` and `..\Servers\Unwir-edServer\logs\BlackBerryNotifier`. Ignore these messages.

Issue #	Description
CSN-2990597 2013	**Certificate onboarding fails after upgrade** After upgrading to SAP Mobile Platform version 2.3 SP03, certificate onboarding will fail if certain obsolete properties remain configured. **Workaround:** Modify the security configuration in SAP Control Center by removing the following properties: • Trusted certificate store type • Trusted certificate store password • Trusted certificate store provider • Validate certification path • Trusted certificate store

Issue #	Description
SMPONP-10928	**Temporary network issues affecting the cluster**
	During some operations, for example, deploying packages after switching a data tier in the Microsoft cluster, or failing to connect to the data tier in a simple cluster, a temporary network issue causes the following warning message to be logged in the server log:
	``` 2013-09-04 02:16:05.362 WARN MMS Thread-256 [com.syb-ase.sup.server.deploy.SupDeployer] [] [] Sys-tem.Web.Services.Protocols.SoapException: Error sending request to server at Admin.AddTemplate(String strTemplateName, String strTemplateDescription, PropertyItem[] settings) java.lang.RuntimeException: System.Web.Services.Pro-tocols.SoapException: Error sending request to server at Admin.AddTemplate(String strTemplateName, String strTemplateDescription, PropertyItem[] settings) at com.sybase.sup.admin.util.WebServiceUtil.create-Template(WebServiceUtil.java:219) at com.sybase.sup.admin.util.WebServiceUtil.create-Template(WebServiceUtil.java:209) at com.sybase.sup.server.deploy.SupDeployer.create-Template(SupDeployer.java:797) at com.sybase.sup.server.deploy.SupDeployer.saveAp-plicationInfo(SupDeployer.java:776) at com.sybase.sup.server.deploy.SupDeployer.doDe-ploy(SupDeployer.java:734) at com.sybase.sup.server.deploy.SupDeployer.de-ploy(SupDeployer.java:306) at com.sybase.sup.admin.server.DomainAdminImpl.de-ployWithArgs(DomainAdminImpl.java:365) at com.sybase.sup.admin.server.DOECDomainAdmi-nImpl_DJC.$invoke_0(DOECDomainAdminImpl_DJC.java:384) at com.sybase.sup.admin.server.DOECDomainAdmi-nImpl_DJC.$invoke(DOECDomainAdminImpl_DJC.java:147) at com.sybase.djc.rmi.iiop.server.MessageHan-dler.processRequest(MessageHandler.java:794) at com.sybase.djc.rmi.iiop.server.MessageHan-dler.run(MessageHandler.java:306) at java.util.concurrent.ThreadPoolExecutor.runWork-er(ThreadPoolExecutor.java:1145) at java.util.concurrent.ThreadPoolExecutor$Work-er.run(ThreadPoolExecutor.java:615) at java.lang.Thread.run(Thread.java:789) ```
	Workaround: Redeploy the package after the cluster returns to normal.
SMPONP-9999	**When one SAP Mobile Server node in a cluster restarts, other nodes may throw com.hazelcast.core.MemberLeftException.**
	Workaround: The cache's status recovers after a brief period of time or when the server restarts completely. The exception is temporary and can be ignored.

Issue #	Description
SMPONP-9965	**Key store and Keypair passwords must match**
	:If the key store and keypair passwords do not match, you are unable to save the certificate alias, and receive the following error message:
	```Save failed. Cannot recover key.```
	Workaround: Configure the key store and keypair passwords as follows:
	1. While configuring the SAP Mobile Server for mutual SSL, generate the keypair with the same password as the keystore password. For example,if the keystore.jks has password "changeit", the corresponding keypair generated must also have the password "changeit".
	2. Save the keystore file.
	3. Check for the correctness using the following from the command prompt: ```C:\>keytool -list -alias alias_name -keystore keystore.jks -storepass changeit```
	4. Restart the services.
	5. Set the alias value in the SAP Control Center SSL configuration tab. The save is successful.
	6. Restart the server to apply the changes.
SMPONP-8310	**SAP Mobile Server experiences significant performance degradation when performing DCN load operations with large DCN request messages when Wily Introscope agents are enabled.**
	Workaround: If not required, remove the Introscope agents from SAP Mobile Server using this command:```C:\SAP\MobilePlatform\Servers\UnwiredServer\bin\configure-introscope-agents.bat -remove```
SMPONP-7496	**Error launching Sybase Central (scjview.exe)**
	In SAP Mobile Platform version 2.3 SP03, when you double click Sybase Central (```scjview.exe```) in the ```SQLAnywhere16/bin32``` directory for database management, an internal error appears.
	Workaround: In the pop up window, click **Resume** to launch Sybase Central.

