People and Technology that work for You...

Mobile Application Development

White Paper
# Table of Contents

1. Overview .................................................................................................................. 4
2. iPhone Mobile Application Development .................................................................. 5
3. iPad Application Development ................................................................................. 5
4. J2ME Mobile Application Development .................................................................... 6
5. Windows Mobile Application Development ............................................................. 6
6. Blackberry Application Development ....................................................................... 7
7. Cross platform Mobile Application Development .................................................... 7
8. Mobile Application Development – Case Studies ...................................................... 8
   a. Pocket Inventory Handheld Inventory Tracking ................................................... 9
   b. Magazine Viewer ................................................................................................... 10
   c. Magazines available on the Newsstand .............................................................. 12
   d. iPad application for Badge Printing .................................................................... 13
   e. Connect to Community Portal for living a better life .......................................... 14
   f. Vendor Offers App for iPhone ............................................................................... 16
   g. Social Contacts iPhone/iPad application ............................................................ 18
   h. Pocket Inspection Tool for iPhone/iPad/iTouch devices ....................................... 19
   i. Pocket Survey Tool for iPhone/iPad/iTouch devices ........................................... 20
   j. Dining Offers Application for iPhone ................................................................... 21
   k. Mobile Messenger App for iPhone, Android and Blackberry ............................. 22
<table>
<thead>
<tr>
<th>No.</th>
<th>Application Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>l.</td>
<td>QR code generator and scanner iPhone and Android application</td>
<td>26</td>
</tr>
<tr>
<td>m.</td>
<td>Dynamic Form Builder Application</td>
<td>29</td>
</tr>
<tr>
<td>n.</td>
<td>Directory services – iPhone Application</td>
<td>31</td>
</tr>
<tr>
<td>o.</td>
<td>Mobile Messaging</td>
<td>33</td>
</tr>
<tr>
<td>p.</td>
<td>Mobile Communicator</td>
<td>36</td>
</tr>
<tr>
<td>q.</td>
<td>Mobile Messaging for Content Provider</td>
<td>39</td>
</tr>
<tr>
<td>r.</td>
<td>Backup and Share – Mobile Backup and Restore Application</td>
<td>42</td>
</tr>
</tbody>
</table>
1. Overview

Aress Software has extensive expertise in custom mobile application software development and has vast experience in developing Mobile Applications across diverse platforms and devices using latest techniques for all major platforms which includes iPhone, iPad, Android, Blackberry, Windows Mobile platform, and Symbian.

Our solutions on all the major handheld and Smartphone platforms help our clients achieve a faster time to market with an unmatched cost advantage. We follow the highest standards in the industry for engineering process, product quality, delivery and support.

We use the best practices & solution accelerators for cross-platform mobile application development with our highly skilled architects, trained on various device platforms such as iOS, Android, Blackberry OS, Windows Phone, Symbian as well as Java ME. We develop a mobility strategy with an architecture that provides an end-to-end enterprise mobility solution and evolves an easy integration to enable access on multiple OS platforms.

Services Offered:

- iPhone Application Development
- iPad Application Development
- Blackberry Application Development
- Android Application Development
- J2ME Application Development
- Windows Mobile Development
- Symbian Application Development
- Cross platform mobile application Development
2. iPhone Mobile Application Development

Aress Software has been developing iPhone Applications that are being used by a wide range of consumers ranging from Enterprise users to mass consumers. We have a highly skilled team of iPhone application programmers for iPhone Application Development with experience on iPhone SDK 2.0, iPhone SDK 4.0 who work for iPhone Mobile Application Development & iPhone Website Development.

We have a team of iPhone SDK 3.0 Application Programmers along with iPhone SDK 2.2.1 Application Programmers who have been developing creative, customized, flexible and more usable iPhone Software Applications. Our iPhone Application programmers have good expertise on Business Applications, Location Applications, iPhone Game Engines, Entertainment Applications, Calendar & Address book Applications, Healthcare Applications, GPS Applications, LBS, proximity sensor, sqlite3 database, Quartz and Encryption. We have a wide knowledge of working on Cocoa framework, Cocoa Touch, Core Service, Media. We also have worked on GPS-based iPhone Application and (Location Based Service) LBS based Location tracking application for iPhone. We also have record of developing projects with open sourced APIs of third party like FaceBook, Twitter, Google Map, Google Calendar.

