



Mobile Application Planning Worksheet

Use this worksheet as a guideline for identifying the elements needed to develop a successful mobile application. This is not an exhaustive list. Add industry specific or function specific items as appropriate.

Project Name: _____

Unit/Department: _____

Last Updated: _____

Author: _____

Project Manager Approval: _____

Executive Sponsor Approval: _____

Project Owner Approval: _____

Project Business Case

Project Goal
Describe what you want to accomplish. Examples: Have workers perform a task; automate a paper process; change a business process to achieve a new result.
Business Issue/Opportunity
What issue or opportunity do you want to address? Increase revenue, reduce costs, target a new market, reduce duplication of data entry, etc.
Critical Success Factors (Key Performance Indicators)
What metric will you use to define success? Cost reductions, increased revenues, worker productivity? How will you measure it? Dollar amounts, Average number of (factor to be measured) per mobile worker per day, customer satisfaction surveys?

Primary Project Factors

Primary Project Users

Who are the target users of this mobile application? Your Company's Executives and Managers, Field Service Workers, Warehouse Workers, In-store Sales, Outside Sales, Customers?

User Locations

Where and how will this application be used? Inside buildings where wireless LAN (802.11) is available? In a wide area where cell phone communications are required for wireless access? Stored on the device as a file for access anytime?

Data Synchronization

Can the application rely on overnight data synchronization when the device is plugged into the cradle attached to a desktop computer? Updated at regular intervals during the day? Updated as soon as possible during the same day?

Must Have Elements

Everything is smaller with a mobile device. Which data elements and business processes must be available in the application to accomplish the goal?

Desirable Elements

What data elements/business processes would be desirable but could be done without if necessary?

Prohibited Elements

What elements should NOT be available to the mobile worker or on the device for security or audit reasons?

Mobile Devices

Device Types

In general terms, mobile devices fall into three classifications: Notebook/Tablet PC (Windows XP), intermediate size PDAs which can include cell phone functionality and Smartphones which are primarily cell phones with some PDA functionality. There are also special function devices for bar code/RFID and others.

Your choice of devices to support for your mobile application is hugely important. It will have substantial effect on the total project cost. Each of the three classes of mobile devices has their advantages and a loyal group of advocates in your target users. Think carefully about this question! Choose the wrong set of devices and project costs can skyrocket. Or, you may face poor user acceptance or outright rejection by your target users. When in doubt, think in terms of a small pilot project to test your assumptions.

The easiest class to develop for is the notebook/tablet PC devices which include a version of Windows XP. These devices come with a large screen and often a full hardware keyboard for text entry. The drawbacks include limited portability and higher acquisition costs.

The intermediate sized PDA devices are based on Windows CE for Pocket PC, Palm OS, RIM Blackberry or other operating systems. Cross platform software development can be more difficult. Because you may already have loyal fans of more than one of the major types of PDA's in your target user group, you can end up supporting multiple applications on multiple operating systems. Advantages of PDA devices include a screen that is larger than available on a Smartphone, text input is facilitated by a hard or soft keyboard, cell phone capability on some units eliminates need to carry multiple devices, increased portability and reduced cost relative to the notebook/tablet PC devices.

Smartphone devices can be the most attractive to users because of their small size and natural cell phone capabilities. From the business application standpoint, this comes at the cost of a smaller display for data, and no stylus or soft keyboard ability. Converged devices that offer more facilities of a PDA, yet are physically smaller, are reaching the market now. These converged devices may be a good solution for many business applications.

Platforms

There are three main platforms for devices that offer both PDA and cell phone: Windows (XP, Pocket PC, CE and Smartphone), Palm (Palm, Handspring and Treo) and RIM (Blackberry). Applications designed for one platform, generally speaking, cannot automatically be used on the others without additional development work. Because the Blackberry is designed to operate together with an enterprise server, this device requires a different approach to development. Requiring the mobile application to work on multiple platforms will increase costs and development time.

Security

How will you meet the security needs of your application? How sensitive is the data you will be storing on the device? What is the cost of having this data compromised? Will you need to encrypt the data on the device? Will you need to use mobile devices with built in fingerprint readers for user authorization?

How will you secure your data during transmission? Encryption methods, VPN (which vendor?), security protocols such as SSL, PEAP, WPA, etc. are all options to be explored. How does your security plan mesh with existing business policies, government regulations and systems already deployed in your business?

Project Conditions

Project Assumptions

Have you made assumptions about the business process or your target users that may need verification before beginning development?

Project Issues

Are there any issues that could impact the project, such as lack of approval by a key stakeholder or disagreement about the project approach?

Project Risks

What would happen if the project doesn't achieve the key performance indicators? What other impact on target users, etc.

Project Constraints

Does the project have to be implemented by a certain date to be effective? Are key stakeholders limited in availability? Is the budget too small to implement all the features envisioned?

Project Budget

Budget for Initial Development/Maintenance/Help Desk Support

1. What is your budget for initial development? Although there have been some major advances in the software development tools for mobile devices, such as Microsoft Visual Studio 'Smart Device' projects, developing software for mobile devices can be surprisingly expensive in both cost and schedule time. Does the return on investment justify the cost?

2. What is your budget for maintenance? Will you update the application on a regular basis? Most applications are not static, but as a cost item it is easy to overlook. Think about using "Over The Air" or OTA deployment and updates.

3. Who will provide User Help Desk support? How? User support after the project is deployed may also create some cost surprises due to the complexity of communication from a mobile device, through a wireless carrier, and finally through the enterprise firewall.

Project Duration Estimates

Project Milestone	Date Estimate [mm/dd/yy]	Confidence Level [High/Medium/Low]
Project Start Date		
Milestone 1		
Milestone 2		
Milestone <i>n</i>		
Project End Date		

This section of the worksheet is not intended to replace Microsoft Project or any of the other project planning tools available in your organization. Use it in the earliest stages of planning to keep track of date estimates which may change as you gather data and make the choices described in the other sections of this worksheet. Once you are ready to begin the project, transfer this information to your planning tool.

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