Issue #	Description
SMPONP-1781	**Server-name fails to start due to an expired certificate**
	The SAP Mobile Server cannot be started (the server shows started for a short time then shows stopped), and you receive the error "Stream Error: Internal error: ssl_AddTrustedCerts returned 4157" in the server log. This error occurs because a certificate expired in the `client_trusted_cert.crt` file.
	Workaround: To resolve the issue by removing the expired certificate:
	1. Backup the `client_trusted_cert.crt` file on the server certificate folder. 2. Keep one valid certificate in `client_trusted_cert.crt`, remove the other certificates and save the file. 3. Restart the server. The server starts up successfully. 4. Log in to SAP Control Center, go to the **Configuration** > **General** > **SSL Configuration** tab, and click **Key Store configuration** to open the Key Store Properties dialog, 5. Check all the certificates in key store. Find the expired certificate marked in red, and remove it from the key store. The `client_trusted_cert.crt` will be automatically generated again. 6. Restart the server. The server start up successfully because the expired certificate has been removed from `client_trusted_cert.crt`.
RTC-302	**XML recordings are saved to an incorrect directory.**
	After enabling XML recording in the registry, logs will show that XML recordings are successfully saved to `C:\UnwiredServer\logs`, which is the incorrect SAP Mobile Platform logging directory.
	Workaround: Manually add a String Value to the key `HKEY_LOCAL_MACHINE\SOFTWARE\Sybase\Sybase Messaging Server\Server` (`HKEY_LOCAL_MACHINE\SOFTWARE\Wow6432Node\Sybase\Sybase Messaging Server\Server` on 64 bit) with a path relative to the `MessagingServer` directory (that is, `..\UnwiredServer\logs`).
RTC-268	**Process of stopping SAP Mobile Server service hangs.**
	When stopping the Windows service for SAP Mobile Server, very infrequently the process hangs. This problem is independent of the means used to stop the service.
	Workaround: See *Process of Stopping SAP Mobile Server Service Hangs*.

Issue #	Description
RTC-238	**Update deployment allows definition of a new MBO attribute default, but the new default value does not take effect.** While the MBO developer can modify the MBO attribute default value for a deployed package, and redeploy the package to SAP Mobile Server in Update mode without an error or warning, the new default value does not take effect. **Workaround**: Use Replace mode to update the MBO default setting.
RTC-42	**Business transaction XML (BTX) uploads when end-to-end tracing is not enabled for an application connection.** You can still upload BTX to the configured Solution Manager server, even if you have not enabled end-to-end tracing for an application connection. **Workaround**: None.
RTC-38	**Server logs Chinese environments result in garbled characters under certain conditions.** Due to an issue with SySAM licensing 64-bit operating systems running in a zh_CN locale result in characters appearing incorrectly. **Workaround**: None.

N/A	**`Error: 584 Message: Server public key verification failed` when running the diagtool.exe tool.**
	
	Workaround: Either:
	
	• Run the **diagtool.exe** tool from another host, or,
	• Edit the registry on the machine where the **diagtool.exe** tool is being run:
	  • Remove the `HKCU\Software\Sybase\Messaging Client` registry key.
	  • Remove the `HKCU\Software\Sybase\Messaging-ClientLib` registry key.
	
	Note: Use caution when editing the registry. Ensure that the key entries removed do not contain any currently used SAP Mobile Platform applications (sub entries).

CR-709892	**SAP Mobile Server records deployment errors in the domain log rather than in the SAP Mobile Server logs.** **Workaround**: None. Look for deployment errors in the domain log.

Issue #	Description
CR-708431	**Data on the EIS, cache, and device is not in sync.** If a Create operation succeeds at the enterprise information system (EIS), but its corresponding Entity Read operation fails, the EIS is updated but the cache database (CDB) is not. Error information may be reported in the SAP Mobile Server log, but the error is not propagated to the device client. **LogRecord** shows 0 (zero), but **findAll** does not show the new record on the device. **Workaround**: None. The change appears in the CDB and the device when the CDB is refreshed (for example, when the cache interval expires).
CR-703515	**LDAP role/authentication search base cannot support special characters**. The following characters have special meaning when they appear in a name in LDAP: , (comma), = (equal sign), + (plus sign), < (less than), > (greater than), # (number sign), ; (semicolon), \ (backslash), and " (quotation mark). LDAP providers do not currently handle these special characters in any names or DNs, including user name, DefaultSearchBase, AuthenticationSearchBase, RoleSearchBase, AuthenticationFilter, and RoleFilter. **Workaround**: None.
CR-701975	**When deploying a package from Unwired WorkSpace or SAP Control Center using Update mode, the package's "onDemand" coherence window is not updated on SAP Mobile Server.** **Workaround**: After deployment, adjust the "onDemand" coherence window from SAP Control Center.
CR-699590	**Large messages are processed incorrectly on 32-bit runtime installations.** A 32-bit SAP Mobile Server is not supported when you are developing messaging applications that process large messages. 32-bit servers run into memory issues and can potentially further result in incorrect data synchronizing with the SAP Mobile Server cache. **Workaround:** Install SAP Mobile Platform runtime components on 64-bit hosts.

