



Release Bulletin 2.2 SP02

**Sybase Unwired Platform 2.2
SP02**

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Product Summary

This release bulletin discusses known issues, workarounds, as well as late-breaking documentation updates for Sybase® Unwired Platform version 2.2 SP02.

Product Limitations

Understand the limitations of Sybase Unwired Platform.

The Sybase Unwired Platform product limitations document is available from the SAP® Support Portal Web site to authorized users.

Point your Web browser to *Sybase Unwired Platform Limitations*.

Known Issues for Sybase Mobile SDK 2.2 SP02

Learn about known issues and apply workarounds for Sybase 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.
- **N/A** – No tracking number.

Known Issues with Installing, Uninstalling, and Upgrading

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

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

Known Issues for Sybase Mobile SDK 2.2 SP02

Issue #	Description
<p>CR-665409</p>	<p>The installation program cannot run in graphical mode.</p> <p>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:</p> <p>The installer is unable to run in graphical mode. Try running the installer with the -console or -silent flag.</p> <p>Workaround: Remove the installer binary path from the HKLM\SOFTWARE\Microsoft\Windows NT\CurrentVersion\AppCompatFlags registry key.</p>
<p>CR-590885</p>	<p>Uninstaller might not run on Windows Vista.</p> <p>Sometimes, the uninstaller does not launch on Windows Vista. This may be caused by the operating system changing the launch command for the Unwired Platform uninstaller, preventing it from using its own JVM to start itself.</p> <p>Workaround: Launch the uninstaller:</p> <pre><jdk_installdir>\java -Dtemp.dir=%TEMP% -jar C:\Sybase\UnwiredPlatform\Uninstallers\UnwiredPlatform\uninstall.jar</pre> <p>When you uninstall or cancel out of uninstalling Unwired Platform, the Program Compatibility Assistant shows:</p> <p>This program might not have uninstalled correctly.</p> <p>Select This program uninstalled correctly instead of Uninstall with recommended settings.</p>

Known Issues for Sybase Unwired WorkSpace – Mobile Business Object Development

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

Issue #	Description
SMPONP-4457	<p>If you import a MBO project from a directory without selecting "Copy projects into workspace" and the MBO project name does not match the name of the folder containing the project, code generation fails.</p> <p>Workaround: When importing a Mobile Application project from a directory, always select "Copy project into workspace" and make sure that the containing folder matches the project name.</p>
RTC-367	<p>The internal default page size is used during Object API code generation if Unwired Server is not selected, which can lead to code generation failure without visible error from the code generation wizard.</p> <p>If the MBO developer does not select Unwired Server during code generation, the default page size is used. If the internal default page size is too small, code generation fails without creating objectAPI code, and the page size error only displays in the Error Log view, but not in the code generation wizard.</p> <p>Workaround: Select an Unwired Server connection profile to enable the Page size field, then select a proper page size. Also, as a common troubleshooting practice, open the Error Log in Sybase Unwired WorkSpace to find clues when the MBO developer detects any error symptoms.</p>
RTC-350	<p>An MBO that is modeled and bound to data source, then has all attributes deleted from the MBO at a later point, fails to deploy to Unwired Server.</p> <p>Workaround: Use the Bind data source later option to create an MBO that has no attributes.</p>
RTC-346	<p>Sybase Unwired WorkSpace reports an error when a synchronization parameter is mapped to more than one load argument after migrating from a previous release.</p> <p>Workaround: Remove redundant synchronization parameter to load argument mappings.</p>
RTC-336	<p>Deployment fails with unknown issue error when an MBO with custom object queries is renamed.</p> <p>Workaround: Modify the object query definition to reference the new MBO name.</p>

Issue #	Description
<p>RTC-217</p>	<p>Sybase Unwired WorkSpace is missing the warning message in the Input Mapping section for migrated projects that have an operation with a mapping of an argument to both an attribute and personalization key.</p> <p>Prior to Sybase Unwired Platform version 2.2 SP02, Sybase Unwired WorkSpace allowed mapping of an operation argument with 'Filled from Attribute', client parameter, and personalization key values at the same time, even though it might not work properly on the device application during runtime. Beginning with version 2.2 SP02, when adding a mapping of an operation argument, Sybase Unwired WorkSpace now allows only one of the three sources (MBO attribute, client parameter, personalization key) to map into the operation argument at one time; that is, the argument value sources are mutually exclusive. However, when migrating the Mobile Application project from earlier versions, Sybase Unwired WorkSpace preserves the original MBO operation argument value assignment choices the developer made so that it is backward compatible with the project in the earlier version. Sybase Unwired WorkSpace does not remove any mappings when migrating a project. While a warning is displayed if an argument is mapped to a client parameter and either an attribute or personalization key, no warning is displayed if mapped to an attribute and personalization key at the same time.</p> <p>Workaround: Adjust the MBO model so an operation argument maps to only one source.</p>
<p>RTC-151</p>	<p>When the MBO Developer adds load arguments that map to personalization keys, selecting Refresh may fail due to missing default values for the load arguments. The default values of the personalization keys are not used when performing the refresh.</p> <p>Workaround: Unmap the personalization key field, which allows you to specify the necessary default values so that the execution to the EIS retrieves MBO metadata successfully.</p>
<p>CR-713043</p>	<p>Foreign key constraint violation error message.</p> <p>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.</p> <p>Workaround: The MBO is created, and you can safely ignore these error messages.</p>

Issue #	Description
<p>CR-706312</p>	<p>A newly created record is deleted from the EIS, but still exists in CDB and device and always remains.</p> <p>An MBO with a load argument and synchronization parameter contained in a cache group that uses an On-demand cache group policy with an interval greater than zero, where its load parameter is not mapped to a "Propagate to Attribute". If a record is created on the device (and synchronized with the EIS), then deleted later in any way from the EIS, when the On-demand cache group interval expires, a synchronization request from the device refreshes the CDB and device correctly. Although the newly created record has been deleted from the EIS, it still exists in CDB and device and will always remain.</p> <p>Workaround: Map the MBO's load argument to a corresponding Propagate to Attribute. If there is no corresponding attribute, add one, then map it.</p>
<p>CR-705643</p>	<p>Sybase Unwired 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.</p> <p>Workaround: After changing the stored procedure definition in the EIS re-create the JDBC MBO.</p>
<p>CR-703200</p>	<p>MBO operations that include old value arguments that use large object types should be ignored, but SQL clauses still include the old value arguments.</p> <p>Sybase Unwired WorkSpace automatically creates an MBO with old value arguments for operations. If the datasource includes operation arguments with large object types (BigString/BigBinary), Sybase Unwired 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.</p> <p>Workaround: Manually remove any SQL clauses that include old value arguments with large object types.</p>
<p>CR-689859</p>	<p>The Sybase Unwired WorkSpace Welcome page moves to standby mode after Eclipse is started.</p> <p>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.</p> <p>Workaround: Double-click the docked Welcome page to extend it to full screen.</p>

Issue #	Description
<p>CR-689707</p>	<p>Default runtime values requirements.</p> <p>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. Sybase Unwired WorkSpace still allows the user to input a default value.</p> <p>Workaround: In this case, you need not set the default value, because it is not used during runtime.</p>
<p>CR-688576</p>	<p>The Oracle datatype NCLOB is not supported.</p> <p>Workaround: Convert the CLOBS datatype to a varchar datatype. There are two ways to do this:</p> <ul style="list-style-type: none"> • 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: <pre>select dbms_lob.substr(x, 4000, 1) from T.</pre> The maximum varchar length allowed in Transact-SQL statements is 4000 bytes. You can increase this to 32KB. Sybase recommends that you use a stored procedure to process the BLOB in this way. For example: <pre>declare my_var long; begin for x in (select X from t) loop my_var := dbms_lob.substr(x.X, 32000, 1); .</pre>
<p>CR-676634</p>	<p>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.</p> <p>In some cases, you see this error:</p> <pre>The assigned stack size and/or heap size is not sufficient for the attempted operation.</pre> <p>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.</p>

Issue #	Description
CR-642942	<p>Cannot generate code with Javadoc option enabled to a folder containing Chinese characters.</p> <p>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.</p> <p>Workaround:</p> <ol style="list-style-type: none"> 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 Sybase Unwired WorkSpace – Hybrid App Package Development

Learn about known issues and apply workarounds for Sybase Unwired WorkSpace and Hybrid App development.

Issue #	Description
RTC-362	<p>iPhone activation screen problem when user inputs password</p> <p>On iPhone IOS6.1, when the user inputs a password to activate an application, the screen sometimes shifts repeatedly between the white screen and the activation screen, even though the password authentication and activation are successful.</p> <p>Workaround:</p> <ol style="list-style-type: none"> 1. Generate the workflow. 2. In Generated Hybrid App, in the application subfolder <code>html\js\widgets</code>, edit <code>sy.ui.iphone.iscroll4Lite.js</code>. At the top of the <code>orientationChangeEvent</code> handler (line 54) add this condition: <pre>if (self.lastScreenWidth !== window.innerWidth) { .."</pre> 3. Re-generate the workflow with the Update Generate code option unselected.
RTC-333	<p>Updating null values to non-null not supported on Windows Mobile</p> <p>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.</p> <p>Workaround: None.</p>

Known Issues for Sybase Mobile SDK 2.2 SP02

Issue #	Description
RTC-252	<p>Screen keyboard not shown in Hybrid App</p> <p>On some HTC versions running Android 2.3, selecting editable text in some Hybrid Apps does not display the keyboard.</p> <p>Workaround: None.</p>
CR-707123	<p>Cannot upload large image files using the File Manager application on some Android devices.</p> <p>Although image previews and uploads continue to work), you may see this message after selecting an image in a Hybrid App:</p> <p style="background-color: #f0f0f0;">File type is not supported!</p> <p>Workaround: Use a different gallery application by resetting the default:</p> <ol style="list-style-type: none"> 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-700357	<p>Comma added for int types when number is more than 1000.</p> <p>On iOS 5.0, with the Safari mobile browser, in fields with the int type, when you enter a number larger than 1000, a comma is inserted. This is expected behavior with the Safari mobile browser.</p> <p>Workaround: Set the logical-type to text instead of numeric.</p>
CR-700077	<p>BlackBerry 5 read-only slider can be modified.</p> <p>The anchor can be moved on a slider that is designed to be read-only. This is a known BlackBerry problem.</p> <p>Workaround: None.</p>
CR-699341	<p>BlackBerry 7 form labels do not use specified theme.</p> <p>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.</p> <p>Workaround: Type in the field to change the label to the appropriate theme.</p>

Issue #	Description
CR-698779	<p>DatePicker control does not reopen in BlackBerry 7+.</p> <p>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.</p> <p>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.</p>
CR-694665	<p>AsyncRequestErrorLogs key not generated in a migrated project.</p> <p>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.</p> <p>Workaround: Create a new Submit Hybrid App action, or click the Generate Error Screen button.</p>
CR-690460	<p>On BlackBerry devices, in most cases, the module name is the same as the module display name, but if the module name != module display name, the device cannot receive asynchronous error messages.</p> <p>Workaround: None.</p>
690438	<p>A workflow does not initiate an operation.</p> <p>This could happen if the workflow is not constructed correctly.</p> <p>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 will fail with no indication of the problem.</p> <p>Workaround:</p> <p>Client-initiated workflow: verify that no online request operations (such as findall) precede the submit workflow type operation. If so, remove the operations.</p> <p>Server-initiated workflow: verify that no links (between the start point and the first screen saved) precede the submit workflow operation. If so, remove the links.</p>

Issue #	Description
CR-684635	<p>Choice controls with a large number of rows do not behave as expected on some platforms.</p> <p>Workaround: For best performance, keep the number of rows in choice controls under 200.</p>
CR-682741	<p>"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.</p> <p>Workaround: None.</p>
CR-681918	<p>When you click the Hybrid App icon on iOS devices, you see the message Sybase Mobile Workflow please go to the settings application and enter your configuration...</p> <p>This happens if you attempt to open a version 2.0 workflow on the iOS device and connect to version 2.1 of Unwired Server.</p> <p>Workaround: In Sybase Control Center, use the HWC template to create an application connection and leave the application identifier empty.</p>
CR-678440	<p>On BlackBerry devices, you receive an error when running an HTTPS GET method from the Hybrid App.</p> <p>Workaround: Refer to the BlackBerry Knowledge Base article at http://btsc.webapps.blackberry.com/btsc/search.do?cmd=displayKC&docType=kc&externalId=KB20833&sliceId=1&docTypeID=DT_SUPPORTISSUE_1_1&dialog-ID=1652002964&stateId=0%20%201652004660.</p>
CR-677684	<p>Locale properties file is not updated if screens, controls, menu items and so on are removed.</p> <p>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, 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.</p> <p>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.</p>

Issue #	Description
<p>CR-675904</p>	<p>Object queries in the Online cache group are case-sensitive.</p> <p>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:</p> <pre data-bbox="366 430 1075 456">SELECT x.* FROM Customer x WHERE x.state = :state</pre> <p>No data is returned to the client if they enter 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.</p> <p>Workaround: None.</p>
<p>CR-674149</p>	<p>Exception received with large amounts of data.</p> <p>When the amount of data is too large to download to the Hybrid App client device, you may get an exception similar to:</p> <pre data-bbox="366 760 1184 1272">"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.Respon- seRetryException: Exception of type 'iAnywhere.MobileOffice.AMP.ResponseRetryException' was thrown. 20110616T110249.694 1 at Sybase.UnwiredPlatform.Work- flowClient.Utils.CheckMessageSize (String serializedMessage, ContextData oContextData, Boo- lean fromResponder) 20110616T110249.694 1 at Sybase.UnwiredPlatform.Work- flowClient.Responder.ProcessMessageFromDevice (ContextData oContextData, String sData, Boolean isSyn- chronous) 20110616T110249.694 1 at Sybase.UnwiredPlatform.Work- flowClient.Responder.ProcessSyncRequest (ContextData oContextData, String sData) 20110616T110249.694 4 My:1 -- ProcessSyncRequest- > Out</pre> <p>Workaround: Increase the allowed maximum message size (SupMaximumMessageLength). From Sybase Control Center, expand Hybrid Apps and select the Hybrid App. Select the Context Variables tab. Modify the property.</p>
<p>CR-673572</p>	<p>Hybrid Apps do not work with Android simulators version 2.3.3.</p> <p>See http://code.google.com/p/android/issues/detail?id=12987 for a description of this issue.</p> <p>Workaround: Use an earlier version of the Android simulator.</p>

Issue #	Description
CR-671242	<p>If a Hybrid App uses a Web Service that takes a structure as its input, submit operation is empty.</p> <p>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.</p> <p>Workaround: None.</p>
CR-669251	<p>On a BlackBerry 9630 running OS 5.0, data with the DATETIME type does not display in certain circumstances.</p> <p>Workaround: None.</p>
CR-667325	<p>On some BlackBerry 5.0 devices, if there is a dynamic choice on the screen, labels for drop-down controls and comments fields overlap, hiding the drop-down control.</p> <p>This happens only intermittently.</p> <p>Workaround: If you know where to click for the drop-down, you can access the drop-down control, and it accepts your choice.</p>
CR-667187	<p>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 wrong operations, and return the wrong results. Physical devices work correctly.</p> <p>Workaround: None.</p>
CR-666672	<p>On BlackBerry 6.0 simulators (nontouch models), it is difficult to enter the password.</p> <p>Workarounds:</p> <ol style="list-style-type: none"> 1. When the password control has focus, press the scroll button and scroll to the left. 2. When the password control has focus, press the Menu button, choose Select, then move the cursor to the password control.