3. iPad Application Development

Aress Software has been developing iPad Applications as well. Our skilled team of iPad application programmers has development experience on iPhone SDK 4.0, using which the iPad applications can be developed. Our iPad SDK programmers can build applications for any purpose. At Aress, we stay ahead of the technology curve, and can handle any of the latest trends in iPad development. Our brilliant iPad Application Developers / Programmers work skillfully to develop the next generation of innovative applications for the Apple iPad. We have dedicated iPad Apps Developers for iPad application programming and we allow you to choose and hire iPad developers, exclusively to understand your application requirements you wish to have for the larger display.

We also provide customized iPad Application Development/Programming Services to deliver tailored applications for the Apple iPad related to Books, Business, Entertainment, Kids, Lifestyle, and many more. Learn more about iPad Application Development and get going from this moment itself. Our programmers have been developing creative, customized, flexible and more usable iPad Software Applications including Business Applications, Calendar & Address book Applications, Healthcare Applications. We also have worked on a backup application that enables the user to backup their iPad contacts and images within the image gallery.
4. Android Mobile Application Development

Aress Software offers Mobile Application Development for Google Android. Android Application is a software stack for mobile devices that consist of an operating system, middleware and key applications. Our Android Application Developers explore the unlimited possibilities of Android through its comprehensive set of development tools.

Our Mobile Application Developers have extensive experience in mobile application development using java language and android framework. We have a proficient expertise in creating android application / mobile applications, testing in a simulator, and porting to mobile devices.

5. J2ME Mobile Application Development

Aress Software has got excellent team of J2ME Mobile Application Developers to assist our clients in various Mobile Application Development. Proficient in J2ME Mobile Application Development, we can help in developing, testing and deploying the Java platform mobile applications.

Aress Software specializes in J2ME Mobile application development, J2ME Wireless Applications, J2ME Web Applications, J2ME Mobile Payment Solution, J2ME Location Based Service, J2ME GPS Based Applications and J2ME application porting (Platform Migration). Our J2ME Application programmers use MIDP and additional APIs (Mobile Media API, Wireless Messaging API, J2ME Web Services APIs, Security and Trust Services API for J2ME) in the development process. We have extensive experience in working with a wide range of mobile devices and frameworks to make solutions independent of device thus ensuring far greater reach.

6. Windows Mobile Application Development

Windows Mobile puts the power of Microsoft Windows right into your pocket. With Windows Mobile, users can browse the Internet, use e-mail, keep track of schedules and contacts, and manage business documents using mobile variants of popular Microsoft Windows software like Office, Outlook and Windows Live. Windows Mobile is a compact operating system combined with a suite of basic windows applications for mobile devices. Devices that run Windows Mobile include Pocket PCs, Smartphone, Portable Media Centers, and on-board computers for certain automobiles.

We can develop different kinds of custom Windows Mobile solutions based on your specific business needs. We have an organized, streamlined process to work with you to get your Windows wireless applications completed swiftly, while maximizing return on investment. Aress Software has been developing Software for Windows Mobile Applications that are being used by wide range of consumers ranging from Enterprise users to mass consumers.

7. Blackberry Application Development

The undisputed favorite phone of the business executives today is the Blackberry phone. Known traditionally to sport all kinds of business related applications onboard, offered a lot of functionality. Ever since the dawn of the Blackberry Software Development Kit, businesses have started developing custom applications for blackberries. The development possibilities of applications range from business specific, marketing, entertainment, gaming and utility based applications. We are your one stop shop for all your Blackberry Development needs. Be it the Blackberry Storm or the Blackberry Curve, if you have a specific Blackberry application development need you can count on our blackberry development team to deliver.

Aress Software provides enterprise class solutions involving push email, calendar, data synchronization, mobile meeting, board meetings and also fully integrated Blackberry solutions for Location Based Services (LBS) that are hugely popular today.

Businesses can build applications on the Blackberry from the day to day process to a show and tell presentation/pitch on the phone. Make your existing websites accessible on the the Blackberry. Our team can develop a website specifically for the Blackberry browser or replicate the services of an existing website for the Blackberry platform.