Issue #	Description
CR-699343	**For native Object API applications, the upgrade process silently deletes composite orphans from the server cache.** SAP Mobile Platform no longer allows composite orphans, that is MBO child entities within a composite relationship that have no parent entity. Depending on the system configuration, the upgrade may physically delete the orphans, or may only logically delete them, then physically delete them during a subsequent cache purge process. Either way, applications that use MBOs with composite orphans may not behave as expected after migration. **Workaround**: Before upgrading, eliminate composite orphans from native Object API applications: • Look for existing MBOs that generate composite orphans. Examine each MBO in Unwired WorkSpace, looking for any instance in which the application loads child entities before the related parent entity. • For any MBOs you find that generate composite orphans, change the data model in the MBO so that the application always loads parent entities before the related child entities. See the "Composite relationship behavior" row in the *Relationship Guidelines and Restrictions* topic, in the *Sybase Unwired WorkSpace - Mobile Business Object Development* guide. • Test any changes you make to ensure that the application still behaves as expected. • After you are satisfied that you have eliminated composite orphans from your MBOs, proceed with the upgrade. **Additional Information on Composite Orphans** An example of a scenario in which parentless child entities can occur is a two MBO parent-child model integrated with JDBC for sales orders and line items. If the data model specifies that line items are inserted first, the application attempts to load child line items for a sales order that does not yet exist. Those line items disappear from the cache before the application can load the parent sales order. To be sure that composite orphans do not cause problems in your migrated applications: • After migration, if you have mobile application projects that contain composite relationships and the child MBO load operation has no parameter dependencies on its parent, redeploy the package from Unwired WorkSpace using Update mode to generate the correct loadGroups for the deployed package. • Child load operations that do not depend upon parameters from the parent do not always generate orphans. Consider the case where the user wants to load all sales orders and line items created in the New York office. New York may be a load parameter for both parent and child that is bound to a personalization key and results in no orphans even though the child does not get any load parameters from the parent.

Issue #	Description
CR-695671	**The `mlsrv_err.log` reports error: `java.lang.OutOfMemoryError`.** When performing a listview object query with very large data sets, the client returns an error code 571 or 1053, and the server becomes temporarily unavailable, or tries to restart. **Workaround**: Modify the maximum Java heap size to handle very large amounts of data in an object query. See *Configuring SAP Mobile Server Performance Properties* in *System Administration*.
CRs 693116 and 692218	**Devices on 3G/4G network cannot connect to SAP Mobile Server.** A connectivity issue may occur between the device and SAP Mobile Server. The current client libraries use a protocol that support only HTTP chunked transfer-encoding. 3G/4G traffic might, in some cases, be subject to content filtering and convert the messages from chunked transfer-encoding to fixed content-length if communication is via standard HTTP ports, which most commonly are 80 and 8080. Since the client application can support only chunked transfer-encoding, the communication cannot be established. In effect, a response cannot be returned to the server indicating that the device is online. **Note:** For devices on Wi Fi networks, the connection between a device and SAP Mobile Server establishes without error. **Workaround**: Use a nonstandard HTTP port (any port other than 80 or 8080) or an HTTPS port, that is, 443 for SAP Mobile Server client communication from devices to the Relay Server or external load balancer, whichever one is used, in the DMZ.
CR-692374	**Enabling compression incurs additional processing on the device and the server side to optimize the amount of data to be transferred over the network**. **Workaround**: Carefully evaluate whether the compression trade-off is appropriate in the deployment environment, and carefully size the server capacity to support it. If appropriate in a particular environment, follow the *SAP Mobile Platform Developer Guides* to enable compression.
CR-691517	Adding new operations onto a mobile business object in a deployed package using the **Update** deployment method may render client applications based on the previous package model version nonfunctional. **Workaround**: None.
CR-686043	**In a disabled domain, messaging clients continue to receive messages from server.** **Workaround**: To disable any outbound activity to a client, lock the application connection associated with that client.