Known Issues for Native Object API

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

Issue #	Description
RTC-347	<p>iOS client requests might fail with an HTTP 500 error when using Apache as a reverse proxy.</p> <p>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".</p> <p>Workaround: Change Apache configuration to rewrite incoming HTTP headers. Use <code>mod_headers</code> and add this to the Apache configuration:</p> <pre>RequestHeader edit Transfer-Encoding Chunked chunked early</pre>
RTC-304	<p>Additional information for Tracking KPI topic in Developer Guide: iOS Object API Applications.</p> <p>There is additional and corrected information for the <i>Tracking KPI</i> topic in the Developer Guide: iOS Object API Applications.</p> <p>Workaround: See <i>Tracking KPI for iOS Devices</i> on page 17.</p>
RTC-285	<p>Set values explicitly for synchronization parameters.</p> <p>For the Android, BlackBerry, Windows, and Windows Mobile object API, when a synchronization parameter is bound to the default personalization parameter "user", the default personalization parameter "user" may not take effect if the client application has never before synchronized.</p> <p>Workaround: Set values explicitly for the synchronization parameters. Do not use values from the default personalization parameters.</p>
RTC-282	<p>Memory warnings from autoreleased objects.</p> <p>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 <code>findAll</code> method.</p> <p>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.</p>

Issue #	Description
<p>RTC-281</p>	<p>64-bit packaging tool cannot be launched on 64-bit Windows.</p> <p>By default, Sybase Mobile SDK installer configures the system to use the 32-bit packaging tool. If you try to run the 64-bit packaging tool (<code>PackagingTool64.bat</code>) after completing a new or upgrade installation of Sybase Mobile SDK on a 64-bit Windows system, launching the tool fails with this message:</p> <pre>Cannot load 64-bit SWT libraries on 32-bit JVM</pre> <p>Workaround: Set up a 64-bit JDK to work with the 64-bit packaging tool.</p> <ol style="list-style-type: none"> 1. Install a 64-bit JDK on the 64-bit Windows system. 2. Set system environment variables, <code>CLASSPATH</code>, <code>JAVA_HOME</code>, and <code>Path</code> to point to the 64-bit JDK. 3. Verify that the <code>SUP_HOME\ObjectAPI\Utils\bin\set-java-home.bat</code> has been modified to point to the installed 64-bit JDK (where <code>SUP_HOME</code> is the installation directory for Sybase Mobile SDK on the 64-bit system). 4. Launch <code>PackagingTool64.bat</code>.
<p>RTC-280</p>	<p>Failure to start a connection after a shutdown of Unwired Server.</p> <p>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 <code>startConnection</code> again immediately after the shutdown occurs, an <code>ApplicationRuntimeException</code> may be thrown indicating <code>Client state error. Client is already started</code>, without attempting to reconnect to the server.</p> <p>Workaround: You can catch the exception in the device application, sleep a few hundreds of milliseconds, and retry by calling <code>Application.startConnection(timeout)</code> again. After one or two seconds, you can try to reconnect.</p>
<p>RTC-265</p>	<p>Cannot change the database file path.</p> <p>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 <code>createDatabase</code> operation again, however, the database is created with the old default database file path, not with the new one.</p> <p>Workaround: None</p>

Issue #	Description
RTC-264	<p>The perflog.txt file is not fully readable in a text editor.</p> <p>Workaround: To read the contents and/or import the content to an MS Excel spreadsheet, perform the following steps:</p> <ol style="list-style-type: none"> 1. Right click on <code>perflog.txt</code> to select Open with > MS Word. 2. Select Unicode 6.0 UTF-8 in Text encoding in the MS Word file conversion dialog. Click OK to see the content in MS Word. 3. Select all the content in the MS Word file and choose Tables > Convert Text to Table. In the Convert Text to Table dialog, set ":" in "Separate text at "Other", and set "AutoFit to contents" in AutoFit Behavior. 4. Choose Save as with Format set to "Web Page". Your file is saved as "PerfLog.htm". 5. Choose File > Import > HTML file in MS Excel.
RTC-258	<p>Exception when calling <code>update</code> on a new MBO instance.</p> <p>When you call the <code>update</code> method on a new MBO instance, an <code>ObjectNotSaved</code> exception is thrown. For example:</p> <pre data-bbox="364 774 1170 847">MBO instance = new MBO(); instance.\${UpdateMethod}(); //UpdateMethod is a update method defined in the model.</pre> <p>Workaround: Do not call the <code>update</code> method for a new instance. Only call <code>update</code> when the instance is either created or saved.</p>
RTC-219	<p>Personalization key does not take effect.</p> <p>When using the "username" personalization key as a default value for a sync parameter, if you do not first call a login method or synchronize method, the personalization key does not take effect.</p> <p>Workaround: Call a login method (such as <code>onlineLogin</code>) or <code>synchronize</code> method before saving the synchronization parameters.</p>
RTC-216	<p>If an MBO has a synchronization parameter mapped to a personalization key, the device application client user cannot retrieve the personalization key value for the synchronization parameter if the personalization key datatype is a List.</p> <p>Workaround: Set the personalization key value manually directly in the application code.</p>
RTC-206	<p>Root certificate required for synchronization with an HTTPS server.</p> <p>The Android Object API is not able to 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.</p> <p>Workaround: Use the root certificate on the device.</p>

Issue #	Description
CR-712912	<p>iOS client container files deleted on application close.</p> <p>The container files are no longer deleted after a package loads, but when the application closes.</p>
CR-709353	<p>Cannot pass cookies through Personalization Keys using replication-based synchronization (RBS).</p> <p>Workaround: Use the following code:</p> <pre data-bbox="368 440 1143 517">SUPStringProperties *cookies = [smnwTests cookieName]; [[[SUPApplication getInstance] connectionProperties] setHttpCookies:cookies];</pre>
CR-709073	<p>Operation replay records may not be processed correctly.</p> <p>In some cases, operation replay records that you upload to the Unwired Server are not processed in the correct order on the server. For example:</p> <pre data-bbox="368 661 1180 838">[customer create]; // inserts a row into the MBO table [customer submitPending]; // inserts a row into the operation replay table [customer delete]; // deletes the row from the MBO table (because of server-side processing, does not remove the row from the operation replay table) [customer submitPending]; // does nothing</pre> <p>Workaround: Call <code>cancelPending operation</code> to cancel any pending record before submitting another operation.</p>
CR-708707	<p>Best practice for deleting the client database.</p> <p>By default asynchronous operation replay is enabled. When an application is connected (by <code>Application.StartConnection()</code> or <code>Application.RegisterApplication()</code>), it may receive background notifications, and trigger a <code>synchronize</code> or other database operation. If you try to delete the database, you may receive database exceptions.</p> <p>Workaround: Before deleting the database, stop the application connection (<code>Application.StopConnection()</code>).</p>
692374	<p>Enabling compression incurs additional processing on the device and the server side to optimize the amount of data to be transferred over the network.</p> <p>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 Sybase Unwired Platform <i>Developer Guides</i> to enable compression.</p>

Issue #	Description
CR-690308	<p>The query.getRow() API may not return the correct row to BlackBerry clients.</p> <p>For example, in this connected result set for a BlackBerry client, <code>rs.getRow()</code> may not return the correct value:</p> <pre data-bbox="366 326 1147 579"> 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(); </pre> <p>Workaround: Do not use the <code>query.getRow()</code> API <code>QueryResultSet.previous</code>/<code>next</code> return Boolean to indicate if the current position is valid. Rely on the return value instead.</p>
CR-675716	<p>SQLite cannot support create operations with more than 3MB of data, which is roughly 128 columns at 64KB per column on Windows Mobile devices.</p> <p>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.</p> <p>Workaround: None.</p>

Tracking KPI for iOS Devices

Access performance libraries for tracing or collecting key performance indicators (KPIs).

User interactions are measured in intervals of these types: `HttpRequest`, `PersistenceRead`, `PersistenceWrite`, `SubmitPending`, `CancelPending`, and `Transaction`. All intervals measure Wallclock Time, CPU Time, and Memory Max.

The `HttpRequest` interval type measures some additional KPIs:

- `HttpRequest`
 - `NetworkTime`
 - `Roundtrips`
 - `Total Bytes`
 - `Sent Bytes`
 - `Received Bytes`

After the interaction is stopped, a summary log in `txt` format is written to the device. The summary log contains sums of each of the KPI types. For example, total Wallclock Time, total CPU Time, total number of roundTrips, and so on. There is no detailed log that contains KPI values for each interval.

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The administrator can invoke a Get Trace request through Sybase Control Center to send the performance log to the server domain log.

To start collecting performance metrics, call the `startInteraction` method:

```
- (void)startInteraction:(NSString *)interactionName;
```

To stop collecting performance metrics and output a summary to the reporting target, call the `stopInteraction` method:

```
- (void)stopInteraction;
```

Example of application interactions for collecting KPI:

```
// get the instance
id <SUPPerformanceAgentService> pa = [SUPPerfAgentServiceImpl
getInstance];
[pa startInteraction:@"Interaction 1"];
// application interaction
// ...
// ...
[pa stopInteraction];

[pa startInteraction:@"Interaction 2"];
// application interaction
// ...
// ...
[pa stopInteraction];
```

The following limitations apply:

- On iOS devices, there is a detailed log file only written after the interaction is stopped. There is no report on the KPI values for each interval available.

Known Issues for Hybrid Web Container

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

Issue #	Description
RTC-334	<p>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 <code>API.js</code>, <code>Utils.js</code>, <code>WorkflowMessage.js</code>, and <code>Custom.js</code>, are not regenerated and, thus, use the wrong API setting compared to the other generated files.</p> <p>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, delete the <code>API.js</code>, <code>Utils.js</code>, <code>WorkflowMessage.js</code>, and <code>Custom.js</code> files manually and regenerate the Hybrid App with the desired API setting.</p>

Issue #	Description
RTC-307	<p>When running the iOS Hybrid Web Container for the first time (only), after upgrading it to Sybase Unwired Platform 2.2 SP02, the UI may appear to hang for awhile. The amount of time depends upon the number of Hybrid Apps installed in the container.</p> <p>Workaround: None. Wait up to a minute for the operation to complete.</p>
RTC-301	<p>The Timepicker fails to work on iOS4.3.x.</p> <p>Workaround: Use iOS version 5.0 or later.</p>
RTC-300	<p>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.</p> <p>Workaround: Register the Windows Mobile device to the Sybase Unwired Platform server before saving credential information to the device.</p>
RTC-287	<p>On BlackBerry 7 simulators, when a Hybrid App is deployed from the Hybrid App Designer, the simulator crashes. 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 a real device. Workaround:</p> <p>Workaround: Use a BlackBerry 7 device for deploying Hybrid Apps.</p>
RTC266	<p>Changes to JavaScript functions.</p> <ul style="list-style-type: none"> • <code>showAlertDialog()</code> – 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 2.2sp02 (2.2.0 and 2.2sp01 work as before). • <code>showConfirmDialog()</code> – this function does nothing. <p>These functions are deprecated.</p> <p>Workaround:</p> <ul style="list-style-type: none"> • <code>showAlertDialog()</code> – use the native JavaScript <code>alert()</code> function. • <code>showConfirmDialog()</code> – use the native JavaScript <code>confirm()</code> function. <p>Alternatively, you can use PhoneGap APIs to display an alert or confirmation dialog. Be aware that although the PhoneGap APIs allow you to set the title of the alert and confirmation dialogs, and buttons, the PhoneGap APIs are asynchronous rather than synchronous, so using them as a direct substitute for the <code>showAlertDialog()</code> does not work. That would require refactoring the code in each instance where it is used.</p>

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Issue #	Description
RTC-240	<p>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.</p> <p>Workaround: Include the sound files with the application. See the discussion about this problem at: https://groups.google.com/forum/?fromgroups=#!topic/phonegap/xCOwgKh0IQ0</p>
RTC-237	<p>For iOS HWC applications, the badge count displayed when a notification is received may not match the number of messages available.</p> <p>The badge count represents the number of queued items on the server that are waiting to be delivered. This matches the queue count for the application connection as seen in Sybase Control Center. As the items in the queue count includes items that are not necessarily new messages, this does not match the new message count of the Hybrid Web Container inbox.</p> <p>Workaround: None.</p>
RTC-236	<p>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.</p> <p>Workaround: Use a valid URL suffix when attempting to connect a 2.1.3 or older client to a 2.2 or newer server.</p>

Issue #	Description
<p>RTC-222</p>	<p>After loading Hybrid Web Container JavaScript files (for example, Dataajs), a memory leak occurs. Within a closure code, when adding a new window property which references an object, the object is not GC correctly after closing the Hybrid App.</p> <p>For example, the dataajs-1.0.3.js file contains a code pattern like:</p> <pre data-bbox="366 355 1180 659"> (function (window, undefined) { if (!window.OData) { window.OData = {}; } var odata = window.OData; odata.defaultHttpClient = { request: function () { xhr = new XMLHttpRequest("Microsoft.XMLHTTP"); } }; })(this); </pre> <p>When exiting the Hybrid App, window.OData still occupies the memory. Then after several times of opening and closing the Hybrid App, an "Out of Memory" error occurs.</p> <p>Workaround: Manually release the object. For example, add "window.OData = null;" in the hwc.close() function which is invoked when exiting the Hybrid App. Add these lines in hwc.close() to avoid the memory leak:</p> <pre data-bbox="366 885 1180 1241"> //dataajs if (window.dataajs) { window.ActiveXObject = window.oldActiveXObject; window.dataajs = null; window.OData = null; window.oldActiveXObject = null; } //hwc window.CallbackSet = null; window._Picture = null; //cordova window.console = null; window.PhoneGap = null; window.Cordova = null; window.plugins = null; window.addEventListener = null; window.removeEventListener = null; </pre> <p>On Windows Mobile, if you experience a memory leak under these conditions, restart the device.</p>
<p>RTC-220</p>	<p>In one 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 "credential cached user name" without "credential cached password."</p> <p>Workaround: Use the hwc.saveLoginCredentials() JavaScript API to save the user name.</p>