We also specialize in Blackberry J2ME native applications which can run off the Java virtual machines on the different Blackberry models. Our development team has experience in the developing applications that work across handset models by targeting specific JSRs for a particular device.
8. Cross platform Mobile Application Development

The mobile device market is quite huge these days. We have iPhone, Android, Blackberry, Symbian, Brew, Windows Mobile powered devices and so on. Publishing software compatible with all these entire mobile platform is quite a challenge. It is obvious, that the native development tools may not be used for cross-platform development. The Native APIs toolsets are very different. For example - Adobe Flash and Java are not supported by iPhone.

Following are the 3 most preferred cross-platform development tools that can be used for developing web enabled mobile applications:

✓ **PhoneGap:**
PhoneGap uses HTML, CSS, and JavaScript. It provides JavaScript APIs to access the common native features of the device (GPS/Geo-location, Vibration, Accelerometer, Sound...). Through the PhoneGap JavaScript APIs, the “web app” has access to the mobile phone functions such as Geo-location, Accelerometer Camera, Contacts, Database, File system, etc. Basically any function that the mobile phone SDK provides can be “bridged” to the JavaScript world. On the other hand, a normal web app that runs on the mobile web browser does not have access to most of these functions (security being the primary reason).

✓ **Sencha Touch:**
Sencha Touch is the first HTML5 mobile JavaScript framework that allows developer to develop mobile web apps that look and feel native on iPhone and Android touchscreen devices. Sencha Touch is a cross-platform framework aimed at next generation, touch enabled, devices. It's currently compatible with Apple iOS and Android devices, and very soon with RIM Blackberry 6 devices. Sencha Touch is the world's first app framework built specifically to leverage HTML5, CSS3, and JavaScript for the highest level of power, flexibility, and optimization. The framework makes specific use of HTML5 to deliver components like audio and video, as well as a local Storage proxy for saving data offline.

✓ **JQuery Mobile:**
JQuery Mobile is a Touch-Optimized Web Framework for Smartphones & Tablets. It is a unified user interface system across all popular mobile device platforms, built on the rock-solid JQuery and JQuery UI foundation. Its lightweight code is built with progressive enhancement, and has a flexible, easily themeable design.
9. Mobile Application Development – Case Studies

a. Pocket Inventory Handheld Inventory Tracking

This Pocket Inventory handheld inventory tracking solution runs on portable Windows mobile devices. The unit with Pocket Inventory can be used to count inventory, receive products away from the register, and adjust inventory levels (ex: remove 8 out-of-date milk gallons from the shelf, record the adjustment), and perform direct store deliveries. Discrepancy reports can be generated to help you identify missing or stolen
inventory. This handheld Pocket Inventory solution introduces mobility and efficiency to your staff, enabling them to gather the information you need to make smarter business decisions. Pocket Inventory works with a handheld Windows Mobile device to enhance your Retail POS experience.

b. Magazine Viewer
This iPhone/iPad application allows the users to download and view magazines. Following are the list of features for magazine viewer:

1. Displays single page in portrait view and two pages in landscape view (iPad).
2. Zooming of the PDF pages up to 4 levels.
3. Play the embedded YouTube videos.
4. Mail to functionality.
Apple Newsstand is a built-in application on iOS devices - the iPad, iPhone and iPod touch. It is dedicated to downloading and displaying digital versions of newspapers and magazines.
Magazine editions can be downloaded from app stores as standalone branded apps. Newsstand editions can be downloaded directly to the user’s device within the Newsstand app, thus keeping all their publications together.

d. iPad application for Badge Printing

This badge printing system is an efficient and time saving system that is effortless to use and assist users in designing badges for their events. It is available on 3 platforms, Desktop (which can work in offline mode), web and iPad. Web and desktop are integrated such that user can create a badge on desktop and upload it on web for further editing and other way around as well.

Features:
1. Advanced flexible design and editing tools – drag and drop, resizing, Image cropping, autofit, maintain proportion, send to back and more. Zoom In, Zoom out functionality
2. Provision to generate QRCode & barcode for visitor tracking.
3. Functionality to import and export visitors information for creating badges.
4. Search, sort, add, edit, delete visitors information for badges
5. System is available in multiple languages.

e. Connect to Community Portal for living a better life.

iPhone Application
This iPhone application helps users to join a community and take small, everyday steps to change the way they live. As the users take these everyday steps, they form habits, and as those habits begin to change them and they become rhythms - deep patterns of life.
The website gives the users a stack of different actions to take. Some are easy and some are pretty challenging, but the users can choose what they want to do based on where they are at. The app can be used with friends so that they can share their journey together. It's basically a fun way to start making some of the changes that everyone wants to make but don't know how.