Issue #	Description
CR-576726	**The full range of valid values is not supported if an attribute uses the default datatype (`int`) for a SQL Anywhere® database column of type `unsigned int`.** **Workaround**: To support the full range of valid values for an `unsigned int` attribute in the EIS, set the datatype for the corresponding MBO attribute as `long`.
NA	**When stopping the Windows service for SAP Mobile Server, very infrequently the process stops responding. This problem is independent of the means used to stop the service.** When this happens, the process tree for the service for the SAP Mobile Server service is no longer intact, so you cannot use the Task Manager End Process Tree option to stop the service. **Workaround**: 1. Open Windows Task Manager on the system where you want to stop the SAP Mobile Server service. 2. Activate the **Process** tab and click the **Image Name** column heading to sort the names in alpha order. 3. For each of the following processes that are present in the list, right-click the process and select **End Process**. • AdminWebservices.exe • AMPService.exe • Dbsrv16.exe • Dbsrv11.exe • Java.exe • JmsBridge.exe • LBManager.exe • mlsrv16.exe • MlsrvWrapper.exe • OBMO.exe • OBServiceManager.exe • Rsoe.exe • Sccservice.exe • wmiprvse.exe 4. Go to the Windows Services panel and verify that the SAP Mobile Server service is stopped.

Known Issues for Agentry Server

Learn about known issues and apply workarounds for Agentry Server.

Issue #	Description
N/A	**Agentry Server 6.1 should report versioning information to a central landscape management tool.** **Workaround**: Agentry Server stores the version information in a system file. A user can determine the Agentry Server version by navigating in File Explorer to the Agentry Server executable and right-clicking the file properties to determine the versioning information.
RTC-440	**In an SAP Control Center cluster, if a server node is restarted when an Agentry application is stopped (not disabled), then when SAP Mobile Platform restarts, the node and Agentry Server get into differing states.** If you have an application stopped, not disabled, and a server node comes down, then when the node restarts, the Agentry server on that node starts and causes the nodes to be in different states. This causes all the "Start/Stop/Restart" buttons to become disabled. You must either restart the Agentry node or delete the application and start over. **Workaround**: None.

Known Issues for SAP Control Center

Learn about known issues and apply workarounds for SAP Control Center.

Issue #	Description
SMPONP-11432	**DOEC-NoAuth security configuration does not sync on secondary SAP Mobile Platformserver** In a SAP Mobile Server cluster environment, a failure to synchronize the DOEC-NoAuth security configuration, results in the client failing to communicate to that cluster, and SAP Mobile Server logs an error similar to: ``` sup.mbs.40 [com.sybase.djc.security.SecurityManager- Log] [] [] Login Failed: user 'DUSER37@DOECNoAuth' ``` **Workaround**: Create a test security configuration under **Security** in SAP Control Center, which will synchronize all the security configurations. You can then delete this test configuration.

Issue #	Description
SMPONP-9158	**Unable to restart a remote SAP Mobile Server.** If a firewall blocks all UDP and TCP packets, attempts to use a local SAP Control Center to restart a remote SAP Mobile Server fail. **Workaround**: Use the local SAP Control Center to restart the local SAP Mobile Server.
RTC-373	**SAP Control Center shows "Unable to retrieve the child managed objects" error dialog when removing an MBO package.** **Workaround**: This problem is most likely caused when the SAP Control Center host machine network address has changed while the user is performing an operation in SAP Control Center. Close your browser session and relaunch the SAP Control Center URL.
RTC-309	**If the user installs SAP Mobile Platform in the root directory of the file system (such as C:\), then the SLD data supplier fails to work.** **Workaround**: Avoid installing SAP Mobile Platform in the root directory of the file system.
RTC-221	**Redeploying a package to SAP Mobile Server after changing a Cache Group policy from "Scheduled" to "On Demand" may result in SAP Control Center displaying an invalid cache interval.** **Workaround**: Update the cache interval in SAP Control Center.
CR-707565	**Domain log purging can take a significant amount of time if too much data accumulates.** **Workaround**: Purge the domain log at regular intervals.
CR-705003	**SAP Control Center does not ask user to delete packages and connections before deleting the domain.** **Workaround**: Before you delete a domain, verify package and connection deletion is not an issue.
CR-704917	**If an administrator takes action from SAP Control Center while the primary server is being shut down, you may see an internal or unexpected error if the server has not completely shut down.** **Workaround**: Before taking any action in SAP Control Center, ensure that the primary server shutdown is complete and another server has taken over as the new primary.
CR-704913	**When an iOS device goes offline, it continues to show as being online for about 8 minutes in SAP Control Center.** **Workaround**: None.