Issue #	Description
RTC-205	<p>On BlackBerry Torch and Storm devices, when using the Camera API, a picture that is taken is always rotated 90 degrees to the right.</p> <p>Workaround: None. This is a known problem with RIM APIs on these devices. See https://www.blackberry.com/jira/browse/JAVAAPI-701 and http://supportforums.blackberry.com/t5/Java-Development/Storm-Torch-camera-getSnapshot-orientation-issue/td-p/1316867.</p>
RTC-197	<p>On Windows Mobile, when changing between landscape and portrait orientation, the spinner disappears.</p> <p>Workaround: None.</p>
RTC-171	<p>If a password is used for automatic device registration using the <code>hwc . saveSettings ()</code> 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 <code>userid+deviceid+authcode</code> combination (the password is not required). This is by design.</p> <p>Workaround: If you want to save the password in the application, do so in the application code with the secured storage <code>SUPStorage</code> API.</p>
RTC-169	<p>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."</p> <p>Workaround: Run the BlackBerry Hybrid Web Container on newer OS 6.x or OS 7.x devices with more memory. A fix for this is not available from RIM for Java-based platforms. See https://www.blackberry.com/jira/browse/JAVAAPI-2275</p>
RTC-156	<p>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.</p> <p>Workaround: Do not end the Hybrid Web Container process on Windows Mobile 6.0. It works as expected on Windows Mobile 6.5.</p>
RTC-147	<p>On Windows Mobile, when using the Media Cache function, <code>hwc . MediaCache . getUrl ()</code>, if the media resource, such as an image, has a large size, it may fail to display correctly if the user opens and closes the Hybrid App frequently.</p> <p>Workaround: None.</p>

Issue #	Description
RTC-143	<p>On iOS devices, a Hybrid Web Container application connection does not receive an Apple Push Notification Service device token until the Hybrid Web Container is restarted.</p> <p>Workaround: Restart the Hybrid Web Container:</p> <ol style="list-style-type: none"> 1. Press and hold the home button and click the minus sign above the Hybrid Web Container. 2. On the applications screen, click the Hybrid Web Container icon. 3. Verify the device token has been received by the server by logging in to Sybase Control Center and go to Applications > Application Connections > Application Connection > Apple Push Notifications > APNS Device Token. <p>If the APNS Device Token field is populated, the device token was received.</p>
RTC-139	<p>On iOS, when using the JavaScript API functions (<code>hwc.openApp</code> and <code>hwc.openMessage</code>) 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.</p> <p>Workaround: None.</p>
RTC-135	<p>On BlackBerry 5.0, the HTML5 sessionStorage object is not supported.</p> <p>On both <code>window.open()</code> and <code>window.location.href</code> the HTML5 sessionStorage values are not carried to the next page.</p> <p>Workaround: None.</p>
RTC-115	<p>Cannot update prepackaged Hybrid Apps.</p> <p>The version number of the new Hybrid App must be higher than the current version number.</p> <p>Workaround: Edit the <code>manifest.xml</code> file to update the version number and repackage the Hybrid App files.</p>
RTC-111	<p>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.</p> <p>Workaround: Upload the log files again.</p>
RTC-93	<p>On Windows Mobile, the <code>removeMenuItem()</code> JavaScript API in <code>API.js</code>, does not work.</p> <p>Workaround: None.</p>

Known Issues for Sybase Mobile SDK 2.2 SP02

Issue #	Description
<p>RTC-91</p>	<p>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.</p> <p>In Hybrid Apps running on iOS, numeric edit boxes do not validate user entries.</p> <p>Workaround: None.</p>
<p>RTC-90</p>	<p>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.</p> <p>Workaround: If you receive an "MMS Authentication Failed" error message, check your certificate to make sure it is not expired.</p>
<p>RTC-88</p>	<p>After changing the default Hybrid App in Sybase Control Center, invoking the Hybrid Web Container on Windows Mobile devices does not open the new default Hybrid App automatically.</p> <p>Workaround: After changing the default Hybrid App in Sybase Control Center, restart the device.</p>
<p>RTC-73</p>	<p>On all platforms, in manual registration mode, after calling the <code>hwc.saveSettings</code> API in <code>hwc-api.js</code>, the client cannot connect to the server.</p> <p>Workaround: The <code>hwc.startClient</code> API must be called after the <code>hwc.saveSettings</code> invocation to connect to the server by manual registration.</p>

Issue #	Description
RTC-57	<p data-bbox="366 215 878 239">Native spinner does not work on Windows Mobile</p> <p data-bbox="366 258 1163 314">The <code>hwc.showProgressDialog</code> and <code>hwc.hideProgressDialog</code> APIs do not work for the Windows Mobile Hybrid Web Container.</p> <p data-bbox="366 333 1184 421">Workaround: Open the <code>hwc-comms.js</code> file, and remove for Windows Mobile in the <code>hwc.showProgressDialog</code> and <code>hwc.hideProgressDialog</code> functions. Change:</p> <pre data-bbox="366 439 1146 539">if (hwc.isWindowsMobile()) { navigator.cursor.setWaiting(); } else { hwc.getDataFromContainer("showprogressdialog", "&message=" + message); }</pre> <p data-bbox="366 564 393 585">to:</p> <pre data-bbox="366 600 1130 647">hwc.getDataFromContainer("showprogressdialog", "&message=" + message);</pre> <p data-bbox="366 671 489 694">And change:</p> <pre data-bbox="366 710 1173 782">if (hwc.isWindowsMobile()) { navigator.cursor.setDefault(); } else { hwc.getDataFromContainer("hideprogressdialog"); }</pre> <p data-bbox="366 807 393 828">to:</p> <pre data-bbox="366 843 1040 868">hwc.getDataFromContainer("hideprogressdialog");</pre>

Issue #	Description
<p>RTC-55</p>	<p>The sample code file, <code>AppNotification.cs</code>, which is included in the template source project under the <code>CustomCode</code> folder, does not show a balloon notification.</p> <p>Workaround:</p> <ol style="list-style-type: none"> In the <code>AppNotification.cs</code> file, add a <code>CreateNotificationDelegate</code> delegate definition: <pre>public delegate void CreateNotificationDelegate(string title, string content);</pre> Create a notification in UI thread using a delegate: In the <code>AppNotification_InstallEvent</code> method, change <code>ShowNotification(title, msg);</code> to <code>Sybase.HybridApp.OMAAAT.Framework.BaseForm.Invoke(new CreateNotificationDelegate>ShowNotification), new object[] {title, msg});</code>. Add a determine statement and remove the notification visible assignment: Change: <pre>private static void OnMessageNotificationClicked(object sender, BalloonChangedEventArgs e) { m_Notification.Visible = false; m_Notification.Dispose(); m_Notification = null; }</pre> to: <pre>private static void OnMessageNotificationClicked(object sender, BalloonChangedEventArgs e) { if (e.Visible == false) { m_Notification.Dispose(); m_Notification = null; } }</pre>
<p>RTC-52</p>	<p>A Hybrid App fails to deploy to the device.</p> <p>If the Sybase Unwired 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. Sybase Unwired Platform currently assumes that application service nodes are installed to the same path on all the nodes in the cluster, that is, that all application server nodes are installed to 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.</p> <p>Workaround: Install Sybase Unwired Platform using the same installation path for each node of the cluster.</p>

Issue #	Description
RTC-51	<p>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 crashes before relaunching the iOS Hybrid Web Container.</p> <p>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.</p> <p>This issue does not occur if the Afaria client is not installed on the iOS device.</p>
RTC-49	<p>On Windows Mobile devices and emulators, Cordova cannot play audio files.</p> <p>Workaround: None.</p>
RTC-37	<p>On Android 3.x devices, when proxy is enabled on the WiFi connection, connecting to Unwired Server directly using the HTTPS protocol makes the Hybrid Web Container client crash. This is an Android bug. See http://code.google.com/p/android/issues/detail?id=37050 for details.</p> <p>Workaround: Either turn off the proxy or connect through Sybase Relay Server.</p>

Issue #	Description
<p>RTC-53</p>	<p>On iOS, some APIs, such as SUPStorage, perform slowly when using WiFi with an HTTP proxy</p> <p>This happens only when all of the following conditions are true:</p> <ul style="list-style-type: none"> • 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). <p>If all of these conditions are true, these workarounds are available depending upon whether the Hybrid App is using JavaScript generated by the Mobile Workflow Forms Designer or using the Packaging Tool in conjunction with the JavaScript container code that ships with Sybase Unwired Platform 2.2.</p> <p>Workaround #1: If you are using the JavaScript files generated by the Mobile Workflow Forms Designer, you must edit <code>API.js</code>, <code>SUPStorage.js</code>, and <code>Utils.js</code>, which are located in the <code>html/js</code> directory of the generated application code. For each file:</p> <ol style="list-style-type: none"> 1. Search for POST. Each instance is within a function, and typically there is a unique code path per platform. 2. Identify the <code>isIOS()</code> code branch where an <code>xmlHttpRequest</code> is being opened, and change the last parameter of the open function call for the <code>xmlHttpRequest</code> to change it from <code>false</code> to <code>true</code>. For example, in <code>SUPStorage.js</code>, change line 171 from: <pre>xmlHttpReq.open("POST", "/sup.amp?querytype=workflow-storage&" + versionURLParam, false);</pre> to: <pre>xmlHttpReq.open("POST", "/sup.amp?querytype=workflow-storage&" + versionURLParam, true);</pre> <p>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.</p> <ol style="list-style-type: none"> 3. Regenerate the Mobile Workflow package. <p>Workaround #2: Modify <code>hwc_api.js</code> (usually installed in <code>SUP_HOME\UnwiredPlatform\MobileSDK22\HybridApp\Container</code>) in the Hybrid App to look like the following example, and redeploy the application to the Hybrid Web Container.</p> <pre>/** * Encapsulate the HTTP post method. This function is * called internally */</pre>

Issue #	Description
	<pre> hwc.postDataToContainer = function(queryType, data) { 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=" + queryType + "&" + hwc.versionURLParam, false); xmlhttp.send(data); response = xmlhttp.responseText; } else if (hwc.isIOS()) { var xmlhttp = hwc.getXMLHttpRequest(); xmlhttp.open("POST", "http://localhost/ sup.amp?querytype=" + queryType + "&" + hwc.versionURL- Param, true); try { xmlhttp.send(data); } catch (ex) { if (ex.message.search(/XMLHttpRequest Exception 101/) == -1) { throw ex; } } } return response; } catch (ex) { hwc.log("hwc.postDataToContainer error: " + ex.message, "ERROR", false); } } </pre>

Issue #	Description
	<pre data-bbox="364 218 467 270"> } }; </pre>
<p>CR-708778</p>	<p>If the Relay Server credentials dialog is presented and the iOS Hybrid Web Container application is closed and reopened, any previously saved credentials are retried automatically.</p> <p>Workaround: Do not close the application when the credentials dialog is presented.</p>
<p>CR-708173</p>	<p>When the Hybrid Web Container tries to retrieve data from the MBO package, an Invalid application id <***> for package error appears.</p> <p>Workaround: In Sybase Control Center, manually add an application ID for the MBO package's application list.</p> <ol style="list-style-type: none"> 1. Log in to Sybase 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.
<p>CR-708122</p>	<p>Native application on Windows Mobile device receives an error, Can't find an Entry Point 'DLL_setMclCallbacks' in a PInvoke DLL 'CMessagingClient.dll.</p> <p>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 CMessagingClient.dll.</p> <p>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.</p>

Issue #	Description
CR-705895	<p>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.</p> <p>Workaround: When you use JavaScript to update the check box (using JQueryMobile) value, you must also add the refresh code. For example:</p> <p>Whole sample in "customAfterMenuItemClick" method of Custom.js</p> <pre>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"); } } }</pre>
CR-705219	<p>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.</p> <p>Workarounds: Configure Afaria client application and try again or go to the Settings application and enter your configuration information.</p> <ul style="list-style-type: none"> • Seed Enterprise-hosted packages on the Afaria server. • Manually configure the connection information.
CR-703883	<p>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.</p> <p>Workaround: None for BlackBerry 7.0. Upgrading to BlackBerry 7.1 eliminates the problem.</p>
CR-702603	<p>BlackBerry 7.0 users see a white screen until the Workflow application's activation screen opens. See https://www.blackberry.com/jira/browse/JAVA-API-119</p> <p>Workaround: None.</p>

Issue #	Description
<p>CR-693907</p>	<p>Hybrid Web Container occasionally fails on Android 2.2.</p> <p>This can happen when all of these conditions are present:</p> <ul style="list-style-type: none"> • 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. <p>Workaround:</p> <ul style="list-style-type: none"> • 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.
<p>CR-693381</p>	<p>Cannot preview a selected picture On Windows Mobile emulator.</p> <p>When using the <code>imageElement.src = imageUri</code> in the <code>getPicture</code> 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.</p> <p>Workaround:</p> <ul style="list-style-type: none"> • 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.
<p>CR-691005</p>	<p>Image upload may fail on BlackBerry 6 simulators older than version 6.0.0.499.</p> <p>Workaround: Use a BlackBerry 9800 simulator with version 6.0.0.499 or later.</p>
<p>CR-689287</p>	<p>2.0 or 2.0 ESD #1 message-based synchronization (MBS) clients and Hybrid Web Container clients may not be able to connect to 2.1 ESD #3 or 2.2 servers.</p> <p>If 2.0 or 2.0 ESD #1 clients have not connected through an activated registration, and you upgrade to 2.1 ESD #3, those clients may not be able to connect to a 2.1 ESD #3 or a 2.2 server.</p> <p>Workaround: Implement a server registration that uses an empty application ID, and use manual registration to connect the MBS and Hybrid Web Container 2.0 and 2.0 ESD #1 clients to the server.</p>

Issue #	Description
CR-688399	<p>On Windows Mobile devices, thumbnails do not show properly if an image has a large size..</p> <p>The root cause is that Internet Explorer cannot load a large image; try one of these solutions to address the image size:</p> <p>Workaround #1: Specify a small-sized image as the thumbnail instead of using the original large image, for example:</p> <pre data-bbox="366 425 1161 522"></pre> <p>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:</p> <pre data-bbox="366 614 1161 711"></pre> <p>The width and height parameters are supported only on Windows Mobile and may cause display issues on other platforms.</p>
CR-686465	<p>Camera feature is supported on some device simulators/emulators.</p> <ul data-bbox="366 864 1180 1013" style="list-style-type: none"> • 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. <p>Workaround: Use a physical device.</p>
CR-680253	<p>Images do not appear correctly on mobile devices.</p> <p>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.</p> <p>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.</p>

Known Issues for Mobile Devices

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

Issue #	Description
RTC-87	<p>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.</p> <p>Workaround: The subsequent request succeeds.</p>
RTC-85	<p>Windows Mobile devices fails 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.</p> <p>Workaround: You must append the specific security configuration to the user name in this format: user@securityconfig.</p> <p>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.</p>
RTC-43	<p>On Windows 7 virtual machines, the Windows Mobile emulator cannot connect to Windows Mobile Device Center.</p> <p>Workaround: When using Windows 7, do not use a virtual machine to run the Windows Mobile emulator.</p>

Known Issues for MAKit

Learn about known issues and apply workarounds for MAKit development.

