

OneBridge[®] Mobile Data Suite

technical brief

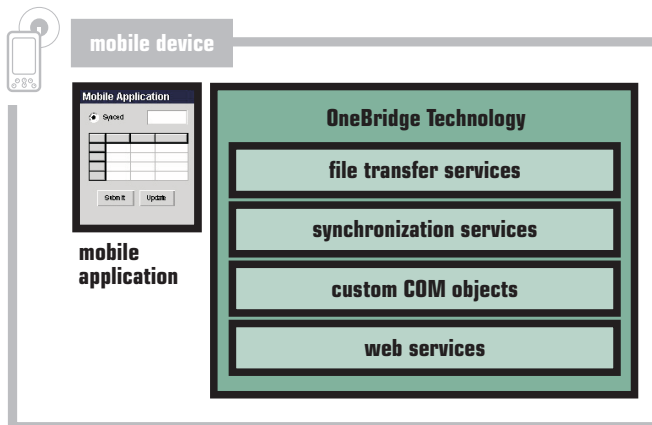


OneBridge Mobile Data Suite is a robust development suite for proactively delivering mission-critical information to mobile device users. With a broad range of development features, OneBridge Mobile Data Suite provides tools for every level of application development experience. So whether you are an enterprise desktop developer, an independent applications developer, or part of the IT team charged with deploying and maintaining applications, OneBridge Mobile Data Suite provides a powerful foundation upon which to deliver mobile data to the workforce.

developing mission-critical mobile applications

OneBridge Mobile Data Suite delivers the ability to extend enterprise systems to mobile applications. Because OneBridge optimizes and automates many of the difficult tasks associated with mobile applications, it can greatly reduce the amount of time it takes to develop a mobile enterprise application. The application developer no longer has to be concerned with the properties of the network, how to synchronize the data, how to integrate to enterprise systems or how to deploy and support the application. OneBridge solves all of these problems so developers can focus on building functionality and value into their mobile solutions.

- easy to integrate, open synchronization engine
- powerful business logic SDK allows greater flexibility for enterprise system and process integration
- seamless integration with custom client-side application databases
- GUI-based extensive field mapping including data type translation



OneBridge technology

Extended Systems has taken over 10 years of wireless development experience and built a world-class, wireless-optimized transport that allows easy wired or wireless integration from any mobile application. The application developer is sheltered from the specifics of the protocols, wireless network specifics and connection details and only needs to focus on the application functionality.

The transport provides:

- Authentication
- Encryption (RSA FIPS 140-2 certified)
- Compression (up to 12:1)
- Optimized for wireless (less chatty, supports any IP-based wireless network)
- Multi-device support

Many services have been built on this transport to enable more powerful mobile applications.

synchronization services

OneBridge Mobile Data Suite introduces better control of data synchronization from within mobile applications. Sync libraries are provided to the developer so that the whole process of replicating data from a mobile device to a server data store can be embedded into the mobile application.

- OneBridge Sync Engine tracks changes in mobile databases
- Quickly and efficiently synchronize offline data with server-side databases

custom COM / web services

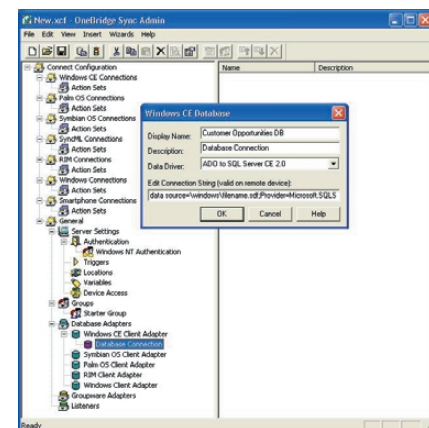
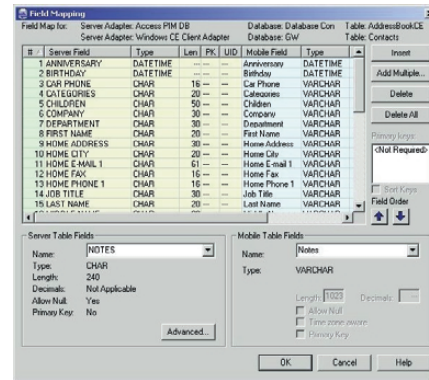
OneBridge provides the ability to wrap any service and expose it as a local module for most mobile application development environments (AppForge MobileVB, CodeWarrior, Embedded Visual Tools). This allows other connected operations besides just "sync".