The users can add/remove/complete actions from their iOS device which then synchs the details back to the centralized web server.

This application also allows the user to link his facebook and twitter account so that he can easily share the information about the actions performed by him, or recommend actions on his social networks.

f. Vendor Offers App for iPhone

This mobile application platform is available for iPhone and is mainly for the Vendor Offer deliveries. This core platform does the Offer management from vendors, Offer purchasing (via mobile device), credit card processing and statistics management for the vendors. The core site is really comprised of three main areas: administration of the process/Offers, vendor management of their Offers, and web-services for credit card processing.

The iPhone application has the following main features as outlined below:

- **Grab** – a ‘grab’ is a purchase of an offer in the system.
- **Pin** – a ‘pin’ is a user saving an offer in the system (e.g. not purchased)
- **Shake** – shake can mean physically shaking the phone, or pressing the SHAKE button on the main toolbar. On every shake the user is presented with 3 Unique offers.
- **Leave Comments** – requesting a user to leave a comment on an offer that they have consumed.
- **Push Notification** – pushing a notification message to the consumer device about their offers or comments required.
- **Near Me** – a map of the offers that are near you.
g. Social Contacts iPhone/iPad application

This application helps its users to bring your mobile address book to life and replace their dull, dreary old address book with Contaxz the only address book application for your mobile phone that keeps you up to date, whilst on the move with all of your social contacts.

The main features of this application are:

- Get updates from your contacts social media profiles
- All of your contacts are backed up online so you will never loose them
- Message contacts across social media, web mail, IM and log the conversations with your contacts
- Share photos and files with your contacts
- Share you location with selected contacts
- No limit to the number if contacts in your address book
h. Pocket Inspection Tool for iPhone/iPad/iTouch devices

Pocket Inspection Tool is an add-on utility for the Hospital Cleaning Management System. It allows the supervisors to carry the inspection data on their devices and key-in the inspection results in real time when they are on their rounds, while inspecting the cleaning of the rooms. The application is enabled to work offline, while the supervisors are on their rounds. The rooms have defined steps for the cleaning process. The supervisors can key-in the inspection results for each of these steps within the rooms and provide the appropriate ratings and their comments on the cleaning process. The application needs to be online when synchronizing the inspection data and the inspection results. The device communicates seamlessly with the cloud and synchronizes the data efficiently.
i. Pocket Survey Tool for iPhone/iPad/iTouch devices

Pocket Survey Tool is a generic tool using which the users can create survey templates and distribute them to users/groups of users for conducting surveys. This application administers all aspects of the survey process by allowing you to build virtually any survey on your desktop, and then move it seamlessly to your Pocket PC or Apple device such as the IPad, IPhone or ITouch, for completion in the field.

All scoring and documentation of rounds are performed on a mobile platform via the Pocket PC or Apple device such as the IPad, IPhone or ITouch. The mobile apps upload all the survey data wirelessly to the web app.
j. **Dining Offers Application for iPhone**

iNosh is an iPhone application that allows you to search for the nearby restaurants and find the discounts available. iNosh harnessed your phone’s GPS capability to find you your very nearest restaurants. The users can phone for a booking with a tap of the finger. iNosh points the users to the exact location of the restaurant with step-by-step driving directions using Google Maps. This app also allows the registered members to access their Live/Work/Play page that allows them to view the restaurants in the areas where they are most frequently around. The list of favorites is synchronized with their account and is always at their finger-tips.
k. Mobile Messenger App for iPhone, Android and Blackberry

**Messenger Application for iPhone and Android:**
This is a messenger application available for iPhone devices that is based on Push notifications.
This application aims at:
- Maintaining groups and contacts
- Conversations with contacts i.e. Sending the messages to the contacts with the underlying technology as iPhone Push Notifications using Apple APN’s server.
- Searching for friends and sending them invitations for the instant messages

