



Global IT Solutions

An ISO 9001:2008 Company

A 3D illustration of four interlocking silver gears resting on a black smartphone. The smartphone is shown at an angle, with its screen displaying a blue background. The background of the entire page is a light gray with a network of blue and orange lines and dots, suggesting a digital or technological theme.

Windows & iOS Application Development

PSI planned and executed the project to upgrade an existing web application into a Mobile application, which could be accessed on their iPad or iPhone or Windows Mobile.

A preface:

Today Smartphones have become a way of life across the globe. Smartphones and Mobile Applications have indisputably transformed our outlook towards usage of Mobile. Mobile applications were designed to enhance productivity, speed up information retrieval, including email, calendar, contacts, stock market and weather information. Rising demand and the availability of developer tools led to further expansion.

The popularity of mobile apps continues to mount with the rising number of smartphone users.

Engagement Highlights:

The Client's application is an Email Archive and Compliance technology originating from the heritage of the world's first compliance driven email archiving solution. It is a comprehensive email archiving solution that can be simply installed via an appliance, software only or through virtualization as a managed service for many customers. The application gives access to all archived email stored in the Application's solution. It allows you to Search / Retrieve / Forward / Reply to the emails directly from the Application.

However, the web solution allowed access to archived emails only on the desktop via the web browser.

PSI partnered with the client to plan and develop this web application into a Mobile application, which could be accessed on their iPad or iPhone or Windows Mobile.

PSI team collaborated with the client to develop the web application into a mobile application. Whether you are working remotely it would give access to its archive. This would be an app that works both on iPhone or iPad or Windows Mobile. The team was to develop the application's design and suggest the application features to start off the project and meet the client's requirement.

About the client:

The client provides Email Archiving & Business Email solutions to enterprises, businesses and government organizations. It is a carrier-grade forensic archiving and email compliance solution. It allows organizations to collect, store and save every email and instant message in a secure, tamper-evident repository. With this application, users are able to sift through catalogued data quickly and easily – where email and attachments can be found in split seconds.

Safely stored and never edited, the client's archive allows forensic eDiscovery of an organization's entire email history. The stored data is readily available for any purpose pertaining to a Legal Procedure, Dispute Resolutions, HR investigations, Subject Access Requests, Freedom of Information requests, Regulatory Compliance or Data Protection.

Emails and other forms of electronic communication are used to convey and store a wide range of material:

- Contracts and subsequent variations to contract terms
- Financial performance and planning data
- Health and Safety notices
- Human Resources records
- Legal advice
- Intellectual property (e.g. designs, business plans, processes etc.)

Challenges:

Business challenge:

The web-based application allowed access to archived emails only on the desktop via the web browser and with increase of smart phones users were asking for a mobile based solution in addition to the current one. Enabling users with a mobile based option was crucial to help the client gain an edge over competition.

Technology challenge:

Major challenge was to analyze and display different formats of emails, load large size emails with embedded images on the mobile application.

- For Windows:
 - Worked on SDK 8.1 without much online assistance
 - Took up training on new technology and delivery under strict timelines
 - Rendering emails with embedded images in web view
- For iPhone OS:
 - Create an email client capable of analyzing all possible formats of email
 - Download and decrypt emails/attachments on the fly that are fetched from the email archive

Project at a Glance

Project name:	Windows & iOS Application Development
Location:	UK, London
Duration:	iOS – iPhone/iPad application – Jul-2013 – Sep-2013 Windows 8.1 Mobile App – Feb-2015 – March 2015
Team size:	5
Industry:	Forensic Email archiving and Email compliance product
Delivery Model:	iOS & Windows
Engagement Model:	
Challenge:	Analyze and display different formats of emails, load large size emails with embedded images on the mobile application
Solution:	Initiated the process by creating small proofs of the concept to validate the approach; helped to tackle the challenges
Outcome:	Added several crucial features to the product and delivered it

PSI's Solution Approach:

While working on the architecture and features for the mobile application, the PSI team initiated the process by creating small proofs of the concept to validate the approach. This helped to tackle the challenges. After verification, the team incorporated these concept apps in the final application.

This step by step approach helped the team to focus on one challenge at a time, finding a solution and moving forward to another one. Resulting in fast development.

Technology used

Windows platforms:

Windows phone SDK 8.1

Language: C#

Java SDK 6.0 and above, XML, SOAP, Apache axis2

Linux

Bugzilla

iPhone OS:

Language: Objective C

Framework: iOS SDK 6 & 7

Database: SQLite

Platforms: iOS

Development Tools: xCode

Design Tools: Photoshop

Achievements:

- PSI team added several crucial features to the product and delivered it successfully to the client, namely, Compose New Email, Reply, Reply to all.
- Client wanted to have similar view of both Windows and iOS apps to give the users similar kind of experience across platforms. PSI team exceeded expectations as the application enhance the end-user experience on the application.
- Client also wanted to have swipe action feature on some screens on the Windows app to perform similar to a Hardware (Keyboard) back button, which was difficult to achieve due to the layout. But with required research PSI team was able to implement the feature.

PSI's Mobile Technology Stack:



iPhone

iPhone Custom Apps Development
iPhone Business Apps Development
iPhone Web Service Integration
iPhone Mobile Website Development



Android

Enterprise Business Applications
Multimedia Applications
Web services development
Mobile GPS Navigation
Tracking Solutions



Hybrid

Multi platform Apps Development
Apps built using HTML5-PhoneGap, supported platforms – iOS, Android, Windows, Bada, Palm WebOS and Symbian.
Apps built using Adobe Flex for rich user interface. Supported platforms – iOS, Android and PC browsers.
Faster development, single codebase, easy maintenance.



Windows

Custom Windows Mobile Development (8.0 & 8.1)
Web services development
Databases Integration
Multimedia Applications
Mobile GPS navigation

About PSI:

Pratham Software Inc. (PSI) is a global IT services company (with established ISO 9001:2008 practices) providing software product development, consulting and outsourcing solutions to enterprises worldwide. While providing a wide range of solutions, we focus on Outsourced Product Development (OPD), Business Process Management (BPM), Application Development and Maintenance (AMD) and Content Engineering. Our extensive experience in OPD helps us build strong relationships with Independent Software Vendors (ISVs), as we work with them throughout the product development lifecycle. Over 12 years of experience in the BPM field with various tools such as Savvion, IBM Lombardi, SharePoint and open source tools such as Activity have helped us gain leadership position in BPM. In terms of technology and platform, we work across all major technologies such as Microsoft, Java and Open source and have capabilities and experience in developing solutions for web, mobile, Cloud and social media. For Enterprise customers, in addition to Process Automation, we also offer development and support services in BI and DWH.

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