- Remotely execute a complex workflow operation
- Interactively submit or request data
- Easily execute advanced transactions

file transfer services

One minor feature of OneBridge that provides major benefits to mobile devices is the ability to wirelessly manage files. Whether you need to update a deployed application, or simply delete or move some files, OneBridge's file transfer functionality make this very easy.

- Easily put or get files from the server
- Seamlessly update applications on the device



server-side integration

Enabling easy access from mobile applications to enterprise systems is of utmost importance to the OneBridge Mobile Data Suite. OneBridge provides the ability to perform basic synchronization operations against a database or perform an advanced transaction against a third-party API. By providing native support for ActiveX Data Objects, OneBridge is capable of easily connecting to any database. And advanced integration services provide native support for integration with Siebel, SAP or TIBCO, thus providing a complete solution for business applications.

business logic

Often the synchronization of data requires advanced operations, logic or some transformation applied to the data at some point in the process. OneBridge Mobile Data Suite makes these operations easy by providing an advanced Business Logic SDK allowing developers or integrators to easily add advanced logic to the synchronization process. For ease of use and flexibility, the Business Logic SDK offers three implementation methods: Win32 DLL, COM DLL, or scripting (with an integrated VBScript and JavaScript editor / debugger).

data drivers

When integrating with enterprise systems, it may not be acceptable to access the database directly. In many cases, custom APIs are provided by third-party systems to access data in the system. These APIs usually take into account the business rules, application flow and format of the data being read or written to the system. Because of this, OneBridge Mobile Data Suite offers developers the ability to extend synchronization support to these systems through their proprietary interfaces. The Data Driver SDK allows full flexibility in developing a layer on the OneBridge Sync Engine that interfaces with custom data access interfaces.

push API

Getting data to the mobile device in a timely manner is easier than ever. The OneBridge Live Connect services that were first released for our Mobile Groupware solution in the summer of 2003 are now available for mobile applications. This exciting new service allows developers to programmatically tell the server that it needs to send data to the mobile device allowing the user to have critical information in real-time without requiring any user initiation.

enterprise-class infrastructure

deploying, supporting and maintaining mobile applications

Developing mobile applications is a small portion of the life-cycle of the solution. The majority of the benefits, as well as the costs, are associated with the application being deployed and used in the field. OneBridge Mobile Data Suite not only offers SDKs and a solid mobility platform for developers, but it offers a complete infrastructure for IT to deploy and manage mobile software and devices.

application deployment wizard: Easily bundles pre-configured applications into a single executable that can be distributed for one-click installations of critical device application components.

device backup and restore: Ensures that data and configuration information is not lost in the event of memory loss.

software and hardware inventory: Provides IT with a verbose listing of the devices and software in the field.

file and application management: Gives IT the ability to automatically update, install, delete, copy and move any file or application on the mobile device.

security: Enforces power-on password protection for the device and offers the ability to "wipe" a device in the event it has been lost or stolen.