Issue #	Description
CR-703367	**Domain log messages in Data Sync and Operation Replay subsystems are not logged to the default domain.** **Workaround:** • Create a domain log profile for the 'default' server connection (JDBC type) to enable logging of Data Sync and Operation Replay messages. • If you have a similar configuration, make changes as appropriate. Contact Technical Support for guidance.
CR-703321	**Exporting a domain log after upgrading generates a `Domain log export failed` error message.** **Workaround**: Clear the cache for the browser you are using to access SAP Control Center.
CR-696373	**When retrieving a domain log for large data, you receive an unknown error in SAP Control Center.** **Workaround**: Check whether the SAP Mobile Server or SAP Control Center `agent.log` reports an out of memory error. If so, increase the JVM heap size appropriately for SAP Mobile Server from the SAP Control Center Configuration tab. If this does not resolve the issue, try decreasing the time range set in the domain log in SAP Control Center.
CR-695792	**Suspending a large volume (100 or more) of DOE-C package subscriptions may cause SAP Mobile Server to stop responding.** **Workaround**: Suspend subscriptions in batches of no more than 50.
CR-691963	**MBO package deployment in Update mode after adding a new load argument without default value succeeds even though deployment should fail.** **Workaround**: None. To avoid deploying client-incompatible changes, SAP recommends that you first use Verify mode deployment; if verify succeeds, proceed to Update mode deployment.

Issue #	Description
CR-690482	**Using Firefox, the SAP Control Center main page shows `Invalid Log-in` and the agent.log shows `Received fatal alert: bad_cer-tificate` error.** **Workaround**: The Firefox browser appears to be using an incorrect server certificate. Clean up any such previously existing certificates: 1. in SAP Control Center, select **Tools > Options > Advanced > View Certificates**. 2. Click the **Servers** tab, then identify existing certificates issued to the same host to which you are connecting. 3. Click **Delete** to remove all such certificates. Alternatively, use Internet Explorer.
CR-683775	**In some instances, when using the Windows Services tool or the Stop SAP Mobile Platform Services shortcut to stop the SAP Control Center3.2 service, SAP Control Center displays `Stopping` in the Windows Control Panel yet fails to stop.** **Workaround:** To stop the SAP Control Center service: 1. Launch Windows Task Manager. 2. Locate the `sccservice.exe` process, right-click and select **End Process Tree**. This option also kills the SAP Control Center database repository server process `dbsrv11.exe`.

Known Issues for SAP® Data Orchestration Engine Connector

Learn about known issues and apply workarounds for SAP® Data Orchestration Engine Connector (DOE-C).

Issue #	Description
SMPONP-11521	**Issue with security configuration assignment in silent mode in the DOE-C command line utility.** In the DOE-C command line utility, when you try to assign a non-existing security configuration to a package in silent mode, the package's security configuration is set to empty. **Workaround**: Do not try to assign a non-existing security configuration to a package in silent mode.

Issue #	Description
SMPONP-2901	**ESDMA package deployment fails if the `DOECNoAuth` security configuration does not exist.**
	When deploying an ESDMA package using the DOE-C CLU or the DOE-C Admin API, the deployment fails if there is no `DOECNoAuth` security configuration. After a first failed deployment, an attempt to do a second deployment is successful because the DOECNoAuth security configuration has been created.
	Workaround: Ensure the `DOECNoAuth` security configuration exists.
RTC-262	**`Error occurred during command execution: 'deploy'.` message appears when deploying DOE-C package.**
	Workaround: Examine the SAP Mobile Server log file. See *Server Log* in *System Administration*.
	If you see `NoSuchElementFoundException` in the log file at about the time the error message appeared, ignore the error and redeploy.
RTC-207	**For a DOE-C package, if a device with an expired X.509 certificate initiates unsubscribe, it indicates that the DOE subscription is not cleaned up.**
	Workaround: The DOE administrator must manually clear all such disconnected DOE subscriptions.
RTC-39	**`Package Not found` error occurs randomly when DOE-C package is deployed on a cluster.**
	Workaround: Redeploy the package.
RTC-28	**Long response time to show DOE-C subscription with packet-dropped state.**
	When a DOE-C subscription encounters a packet-dropped state, it takes more than 10 minutes to show the updated subscription information on the Subscription tab in SAP Control Center.
	Workaround: None.
CR-709691	**SAP Mobile Server fails with `OutOfMemory` error during subscription SUSPEND/RESUME operations.**
	Workaround: In SAP Control Center, select **Configuration > General > performance configuration** and set the default value for **Maximum number of in memory messages** to 100.

