OneBridge®
Mobile Data Suite
5.0

release
overview

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Introduction

The OneBridge Mobile Data Suite is a comprehensive set of tools to extend enterprise applications to mobile devices. Built on top of the OneBridge Mobile Platform it offers a mobile framework for extending enterprise applications to any mobile device. Built on industry standard technologies like XML, Web Services and SyncML, it provides services to connect enterprise applications, deliver data to mobile devices and connect mobile applications. It also offers an infrastructure to manage devices so enterprises can securely deploy and manage all mobile devices in a single, scalable server platform.

The OneBridge Mobile Solutions Platform supports many enterprise application categories including groupware, DBMS, CRM, and ERP, and offers many choices to connect to them.

- Direct database access using OLE DB and ODBC interfaces
- Access using APIs and standard interfaces like COM and Web Services
- Access using Enterprise Application Integration (EAI) software (using OneBridge Integration Server)

Included are both a turnkey database synchronization solution and a custom application solution that allows developers to add features such as remote method invocation and table or recordset synchronization. The out-of-the-box database synchronization solution is easily customized to use custom business logic in the form of VBScript or ActiveX DLLs.

Centralized device management support includes file transfer, mobile device info, and registry actions to be managed from a single administrative application. These actions may be run from within the mobile application.

Administration Enhancement

Importing and Exporting Configurations

Allows Administrators to selectively save, restore, or relocate portions of the OneBridge configuration tree to another configuration or another server.

OneBridge Sync Server Support for Scripting

This feature will permit OneBridge administrators to design custom scripts to be invoked by individual clients during a sync session. The Admin interface will allow OneBridge administrators to configure a script at any node in the configuration tree. The content and the behavior of the scripts are left to the user's discretion. System, device, and OneBridge information are exposed as script object properties, or variables. These variable's values are derived from runtime information from the user's client or from the OneBridge Server product and may be utilized when a script is invoked. It supports any scripting language supported by Windows host scripting engine.

Enhanced Kill-Pill (disabling stolen/lost devices)

With this enhanced feature, administrators can disable stolen and lost devices with a single operation. Devices will be completely hard reset or the user data completely wiped out and put in an undesirable state. When Live Connect is enabled and the device is always-on, the Kill Pill action is pushed to the device immediately.

Synchronization

Referential Integrity

Provides support for synchronizing databases containing foreign key constraints. This allows developers and partners to maintain server database referential integrity while synchronizing with any client database.

Phased Synchronization

Provides support for a two-phased synchronization process where data is synchronized from a server database to an intermediate staging area, and then synchronized from the staging area to the mobile devices. This becomes beneficial for solutions where updating the backend server is time consuming.

DB to PIM Support on Smartphone

Provides support for doing DB to PIM synchronization with Smartphone mobile clients.

Windows CE ADOCE Flex Sync Data Driver

Flex Sync is the mechanism that allows applications to indicate which rows in a table have been modified since the last synchronization. The Flex Sync Data Driver uses a column added by the data driver and updated by the application to track data modifications. The data driver will only process the rows that have changed.

Push Infrastructure

Database Push

Supports a new Listener type, the Database Listener. The Database Listener is used to detect changes to a database that need to be sent to a mobile device. When the Database Listener detects a change, it issues a notification to the Live Connect manager to initiate a push event to affected mobile devices.

Push API Enhancements for "Reachable" and "OnLine"

These API Enhancements allow developers to interact with the Push infrastructure on the server to find out the presence of a particular device and use that information to create business logic.

Push Invokes Third-Party Applications

This feature allows a third-party client application to be registered for notification of OneBridge Push Events. Registration can be for all notifications, selected Triggers, Actions, tables under a Sync Action, or custom push tags as described below. Once an application is registered, the OneBridge Client Push module will launch that application when a push notification is received for the registered item. Upon notification, the third-party applications will be able to perform some custom process, or invoke OBC through scripting to perform some specified action.

Custom tags allow the developer to register for push events that are completely under the developer's control. Custom tags are defined and sent to the device through the OBSPushAPI. In addition, custom tag push allows data to be included in the notification packet. Developers should take care to limit the amount of data included in the notification to less than 4k of data.

OneBridge Push – Guaranteed Delivery

This feature ensures that notifications from the server side for delivery of data are guaranteed so application developers do not have to build this functionality into their applications.

Client Tool Kit

Mobile Objects .NET Client

Enables developers to use C# or VB.Net to create managed Mobile Objects applications running on Pocket PC, Pocket PC emulator and desktop Windows.

Mobile Objects Server Support for .NET Assemblies

Enable Mobile Objects client applications to invoke methods implemented in server-side .Net assemblies.

Mobile Objects Java Client- Push & Support for BES 4.0

The 4.5 release of the Extended Systems BlackBerry libraries leverages the guaranteed delivery in OneBridge Sync Server 4.5 for push data delivery. Additions to the library are also introduced which allows developers to integrate with OneBridge's Live Connect functionality to register for database push notifications, and custom push notifications. Data storage on the device has also been greatly improved by leveraging new features from RIM.

Installation Notes

The OneBridge Mobile Objects SDK for RIM JDK are now installed along with OneBridge Sync Server and do not require a separate download.

Mobile Objects Support for Clock Sync and Device Message

Mobile Objects can now run the Clock Sync and Device Message actions configured from Admin, in addition to already supporting database sync, file transfer, and software distribution actions.

Mobile Objects Push

This feature allows Mobile Objects to be used within the OneBridge Live Connect framework. Using the Push Registration APIs, a third-party client side application can register to be launched in place of the OneBridge Client upon notification of push events. Registration can be for all notifications, selected Triggers, Actions, tables under a Sync Action, or custom push tags as described below. Once an application is registered, the OneBridge Client Push module will launch the application when a push notification is received for a registered item. Upon notification, the third-party applications will be able to perform some custom process, or invoke OBC through scripting to perform some specified action.

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Currently only the Pocket PC and RIM platforms are supported.

Availability & Scalability

Scalability and Fault-Tolerance

OneBridge Server has been enhanced to provide more scalability. The server now fully supports Windows Load Balancing Solution (WLBS) so every component of the server, such as DMZ Proxy, Sync Server, and Adapters, are able to be load-balanced. OneBridge Listeners are also capable of working in a load-balanced environment to avoid single point of failure. However, the listeners do not share the load between multiple servers, as a single listener is capable of handling large amount of traffic. OneBridge Server also supports Windows clustering to provide fault-tolerance capability for its data access.

OneBridge Monitoring Service

OneBridge Monitoring Service ensures that the OneBridge Service is highly available by monitoring all the components of deployment and taking remedial actions in cases where there is an outage. It also enables administrators to be aware of the status of OneBridge server without having to worry about unscheduled downtime.