OVERVIEW FOR SYNERGY ISG: Mobile development



ScienceSoft in quick facts

- 250 full-time IT experts and a network of 100+ developers
- 200+ successfully completed large outsourcing projects
- Experience in software development projects of 100+ man-years
- Software developed by us is used by many Fortune 500 companies
- Selected as an IBM Core supplier for technical services for 2009
- ISO 9001:2000 certified, CMMI3 pre-assessed
- 30+ customers at the moment

Services

- Mobile applications development
- Mobile web development
- Mobile consulting
- Mobile platform development
- Mobile testing

Industry experience

- Telecommunications
- Multimedia & Entertainment
- Banking & Insurance
- Healthcare & Life Sciences
- Retail
- Logistics & Location

Mobile technologies

SYMBIAN GUI/Custom GUI, SIP Stack, Telephony, DB, Sockets, Bluetooth, QT.

JAVA ME MIDP 1.0 /2.0, CLDC 1.0/1.1; WIDSETS, SIP, Location, DRM, SATSA, Bluetooth, Web

Service Access, JWTI, WMA 1.1, MMAPI 1.1 (JSR 135) PIM/FileConnection.

WINDOWS Compact Framework, WTL, ATL, Bluetooth, GPS, WiFi, TAPI, MAPI, COM/DCOM,

DirectDraw, OpenCV, Pocket Outlook, GIPS, Phone API, SIP, IMS, VoIP, Presence,

Camera APIs, Cryptography API.

ANDROID Google API, SQLite, Media Libraries, JNI, IM.

BREW Rich GUI, 3D graphics, video processing, WiFi.

LINUX Maemo SDK, QT, GNU C/C++, GTK+, GDB, OpenCV, UNICAP.

IPHONE

CASE STUDY: S60 (Nok 6600)



GPS Navigator

The challenge on the project was to support and enhance mapping/navigation software project. The project was targeted to range of SymbianOS-based mobile phones and Maemo(Linux)-based UMPCs. It allowed to view preloaded on memory cards vector maps, was able to get current position information from integrated or external GPS receivers, provided routing/navigation services with voice guidance. It also allowed getting actual information about traffic info and speedy cameras by updating data via Internet connection.

Orange Player for Musiwave, France

Orange Player is designed to allow the user to listen to personal tracks and to search and download full length titles. The application contains 3 menu items:

- My Songs allows users to manage their personal tracks into playlists of downloaded or imported music tracks
- Music Store allows users to browse the catalogue, preview 30 seconds samples within the application and then connect to the billing page of the selected content to download a song within the application
- Music Recognition allows users to recognize music samples from any source and then buy the associated content within the application from Music Store

Messenger for Movial, Finland

Skype-like, based on extended SIP protocol application with rich synchronization capabilities (with Pocket, desktop MS Outlook or server using IMAP). This allows users to interact with chat messages in ordinary or group chats, supports voice calls (voip, gsm - mobile versions), messaging via sms/mms (also mobile).

Music Store for Musiwave, France

Music Store is an offline music shop for mobile phones. Music Store is a unique application, as it differs from many analogues. Its unique feature is that it provides previews for music tracks which could be bought by a user in a safe way.

MPT for Multipartytalk, United Kingdom

The purpose of the application is to manage the creation and routing of calls into the Multipartytalk global network of local PSTN access numbers. The application connects a mobile phone user to one or more parties on a voice call, without using the default address book or call dialing software from the phone vendor. Multipartytalk calls a local dial in PSTN access telephone number in any one of over 20 countries and sends a dial string command to a central switching centre that then terminates the call to the user's specified destination.



Cookbook

This Internet application collaborates with remote web server and provided the user with cooking recipes using native iPhone UI and fine iPhone animation. The application represents view with attractive list. Each element of this list contains small image of a popular dish, title in big font and small description done by small font with some other color.

The user is able to select item from the list. The view is flipped and user gets a possibility to read recipe details.





