

SearchMobileComputing.com E-Guide Strategic Planning for Mobile Applications

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Enterprises are continually looking for better ways to cost-effectively extend enterprise applications to mobile users. These applications provide increased end-user productivity, while also allowing companies to move their systems to the point of customer interactions, thus increasing customer service, customer loyalty and company profits. To give you a more in-depth look at the benefits of mobile access, take a look at this expert E-Guide—an exclusive series of in-depth expert tips, written by Jack Gold.







Strategic Planning for Mobile Applications

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Mobilizing your workforce

By Jack E. Gold

Virtually every enterprise has been affected by the rapid move to mobility, as devices, connections and applications proliferate. A diversity of powerful portable handheld devices and smartphones, many exhibiting the power of a PC of only three to four years ago, are making their way into mass deployments at attractive prices (\$200 to \$500). Wireless cellular connections are achieving true broadband capability (e.g., 200 KB to 1MB), making it possible to send significant data and content to end users, and at an increasingly affordable price (e.g., \$30 to \$70 per month, depending on plan). And new wireless options (e.g., 3G+, Wi-Fi Mesh, WiMax) are becoming available to many users, providing even more broadband options. This increased device capability and broadband connectivity has intensified end-user demand for true enterprise-class applications for their increasingly mobile lifestyle. While many companies today deploy limited mobile applications to smart devices, primarily email, this base is about to expand dramatically.

We are rapidly migrating from an enterprise mobile environment that concentrates mostly on email to one that encompasses a variety of mission-critical corporate applications. Indeed, it is no longer uncommon to find enterprises delivering mobile extensions to back-office applications (e.g., ERP, CRM, SFA, FFA) from a variety of vendor systems (e.g., SAP, Oracle, IBM, Microsoft). These applications are providing increased end-user productivity while also allowing companies to move their systems to the point of customer interactions, thus increasing customer service and, as a result, customer loyalty and company profits.

But though the many benefits of mobility are apparent, mobile deployment choices are not easy. Companies face complex decisions, such as what types of applications make the most sense to deploy to the mobile worker and what kinds of technologies are available to ensure that the right applications get to the right end-user device in a safe and secure way. We believe organizations should focus on the following key decision points when looking at mobile application extension to end users:

- **Devices** Which device is most appropriate is not always an easy choice. Indeed it is often the case that within an organization, one size does not fit all. Different workers have differing needs (e.g., sales, marketing, field services, management, factory floor). Therefore, it makes more sense for companies to identify a platform (or limited number of platforms) to support in order to minimize the amount of development and the support burdens (e.g., Windows for notebooks, Windows Mobile, Symbian, BlackBerry for smart devices). Further, users should be grouped into specific device requirements (e.g., keyboard required vs. touch-screen, size of screen, use of internal device apps, device ruggedness).
- **Connections** The types of connectivity that are required by the end users can be complex. There may actually be a number of users who do not have rapidly changing data needs and therefore may not require full-time wireless connectivity (e.g., syncing their data at the end of the day is sufficient), potentially saving the organization significant costs by obviating the need to offer all users 3G wireless connections. Other users may need to be updated frequently and/or continuously, requiring a full-time wireless connection.

- Application platform capability Companies must evaluate whether the application platform in use within the company can be easily extended to the mobile workforce without substantial add-ons and/or re-engineering. If the platform vendor has a mobile capability, will it be adequate for the needs of the organizations and users? If not, then a third-party extension will be required to fill the need. This issue must be addressed in selecting any mobile solution, and companies should stay abreast of their platform vendors' long-term mobility plans.
- **Security** The fear of having an insecure application still ranks among the top reasons companies do not deploy mobile applications. While this is an important consideration, there are enough security capabilities available to mitigate this risk for the majority of companies, and an organization should not use security as a way to veto proposed mobile solutions that can enhance the overall business process.
- **Support/management** The majority of companies looking at mobile deployments fail to consider the needs of mobile management and support. Indeed, we have seen a number of projects that ultimately could have been successful fail because of a lack of adequate end-user support and management. Support and management must be included in any mobile strategy and not "bolted on" as an afterthought.