**Messenger Application for Android and Blackberry:**
This is a messenger application available for Blackberry and Android Devices.
This application aims at:
- Maintaining groups and contacts
- Conversations with contacts i.e. Sending the messages to the contacts.
- Searching for friends and sending them invitations for the instant messages
iPhone App:
Android App:
Blackberry App:
I. QR code generator and scanner iPhone and Android application
- This application helps the property owners, agents and brokers to connect with their customers through their mobile devices - anywhere, anytime. It provides an easy way for you to instantly establish a mobile web presence.
- It also has an inbuilt feature to generate and print QR codes. QR Codes allows agents and brokers to bridge traditional print media to electronic media by simply utilizing already existing features on smart phones.
- Helps Agents/Brokers with real time analytics to understand which listings are driving the most interest among prospective clients.
- Users can generate property specific fliers (with QR codes) and start using immediately in promotion.
- The application works on iPhone, Android and iPad.
- The technology used to develop this cross platform application is JQuery Mobile and PhoneGap.
iPhone App:
Android App:
m. Dynamic Form Builder Application

This is a web application as well as an iPhone application that makes building dynamic forms easy.

Features include:

- Form Builder - which is easy to use with drag and drop controls, where users can graphically build and modify their forms, customize drop downs, radio buttons, check boxes etc.
  - Forms can be designed like wizards using the powerful page break control.
  - Form Preview and print options.
  - Create survey forms and publish for public access.
  - Print Submitted forms to PDF or Email it across to anybody.
  - Customers have an option of branding their forms.

iPhone App:

With the iPhone App users can log into website, retrieve list of forms, fill in forms, submit forms and attach images and signatures to forms and email forms where applicable.

- Access the same form and submit filled up forms
- Attach/Upload images from iPhone photo albums
- Inbuilt signature pad to take authorized signature, forms are locked for further editing once signed.
- Save multiple forms offline and can be uploaded later.
- Save incomplete forms in drafts folder.
n. Directory services – iPhone Application

This is an iPhone application for the customers of one of the leading mail, courier and logistics company. Help their customers to search all office branches within UK. The online directory provides flexible search options and is easy to use. This application can also be used to monitor the delivery status of the item.

Identifying and understanding your target audience are important first steps when designing your product. We recognize the target audience and accordingly design the specific interface. The basic step is to define and analyze the tasks that your users might perform and present them well. E.g.: The following screenshot demonstrates how a menu has been built, considering the easy of use. Also, the menus have been themed to adhere to the product look and feel and the user interface standards.
The features include:

- **Menu** - Main menu to navigate to the various sections of the application.
- **Search** - From this screen, customers can search all office branches within UK.
- **Search Listing** - Displays the search results with company listing.
- **Company Details** - View details of the selected company.
- **Google Map** - Show the traveling direction from user’s current location using geo-codes to the selected company location.
- **Track-Item** - From this screen, customers can monitor the delivery status of an item.
o. Mobile Messaging

This application is a mobile communicator based on the Jabber for Java+GPRS enabled cell phones. It’s a TXT messaging application that lets you send both normal SMS as well as free TXT messages between users. TXT messages with attachments containing pictures, music, videos etc. Users can create Chat Groups, broadcast message to group. Application uses mobile Internet in the same way as email and IM to your phone. All you have to pay for is mobile internet connection charges.

Other Features:
- Send and Receive Emails with attachments
- Send Free SMS.
- Interact with Facebook Upload photos, posts, message and more.
- Subscribe to various channels like cartoon, Hollywood, Dating Channels to send / receive messages.
- Become a publisher which allows you to publish your content to the world.
Screen Shots:

1. Main Menu

2. Easy to register click on getStarted
   Enter your Mobile Number and click activate.

3. Goto Inbox to read your message,
   Closed envelop Icons shows you have an unread message.
4. Check who’s online in your friends list. Green Icon shows your friend is online.

5. Send Message to your friends number.

6. View message received from your friend.
Mobile Communicator

Browser based mobile communicator application based on the Jabber for GPRS enabled cell phones. It’s a TXT messaging application that lets you send both normal SMS as well as free TXT messages between users. Users can create Chat Groups, broadcast message to group. Application uses mobile Internet in the same way as email and IM to your phone. All you have to pay for is mobile internet connection charges.