Issue #	Description
RTC-137	<p>Orientation issues when running MAKit 2.2 code example in the iOS6.0 iPad Device.</p> <p>When the iPad's orientation changes from portrait to landscape or vice versa, the MAKit code example's orientation does not change.</p> <p>Workaround: follow these steps:</p> <ol style="list-style-type: none"> 1. In the <code>MAKitCodeExamplesAppDelegate</code>, replace this line: <pre>[self.window addSubview:navController.view];</pre> with this line: <pre>[self.wndow setRootViewController:navController];</pre> 2. In the <code>MAKitCodeExamples-info.plist</code> file, delete the sub items (item 0 and item 1) under "Supported interface orientations".
CR-703197	<p>SUPContainer iOS (iPad) what-if integer columns turns blank after clearing the value.</p> <p>When the MAKit what-if feature is used in the Unwired Platform Workflow container environment on iOS (iPad devices), the <code>what-if</code> 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.</p> <p>Workaround: Users can use the slider control to change the what-if column values.</p>

Known Issues for OData SDK

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

Issue #	Description
<p>RTC-328</p>	<p>Relay Server: Server response containing header with empty value is considered malformed.</p> <p>When there is a PUT request, such as the below example, passing through Relay Server to SAP Mobile Platform proxy connection, you get an error message 400 - Bad request with no response from backend server.</p> <p>Example</p> <p>Request Header with Input: PUT method and request URL - <code>http://<relayserver>/<farmId>/<proxyconnection></code>:</p> <pre>Content-Type: application/json</pre> <p>Body:</p> <pre>{ "name": "<smpusername>" }</pre> <p>Response Header:</p> <pre>Status Code: 400 Bad request with no response from backend server</pre> <p>Workaround: None.</p>
Issue #	Description
<p>RTC-155</p>	<p>Push notification does not work with any security configuration other than "Admin" for certificate-based mutual SSL authentication.</p> <p>If you use any other security configuration, you get an error message 403 - User not in required role.</p> <p>Workaround: Use single SSL with any security configuration or use "Admin" as the security configuration for mutual SSL to enable Push notifications.</p>

Documentation Issues and Updates for Sybase Mobile SDK

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

Issue #	Description
SMPONP-11886	<p>Additional information for E2E encryption</p> <p>These changes apply to: <i>Synchronization Profile</i> in the <i>Developer Guide: iOS Object API Applications</i>.</p> <p>Encryption and trusted certificates for data synchronization</p> <p>When using end-to-end encryption for synchronization with Mobilink server, the following steps should be done:</p> <ul style="list-style-type: none"> • The public keys need to be encapsulated in a PEM encoded X509 certificate and be supplied with an E2EE private key. • This certificate needs to be included in the Resource folder in the application Xcode project. • The <code>e2ee_public_key</code> option needs to be specified in the network stream parameter, either in SCC Application Connection Properties, or in the application code. <p>For details about encryption on iPhone, see the UltraLite documentation on <i>iPhone and Mac OS X considerations</i> in the SQL Anywhere <i>UltraLite - C and C++ Programming</i>.</p> <p>When using https for synchronization with Mobilink server, the following steps should be done:</p> <ul style="list-style-type: none"> • Trusted certificates need to be included into the Resource folder in the application Xcode project. • The <code>trusted_certificates</code> option needs to be specified in the network stream parameter, either in SCC Application Connection Properties, or in the application code. <p>For example:</p> <pre>SUPConnectionProfile *sp = [SUP101SUP101DB getSynchronizationProfile]; [sp setNetworkStreamParams:@"e2ee_public_key=publickeyCertificate;trusted_certificates=trustedCertificate"];</pre> <p>This change applies to: <i>Connection Properties</i>, Synchronization Server Stream Parameters, in <i>System Administration</i>.</p> <p>There are more iPhone client restrictions than described in the documentation. See above.</p>

Issue #	Description
<p>SMPONP-8653</p>	<p>HTTP requests are recommended for all purposes</p> <p>The topic <i>SDMConnectivity Public APIs</i>, in <i>Developer Guide: OData SDK</i>, contains a sentence in the last paragraph before the protocols that states "However, for development and testing purposes you can use HTTP requests." Disregard that statement.</p> <p>HTTP requests can be used for all purposes, not only development and testing. You can develop productive OData applications using HTTP requests.</p>
<p>RTC-370</p>	<p>The topic <i>Setting Up the Connection Profile in the Object API Developer Guides</i> for various platforms describes the write to the database while synchronizing feature, but is missing an example of how to use the “allowConcurrentWrite” ConnectionProfile named property.</p> <p>An application can have multiple threads writing to the database during synchronization by enabling the connection profile property, <code>allowConcurrentWrite</code>. Setting the property to "true" allows multiple threads to perform create, read, update, or delete operations at the same time in a package database. For example:</p> <ul style="list-style-type: none"> • Android and BlackBerry – <pre>SUP101DB.getConnectionProfile().setProperty("allowConcurrentWrite", "true");</pre> • iOS – <pre>[[SUP101DB getConnectionProfile] setBoolean:@"allowConcurrentWrite":YES];</pre> • WindowsMobile – <pre>SUP101DB.GetConnectionProfile().SetProperty("allowConcurrentWrite", "true");</pre> <hr/> <p>Note: Multiple threads are allowed to write to the database at the same time. However, there will be errors when multiple threads write to the same row of one MBO. Avoid writing to the same MBO row in your application.</p>

Issue #	Description
RTC-339	<p>The Troubleshooting Guide is lacking trace information for various Object API development platforms (Windows, Android, BlackBerry, and iOS).</p> <p>Workaround: use tracing on the device side to trace Client Object API activity. Sybase Unwired Platform supports three levels of tracing:</p> <ul style="list-style-type: none"> • 1 = Tracing is disabled • 3 = SQL Trace without payload • 5 = SQL Trace with payload (values displayed) <p>There are two ways to enable tracing on the client side:</p> <ul style="list-style-type: none"> • Via Sybase Control Center through the Applications folders: <ol style="list-style-type: none"> 1. Click on the Applications folder in the Sybase Unwired Platform Cluster frame. 2. In the Applications tab, select the application you wish to enable tracing for. 3. Select the Application Connections tab and select the user you wish to enable tracing for. 4. Click on the Properties button to open the Application Connection Properties window. 5. Click on Device Advanced to display advanced connection properties. 6. Change the value of the Device Level Trace property to the appropriate level. 7. Click OK to save your changes. • Via code by calling the appropriate API for your platform: <ul style="list-style-type: none"> • iOS – in the SUPConnectionProfile class, there are two APIs that can be used: <pre data-bbox="498 1043 1161 1117">- (void) enableTrace:(BOOL)enable - (void) enableTrace:(BOOL)enable withPayload: (BOOL)withPayload</pre> <p>The application in the initialization code can invoke these APIs to enable/disable tracing:</p> <pre data-bbox="498 1230 1174 1534">SUPConnectionProfile *cp = [SUP101SUP101DB get- ConnectionProfile]; // To enable trace of client database operations (SQL statements, etc.) [cp enableTrace:YES]; // To enable trace of client database operations with values also displayed [cp enableTrace:YES withPayload:YES]; // To disable trace of client database opera-</pre>

Issue #	Description
	<pre> tions [cp enableTrace:NO]; // To enable trace of message headers sent to the server and received from the server // (this replaces the MBODEbugLogger and MBODE- bugSettings used in earlier versions of SUP) [cp.syncProfile enableTrace:YES]; // To enable trace of both message headers and content, including credentials [cp.syncProfile enableTrace:YES withPay- load:YES]; // To disable messaging trace [cp.syncProfile enableTrace:NO]; </pre> <ul style="list-style-type: none"> Android and BlackBerry – in the ConnectionProfile class, there are two APIs that can be used: <ul style="list-style-type: none"> - enableTrace(boolean enable) - enableTrace(boolean enable, boolean with Payload) <p>The application in the initialization code can invoke these APIs to enable/disable tracing:</p> <pre> ConnectionProfile *cp = SUP101DB.getConnection- Profile(); // To enable trace of client database operations (SQL statements, etc.) cp enableTrace(true); // To enable trace of client database operations with values also displayed cp enableTrace(true, true); // To disable trace of client database opera- tions cp enableTrace(false); </pre> Windows and Windows Mobile – in the ConnectionProfile class, there are two APIs that can be used: <ul style="list-style-type: none"> - EnableTrace(bool enable) - EnableTrace(bool enable, bool withPayload) <p>The application in the initialization code can invoke these APIs to enable/disable tracing:</p> <pre> ConnectionProfile cp = SampleDB.GetConnection- Profile(); </pre>

Issue #	Description
	<pre data-bbox="494 222 1174 505"> // To enable trace of client database operations (SQL statements, etc.) cp.EnableTrace(true); // To enable trace of client database operations with values also displayed cp.EnableTrace(true, true); // To disable trace of client database operations cp.EnableTrace(false); </pre> <p data-bbox="419 527 1185 696">Note: Once the trace level is set, the application must be restarted for the tracing to take effect. SQL tracing (level 3 and 5) can cause significant performance degradation, so it should be used with caution. SQL tracing should only be enabled via Sybase Control Center long enough for the device application to capture relevant tracing. When finished, shut down and relaunch the application to run with tracing disabled.</p>
<p data-bbox="229 730 326 753">RTC-308</p>	<p data-bbox="419 730 1185 909">The <i>Developer Guide: Hybrid Apps</i>, in the topic <i>Customizing Generated Code</i>, in Step 3, the line <code>hwc.showAlertDialog("The connection type is " + navigator.network.connection.type + " and the platform and version is " + navigator.device.platform + " " + navigator.device.version);</code></p> <p data-bbox="419 933 521 956">should be:</p> <pre data-bbox="419 979 1180 1095"> hwc.showAlertDialog("The connection type is " + navigator.network.connection.type + " and the platform and version is " + device.platform + " " + device.version); </pre>
<p data-bbox="229 1124 326 1147">RTC-272</p>	<p data-bbox="419 1124 1166 1182">Information on troubleshooting slow queries was omitted from the <i>Troubleshooting Guide</i> .</p> <p data-bbox="419 1204 1180 1251">A query may be slow because attributes of the MBO used in the query's where clause or join conditions are not indexed.</p> <p data-bbox="419 1274 870 1296">See <i>Troubleshooting a Slow Query</i> on page 89</p>

Issue #	Description
<p>RTC-269</p>	<p>The Developer Guide: iOS Object API Applications incorrectly documents the Metadata API class names.</p> <p>The <i>Developer Guide: iOS Object API Applications</i> documents incorrect class names for the Metadata API. In code examples, the guide describes the <code>SUPDatabaseMetaData</code> and <code>SUPClassMetaData</code> classes. The correct classes are <code>SUPDatabaseMetaDataRBS</code> and <code>SUPClassMetaDataRBS</code>.</p> <p>See the generated API reference information provided with the Mobile SDK for more information on these classes.</p>
<p>CR-710930</p>	<p>Start-up of an application always gets HTTP callback errors.</p> <p>During initialization, the client may try several URLs in an attempt to discover the correct path to the Unwired Platform server. During these attempts, 404 errors <code>Page Not Found</code> may occur and are reported to the <code>OnHttpCommunicationError</code> callback. This is expected behavior and you can safely ignore these initial 404 errors.</p> <p>If the 404 errors continue to occur after successful registration of the application or if registration never completes, verify the <code>UrlSuffix</code> setting of the application's <code>ConnectionProperties</code> object.</p>
<p>CR-710608</p>	<p><code>onHttpCommunicationError</code> returns an unexpected code.</p> <p>In an environment configured for SiteMinder authentication, the expectation is that <code>onHttpCommunicationError</code> 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.</p>
<p>CR-708259</p>	<p>The developer guides do not document all the methods in the <code>ConnectionPropertyType</code> class.</p> <p>See the generated API reference information provided with the Mobile SDK for a complete list of methods in the <code>ConnectionPropertyType</code> class.</p>

Known Issues for Unwired Platform Runtime 2.2 SP02

Learn about known issues and apply workarounds for Unwired 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.
- **N/A** – No tracking number.

Issue #	Description
<p>SMPONP-3629</p>	<p>DCN JSON parsing error</p> <p>Explanation: When trying to push an upsert to the CDB, where a string has a special value (such as % or &) a parsing error is thrown. According to World Wide Web Consortium (W3C) and Internet Engineering Task Force (IETF) specifications, url and form data must be encoded before being sent to the server. Only alphanumeric [0-9, a-z, A-Z], the special characters contained in the parentheses (\$ - . ! * ' () ,) , and reserved characters used for specific reserved purposes may be used unencoded within a URL. Please refer to http://www.w3.org/TR/1999/REC-html401-19991224/interact/forms.html#h-17.13.4.1 and http://www.ietf.org/rfc/rfc2045.txt for details.</p> <p>Workaround: The Unwired Server takes utf-8 as a URL encoded charset. So, if the client sends a request using either the GET or POST method, the request content must be encoded by utf-8 according to the URL encoding rules. For example, the URL <code>http://serverhost:8000/dcn/DCNServlet?cmd=dcn&username=supAdmin&password=s3pAdmin&do-main=default&package=sup101:1.0&dcn_request={"pkg":"dummy","messages":[{"id":"4","mbo":"Customer","op":"upsert","cols":{"id":"10004","fname":"B%B"}}</code> has reserved and special characters <code>{ } [] : " %</code>. These chars should be encoded.</p> <p>If you use java to make the DCN request, use <code>URLEncoder.encode (parameter, "UTF-8")</code> to encode your URL query parameter or post form data before you make the request. For example, if you construct the URL listed in the previous example, you would use the following code:</p> <pre>String url="http://serverhost:8000/dcn/DCNServlet?cmd=dcn&username=supAdmin&password=s3pAdmin&do-main=default"; url+="&package="+URLEncoder.encode("sup101:1.0","UTF-8"); url+="&dcn_request="+URLEncoder.encode("sup101:1.0","{"pkg\":\"dummy\", \"messages\":[{ \"id\": \"4\", \"mbo\": \"Customer\", \"op\": \"upsert\", \"cols\": { \"id\": \"10004\", \"fname\": \"B%B\" } }] }");</pre>

Issue #	Description
<p>RTC-113</p>	<p>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.</p> <p>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, Unwired Server shows a R3_LOGIN_FAILED error.</p> <p>Workaround: Increase the value of the tm_max_no parameter in the SAP EIS to a suitable value.</p>
<p>CR-714677</p>	<p>Client application subscription request fails.</p> <p>If a client application uses the manual registration method, and its application connection is registered using the Unwired Server Management API <code>SUPApplication.registerApplicationConnections()</code>, the client application subscription request fails. The error message is:</p> <pre>Application connection {0} is not for appId {1}.</pre> <p>Workaround: None. Contact SAP Support for further help.</p>
<p>CR-714679</p>	<p>Sybase Control Center stops responding and shows Connecting with the SCC Managed Object Server message after login.</p> <p>Workaround: Instead of using the standard URL(<code>https:// < hostname > :8283/scc</code>), if you are accessing Sybase Control Center from the same host use <code>https://localhost:8283/scc</code> or <code>https:// < host name.domain > :8283/scc</code>. Another option is to try accessing from a remote machine.</p>
<p>CR-717585</p>	<p>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:</p> <pre>[LNSupController+Finalize.m:61] Send data Exception-SUPPersistenceException: SUPPersistenceException from synchronize: -- SUPSynchronizeException: loginFail, Sync failed: -1497 (ERROR) %1:4 %2:4000</pre> <p>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 <code>BigString</code> or <code>BigBinary</code>. 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.</p>

Known Issues with Installing, Uninstalling, and Upgrading

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

Issue #	Description
N/A	When running the 2.2 SP02 upgrade from the command prompt window, ensure the path to which you upgrade contains an uppercase drive letter. For example: C:\Sybase\UnwiredPlatform.
RTC-360	Backing up the Sybase Unwired Platform Runtime installation fails because the Sybase Control Center path is too long. Explanation: 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 Sybase Unwired Platform Runtime installation, you must delete the contents of <i>SUP_HOME</i> \services\EmbeddedWeb-Container\container\Jetty-6.1.22\work. You must delete the contents of this folder from the command prompt, and not from Windows Explorer.