Porting to iPhone

This project was executed in 2 languages C++ and Objective C;

- We have ported business logic of the game to iPhone using the possibility of iPhone SDK to combine C++ and Objective C code in one project;
- We have provided a platform depended layer for drawing game's graphics to native iPhone Graphic context.

Baloot

The objective of this small prototype project was a prove-of-concept development to test the possibility of creating J2ME and iPhone clients that can exchange data with server and allow a mobile user an ability to interact with a web-based flash client user in game play.



Daruma





ToDo style application on the basis of an idea of Japanese wish doll.

The user should assign a target for himself and track it. The target can have one of tree categories: Working, Personal or Miscellaneous. There was possibility to edit, remove targets. The application has several fun features: if user shakes device when application are on main screen the Daruma begin to swing and sounds displeased growl. After this it shows aphorism.

CASE STUDY: Windows Mobile (HTC Dash)



Team Calendar for HandStep, Denmark

The "Team Calendar" is a mobile solution (WM 2003/WM5/WM6 and SmartPhone) for viewing calendar data on a PDA or Smartphones for various user calendars. It requests Exchange server for user's calendars via intermediate gateway realized as Web Service. Requested data is used for further representation and analysis on device. For more information you can have a look flash-demo at http://www.teamcalendar.com/demo

MusicStore for Musiwave, France

Music Store is an offline music shop for mobile phones. Music Store is a unique application, as it differs from many analogues. Its unique feature is that it provides previews for music tracks which could be bought by a user in a safe way. The application downloads up-to-date catalogs of tracks from the service-provider server and the user can listen to track preview before buying it as ring-tone or full track.

Floor Manager for CapturePlan, Australia

The application was designed for big shops. It creates products plan in bug shops and storage facilities and then employees can easily find necessary product on shelves. Also it can plan the spaces where new products can be putted as it is synchronizes via WiFi or GPRS connection with database.

Mail Client

Cross-platform library SMAPI was designed in such way that it provides interfaces similar to MS MAPI. The implementation has separated layers:

- platform dependent system API layer (file I/O, threads, synchronizing tools, sockets & etc.) in case
 of porting to the platform different from Windows, implementation of this base part should reimplemented for new platform;
- transport layer library knows only about number of supported transports (mail protocols), so new mail protocols can be implemented as new transports and integrated easily into the SMAPI;
- logic implementation layer this layer uses the above layers to implement business logic of the library
- also it supports Multiple mail accounts, Offline messages storage/access, Secured connections supported (SSL2, SSL3, TLS), mail protocols: SMTP, IMAP4, POP3

Family Minder

The end user is AT&T, cross-platform application. The idea of this application is to have up-to-date information for parents where their children are located at this moment. It is allowed to see them on map online and receive SMS, when the child leaves defined area, or school yard.

CASE STUDY: Android (G1)



Weather widget

Solution includes widget and service:

- Widget displays weather information for pre-configured location.
- Service provides user with a capability to get weather information for a configured location from public weather servers and sends information to all interested application on the device.

My Space

Set of popular applications for Android platform. The set of applications for android platform contains such applications as note, audio player, calendar, tasks manager, photo album, crypto and etc. These applications use all the power of new Google platform: integrated database, services, location API, file system, accelerometer, xml parser, rich animation and media capabilities and many others.

Home screen personalization

The objective of the project is to modify Home application so that it can be customized with the help of "virtual screens" which can contain widgets.

CASE STUDY: Blackberry

Encrypter

Encrypter is an encryption tool for your files and data on handsets. This application allows end users to lock down and secure information on devices and provides on-the-fly encryption of sensitive data stored on handset and removable cards. It allows not only to prevent security breaches from lost devices, but also secures data during transition through mobile carrier.

Multipartytalk

The purpose of the application is to manage the creation and routing of calls into the Multipartytalk global network of local PSTN access numbers. The application connects a mobile phone user to one or more parties on a voice call, without using the default address book or call dialing software from the phone vendor. Multipartytalk calls a local dial in PSTN access telephone number in any one of over 20 countries