Issue #	Description
CR-708754	**When the load balancer is shut down due to an HTTP 404 error, DOE-C package subscriptions may be automatically removed.** **Workaround:** 1. Implement SAP note number 1722501 to prevent DOE from automatically removing subscribed users. 2. Create a scheduled job to execute the report, SDOE_RESTART_OUT-BOUND_QUEUES to restart the queues in regular intervals in the DOE system.
CR-706532	**Suspend/Resume operations on DOE-C subscriptions may result in `HTTP 502 - Bad gateway` error in DOE when load balancer is between SAP Mobile Server and DOE.** **Workaround:** Resume only a few subscriptions simultaneously. For example, you can suspend 100 users in a single operation, then repeat that procedure 10 times.
CR-706111	**DOE-C error: `HTTP 400, Unable To Parse Request` while resuming more than 100 users at a time.** **Workaround**: Resume only a few subscriptions simultaneously. For example, you can suspend 100 users in a single operation, then repeat that procedure 10 times.
CR-705888	**Domain deletion may cause HTTP 500 error in DOE-C device queue.** When DOE sends data to a subscription for a device for which the domain has already been deleted from SAP Mobile Platform, then SAP Mobile Platform should send a recoverable HTTP 404 error, indicating that either the subscription or the domain is not found. Instead the DOE device queue shows an unrecoverable internal server error (HTTP 500) and the SAP Mobile Server log file has a `java.lang.IllegalStateException: domain already cleared` error. **Workaround**: Remove the subscription in DOE.
CR-703909	**When DOE-C sets domain log context properties, it leaves the "domain name" field blank in the server log entry.** **Workaround**: The domain name is set correctly in the DomainLog table.
CR-700957	**If the DOE server is down, the device receives a long HTML exception.** **Workaround**: None.

Known Issues for Relay Server

Learn about known issues and apply workarounds for Relay Server.

Issue #	Description
RTC-340	**Requests fail with error `400 bad request with session error reported by RSOE`** This error typically happens after Relay Server has been restarted. Relay server maintains client socket and back-end server socket affinity using a section named `ias-rs-sessionid`, which is provided by the client application. With this mechanism, a stateful request can be transferred to the original back-end server, even from a different relay server in the relay server farm. After restarting the relay server, the socket and session affinity that originated from this relay server are both cleared, and the back-end server socket connection is dropped. The Outbound Enabler responds with a 400 error when it receives a request that is still using the previous `ias-rs-sessionid` value. Moreover, for a stateless request that does not provide the `ias-rs-sessionid`, relay server transfers the request to any back-end server in the targeted farm according to the load balancing algorithm. **Workaround**: 1. In the relay server configuration file, create a property named `renew_overlapped_cookie` in the `backend_farm` configuration section. 2. Set the `renew_overlapped_cookie` default value to yes. In the future, Outbound Enabler will create new connections instead of responding with a 400 error.
RTC-46	**When an HTTP client connects through Relay Server to SAP Mobile Platform to get a proxy connection, the URL rewrite in the response is missing the Relay Server prefix information.** **Workaround:** None.

Documentation Issues and Updates for SAP Mobile Platform Runtime

Read about updates, corrections, and clarifications to the documentation released with SAP Mobile Platform Runtime.

Issue #	Description
SMPONP-14252	**Cache Database Startup Options (cdboptions.ini) Initialization File** In this *System Administration* topic, the **-ti 0 -c 24M** row includes information for two options. The option description should be split into two rows: {table below} See: *Cache Database Startup Options (cdboptions.ini) Initialization File* on page 79.
SMPONP-12767	**Some structure wrapper node behavior applies only to projects created in SUP earlier than version 2.2** **Applies to:** *Mobile Data Models: Using Mobile Business Objects > Datatype Support > Datatype Default Values and Limitations > Remote Operation Default Value Precedence.* In step 1.b, the documentation should specify that the structure wrapper node behavior moves the original default values at the wrapper level to the structure fields of its single child structure node if its single child structure does not have a default value and if the project was created in a version of SUP earlier than 2.2.