Other Features

- Send and Receive Emails.
- Send Free SMS.
- Interact with Facebook post message and more.
- Subscribe to various channels like cartoon, Hollywood, Dating Channels to send / receive messages.

It’s a cut-down version of the J2ME application for users who don’t have Java enabled handsets or who wants to quickly get connect using their mobile browser.
Screenshots:

1. Main Menu
2. Easy to register – just enter your Mobile Number and click login.
3. Goto Inbox to read your message, Closed envelop Icons shows you have an unread message.
4. Send Message to your friend’s number.

5. View message received from your friend.
q. Mobile Messaging for Content Provider

This application provides mobile messaging infrastructure that lets content providers and community owners interact with their members. The Application platform provides the member with a familiar and comfortable SMS like experience, but in a no spam, permission based environment. By using the mobile Internet Application enables the content provider to bypass mobile operators and reach their members globally - all without per message SMS costs.

For Content Providers

- Patented Interactive messages that drive member interaction and responses
- Call to action messages triggering premium SMS and click to call outcomes
- Multimedia messages including audio, images and attachments
- Content provider retains all user data
- No external advertising to content provider’s members
- No disclosure of members to other content providers
- Simple API for integration with existing applications

For Members

- Free download
- Free TXT and multimedia messaging
- Receive/send messages to/from multiple content providers
- Permission based – member decides
- No spam
- Utilizes existing mobile address book and seamlessly sends SMS
Content Provider Framework

Content provider framework is used by channels/partner to send/receive request from Application user and can provide content to them. To begin using the content provider API, channel/partner needs to register on Application website and obtain their preferred number Ex. 1900STOCKS or 1900DATING.

During registration, the Content Provider will need to provide a URL to the Application server for integration. Application will also provide a unique key and a call-back URL where the Content Provider can post its requests and response.

Mobile Billing - PSMS (Premium SMS)

Mobile billing helps Content Partner to enhance their service, using this service content partner can trigger billing events on mobile. Content partner can charge their user for contents.

This Application has patented technology that can trigger a mobile transaction which means the user gets billed on their mobile bill. This opens the door to tempt all those non paying members, when they receive a new message, to make a quick impulse transaction, such as a day pass, via a single click.
r. **BackupandShare – Mobile Backup and Restore Application**

The user’s data is vulnerable to loss. Survey reveals that about 43% people lose irreplaceable files and other data every year. A considerable percentage of mobiles are stolen, lost or fails within its first year of usage. This results in heavy data loss in certain cases. BackupandShare Mobile Solution targets this data loss and aims at a smarter solution to secure the user data and easily restore the same.

The BackupandShare Mobile Solution is a technology with an aim of providing a mobile application that suffices the end user need to secure their mobile data through a backup process that ensures the data is stored securely on the remote server. The project approach is to provide a user friendly interaction that precisely does the complete backup and restore without any hassle.

**BackupandShare Mobile Solution is available for:**

- Windows Mobile
- Google Android Mobile Phone
- Apple iPhone

**BackupandShare Mobile Solution aims at:**

- Full Backup – Backup of all important device data - contacts, documents, pictures and much more!
- Easy Restore - In the event of a crash, a virus attack, or a simple user error, backups to be easily restored on the Mobile device
- Redeveloped Upgrade Mode - Guarantee to move Contacts and other important device data across to a new Mobile device.

Aided with strong and secure remote data servers, BackupandShare Mobile Backup solution is set to be a unique service that saves all the vital and precious information on your phone at the touch of a button.
BackupandShare – Backup Solution for Windows Mobile

Login Screen

Browse files for Backup

Select files/folders for Backup
Select files/folders for Restore  Backup/Restore Status logs  Last Status Logs
BackupandShare - Backup Solution for Google Android

Login Screen  Browse files for Backup  Select files/folders for Backup
Select files/folders for Restore

Backup/Restore Status logs

Last Status Logs
BackupAndShare Backup Solution for iPhone

Login Screen

Browse files for Backup/Restore

Select files/folders for Backup
Backup/Restore Status logs

Settings
BackupandShare Backup Solution for iPad

Login Screen

Main menu of the application

Browse files for Backup/Restore
Backup/Restore Status logs