Issue #	Description
<p>RTC-359</p>	<p>Upgrade cannot proceed because GWC . war cannot be deployed.</p> <p>When running the 2.1.3, 2.2 SP01 PL00 or 2.2 SP01 PL01 upgrade from a command prompt window with a path that has a lowercase drive letter, the update may produce an error that indicates that it was unable to undeploy GWC . war. This only affects the listed updates with the specific circumstance where the drive letter is lowercase.</p> <p>Workaround: To recover, perform the following steps:</p> <ol style="list-style-type: none"> 1. Open a command prompt window with administrator privileges. 2. Change directories to the <code>SUP_HOME\Servers\UnwiredServer\bin</code>, where <code>SUP_HOME</code> is the install location for Sybase Unwired Platform, typically <code>C:\SAP\MobilePlatform</code>. Make sure to specify the drive letter in uppercase. This is required. 3. Undeploy GWC with the following command: undeploy.bat webapp-gwc 4. If there are no errors, delete <code>SUP_HOME\Servers\UnwiredServer\deploy\webapps\gwc</code>, if it exists, with the following command: rmdir /S /Q SUP_HOME\Servers\UnwiredServer\deploy\webapps\gwc 5. Deploy the new GWC with the following command: deploy.bat SUP_HOME\Servers\UnwiredServer\temp\GWC.war 6. Undeploy notifications with the following command: undeploy.bat webapp-notifications 7. If there are no errors, delete <code>SUP_HOME\Servers\UnwiredServer\deploy\webapps\notifications</code>, if it exists, with the following command: rmdir /S /Q SUP_HOME\Servers\UnwiredServer\deploy\webapps\notifications 8. Deploy the new notifications WAR file with the following command: deploy.bat SUP_HOME\Servers\UnwiredServer\temp\notifications.war
<p>RTC-310</p>	<p>Client synchronization fails after upgrade and server log contains an error code 3000.</p> <p>Explanation: During the Unwired Server runtime upgrade, it is possible for a package to transition into the disabled state if errors are found during the procedure. Errors can be caused by an unavailable EIS, for example. These errors are not logged during the upgrade.</p> <p>Workaround: Manually verify all packages, after installation, in Sybase Control Center. If no other errors are found, enable the MBO package referenced by the client application Sybase Control Center.</p> <p>If other errors are found, a more serious problem is usually the root cause and it may be necessary to contact Technical Support to resolve the root problem. In that case, Sybase does not recommend ignoring the reported errors and enabling the package.</p>

Issue #	Description
<p>RTC-303</p>	<p>Sybase Unwired Platform Messaging Server not successfully updated.</p> <p>The following error may occur when upgrading Sybase Unwired Platform 2.2 to Sybase Unwired Platform 2.2 SP02.</p> <p>Sybase Messaging Server was NOT successfully updated. Value 0x0 not found in Install Success registry entry.</p> <p>You can also find the following error in the system event log:</p> <p>Database version check failed. Database version 'nnnnn' doesn't match expected version 'NNNNN'. This may be caused by an upgrade failure. Until this issue is fixed, the services will not start.</p> <p>Workaround: In most cases, the failure occurs due to issues in CDB connectivity. Re-running the messaging server installer as follows will fix the issue in most cases.</p> <p>If performing a cluster installation, run these steps in the primary node or the first Application Service Node to which the upgrade was applied:</p> <ol style="list-style-type: none"> 1. Stop the Sybase Unwired Server services on all cluster nodes. 2. Start only the Sybase Unwired Server CacheDB service. 3. From a Windows command window, navigate to the location where the support pack install files are extracted. 4. Navigate to the <code>MessagingServer</code> subfolder. 5. Run "<code>setup.exe finishdbupdates=true</code>" and wait for the setup to finish. 6. Start the Sybase Unwired Server service using the desktop shortcut.
<p>RTC-267</p>	<p>Upgrade process hangs when calling <code>start-unwired-services.bat</code></p> <p>The upgrade process hangs after upgrading the first server node if all nodes were not shut down before the upgrade.</p> <p>Workaround: Online upgrade is not supported. You must stop all the Sybase Unwired Platform services, including the data tier, before running the upgrade installer.</p>

Issue #	Description
<p>RTC-263</p>	<p>Test package deployment is skipped when upgrading Unwired Server from 2.1.x to 2.2.</p> <p>The Runtime installer requires the supAdmin user to exist in order for an upgrade installation to complete normally. If you removed the supAdmin user, the installer cannot perform the test package deployment that verifies that the upgraded Unwired Server is functioning properly. The installer displays this message:</p> <pre data-bbox="368 409 1171 510"> The Unwired Platform admin login information provided were not valid. Upgrade was completed but test deploying a package to server for verification was skipped. </pre> <p>Workaround: Ignore the message. You can perform a manual package deployment if you wish to be sure that the upgraded server is function properly. See <i>Creating new users in SQL Anywhere Server - Database Administration</i>, available at http://infocenter.sybase.com/help/topic/com.sybase.help.sqlanywhere.12.0.0/dbadmin/uman-new.html.</p>
<p>RTC-157</p>	<p>Error messages when adding a secondary node to a cluster.</p> <p>In a cluster installation that involves Sybase Unwired Platform 2.2, if you add a new secondary node to the cluster using the Sybase Unwired Platform 2.2 installer after any of the existing Sybase Unwired Platform application server nodes have been upgraded to a patch level (for example Sybase Unwired Platform 2.2 SP02), the installation may report the following failure:</p> <pre data-bbox="368 892 1171 1095"> Sybase Messaging Server installation completed with er- rors. **Error!!! Error!!!** The Messaging installer completed with the following er- rors. These errors will have to be addressed before the services become functional. Please refer to documentation for recovery process. Database upgrade failed </pre> <p>Additionally, you can see the following message in the <code>SUP_HOME\Servers\MessagingServer\Bin\Scripts\DBUgraderTrace_xxxxxxx.txt</code> file.</p> <pre data-bbox="368 1185 1171 1308"> -- Upgrade started at 11/6/2012 4:28:31 PM Downgrading is not supported -- Caught unexpected exception: Downgrading is not sup- ported Got global error [Downgrading is not supported] </pre> <p>This error occurs because the installer incorrectly tries to upgrade the database when it should not.</p> <p>Workaround: If you see this error when adding a new secondary node, you can ignore it, and proceed with applying the patch. By running the patch installation (for example Sybase Unwired Platform 2.2 SP02), you can complete the installation.</p>

Issue #	Description
<p>RTC-34</p>	<p>Warning messages when installing secondary Unwired Server node.</p> <p>When installing a secondary Unwired Server node before the primary server successfully installs, you see a warning similar to this in the server log:</p> <pre>2012-08-21 01:26:15.753 WARN MMS ScheduledTask:SynchronizeNode...</pre> <p>Workaround: Ignore this warning, or install the secondary Unwired Server node after the primary server installation completes.</p>
<p>CR-692901</p>	<p>Requirements for using SAP® JCO 3 on Windows XP.</p> <p>SAP JCO 3 in Unwired WorkSpace running on Windows XP requires Microsoft Visual C++ 2005 Service Pack 1 Redistributable.</p> <hr/> <p>Note: This is not a requirement for Windows 7, or 64-bit Windows Server 2008 system.</p> <p>Workaround: Obtain the Microsoft Visual C++ 2005 Service Pack 1 Redistributable from: http://www.microsoft.com/download/en/details.aspx?displaylang=en&id=14431.</p>
<p>CR-665409</p>	<p>The installation program cannot run in graphical mode.</p> <p>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:</p> <pre>The installer is unable to run in graphical mode. Try running the installer with the -console or -silent flag.</pre> <p>Workaround: Remove the installer binary path from the HKLM\SOFTWARE\Microsoft\Windows NT\CurrentVersion\AppCompatFlags registry key.</p>

Known Issues for Unwired Platform Runtime 2.2 SP02

Issue #	Description
CR-590885	<p>Uninstaller might not run on Windows Vista.</p> <p>Sometimes, the uninstaller does not launch on Windows Vista. This may be caused by the operating system changing the launch command for the Unwired Platform uninstaller, preventing it from using its own JVM to start itself.</p> <p>Workaround: Launch the uninstaller:</p> <pre><jdk_installdir>\java -Dtemp.dir=%TEMP% -jar C:\Sybase\UnwiredPlatform\Uninstallers\UnwiredPlatform\uninstall.jar</pre> <p>When you uninstall or cancel out of uninstalling Unwired Platform, the Program Compatibility Assistant shows:</p> <p>This program might not have uninstalled correctly.</p> <p>Select This program uninstalled correctly instead of Uninstall with recommended settings.</p>

Known Issues for Security

Learn about known issues and apply workarounds for Unwired Platform security.

Issue #	Description
RTC-60	<p>Unwired Server restart is needed after changing truststore or keystore.</p> <p>Workaround: If you change anything relating to keys or certificates in the truststore or keystore, you must always restart the server. Changes only take effect after a server restart.</p>
RTC-48	<p>A user with the "SUP Helpdesk" role can execute all DOE-C package operations using the command line utility, including modify operations such as deploying DOE-C packages or setting DOE-C endpoint properties.</p> <p>Help desk operators should not be able to perform modify operations.</p> <p>Workaround: Prevent direct or remote access to Unwired Server for users with the "SUP Helpdesk" role.</p>
CR-708833	<p>External authentication token is not properly handled by iOS Hybrid Web Container (HWC).</p> <p>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 <code>setHttpHeaders</code> before starting the client engine by placing <code>[self setHttpHeaders]</code> in the first line in the <code>startEngine</code> function. See <i>Setting HTTP Headers</i> in <i>Developer Guide: Mobile Workflow Packages</i>.</p>

Known Issues for Unwired Server

Learn about known issues and apply workarounds for Unwired Server.

Issue #	Description
RTC-364	<p>Unwired Server reports error during startup from the command line</p> <p>When starting the server from the command line, the following error message displays:</p> <pre>Could Not Find SUP_HOME\Servers\UnwiredServer\bin \..smp_server.lock</pre> <p>Workaround: None. This error has no impact.</p>
RTC-329	<p>Failed deployment when a name of a child MBO begins with lower case.</p> <p>For a composite operation, if the name of a child MBO in the composite relationship begins with lower case, deployment would fail.</p> <p>Workaround: Change the first character of the child MBO's name to upper case using Unwired Workspace.</p>
RTC-238	<p>Update deployment allows definition of a new MBO attribute default, but the new default value does not take effect.</p> <p>While the MBO developer can modify the MBO attribute default value for a deployed package, and redeploy the package to Unwired Server in Update mode without an error or warning, the new default value does not take effect.</p> <p>Workaround: Use Replace mode to update the MBO default setting.</p>
RTC-268	<p>Process of stopping Unwired Server service hangs.</p> <p>When stopping the Windows service for Unwired Server, very infrequently the process hangs. This problem is independent of the means used to stop the service.</p> <p>Workaround: See <i>Process of Stopping Unwired Server Service Hangs</i> on page 56.</p>
RTC-42	<p>Business transaction XML (BTX) uploads when end-to-end tracing is not enabled for an application connection.</p> <p>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.</p> <p>Workaround: None.</p>

Issue #	Description
<p>RTC-38</p>	<p>Server logs Chinese environments result in garbled characters under certain conditions.</p> <p>Due to an issue with SySAM licensing 64-bit operating systems running in a zh_CN locale result in characters appearing incorrectly.</p> <p>Workaround: None.</p>
<p>N/A</p>	<p>Error: 584 Message: Server public key verification failed when running the diagtool.exe tool.</p> <p>Workaround: Either:</p> <ul style="list-style-type: none"> • Run the diagtool.exe tool from another host, or, • Edit the registry on the machine where the diagtool.exe tool is being run: <ul style="list-style-type: none"> • Remove the HKCU\Software\Sybase\Messaging Client registry key. • Remove the HKCU\Software\Sybase\MessagingClientLib registry key. <hr/> <p>Note: Use caution when editing the registry. Ensure that the key entries removed do not contain any currently used Unwired Platform applications (sub entries).</p>
<p>CR-709892</p>	<p>Unwired Server records deployment errors in the domain log rather than in the Unwired Server logs.</p> <p>Workaround: None. Look for deployment errors in the domain log.</p>
<p>CR-708431</p>	<p>Data on the EIS, cache, and device is not in sync.</p> <p>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 Unwired 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.</p> <p>Workaround: None. The change appears in the CDB and the device when the CDB is refreshed (for example, when the cache interval expires).</p>
<p>CR-703515</p>	<p>LDAP role/authentication search base cannot support special characters.</p> <p>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).</p> <p>LDAP providers do not currently handle these special characters in any names or DNs, including username, DefaultSearchBase, AuthenticationSearchBase, RoleSearchBase, AuthenticationFilter, and RoleFilter.</p> <p>Workaround: None.</p>

Issue #	Description
<p>CR-701975</p>	<p>When deploying a package from Unwired WorkSpace or Sybase Control Center using Update mode, the package's "onDemand" coherence window is not updated on Unwired Server.</p> <p>Workaround: After deployment, adjust the "onDemand" coherence window from Sybase Control Center.</p>
<p>CR-699590</p>	<p>Large messages are processed incorrectly on 32-bit runtime installations.</p> <p>A 32-bit Unwired 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 Unwired Server cache.</p> <p>Workaround: Install Unwired Platform runtime components on 64-bit hosts.</p>

Issue #	Description
<p>CR-699343</p>	<p>For native Object API applications, the upgrade process silently deletes composite orphans from the server cache.</p> <p>Unwired 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.</p> <p>Workaround: Before upgrading, eliminate composite orphans from native Object API applications:</p> <ul style="list-style-type: none"> • 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 <i>Relationship Guidelines and Restrictions</i> topic, in the <i>Sybase Unwired WorkSpace - Mobile Business Object Development</i> 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. <p>Additional Information on Composite Orphans</p> <p>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.</p> <p>To be sure that composite orphans do not cause problems in your migrated applications:</p> <ul style="list-style-type: none"> • 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. <p>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.</p>

Issue #	Description
CR-695671	<p>The <code>m1srv_err.log</code> reports error: <code>java.lang.OutOfMemoryError</code>.</p> <p>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.</p> <p>Workaround: Modify the maximum Java heap size to handle very large amounts of data in an object query. See <i>Configuring Unwired Server Performance Properties in System Administration</i>.</p>
CRs 693116 and 692218	<p>Devices on 3G/4G network cannot connect to Unwired Server.</p> <p>A connectivity issue may occur between the device and Unwired 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.</p> <hr/> <p>Note: For devices on WiFi networks, the connection between a device and Unwired Server establishes without error.</p> <hr/> <p>Workaround: Use a nonstandard HTTP port (any port other than 80 or 8080) or an HTTPS port, that is, 443 for Unwired Server client communication from devices to the Relay Server or external load balancer, whichever one is used, in the DMZ.</p>
692374	<p>Enabling compression incurs additional processing on the device and the server side to optimize the amount of data to be transferred over the network.</p> <p>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 Sybase Unwired Platform <i>Developer Guides</i> to enable compression.</p>
CR-691517	<p>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.</p> <p>Workaround: None.</p>
CR-686043	<p>In a disabled domain, messaging clients continue to receive messages from server.</p> <p>Workaround: To disable any outbound activity to a client, lock the application connection associated with that client.</p>

Issue #	Description
CR-576726	<p>The full range of valid values is not supported if an attribute uses the default datatype (<code>int</code>) for a SQL Anywhere® database column of type <code>unsigned int</code>.</p> <p>Workaround: To support the full range of valid values for an <code>unsigned int</code> attribute in the EIS, set the datatype for the corresponding MBO attribute as <code>long</code>.</p>

Process of Stopping Unwired Server Service Hangs

Problem: When stopping the Windows service for Unwired Server, very infrequently the process hangs. This problem is independent of the means used to stop the service..