Inner table for SMPONP-14252:

Option	Description
-ti 0	Setting the value to zero disables checking of inactive connections, so that no connections are disconnected. If the Idle connection parameter is not used, then the idle timeout value for TCP/IP connections is controlled by the **-ti** database server option. If both the **-ti** database server option and the Idle connection parameter are specified, then the idle timeout value is controlled by the connection parameter.
-c 24M	The amount of memory available for use as a database server cache is one of the key factors controlling performance. You can set the initial amount of cache memory using the **-c** server option. The more cache memory that can be given to the database server, the better its performance. The size is the amount of memory, in bytes. Use k, m, or g to specify units of kilobytes, megabytes, or gigabytes, respectively. The unit p is a percentage either of the total physical system memory.

Issue #	Description
SMPONP-12494	**Code change for starting domain, package, and operations management** The correct code for starting the management of a domain, an SAP Mobile Server package, and an SAP Mobile Server operation is: `domainContext = clusterContext.getDomainContext("<do-main name>");` (In the original documentation, change `serverContext` to `cluster-Context`.) **Applies to:** *Developer Guide: SAP Mobile Server Runtime > Management API > Code Samples >* • *Managing Domains > Start Domain Management* • *Managing Packages > Start Package Management* • *Managing Operations > Start Operations Management*

Issue #	Description

SMPONP-10898	**Enable recoverability from closed or failed database connections**
	
	The SQL Anywhere database servers and the SAP Mobile Server can recover if the database connections between the SAP Mobile Server and the SMP database servers (defaultdb, clusterdb, monitordb) break due to a temporary network outage or other issue.
	
	1. For all the startup command line options to start the SQL Anywhere database servers, set a non-zero value for the "-ti" option, for example:
	`-ti5`
	
	This setting ensures that SQL Anywhere automatically closes any connections into the database server that remain idle for more than 5 minutes. That releases row, table, and database locks that would otherwise be held by those connections.
	
	It is not recommended to set the timeout value less than 2 minutes, and it may need to be larger than 5 minutes if the longest duration of remote database synchronization is over 5 minutes (or else the closing of idle connections may cause one or more user's sync sessions to fail).
	
	2. The "pingConnections" Data Source property (shown as "Ping Connections" in SAP Control Center) for each data source must be set to true. For clusterdb, you cannot do this in SAP Control Center; you must edit the properties file, for example:
	`C:\SAP\MobilePlatform\Servers\UnwiredServer\Repo-sitory\Instance\com\sybase\djc\sql\DataSource\clusterdb.properties`
	
	Make that change on each SAP Mobile Server host.
	
	3. The "maxIdleTime" Data Source property (shown as "Max Idle Time" in SCC) for each data source SHOULD be set to 60. For clusterdb, this cannot currently be done using SCC, so can only be done by editing the properties file, for example:
	`C:\SAP\MobilePlatform\Servers\UnwiredServer\Repo-sitory\Instance\com\sybase\djc\sql\DataSource\clusterdb.properties`
	
	Make that change on each SAP Mobile Server host.

N/A	**Mutual SSL over the Messaging channel (sometimes called iMO) is now supported for Android and iOS clients.** This information was omitted from the *New Platform Features* topic of the *New Features Guide*.

Issue #	Description
N/A	**Not all client types can use HTTPS with mutual certificate authentication** In *Security*, the *Enabling HTTPS with Mutual Certificate Authentication* topic states that all client types support mutual certificate authentication. Only Object API, Hybrid Web Container, and OData native clients support mutual authentication. Agentry applications do not support mutual authentication.

N/A	**Additional property in Relay Server configuration file.**
	
	In *System Administration*, the *Relay Server Configuration (rs.config)* topic describes the contents of the Relay Server configuration file. In the `backend farm` section of the file, there is an additional property:
	
	• **socket_level_affinity** – Specifies whether socket level affinity is required or not.
	
	  Possible values are:
	
	  • yes
	  • no
	
	  Default is `yes`.
	
	  Note: For REST API applications (including those running inside Hybrid Web Container, `socket_level_affinity` should be set to `no`).

SMPONP-11422	**SQL Anywhere ® version 16 is included as part of SAP Mobile Platform version 2.3 SP03.** Previous releases of SAP Mobile Platform included SQL Anywhere version 12. The current documentation still contains references to SQLAnywhere12 as a product, directory path, and documentation location. These references should be SQL Anywhere 16 (product), SQLAnywhere16 (path), and *http://dcx.sybase.com/index.html#sa160/en/sqlanywhere_en16/help_top_index.htm* (documentation location).