The above represent some of the issues that companies must consider when planning any mobile application, regardless of device or connection type. Failure to adequately address these issues will probably mean a failed deployment and a costly error for the company.

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Involving your users

By Jack E. Gold

Most companies deploy mobile applications to workers with the expectation that the company will achieve a positive ROI on their deployment. This, of course, is a reasonable expectation. Indeed, we see many companies deploying well designed and delivered mobile applications that are providing employees productivity increases of 5% to 15% or more. Such productivity enhancements spread over a large number of employees can offer significant ROI, potentially in the millions of dollars per year. Yet many organizations never achieve positive returns, owing primarily to lack of adequate planning and analysis of mobile requirements. Indeed, we believe the No. 1 reason mobile projects fail is that companies do not have a well-thought-out mobile strategy to address the overall needs of the organization. Our research has shown that fewer than 25% of companies create a strategic plan for wireless. Instead, most companies produce a standalone project plan with a limited view and a limited ability to achieve long-term success. With such narrow-sightedness, it is easy to see how some mobile initiatives can show less-than-stellar results.

Many applications that are deployed to mobile workers fail to achieve the benefits envisioned in the original project plan, both from the end user's perspective as well as the perspective of IT. Much of the lack of success has to do with developers not adequately understanding the requirements of the end user or trying to provide too much functionality or too many features on too constrained a device. This makes for a highly frustrating experience for the mobile worker. End-user groups often contribute to this scenario by not fully understanding the goals of mobilizing or the capabilities necessary to empower the worker and enhance productivity. In this scenario, vagueness is not a virtue. Precise definition is required. Moreover, end-user needs and preferences are often not adequately taken into consideration by the technical group enabling the mobile solution, despite the fact that these end users are the ultimate consumers of the provided solutions. Further, the lack of an overall corporate strategic vision to drive the mobile initiative across multiple groups and businesses **often means that project implementers make choices** that are not optimal for the long-term needs of the organization.

It is therefore imperative that any company undertaking a mobility project have a firm understanding of the business needs and requirements of any end-user groups that will be using such applications. Further, this understanding must extend to the "big picture" of how each initiative will fit into the overall corporate strategy for mobility. This can be accomplished only through a partnership between IT and the Line of Business (LOB) groups. Go-italone or engineers-know-best scenarios will not produce the maximum benefit. Further, a balanced business/ technical analysis of trade-offs is necessary for selecting the most appropriate implementations and may even provide valuable input into choosing the best vendors.

Companies should establish a Mobile Center of Excellence (COE) that can provide a realistic planning and oversight function. This group, consisting of representatives of all departments with a stake in the outcome (e.g., LOB, engineering, support, HR, legal, telecommunications, development), can provide a balanced and realistic view of the needs for the overall requirements of the company as well as an understanding of the needs of individual departments. This group is not intended to be a new group filled with new employees. Rather, it should be part-time and "virtual," with representatives meeting on an as-needed basis. One major benefit of the COE is that it must reach

consensus, which, once achieved, indicates approval by all of the various stakeholders and thus prevents any potential "sabotage" by groups that feel their needs were not met. Further, the COE should monitor and evaluate all projects to determine whether goals were met and/or to "tweak" solutions to better meet the needs of the organization. It can also bring existing solutions to groups that may be able to take advantage of the application but may not have known about, or been able to implement, such a solution on their own initiative.

Adequate planning by organizational management is a key factor in the success of any mobile strategy. Failure to do this will mean that any solutions will have a much-reduced chance of achieving goals and may even result in total failure, wasting corporate assets and frustrating end users throughout the organization.