Explanation: When this happens, the process tree for the service for the Unwired Server service is no longer intact, so you cannot use the Task Manager End Process Tree option to complete the process of stopping the service.

Workaround:

1. Open Windows Task Manager on the system where you want to stop the Unwired 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
 - Dbsrv12.exe
 - Dbsrv11.exe
 - Java.exe
 - JmsBridge.exe
 - LBManager.exe
 - mlsrv12.exe
 - MlsrvWrapper.exe
 - OBMO.exe
 - OBServiceManager.exe
 - Rsoe.exe
 - Sccservice.exe
 - wmiprvse.exe
4. Go to the Windows Services panel and verify that the Unwired Server service is stopped.

Known Issues for Sybase Control Center

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

Issue #	Description
RTC-221	<p>Redeploying a package to Unwired Server after changing a Cache Group policy from "Scheduled" to "On Demand" may result in Sybase Control Center displaying an invalid cache interval.</p> <p>Workaround: Update the cache interval in Sybase Control Center.</p>
RTC-225	<p>Redundant properties displayed for application templates and connection settings</p> <p>Several push notification properties in the application connection settings are no longer applicable.</p> <ul style="list-style-type: none"> • Blackberry Push Notifications: <ul style="list-style-type: none"> • BES Notification Name • Delivery Threshold (Minutes) • Apple Push Notifications <ul style="list-style-type: none"> • Delivery Threshold (Minutes) <p>Workaround: Ignore these properties.</p>
CR-708155	<p>"DOECNoAuth" security configuration assigned automatically when deploying for the first time in the domain, even if you select another value.</p> <p>Workaround: After deployment, change the security configuration in Sybase Control Center.</p> <ol style="list-style-type: none"> 1. Navigate to Domains > DomainName > Packages > PackageName > Settings > Security Configuration. 2. Select the correct security configuration, and save the changes.
CR-707966	<p>When deleting a domain or undeploying a DOE-C package, the server log shows a Failed to undeploy package error.</p> <p>Workaround: Ignore the error.</p>
CR-707565	<p>Domain log purging can take a significant amount of time if too much data accumulates.</p> <p>Workaround: Purge the domain log at regular intervals.</p>
CR-705003	<p>Sybase Control Center does not ask user to delete packages and connections before deleting the domain.</p> <p>Workaround: Before you delete a domain, verify package and connection deletion is not an issue.</p>

Issue #	Description
CR-704917	<p>If an administrator takes action from Sybase 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.</p> <p>Workaround: Before taking any action in Sybase Control Center, ensure that the primary server shutdown is complete and another server has taken over as the new primary.</p>
CR-704913	<p>When an iOS device goes offline, it continues to show as being online for about 8 minutes in Sybase Control Center.</p> <p>Workaround: None.</p>
CR-703367	<p>Domain log messages in Data Sync and Operation Replay subsystems are not logged to the 'default' domain.</p> <p>Workaround:</p> <ul style="list-style-type: none"> • 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	<p>Exporting a domain log after upgrading generates a Domain log export failed error message.</p> <p>Workaround: Clear the cache for the browser you are using to access Sybase Control Center.</p>
CR-696373	<p>When retrieving a domain log for large data, you receive an unknown error in Sybase Control Center.</p> <p>Workaround: Check whether the Unwired Server or Sybase Control Center agent.log reports an out of memory error. If so, increase the JVM heap size appropriately for Unwired Server from the Sybase Control Center Configuration tab. If this does not resolve the issue, try decreasing the time range set in the domain log in Sybase Control Center.</p>
CR-695792	<p>Suspending a large volume (100 or more) of DOE-C package subscriptions may cause Unwired Server to stop responding.</p> <p>Workaround: Suspend subscriptions in batches of no more than 50.</p>
CR-691963	<p>MBO package deployment in Update mode after adding a new load argument without default value succeeds even though deployment should fail.</p> <p>Workaround: None. To avoid deploying client-incompatible changes, Sybase recommends that you first use Verify mode deployment; if verify succeeds, proceed to Update mode deployment.</p>

Issue #	Description
CR-690482	<p>Using Firefox, the Sybase Control Center main page shows Invalid Login and the agent.log shows Received fatal alert: bad_certificate error.</p> <p>Workaround: The Firefox browser appears to be using an incorrect server certificate. Clean up any such previously existing certificates:</p> <ol style="list-style-type: none"> 1. 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	<p>In some instances, when using the Windows Services tool or the Stop Sybase Control Center Service shortcut to stop the Sybase Control Center3.2 service, Sybase Control Center displays Stopping in the Windows Control Panel yet fails to stop.</p> <p>Workaround: To stop the Sybase Control Center service:</p> <ol style="list-style-type: none"> 1. Launch Windows Task Manager. 2. Locate the <code>sccservice.exe</code> process, right-click and select End Process Tree. This option also kills the Sybase Control Center database repository server process <code>dbsrv11.exe</code>.
n/a	<p>Domains and Packages tab</p> <p>Sybase Control Center for Online Data Proxy does not have a way to add a new domain to an application from the Application Properties dialog. Domains can only be associated in the Application Creation wizard.</p>

Known Issues for Sybase SAP® Data Orchestration Engine Connector

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

Issue #	Description
RTC-262	<p>"Error occurred during command execution: 'deploy'." message appears when deploying DOE-C package.</p> <p>Workaround: Examine the Unwired Server log file. See <i>Server Log</i> in <i>System Administration</i>.</p> <p>If you see "NoSuchElementException" in the log file at about the time the error message was displayed, just ignore the error and redeploy.</p>

Issue #	Description
RTC-207	<p>For DOE-C package, If a device with an expired x.509 certificate initiates unsubscribe, the DOE subscription is not cleaned up.</p> <p>Workaround: The DOE administrator must clear all such disconnected DOE subscriptions manually.</p>
RTC-39	<p>Package Not found error occurs randomly when DOE-C package is deployed on a cluster.</p> <p>Workaround: Redeploy the package.</p>
RTC-28	<p>Long response time to show DOE-C subscription with packet dropped state.</p> <p>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 Sybase Control Center.</p> <p>Workaround: None.</p>
CR-709691	<p>Unwired Server fails with OutOfMemory error during subscription SUSPEND/RESUME operations.</p> <p>Workaround: In Sybase Control Center, select Configuration > General > performance configuration and set the default value for Maximum number of in memory messages to 100.</p>
CR-708754	<p>When the load balancer is shut down due to an HTTP 404 error, DOE-C package subscriptions may be automatically removed.</p> <p>Workaround:</p> <ol style="list-style-type: none"> 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_OUTBOUND_QUEUES to restart the queues in regular intervals in the DOE system.
CR-706532	<p>Suspend/Resume operations on DOE-C subscriptions may result in HTTP 502 - Bad gateway error in DOE when load balancer is between Unwired Server and DOE.</p> <p>Workaround: Resume only a few subscriptions simultaneously. For example, you can suspend 100 users in a single operation, then repeat that procedure 10 times.</p>
CR-706111	<p>DOE-C error: HTTP 400, Unable To Parse Request while resuming more than 100 users at a time.</p> <p>Workaround: Resume only a few subscriptions simultaneously. For example, you can suspend 100 users in a single operation, then repeat that procedure 10 times.</p>

Known Issues for Unwired Platform Runtime 2.2 SP02

Issue #	Description
CR-705888	<p>Domain deletion may cause HTTP 500 error in DOE-C device queue.</p> <p>When DOE sends data to a subscription for a device for which the domain has already been deleted from Unwired Platform, Unwired 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 Unwired Server log file has a <code>java.lang.IllegalStateException: domain already cleared</code> error.</p> <p>Workaround: Remove the subscription in DOE.</p>
CR-703909	<p>When DOE-C sets domain log context properties, it leaves the "domain name" field blank in the server log entry.</p> <p>Workaround: The domain name is set correctly in the DomainLog table.</p>
CR-700957	<p>If the DOE server is down, the device receives a long HTML exception.</p> <p>Workaround: None.</p>

Issue #	Description
<p>CR-626975</p>	<p>If you uninstall DOE-C, Unwired Server does not start.</p> <p>Workaround: After uninstalling DOE-C from the Unwired Server machine and re-starting that machine, the Unwired Server may start with errors or DOECAdminExceptions if there are non-DOE-C packages deployed to the Unwired Server. These errors are reported in the Unwired Server log file.</p> <p>To remove the DOECAdminExceptions:</p> <ol style="list-style-type: none"> 1. In <code><UnwiredPlatform_InstallDir>UnwiredPlatform\Servers\UnwiredServer\Repository\Instance\com\sybase\djc\server\ApplicationServer\default.properties</code>, remove the <code>ResyncDOESubscriptions</code> property. 2. Run <code>configure-mms %COMPUTERNAME%</code>. <hr/> <p>Note: If Unwired Platform has been installed into a simple Unwired Platform cluster, without failover, the <code>configure-mms.bat</code> command is:</p> <pre>configure-mms <ClusterName> custom <Data Tier Host-name> <CDB port#> <CDB DB user> <CDB User password> <CDB DB Server Name> <Cluster DB Server Name> <SUP Server Admin password> <CacheDB password> <ClusterDB password> <MonitorDB password> <DomainLogDB pass- word> <SUP Server Node running this command></pre> <p>For example:</p> <pre>configure-mms myCoCluster custom cdbhost 5200 dba sql cdbhost_primary clusterdb_myCoCluster s3pAdmin sql sql sql supnode2</pre> <hr/> <ol style="list-style-type: none"> 3. After configuration has completed, stop the Unwired Server services, then restart the Unwired Server services. <p>Unwired Server finishes the configuration process during Unwired Server start-up.</p>

Known Issues for Relay Server

Read about updates, corrections, and clarifications to the documentation released with Sybase Unwired Platform Runtime.

Issue #	Description
SMPONP-3934	<p>Requests fail with error 400 bad request with session error reported by RSOE</p> <p>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 <code>ias-rs-sessionid</code>, 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 <code>ias-rs-sessionid</code> value. Moreover, for a stateless request that does not provide the <code>ias-rs-sessionid</code>, relay server transfers the request to any back-end server in the targeted farm according to the load balancing algorithm.</p> <p>Workaround:</p> <ol style="list-style-type: none"> 1. In the relay server configuration file, create a property named <code>renew_overlapped_cookie</code> in the <code>backend_farm</code> configuration section. 2. Set the <code>renew_overlapped_cookie</code> default value to <code>yes</code>. In the future, Outbound Enabler will create new connections instead of responding with a 400 error.
RTC-46	<p>When an HTTP client connects through Relay Server to Unwired Platform to get a proxy connection, the URL rewrite in the response is missing the Relay Server prefix information.</p> <p>Workaround: None.</p>

Documentation Issues and Updates for Unwired Platform Runtime

Read about updates, corrections, and clarifications to the documentation released with Sybase Unwired Platform Runtime.

Issue #	Description
<p>SMPONP-10344</p>	<p>Change Log API section was omitted from the <i>Developer Guide: iOS Object API Applications</i></p> <p>The Change Log API and the other topics in that section should have been included in the <i>Developer Guide: iOS Object API Applications</i>. They are included in this release bulletin. See <i>Change Log API</i> on page 72.</p>
<p>SMPONP-3399</p>	<p>More information on using MBS with LoadRunner C#</p> <p>See <i>Enabling MBS Performance Testing with LoadRunner</i> on page 67.</p> <p>Corrected text: That topic includes the <code>BeginOnlineLogin</code> method in <code>Action.cs</code>. An update to this content is that it is better to call <code>BeginOnlineLogin</code> in <code>vuser_init.cs</code>, rather than in <code>Action.cs</code>. 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.</p> <p>Applies to <i>System Administration</i>.</p>
<p>SMPONP-7214</p>	<p>Correction to <i>No Workflow Message is Sent in Troubleshooting</i></p> <p>The first four paragraphs in the <i>Troubleshooting</i> guide <i>No Workflow Message is Sent</i> for Hybrid App DCN failures should read:</p> <p>Following response is returned if the request is sent for a user that has no application connection registered yet.</p> <pre>no workflow message is sent because no device is found to send the notification</pre> <p>Explanation: Server could not find a matching application connection for the user identified in the Hybrid App DCN request. In this case, the response is similar to:</p> <pre>{ "id": "dcntest_test_001", "success": false, "statusMessage": "no workflow message is sent because no device is found to send the notification", "result": [{"id": "dcntest_test_data_1", "success": true, "statusMessage": ""}] }</pre> <p>The other text in the topic is correct.</p>

Issue #	Description
SMPONP-5639	<p>Updates to <i>Web Service Mobile Business Object Limitations</i></p> <p>There are updates to this topic in <i>Sybase Unwired WorkSpace - Mobile Business Object Development</i>. The topic is also included in this release bulletin: see <i>Web Service Mobile Business Object Limitations</i> on page 89.</p>
CR 738781	<p>Current versions of Afaria do not support any management via Sybase Control Center</p> <p>The topic <i>Launching Afaria from Sybase Control Center</i> in <i>Mobile Application Life Cycle</i> is invalid and should be removed. The current versions of Afaria do not support management via Sybase Control Center.</p>
N/A	<p>CHAPTER 10 Scripting Silent Installation, Upgrade, or Uninstallation of the Installation Guide for Runtime (PDF format only) on the Getting Started CD provides instructions for performing these tasks for Sybase MobileSDK, instead of Unwired Platform Runtime.</p> <p>Refer to the corrected chapter of <i>Installation Guide for Runtime</i> on Product Documentation at http://sybooks.sybase.com/sybooks/sybooks.xhtml?id=1289&amp;c=firsttab&amp;a=0&amp;p=categories</p>
N/A	<p>Exclusions for Application Customization Resource Bundles</p> <p>Topics on application customization resource bundles in <i>Mobile Application Life Cycle</i> and <i>Sybase Control Center for Sybase Unwired Platform</i> are applicable only for clients with supporting APIs. Currently, those clients include only On-line Data Proxy and Object API clients.</p> <hr/> <p>Note: The <i>Uploading Application Customization Resource Bundles</i> topic in <i>Mobile Application Life Cycle</i> incorrectly states that application customization resource bundles are applicable to REST API clients.</p>
RTC-358	<p>The <i>Configuring Deployment Properties</i> topic in <i>Sybase Control Center for Sybase Unwired Platform</i> describes the REPLACE deployment mode. There is no REPLACE option in the MBO package deployment wizard.</p>
N/A	<p>Sybase Control Center Windows Service Deleted</p> <p>The <code>\utility</code> folder no longer exists, so the command shown in <i>Sybase Control Center Windows Service Deleted</i> is no longer correct. The correct command is:</p> <pre>SUP_HOME\bin\amd64 (or x86)\sccservice.exe -install</pre> <p>The topic appears in both <i>Sybase Control Center for Sybase Unwired Platform</i> and <i>Troubleshooting</i>.</p>

