

A leading global provider of healthcare information

Project: Mobile Enterprise Connectivity Solution

About the Customer

Our customer is a leading global provider of practical information solutions to strengthen health care systems, enhance safety and improve government service delivery. Their innovative solutions leverage the world's 2 billion mobile phones as well as fixed-line phones, PCs and PDAs to cast a much broader reach than Internet-only solutions.

Background & Business Drivers

The field executives needed to capture information from surveys in mobile handheld device and synchronize it with the enterprise systems. The mobile application providing this feature was extremely information intensive and had to render to rich feature and display on handheld devices. Moreover, professionals on the move needed access to numerous sources of information beyond the stand-alone application, including information from accounting systems, inventory systems, and Intranet applications.

InterralT's Value Proposition

InterralT with its expertise in mobile technologies, messaging applications, server side application development and a proven offshore development model, met all technical and business needs of the customer.

The company was asked to design and develop a generic architecture that would enable mobile handheld devices connect to enterprise applications. The solution was required to be highly customizable which needed to be extended to interface with any existing enterprise systems.

Scope of services & Solution

The project involved development of a platform which would allow field personnel to capture information in the field and synch it up with the remote enterprise server. By leveraging landline & mobile phones, PDA's, faxes and radios, as well as the Internet, applications built and deployed on this multi-channel platform offered a much broader reach. The project involved development of handheld-based applications to capture user-entered information, server-side components and enterprise connectivity through SMS & GPRS.

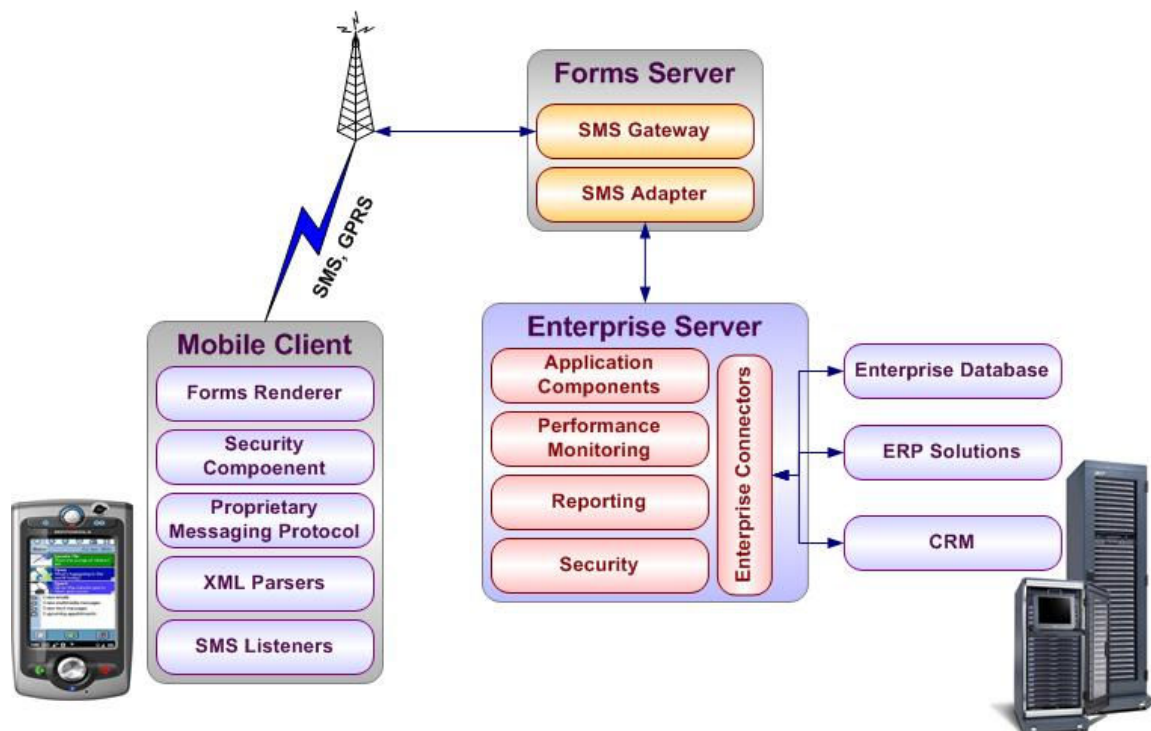
Installation of the application on the users' device was done through the company's website. A J2ME client was developed which supported following functionalities

- User registration and access to customer's products via J2ME hand-held devices
- User access to surveys and forms in connected and disconnected modes of operation of the client
- A WBXML Parser to parse and validate the XML files and generate the forms

- Off-line storage of user access permissions, forms, and content
- Synchronization of data, forms and user permissions in a connected mode of operation of the client
- Communication via either GPRS or SMS between the client and the Forms Server
- Multiple user profiles per hand-held device, with separation of user permissions and data
- Security models for server communications, and for local data storage
- Multilingual Application: Localization options for languages.

The server side application involved developing of a platform to provide the following functionality

- Real-time collection of critical information from a distributed network of people, in this case, health workers with new cases of disease to report
- Rapid analysis of data to drive decision-making and allocation of resources
- Communication back to the field to coordinate response



Business Challenges

- To develop and pilot a running client for Nokia, Motorola and Sony Ericsson models for field testing in extremely tight timelines
- Achieving streamlined communication via SMS

- Ensuring high performance and conformance to security requirements
- Testing of the application on multiple platforms across multiple network carriers
- Modular design with features of product within their boundaries
- Faster product release
- Support for multiple languages

Pay offs

InterraIT won many accolades from the customer on successful development and deployment and assisting in technical support. Some of the benefits to the customer included

- Helping the customer utilize the mobile hand-held devices for remote data collection
- Faster collection due to direct upload to server, significant reduction in the turn around time
- SMS support enabled connectivity through non-GPRS supported places

Technologies

Core Technologies used in the development of the handheld application were

- J2ME
- MIDP 2.0, CLDC 1.1
- WBXML, XML
- Java, PHP, Web Services

Core Technologies used in the development of the Server Components were

- .NET Framework 2.0
- ASP.NET
- C#
- SQL Server 2005
- IVR, SMS
- Reporting tools