Best practices for a back-office rollout

By Jack E. Gold

Companies mobilizing their back-office applications often struggle with determining the best way to achieve this goal. Indeed, lack of understanding of what is required by the mobile workforce and/or what might be available to bring the solution to the users often makes for a very difficult deployment. Below are several criteria that companies should evaluate in selecting a mobile solution for the workforce.

- Which back-office apps to deploy? Most companies deploying mobile solutions start with specific applications for targeted field workforce functions (e.g., trouble tickets, dispatch, delivery, parts inventory, work scheduling). In fact, this is generally a good starting point, as functions are often easily specified and therefore easily convertible to technological solutions. Further, many of these functions are heavily forms-oriented, presenting an easy transition to mobile automation functionality. Although we have seen some successful implementations of standalone solutions, the maximum benefits are obtained when companies provide a mobile solution that is directly tied into a back-end solution (e.g., SAP, Siebel, Oracle).
- Can the platform vendors extend the apps? Once the functions for mobile automation have been chosen, the question of how to implement these functions comes into play. Some back-office application vendors offer mobile extensions to their applications, either through a general programming capability (e.g., Java/J2ME) or through targeted pre-configured functionality (e.g., dispatching, expense tracking, inventory, delivery). However, our research indicates that the majority of mobilized solutions currently in place were not directly obtained from the platform vendor but were either obtained from a third-party solutions vendor or deployed using a third-party mobile middleware layer. This is generally a result of needed functionality not being available in the platform vendor's products. Platform vendors continue to add mobile functionality, but we believe the majority of mobile deployments will continue to require third-party middleware solutions for the next several years.
- How many resources, and what kind, are needed? It is imperative that companies not underestimate the resources (e.g., budget, manpower, time) required to achieve a mobile workforce solution. Few companies we have interacted with have been good at adequately planning this process. Companies should understand that projects will generally take longer than expected, at least the first time around. Further, since a fair amount of customization will be required for many implementations, companies must assess the skill sets needed to accomplish the desired results (e.g., programming skills required, device technology expertise). Underestimation of the time and skill sets required for successful completion is one of the primary reasons mobile projects do not get deployed in a timely fashion or within budget.
- **Can mobilization be outsourced?** Our research indicates that approximately 75% of mobile projects (except for simple off-the-shelf deployments) require some level of external services. This can involve complete project management (e.g., specification through implementation) or specialized skills not available within the organization (e.g., interface design, programming). Companies not fully committed to adequately providing the total resources necessary internally to successfully implant a mobile solution (or those companies that do not have the required resources) may find it beneficial to engage a systems integrator (SI)

with expertise in mobility and a thorough understanding of the vertical business to which the solution will be applied. Many such SIs exist, from the big vendors (e.g., IBM, Accenture, EDS) to smaller specialized vendors.

• **Can any investments be leveraged?** Companies should always evaluate any mobile solutions based on whether or not they can be leveraged into other parts of the organization. Although targeted off-the-shelf solutions may be easier to deploy and initially less costly, they may also be a "dead end" in terms of leveraging the solution to other parts of the company. Deploying a more costly mobile application middleware platform may ultimately result in lower overall cost because of the ability to leverage additional applications and users, to customize and modify, and to add features and functions not available in off-the-shelf solutions. Companies should carefully evaluate whether fixed solutions are indeed the best investment, or whether a leveragable platform approach is ultimately more cost effective.

There is no shortage of vendors offering tools that they claim provide an easy path to mobility and no shortage of SIs that claim to offer the best combination of expertise and services to achieve mobilization of the enterprise. Companies should carefully evaluate the choices they make, however, to ensure that the solution best reflects the costs, resources and expertise available and maximizes the leverage a company can apply to any chosen solutions. This is the best way to ultimately achieve a successful mobilization.

Resources from Blue Coat Technologies



Gartner Magic Quadrant for Secure Web Gateway 2007 Report

Gartner Magic Quadrant for WAN Optimization Controlers 2007 Report

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