Issue #	Description
N/A	<p>Sybase Control Center Windows Service Fails to Start</p> <p>A second explanation should be added to <i>Sybase Control Center Windows Service Fails to Start</i>.</p> <p>Explanation 2: The process <code>sccservice.exe</code> was not stopped during previous stops of Sybase Control Center (even though the Windows Service "Sybase Control Center x.x.x" does not show that it is running).</p> <p>Solution: Use Windows Task Manager to kill the process tree of <code>sccservice.exe</code>, then restart Sybase Control Center.</p> <p>The topic appears in both <i>Sybase Control Center for Sybase Unwired Platform</i> and <i>Troubleshooting</i>.</p>
N/A	<p>Exporting or Deploying Large Packages Fails</p> <p>The procedure is missing an important last step. After you save the file, restart Unwired Server.</p> <p>The topic appears in <i>Troubleshooting</i>.</p>
CR 723144	<p>Corrections to the keystore and truststore file paths</p> <p>The commands to change the keystore and truststore passwords contain incorrect file paths in <i>Changing Keystore and Truststore Passwords</i>:</p> <p>In Step 2, the commands to change the keystore and truststore passwords should be:</p> <ul style="list-style-type: none"> • For the keystore password, use: <code>keytool -storepasswd -new NewPwd -keystore Security\keystore.jks</code> • For the truststore password, use: <code>keytool -storepasswd -new NewPwd -truststore Security\truststore.jks</code> • For private entries in keystore, use: <code>keytool -keypasswd -alias Name -new NewPwd -keystore Security\keystore.jks</code> <p>The topic appears in <i>Security 2.2 SP01 > Server Security > Encrypting Other Listeners for Unwired Server</i>.</p>
NA	<p>SAP Solution Manager</p> <p>To configure SAP Solution Manager for use with Sybase Unwired Platform, see <i>SAP Solution Manager Setup</i>.</p>
RTC-366	<p>Missing info in Update Properties (updateprops.bat) Utility topic</p> <p>This topic, located in <i>System Administration</i>, has been updated and is included below.</p>

Issue #	Description
IN1-1351	<p>New KPIs for DOE-C</p> <p>The KPI table was updated to include new KPIs for DOE-C. The updated topic is referenced below.</p>

Enabling MBS Performance Testing with LoadRunner

Use the sample test program to perform load testing of MBS in Sybase Unwired Platform with LoadRunner.

1. Create an empty .NET script in LoadRunner and edit it in Microsoft Visual Studio.
2. In LoadRunner 11, set the target platform to .NET Framework 3.5.
3. Include the MBS OAPI code that you generated. To generate MBS code from the command line:

```
codegen -output <outputDir> -mbs -cs -client -domain testdomain -
sqlite <deployment_unit.xml>
```

4. Reference the following libraries:

- sup-client.dll
- System.Data.SQLite.dll
- System.Data (.NET)
- System

The following is the example code for vuser_init.cs. USER_IDENTIFIER = "Client-2" assigns a constant value to allow the program to run in Visual Studio. Although different VUs have their own directory and database file, because the connection profile is shared you must avoid calling `ConnectionProfile.save()`.

```
vuser_init.cs
//-----
//Script Title      :
//Script Description :
//
//
//Recorder Version  :
//-----
using System;
using System.IO;

using Sybase.UnwiredPlatform;
using Sybase.UnwiredPlatform.Data;
using Sybase.Mobile.Framework;
using Sybase.Mobile;
using Sybase.MessagingClientLib;
using Sybase.Persistence;
using Sybase.Reflection;
using Sample;
using LoadRunner;
```

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```
namespace Script
{
    public partial class VuserClass
    {
        // Connection Information for SAP Mobile Server
        private const String USERNAME = "supAdmin";
        private const String PASSWORD = "s3pAdmin";
        private const String HOST =
"10.172.85.200"; //"PALN00527192A";
        private const int PORT = 5011; // typically 5001

        // Registration timeout in seconds
        private const int TIMEOUT = 60;

        // The Messaging Client Application
        private Sybase.Mobile.Application app;

        private String USER_IDENTIFIER;
        private String USER_DATA_DIRECTORY;

        public int vuser_init()
        {
            // initialize this instance to identify separate users
            USER_IDENTIFIER = "Client" + lr.vuser_id.ToString();
            //USER_IDENTIFIER = "Client-2";
            USER_DATA_DIRECTORY = Directory.GetCurrentDirectory() + "\\\"
+ USER_IDENTIFIER;

            // initialize client library
            app = Sybase.Mobile.Application.GetInstance(USER_IDENTIFIER,
USER_DATA_DIRECTORY);
            app.ApplicationIdentifier = "Sample";

            ConnectionProfile cp = SampleDB.GetConnectionProfile();
            cp.SetProperty("databaseFile", USER_DATA_DIRECTORY + "\\
\\database.udb");
            //don't call cp.Save() otherwise multiple vu will contend on
the same .scp file
            //cp.Save();

            //Make sure databaseFile property on the connection profile
is setup before setApplication
            //because SetApplication will create the database
            SampleDB.SetApplication(app);
            SampleDB.GetSynchronizationProfile().ServerName = HOST;

            ConnectionProperties connProps = app.ConnectionProperties;
            LoginCredentials loginCredentials = new
LoginCredentials(USERNAME, PASSWORD);
            connProps.LoginCredentials = loginCredentials;
            connProps.ServerName = HOST;
            connProps.PortNumber = PORT;

            if (app.RegistrationStatus != RegistrationStatus.REGISTERED)
```



```

    {
        lr.start_transaction("Register Application");
        app.RegisterApplication(TIMEOUT);
        lr.end_transaction("Register Application", lr.AUTO);
    }

    {
        app.StartConnection(TIMEOUT);
    }
    return 0;
}
}
}
}

```

The following is the example code for `Action.cs`. The test code subscribes to the package you deployed to the server, waits for the server to push the data, and when all data are imported, continues the main thread and executes a `findAll` method. You can add more test code such as CRUD (create, update, and delete) operations. The `lr.think_time(1)` call inserts think time between actions and can be configured dynamically in the runtime settings.

```

//-----
//Script Title      :
//Script Description :
//
//
//Recorder Version  :
//-----

using Sybase.UnwiredPlatform;
using Sybase.UnwiredPlatform.Data;
using Sybase.Mobile.Framework;
using Sybase.Mobile;
using Sybase.MessagingClientLib;
using Sybase.Persistence;
using Sybase.Reflection;
using LoadRunner;
using System.Threading;
using Sample;

namespace Script
{
    public partial class VuserClass
    {
        private static int IMPORT_TIMEOUT = 300000;
        public int Action()
        {
            Sample.SampleDB.BeginOnlineLogin();
            bool success = true;
            if (!Sample.SampleDB.IsSubscribed())
            {
                subscribe();
                lock (this)
                {
                    lr.start_transaction("wait for import");

```

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```
        success = Monitor.Wait(this, IMPORT_TIMEOUT);
        if (success)
        {
            lr.end_transaction("wait for import", lr.AUTO);
        }
        else
        {
            lr.end_transaction("wait for import", lr.FAIL);
        }
    }

    }

    if (success)
    {
        query();
        return 0;
    }
    else
    {
        return 1;
    }
}

//a transaction to register and begin sync
public int subscribe()
{
    //can be overridden by runtime setting in controller
    lr.think_time(1);
    lr.start_transaction("subscribe Application");
    SampleDB.RegisterCallbackHandler(new PerfCallback(this));

    Sample.SampleDB.Subscribe();

    lr.end_transaction("subscribe Application", lr.AUTO);
    return 0;
}

public int query()
{
    //can be overridden by runtime setting in controller
    lr.think_time(1);
    lr.start_transaction("FindAll");
    Sybase.Collections.GenericList<Customer> cusList =
Customer.FindAll();
    lr.end_transaction("FindAll", lr.AUTO);
    if (cusList.Size() > 0)
    {
        return 0;
    }
    else
    {
        return 1;
    }
}
```

```

    }
}

public class PerfCallback:
Sybase.Persistence.DefaultCallbackHandler, ICallbackHandler
{
    private object obj;

    //obj: lock object to be notified
    public PerfCallback(object obj)
    {
        this.obj = obj;
    }

    override public void OnImportSuccess()
    {
        lock (obj)
        {
            Monitor.Pulse(obj);
        }
    }
}
}
}

```

The following is the example code for vuser_end.cs:

Note: If you do not include a TIMEOUT parameter in `app.UnregisterApplication (TIMEOUT) ;`, the call is an asynchronous method and immediately returns. The next statement is `DeleteDatabase`; these two operations may interfere and result in an error at the server. It is possible that no further `app.RegisterApplication (TIMEOUT)` calls may succeed.

```

//-----
//Script Title      :
//Script Description :
//
//
//Recorder Version  :
//-----

using Sample;
using System;
using System.IO;

namespace Script
{
    public partial class VuserClass
    {
        public int vuser_end()
        {
            lr.start_transaction("Unsubscribe Application");
            SampleDB.Unsubscribe();
            lr.end_transaction("Unsubscribe Application", lr.AUTO);
        }
    }
}

```

```
        lr.start_transaction("Deregister Application");
        //unregister and disconnect. make it block, so that it won't
interfere with DeleteDatabase
        app.UnregisterApplication(TIMEOUT);
        lr.end_transaction("Deregister Application", lr.AUTO);

        //Cleanup
        try
        {
            if (SampleDB.DatabaseExists())
            {
                lr.start_transaction("DeleteDatabase");
                SampleDB.DeleteDatabase();
                lr.end_transaction("DeleteDatabase", lr.AUTO);
            }
        }
        catch
        {
        }
        //When debugging you might want to comment out this line to
check MOCA log
        Directory.Delete(USER_DATA_DIRECTORY, true);

        return 0;
    }
}
```

5. When running the test, observe or set the following runtime settings:

- `vuser` must be run as a process
- `pacing` allows you to specify multiple iterations for the code in `Action.cs`
- `think time` can be used to simulate a more realistic usage scenario

Change Log API

The change log allows a client to retrieve entity changes from the back end. If a client application already has a list view constructed, it simply needs to add, modify, or delete entries in the list according to the change logs.

A single `ChangeLog` is generated for each changed entity. If the changed entity is a child of a composite relationship, there is also a `ChangeLog` for its parent root entity.

entityType

Returns the entity type.

Syntax

```
- (int)entityType
```

Parameters

None.

Returns

Returns the entity type.

Examples

- **Get the Entity Type**

```
SUPObjectList *changeLogs = [SUP101SUP101DB getChangeLogs:
[SUPQuery getInstance]];
if([changeLogs size] > 0)
{
    for (id<SUPChangeLog> cl in changeLogs)
    {
        MBOLogInfo(@"changelog:[entityType=%d]\n", [cl
entityType]);
    }
}
```

operationType

Returns the operation type of the MBO.

Syntax

```
- (unichar)operationType
```

Parameters

None.

Returns

The operation type of the MBO. Possible values are 'U' for update and insert, and 'D' for delete.

Examples

- **Get the Operation Type**

```
SUPObjectList *changeLogs = [SUP101SUP101DB getChangeLogs:
[SUPQuery getInstance]];
if([changeLogs size] > 0)
{
    for (id<SUPChangeLog> cl in changeLogs)
    {
        MBOLogInfo(@"changelog:[operationType=%C]\n", [cl
operationType]);
    }
}
```

rootEntityType

Returns the name of the root parent entity type.

Syntax

```
- (int)rootEntityType
```

Parameters

None.

Returns

Returns the root entity type which is the root of the object graph.

Examples

- **Get the Root Entity Type**

```
SUPObjectList *changeLogs = [SUP101SUP101DB getChangeLogs:
[SUPQuery getInstance]];
if([changeLogs size] > 0)
{
    for (id<SUPChangeLog> cl in changeLogs)
    {
        MBOLogInfo(@"changelog:[rootEntityType=%d]\n", [cl
rootEntityType]);
    }
}
```

rootSurrogateKey

Returns the surrogate key of the root parent entity.

Syntax

```
- (long)rootSurrogateKey
```

Parameters

None.

Returns

The surrogateKey of the root entity.

Examples

- **Get the Root Surrogate Key**

```
SUPObjectList *changeLogs = [SUP101SUP101DB getChangeLogs:
[SUPQuery getInstance]];
if([changeLogs size] > 0)
{
    for (id<SUPChangeLog> cl in changeLogs)
    {
        MBOLogInfo(@"changelog:[rootSurrogateKey=%ld]\n", [cl
rootSurrogateKey]);
    }
}
```

```

    }
}

```

surrogateKey

Returns the surrogate key of the entity.

Syntax

```
- (long) surrogateKey
```

Parameters

None.

Returns

The surrogate key of the affected entity. Note that the change log contains all affected entities, including children of the object graph.

Examples

- **Get the Surrogate Key**

```

SUPObjectList *changeLogs = [SUP101SUP101DB getChangeLogs:
[SUPQuery getInstance]];
if([changeLogs size] > 0)
{
    for (id<SUPChangeLog> cl in changeLogs)
    {
        MBOLogInfo(@"changelog:[surrogateKey=%ld]\n", [cl
surrogateKey]);
    }
}

```

Methods in the Generated Database Class

You can use generated methods in the package database class to manage change logs.

enableChangeLog

By default, Change Log is disabled. To enable the change log, invoke the `enableChangeLog` API in the generated database class. The next synchronization will have change logs sent to the client.

Syntax

```
+ (void) enableChangeLog
```

Returns

None.

Examples

- **Enable Change Log**

```
[SMP101SMP101DB enableChangeLog];
```

getChangeLogs

Retrieve a list of change logs.

Syntax

```
+ (SUObjectList*) getChangeLogs:(SUPQuery*) query
```

Returns

Returns a GenericList of type <Change Log>.

Examples

- **Get Change Logs**

```
SUObjectList *changeLogs = [SMP101SMP101DB getChangeLogs:  
[SUPQuery getInstance]];
```

deleteChangeLogs

You are recommended to delete all change logs after the application has completed processing them. Use the `deleteChangeLogs` API in the generated database class to delete all change logs on the device.

Syntax

```
+ (void) deleteChangeLogs
```

Returns

None.

Examples

- **Delete Change Logs**

```
[SMP101SMP101DB deleteChangeLogs];
```

Usage

Ensure that when calling `deleteChangeLogs`, there are no change logs created from a background synchronization that are not part of the original change log list returned by a specific query:

```
GenericList<ChangeLog> changes = getChangeLogs(myQuery);
```


You should only call `deleteChangeLogs` in the `onSynchronize()` callback where there are no multiple synchronizations occurring simultaneously.

disableChangeLog

Creating change logs consumes some processing time, which can impact application performance. The application may can disable the change log using the `disableChangeLog` API.