general specifications

Mobile Data Suite requirements

- Pentium III class server or higher, faster processor required for larger installations
- 128 MB RAM minimum, more RAM required for larger installations
- 100 MB free disk space for server software +4 MB for each defined user
- TCP/IP LAN connection

platform support

- Windows NT Server 4.0 with Service Pack 6a or later
- Windows 2000 Server with Service Pack 2 or later

client OS support

- Palm OS platform 3.5 and above
- Windows Mobile: CE.NET, HPC 2000, Pocket PC 2000/2002/2003
- Windows 9x/ME
- Windows NT/2000
- Windows XP

device database support

- Palm OS: PDB, AppForge, DB2e, PIM applications
- Windows Mobile: ADOCE (Pocket Access, SQL Server CE), ObjectStore, AppForge, DB2e, PIM applications
- Win32: Any ADO-accessible database

database server support

- Supports any database accessible via ADO (OLE DB, ODBC, etc...)
- Supports any custom data accessible via the Mobile Data Suite Data Driver SDK

management and deployment

- Distributed deployment options
- File and application management (install, copy, delete, move, backup, restore)
- Hardware/software inventory
- Device power-on password security option

communication

- HTTP/S

authentication

- Two-tier authentication
 - First Tier: Windows NT (Active directory compliant), RADIUS, LDAP, Database
 - Second Tier: Database or Application

encryption and compression

- zLIB and WBXML compression (approximately 8:1)
- Integrated RSA bSafe Crypto Micro Edition (FIPS 140-2 certified)

database features

- Server-to-server, server-to-laptop, and server-to-device synchronization supported
- Synchronizes any heterogeneous data
- Field-level synchronization
- Customizable Filters
- Full support for syncing to database via SQL queries
- Transaction processing (single and multiple table)
- GUI-based extensive field mapping
- Customizable client-side SQL
- Time zone aware date/time fields
- Customizable business layer on server
- Field data type translation
- Multiple server table to single device table support
- Pre and post processing support using SQL statements

languages

- English server and clients. Compatible with ISO Latin I character sets (ANSI Code-page 1252)

license management

- Features controlled by license management using digital certificates

United States

Boise Headquarters

5777 North Meeker Avenue
Boise, Idaho 83713
Tel: (800) 235-7576
Tel: (208) 322-7800
info@extendedsystems.com

Benelux

IJsselsingel 42
5215 CM 's-Hertogenbosch
Tel: +31 (0)73 - 623 5359
info@extendedsystems.nl

Canada

175 Bloor Street East
South Tower, Suite 1109
Toronto, Ontario
M4W 3R8
Tel: (416) 214-9711
info@extendedsystems.com

France

Parc des Erables, Bâtiment 4
66 route de Sartrouville
78230 LE PECQ cedex
Tel: +33 (0) 1 30 09 23 23
info@extendedsystems.fr

Germany

Schwarzwaldstr. 99
71083 Herrenberg
Tel: +49 (0) 7032 / 798 - 0
info@extendedsystems.de

United Kingdom

7-8 Portland Square
Bristol BS2 8SN
United Kingdom
Tel: +44 (0)117 901 5000
info@extendedsystems.co.uk

For information and a list of distributors visit our web site:

www.extendedsystems.com

Extended Systems provides the expertise, strategy and solutions to help enterprise organizations streamline their business processes through mobile technology. The company's OneBridge mobile solutions suite enables companies to mobilize critical enterprise applications such as e-mail, field service, sales force automation, enterprise resource planning and customer relationship management. Extended Systems has more than 3,000 enterprise customers worldwide and key alliance relationships with Avaya, EDS, HP, Microsoft, Motorola, Nokia, PalmOne, PalmSource, Sharp, Siemens, Software AG, SonyEricsson, Symbian and Toshiba. By giving mobile workers real-time access to business critical information, Extended Systems has helped companies like FedEx, UBS Warburg, 20th Century Fox and Otis Elevator improve operating efficiencies and increase customer satisfaction—both of which result in a healthier bottom line.

Founded in 1984, Extended Systems has offices and subsidiaries in North America and Worldwide.

© Copyright Extended Systems 2004. OneBridge is a registered trademark of Extended Systems.

All other designations are the property of their respective companies.
Information subject to change without notice.

MDM-0796-0104