



LiveCargo {e} Solutions

Business Transformed: LiveCargo leverages Imfinity's Microsoft and mobile expertise to rapidly execute product roadmap

"Imfinity has allowed us to parallel our own development effort in order to bring our client software to different platforms. Their team works closely with ours and has truly become an extension to our core development process. This is the kind of technical partner a company in our fast paced industry really needs, and we are very happy to have found such a trustworthy relationship with Imfinity."

- Rick Reddel, COO

LiveCargo Inc.

Customer Introduction

LiveCargo is a Secure-Messaging software company providing businesses and organizations with secure file transfer, online storage and secure-delivery products and services for data management solutions, improving business processes and reducing costs.

LiveCargo software leverages many authentication devices, works across multiple platforms, and is designed to be simple, flexible, and extremely efficient

LiveCargo's technology provides a fully integrated suite of highly reliable, secure, and auditable delivery systems for sending, receiving and storage of electronic documents across all computer platforms. The result provides a convenient, trusted, cost-effective service to their customers.

Imfinity success story with LiveCargo Inc.

Business Situation

LiveCargo's existing solution was developed for the desktop and web platforms using java technology. In order to provide their customers with access to the applications via the mobile platform and Microsoft Outlook, LiveCargo required an agile and competent product development partner to help them execute this product roadmap.

LiveCargo found in Imfinity a suitable partner to develop the plug-in to Outlook and the application on the Pocket PC.

The Challenge

Outlook Plug-in

The challenges faced were:

1. Single installer was required to support multiple versions of Outlook on multiple versions of Windows. Imfinity designed the application to support the following versions: Outlook XP, Outlook 2003, Outlook 2002, Outlook 2000
2. Additionally the plug-in was required to support all the Email Formats i.e. Plain Text, HTML and Rich Text.
3. The plug-in was required to support various types of address books – i.e. Local Address book, Global Address Lists and Exchange Address book.

Pocket PC

The challenges faced were:

1. The application was required to work under minimum memory and size constraints so that the response time and the loading time of the application is fast.

Case Profile

File transfer, storage and collaboration application on Microsoft Outlook and Windows Mobile for LiveCargo Inc.

Duration:: 6 man months

Environment:: Visual Studio .NET 2005

Technology used:: COM add-ins, interface to MAPI

Services:: R&D, Product Architecture, Design and development

Results:: Successful UAT and release, supports all versions of outlook, optimized architecture to run on mobile devices.

2. The application required real time connection to the client's web service for the data transfer. Hence special care was required to take care of situations where the device is not connected to internet or the data transfer speed is slow.

Infinity's Solution

Outlook Plug-in

1. As with any product development, Infinity did initial ground work and some R&D to make sure that the Plug-In developed is able to support multiple versions of Outlook and Windows and at the same time various email clients.
2. Infinity developed an **unmanaged** COM add-in proxy component (shim) to be able to successfully deploy and host "managed COM add-in" securely in Outlook. The shim component was refined further to support all the required versions of Outlook. The shim component was developed in VC++.
3. Care was taken to use the Outlook 2000 library (lowest version of Outlook) for the development to ensure that the plug in is supported by Outlook 2000 and all the higher versions of Outlook. At the same time **Interfaces** and not MAPI Object Classes, were used as the implementation of the MAPI object may be slightly different in various versions of Outlook. This ensured that the code does not break across the different versions.
4. Redemption Library was used to do away with the Outlook Security Pop ups to ensure a smooth user experience.

5. The code was refined and tested continuously to make sure that the plug-in is able to work with all email types and the various versions of address books. If required the type of address book or the type of email was detected and then code was written specifically based on the type.

Pocket PC

1. The application was designed keeping in mind the ease of use for the end user. At places where the application was required to transfer data from the LiveCargo Web Service a feedback in terms of a progress bar was displayed.
2. The application was globalized as per the requirement from the client. All the images, UI Messages, Error Messages and the like were stored as resource files.

Product Value adds & Results

- **Trusted Add-in** : Use of Redemption Library to get around the Outlook Security Pop Ups.
- **Intelligent installation**: Product installer with smart defaults for easy deployment.
- **Intuitive and easy to use User Interface**: keeping in mind the screen size and memory constraints.
- **Rapid time-to-market**: Successful UAT and Release, significantly cutting down time to market
- **Optimized architecture**: allowed the client to meet its goals of running the software with minimum memory and size requirements.

infinity

Transforming businesses

Infinity is a Software Product Outsourcing company that helps ISVs and software companies build competitive products to achieve market leadership and product excellence.

Balancing time to market pressures and superior quality is our forte at Infinity, and that is the essence of the value we bring to our clients. We bring you the much needed technical expertise, outstanding people and quality processes to build great products, on time.

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