Syntax

```
+ (void) disableChangeLog
```

Returns

None.

Examples

- **Disable Change Log**

```
[SMP101SMP101DB.disableChangeLog];
```

Code Samples

Enable the change log and list all changes, or only the change logs for a particular entity, Customer.

```
// Retrieve all change logs
[SMP101SMP101DB enableChangeLog];
[SMP101SMP101DB synchronize];
SUPObjecList *changeLogs = [SUP101SUP101DB getChangeLogs:[SUPQuery
getInstance]];
if([changeLogs size] > 0)
{
    for (id<SUPChangeLog> cl in changeLogs)
    {
        MBOLogInfo(@"changelog:[entityType=%d]\n", [cl entityType]);
    }
}

// Retrieve only the change logs for Customer:
[SMP101SMP101DB enableChangeLog];
[SMP101SMP101DB synchronize];

SUPQuery *changelogQuery = [SUPQuery getInstance];
int entityType = SMP101_ENTITY_TYPE_Customer;
changelogQuery.testCriteria = [SUPAttributeTest
equal:@"entityType" :[NSNumber numberWithInt:entityType]];

SUPObjecList *changeLogs = [SMP101SMP101DB
getChangeLogs:changelogQuery ];
if([changeLogs size] > 0)
{
```

```
for (id<SUPChangeLog> cl in changeLogs)
{
    MBOLogInfo(@"changelog:[entityType=%d]\n", [cl entityType]);
}
}
```

Update Properties (updateprops.bat) Utility

Performs multiple functions, including registering or removing a participating node for a cluster, or update a specific server property.

Note: Unless documented otherwise, use Sybase Control Center to change most properties in the runtime to avoid unnecessary complication.

Syntax

```
updateprops.bat [-u username] [-p password] [-d dsn]
[-cn clusterName] [-nv "<propertyName=NewValue>"] [-v]
```

Parameters

- **-u *username*** – the platform administrator username.
- **-p *password*** – the platform administrator password.
- **-d *dsn*** – the data source name (DSN) of the cluster database.
- **-cn *clusterName*** – the name that identifies the Unwired Platform Cluster
- **-nv "*<propertyName=NewValue>*"** – one or more platform property values that requires change. Multiple values can be defined; however, they must be separated by the pound symbol (#). For example:

```
-nv
`ml.threadcount=10#sup.admin.port=2005#sup.sync.port=2490"
```

- **-v** – use verbose output in the command window.

Note: The -r, -x, and -f options are reserved for internal product use only. While these options are supported by the command line, they are not intended for administrator use.

Examples

- **Changing a cdb threadcount property** – Update the ml.threadcount property of the production environment cache database to 20 by running:

```
updateProps.bat -nv "ml.threadcount=20"
```

This is only recommended for deployment editions of Unwired Platform.

Usage

Before running this utility, ensure that the data tier is available; otherwise platform data is not modified correctly.

Key Performance Indicators

The Introscope Agent collects KPIs from Unwired Server. These KPIs are used to assess the health of Unwired Server.

KPIs vary for the agent type (Java or .NET) used.

Table 1. Java Introscope Agent Key Performance Indicators for Replication Applications

KPI Grouping	Description	Example
Authentication	Enumerates user authentication performed against a single login module. The KPI is a direct reflection of the execution time for the authentication attempt against the module type used. If a security configuration contains multiple login modules, a single user authentication result may occur in more than a one event.	Sybase Unwired Platform Security {SecurityConfigurationName} Authentication {LoginModule- Type}
Registration		
	Enumerates all automatic application connection registration events.	Sybase Unwired Platform Applications Registration
	Average time taken for registering a user through the message channel.	Sybase Unwired Platform Applications Registration Message- Channel
	Average time taken for registering a user through the HTTP channel.	Sybase Unwired Platform Applications Registration HttpChan- nel

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KPI Grouping	Description	Example
	Average time taken for registering a user through the JMO channel.	Sybase Unwired Platform Applications Registration JmoChannel
Replication Events		
	The average time uploading data from the client application to the cache. This KPI does not include network time.	Sybase Unwired Platform {domain} Cache {package} Synchronization UploadData
	The time processing entity operations in the package until the download starts.	Sybase Unwired Platform {domain} Cache {package} Synchronization PrepareForDownload
	The amount of time fetching rows which need to be downloaded from the cache. This does not include network time.	Sybase Unwired Platform {domain} Cache {package} Synchronization DownloadData
	The average time processing messages for asynchronous cache operations and putting the message on the messaging sub system queue for transport. This does not include network time and the time spent by messaging subsystem.	Sybase Unwired Platform Cache ProcessReplayBatchMessage
	The event of generating internal data change event notifications.	Sybase Unwired Platform {domain} Cache {package} ScheduledNotify

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KPI Grouping	Description	Example
	The average time generating internal data change event notifications.	Sybase Unwired Platform Cache {classname} {method} Cache {classname} {method}
Push/Server-initiated Synchronization (SIS)		
	Determines which application connections are affected by push changes since the last run of this task.	Sybase Unwired Platform {domain} Cache {package} ScheduledNotify
	The average time creating SIS notifications.	Sybase Unwired Platform {domain} Cache {package} ScheduledNotify CreateNotifications
	The average time creating a single SIS notification.	Sybase Unwired Platform {domain} Cache {package} ScheduledNotify CreateOneNotification
	The average time taken for Unwired Server to send notifications to clients over the messaging channel.	Sybase Unwired Platform {domain} Cache {package} ScheduledNotify InternalTransport
	The average time taken for Unwired Server to send notifications to clients over the HTTP channel	Sybase Unwired Platform {domain} Cache {package} ScheduledNotify HttpTransport
Messaging Synchronization		
	The average time processing all incoming asynchronous messages from messaging applications.	Sybase Unwired Platform Cache Messaging ProcessIncomingMessage

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KPI Grouping	Description	Example
	The average time processing messages related to bulk subscribe.	Sybase Unwired Platform Cache Messaging ProcessBulkSubscribeMessage
	The average time determining which application connections are affected by changes since the last run of this task.	Sybase Unwired Platform {domain} Cache Messaging {package} ScheduledPush
	The average time spent in background workthread processing "persistent" events that will lead to import message generation for cache messaging based applications.	Sybase Unwired Platform Cache Messaging GenerateOutgoingMessages
	The average time producing the actual push job (GenerateOutgoingMessages) to run in the context of a particular application connection for which data is to be delivered.	Sybase Unwired Platform {domain} Cache Messaging {package} ScheduledPush CreatePushJobs
Data Services (EIS read or write)		
	The average execution time for a single EIS operation of an entity.	Sybase Unwired Platform {domain} Cache {package} {mbo} {operation}
	The time spent modifying the cache with the supplied rows of an entity.	Sybase Unwired Platform {domain} Cache {package} {mbo} ModifyCache

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KPI Grouping	Description	Example
	<p>Determines the degree of change. The merge processor only updates the cache incrementally when the EIS partition is empty, or the cache partition is empty and there are no foreign keys or the cache is unpartitioned. Otherwise, the change commands are collected and executed in series as a batch when applyDeltas() is invoked.</p>	<p>Sybase Unwired Platform {domain} Cache {package} {mbo} DetermineDelta</p>
	<p>For the specified partition, this method compares the contents of the cache with the contents of the partition in the EIS; any changes are detected by computeDeltas() and translated into change commands.</p>	<p>Sybase Unwired Platform {domain} Cache {package} {mbo} ApplyDelta</p>
Data maintenance		
	<p>The average time spent removing logically deleted rows in the cache that are older than the oldest synchronization time on record in the system. This cleanup task also removes unused or stale partitions.</p>	<p>Sybase Unwired Platform {domain} Cache {package} Data Maintenance PurgeEntities</p>

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KPI Grouping	Description	Example
	The average time spent removing client log records that have already been synchronized to the device, or are no longer associated with active users.	Sybase Unwired Platform {domain} Cache {package} Data Maintenance PurgeClientLog
	The average time spent removing historical data on MBO data refresh and operation replay failures, which result from system or application failures.	Sybase Unwired Platform {domain} Cache {package} Data Maintenance PurgeErrorLog
	The average time spent in removing subscriptions that are not active for the 'number of inactive days' in the schedule task configuration.	Sybase Unwired Platform {domain} Cache {package} Data Maintenance PurgeSubscriptions
DCN/WFDCN incoming events from EIS for cache manipulation or HWA trigger		
	The average time spent in parsing and processing the DCN request for Hybrid Apps on Unwired Server.	Sybase Unwired Platform {domain} Hybrid App Notification ProcessRequest
	The average time spent in parsing and processing the DCN request on Unwired Server.	Sybase Unwired Platform {domain} Cache {package} Data Change Notification ProcessRequest
	Processing the URL authenticated Hybrid App DCN request on Unwired Server.	Sybase Unwired Platform {domain} Hybrid App Notification POST

Known Issues for Unwired Platform Runtime 2.2 SP02

KPI Grouping	Description	Example
	Processing the basic authenticated Hybrid App DCN request on Unwired Server.	Sybase Unwired Platform {domain} Hybrid App Notification HttpPOST
	Processing the URL authenticated DCN request on Unwired Server.	Sybase Unwired Platform {domain} Cache {package} Data Change Notification POST
	Processing the basic authenticated DCN request on Unwired Server.	Sybase Unwired Platform {domain} Cache {package} Data Change Notification HttpPOST
Messaging		
	The average time processing incoming messages over IIOP.	Sybase Unwired Platform MessageChannel Transport
	The average time executing commands by a registered Handler.	Sybase Unwired Platform MessageChannel Dispatcher
	The event of a single MBO request invocation from a Hybrid App.	Sybase Unwired Platform MessageChannel MboRequestHandler
	The event of requesting a specific customization resource bundle from Unwired Server.	Sybase Unwired Platform MessageChannel CustomizationResourceHandler
	The event of uploading a business transaction in XML from the device to Unwired Server, including the actual time to transfer the file to the Solution Manager.	Sybase Unwired Platform MessageChannel BtxUploadHandler
	The average time inserting the device logs into the domain log database.	Sybase Unwired Platform MessageChannel ClientLogsHandler

Known Issues for Unwired Platform Runtime 2.2 SP02

KPI Grouping	Description	Example
	The event of logging a trace record in domain log database by messaging sub system.	Sybase Unwired Platform MessageChannel E2eTraceHandler
	Average time spent inserting messages into the messaging queue. This KPI gets called from Push.	Sybase Unwired Platform MessageChannel SendDirect
JMO Messaging		
	Average time processing incoming messages through message channel over JMO path.	Sybase Unwired Platform Proxy JmoMessageChannel
Online Data Proxy		
	The time spent handling a single client call from an application in the messaging channel.	Sybase Unwired Platform Proxy MessageChannel
	The time interacting with the backend in the messaging channel.	Sybase Unwired Platform Proxy MessageChannel EndpointCall Sybase Unwired Platform Proxy MessageChannel EndpointCall GatewayUrl
	The average time processing the response from the backend in the messaging channel.	Sybase Unwired Platform Proxy MessageChannel PrepareResponse
	The time spent handling a single client call from an application in the HTTP channel.	Sybase Unwired Platform Proxy HttpChannel

Known Issues for Unwired Platform Runtime 2.2 SP02

KPI Grouping	Description	Example
	Invokes the backend in the HTTP channel.	<p>Sybase Unwired Platform Proxy HttpChannel EndpointCall</p> <p>Sybase Unwired Platform Proxy HttpChannel EndpointCall GatewayUrl</p>
	The average time processing the response from the backend in the HTTP channel.	Sybase Unwired Platform Proxy HttpChannel PrepareResponse
Native Push Notifications		
	The event of processing the push notification message delivery to native push subsystems.	Sybase Unwired Platform Native-Push POST
	The average time sending a notification to native notification servers. This does not include time spent by native notification servers to send the message to actual device.	<p>Sybase Unwired Platform Native-Push ProcessNotification APNS</p> <p>Sybase Unwired Platform Native-Push ProcessNotification BES</p> <p>Sybase Unwired Platform Native-Push ProcessNotification GCM</p>
DOE-C		
	Average time spent in all DOE-C incoming/ outgoing requests.	Sybase Unwired Platform DOEC DOERequestProcessing
	Average time taken processing an incoming request from DOE server.	Sybase Unwired Platform DOEC ProcessDOEResponse
	Average time spent pushing messages from DOE-C to device queue.	Sybase Unwired Platform DOEC Push

Table 2. .NET Introscope Agent Key Performance Indicators for Messaging or Hybrid Apps

KPI Grouping	Description	Example
Incoming messages from applications to Unwired Server	The average time spent in sending the request from the messaging servers to Unwired Server.	Sybase Unwired Platform Cache Messaging MessageFromClient Sybase Unwired Platform Cache Messaging MessageFromClient:Errors Per Interval Sybase Unwired Platform Cache Messaging ClientErrorCallback {1}:Errors Per Interval
Message channel	Generic method called by device -- performs web request (HTTP) of MMS for a synchronized method call over messaging channel for a particular Handler-Id call with respective domain and security configuration	Sybase Unwired Platform MessageChannel Transport {handler-id}-{domain}-{security configuration}
Hybrid Apps		
	The event of executing the synchronous request from the Hybrid App.	Sybase Unwired Platform Hybrid Apps ExecuteRequest
	The event of executing the asynchronous request from the Hybrid App.	Sybase Unwired Platform Hybrid Apps SubmitResponse
	The event of executing the object query (if any) and putting the message response into the messaging queue.	Sybase Unwired Platform Hybrid Apps ProcessEvent
Outbound messages from Unwired Server to application		

KPI Grouping	Description	Example
	The event of submitting the message from Unwired Server to the device outbound queue.	Sybase Unwired Platform Cache Messaging MessageFromServer Process
	The average time taken for the server to acknowledge the message after it was put into the outbound queue.	Sybase Unwired Platform Cache Messaging MessageFromServer Acknowledge

Problems with a Slow Query

Problem: A query (an object query, or a `findWithQuery` or `executeQuery`) is slow.

Explanation: Some attributes of the MBO used in the query's `where` clause or `join` conditions are not indexed.

Solution: Try to add necessary indexes for those attributes used in `where` clause or `join` conditions.

You can only add indexes when defining object queries. To add indexes by defining object queries, in *Sybase Unwired WorkSpace - Mobile Business Object Development* see *Creating Object Query Indexes*.

Web Service Mobile Business Object Limitations

Understand binding limitations of WSDL/XSD types into MBO types.

The Sybase Unwired Platform WSDL/XSD parser generates Sybase Unwired Platform structure types for `<complexType>` schema elements and attempts to map user defined `<simpleType>` elements and schema built-in types into Sybase Unwired Platform primitive types. For example, the schema type `<xsd:integer>` maps to the Sybase Unwired Platform `INTEGER` type. However, there are schema types that are not directly supported by Sybase Unwired Platform, and for these types the Sybase Unwired Platform WSDL/XSD parser maps them to the Sybase Unwired Platform `STRING` type. For example, the schema built-in type `<xsd:union>` is not directly supported by Sybase Unwired Platform and therefore appears as a Sybase Unwired Platform `STRING` type attribute.

Recursive definitions are ignored by the parser.

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