Issue #	Description
SMPONP-11420	**SQL Anywhere ® version 16 is included as part of SAP Mobile Platform version 2.3 SP03.** In *System Administration*, two topics in the documentation for backup disaster recovery omit a step for updating property values in the cluster database manually. The affected topics are: • *Rebuilding a New Data Tier Host Node* • *Failing Over to a Standby Disaster Recovery Environment* Perform the following step after the step where you are instructed to run **change-datatier.bat**: **Step**: Using **dbisqlc**, connect to the cluster database. • Update `installation_info` by setting "host_name"='*<new_hostname>*', where "host_name"='*<old_hostname>*' • Update `installation_history` by setting "host_name"='*<new_hostname>*' where "host_name"='*<old_hostname>*'
SMPONP-3399	**Improvement to sample test program for MBS performance testing with LoadRunner.** In *System Administration*, the *Enabling MBS Performance Testing with LoadRunner* topic provides sample test program to show how to perform load testing of MBS in SAP Mobile Platform with LoadRunner. The documentation includes the `BeginOnlineLogin` method in `Action.cs`. An update to this content is that it is better to call `BeginOnlineLogin` in `vuser_init.cs`, rather than in `Action.cs`. A client application should not need to login more than once, even if the Action is to be repeated multiple times during a benchmark run.

Issue #	Description
N/A	**Requirements for a computer name, used as default server or cluster name when installing SAP Mobile Server, are not listed.** The *Installation Guide for Runtime*, *Selecting Installation Options* sections of the tasks that install a new instance of SAP Mobile Server, list the requirements for a server or cluster name that you enter. However, if you do not specifically select the option to **Set SAP Mobile Server name** (**Set SAP Mobile Server name and cluster name** on first SAP Mobile Server in a cluster), the documentation does not state: • The installer uses the computer name by default for the server name (and cluster name on the first SAP Mobile Server in a cluster). • The computer name must meet the same requirements for server and cluster names as names that you enter. The requirements for server and cluster names are documented in the *Installation Guide for Runtime*, in the *Selecting Installation Options* sections of the tasks that install a new instance of SAP Mobile Server. See the step that begins, "(Optional) If you selected **Set SAP Mobile Server name** ..." If the computer name does not meet those requirements, you have two options for installing SAP Mobile Server on that system: **Workaround 1**: Keep the computer name as is. In the *Selecting Installation Options* section of the installation task, select the option to **Set SAP Mobile Server name ...**, and then specify a name that meets the requirements listed in the step that follows immediately after making that selection. **Workaround 2**: Before running the installer, change the computer name so that it meets all the requirements for user-entered server and cluster names. Then, in the *Selecting Installation Options* section of the installation task, do not select the option to **Set SAP Mobile Server name ...**

Cache Database Startup Options (cdboptions.ini) Initialization File

These options control how the cache server and CDB is started.

If you use updateprops.bat to set options for the cache, you also need to set them here if you need these changes to be permanent. Otherwise, SAP recommends that you use sup.properties and set the cdb.user.options property which automatically sets values in this INI file.

If the data tier is installed on a separate node (cluster installation), you must modify cdboptions.ini manually. If the SAP Mobile Server and the data tier are installed on the same server (single server installation), use updateprops.bat to set these options.

The default startup options table documents which options are set by default. You cannot set or change these values. You can only add new options and set custom values for them. For details on what new options you can set, see *Database Server Options* topics at *http://*

infocenter.sybase.com/help/index.jsp?topic=/com.sybase.help.sqlanywhere.12.0.1/
dbadmin/server-database-dbengine.html.

Table 1. Default Startup Options

Option	Description
`-n serverName_primary`	Database receives the name of the database file with the path and extension removed.
`-ti 0`	Setting the value to zero disables checking of inactive connections, so that no connections are disconnected. If the Idle connection parameter is not used, then the idle timeout value for TCP/IP connections is controlled by the **-ti** database server option. If both the **-ti** database server option and the Idle connection parameter are specified, then the idle timeout value is controlled by the connection parameter.
`-c 24M`	The amount of memory available for use as a database server cache is one of the key factors controlling performance. You can set the initial amount of cache memory using the **-c** server option. The more cache memory that can be given to the database server, the better its performance. The size is the amount of memory, in bytes. Use k, m, or g to specify units of kilobytes, megabytes, or gigabytes, respectively. The unit p is a percentage either of the total physical system memory.
`-gn 300`	Sets 300 as the maximum number of active tasks for both the cache database server.
`-xf "U:\target\bin\..\mirror-state.txt"`	Specifies the location of the file used for maintaining state information about your database mirroring system. This option is only used in the command to start the arbiter server in a database mirroring system.
`-x tcpip(PORT=5200)`	Specifies server-side network communications protocols, in this case, TCP/IP on port 5200.
`-o "U:\target\bin\..\logs\errorlog.txt"`	Prints all database server messages to the database server error log file.

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e) Select a product.

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