Reversing Businesses' Biggest Mobile Mistakes
10 Common Mistakes to Avoid When Selecting and Deploying a Mobile Solution
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Research firm IDC <u>predicts</u> that some 1.2 billion workers will be using mobile enterprise tools by 2011, representing roughly a third of the total global workforce (Feb 2010). Some of these are almost exclusively mobile, whereas some will only occasionally use mobile enterprise tools. Whatever the case, there are very few who would argue against the fact that investing in mobility has the potential to raise productivity, accessibility and visibility.

However, as many have already discovered, selecting and deploying a mobile solution is complex and brings many challenges and considerations. Scalability, integration, device selection, wireless communications, security, working environments, 'buy-in' from the users and so the list goes on. Along with the huge rewards a mobile solution can bring many risks and potential pitfalls.

Here are some common mistakes and tips to try and avoid them:

1. Neglecting the Field Users
It's very easy to forget about the field employees. After all, they are mostly out of the office and we are all familiar with the saying "out of sight, out of mind."

In many cases, the field users - the ones that will eventually be most affected by the solution – are excluded from the team that is responsible for evaluating and managing the mobile project.

Not only will they be the individuals most impacted by any mobile solution but they are also the people who know all the details and can give the most constructive feedback on what is actually happening in the field.

Tip #1: When establishing the team, make sure you include a strong representation from the field (not only the top performers). Include a mixture of age, experience, personality and people from different business units.

2. Being the first to try new technologies:
Mobile technologies come and go like the seasons. Grandiose promises are often forgotten without making any real impact. It's very easy to fall into this trap, especially when technical experts are the ones actually pushing the trend.

But the fact is that a good mobile solution does not have to include all the latest and greatest technologies. It should include the technologies that fit the business needs, and therefore should be evaluated based on requirements.

Tip#2: Try and avoid being the first reference of a new technology, else you may end up being the last...

3. Selecting the wrong mobile device:
Mobile devices are not just a piece of hardware such as a desktop. They are an integral part of the overall solution because they affect the way employees will use the system (for example: PDA's are much more portable than laptops and more likely to be closer to the user and constantly connected. However, laptops will allow more usability and more capabilities when using advanced applications).
Devices should be selected carefully by addressing 3 important questions:
1. The nature of the working environment
2. The nature of the business
3. The nature of the mobile software

Tip#3: Do not let IT executives dictate the device selection if they do not fit the business needs, and whatever you do - do NOT select the mobile devices before selecting the software - it may narrow down your alternatives in the future, or worse - it may not be optimal for your software**.**

4. Compromising on usability:
Usability is an important aspect in any software application, but when it comes to mobility it is critical for the success of the project because using a mobile device is different than using a desktop; users will often face a smaller keyboard (or a device with no keyboard at all), smaller screen, no mouse, limited connectivity etc. In some cases the working environment will dictate uncomfortable places to work in, sunny or rainy weather that makes reading the screen extremely difficult and more.

Those are hostile conditions for mobile applications, and the users take no prisoners. If the software is not working properly, or if it's not simple to use – they will simply not use it.

Remember that filling forms, reporting ongoing statuses, and working hours are essentially administration and are considered a burden, which means doing them should take the minimum time and effort.

Tip#4: Whatever you do – do not compromise on usability. This tip is relevant for selecting the solution, planning the project, and implementation.

5. Settling on a hardcoded / heavily customized solution:
Every software engineer knows that hard-coding something means you pay less now but you will pay more in the future.

Many of the older mobile applications (or the ones that were built in-house) have been designed specifically per client. Today those solutions are being replaced by much more generic and flexible platforms that allow companies to take control on the behavior of the system, tune it when needed, modify the flows and even build new ones.

In today's dynamic world, organizations must seek mobile applications that come with serious configuration tools allowing the solution to grow and progress with the organization
.
Companies that will fail to understand that need may select a customized solution with limited flexibility and will eventually find themselves replacing their mobile software sooner than planned.

Tip#5: When selecting the mobile software, make sure you get a solution that not only includes an end user application, but also includes a set of administrative tools, configuration tools, and maintainable integration modules.

6. Planning a mobile project with only one phase:

As basic as it may sound, planning the mobile project to be done in a single phase means you will not have a second chance to fix things, no planned time to evaluate real user feedback, and a much riskier project. From my experience, projects with 3-4 phases have the tendency to receive a higher satisfaction rate at the end. Even if the entire project take longer to fully rollout.

Tip#6: Plan a project with a few phases; assign enough users in early phases to ensure you get the most feedback.

7. Creating an inconsistent mobile environment:

A mobile application integrates with several back-end systems. Consequently, the complexity of building a mobile solution is always high. It should interact with the CRM/ERP, parts management, asset management, GIS, HR, and more. It's very easy to get lost in the forest of features and functions and create an inconsistent beast where every feature behaves differently, the workflows are not well defined and the entire user experience is problematic.

Tip#7: When integrating so many capabilities into one application, ensure consistency and a single framework, otherwise things will become too messy and buggy in the end.

8. Expecting too much out of the technologies:

It's true that mobile technologies have evolved significantly in the last few years. Smapdragon processors, Network bandwidth, screen resolution, multi-tasking – they all exist and are here to stay. Still, there are weak areas in mobility, which are yet to be solved, and sometimes it's better to lower expectations and requirements in one part of the system for the success of the entire project.

Tip#8: It will not be a disaster if one feature is dropped from the requirements in favor of simplicity (see usability tip) or a more consistent system (see previous tip)

9. Forgetting the big picture:

A funny thing happens when switching from the evaluation to the implementation process. The scenarios, workflows and structured requirements that were all used to examine the different vendors, turn into detailed features and functional items to be implemented by the vendor.
It's very easy to get lost in the endless lists of features. This may result in some perfect modules that are not properly tuned to work together.

Tip#9: When testing the mobile application – do not only test features and modules. Test complete workflows, scenarios, used with wireless networks and real devices, in the actual working environment.

10. Leaving security to the end

I promised myself I would not fall for this one and I just did...

Security is so important for mobile systems, yet, for many organizations, it is often an afterthought. For some reason, after evaluating and investigating all security aspects, the following happens: the system is being build, configured, tested – all in a few testing environments and a week or two before the go-live date, "someone" tries to set it up on the production machines, and surprise– nothing works...

Production systems always have additional complexity that relates to security, scalability, legacy systems and more. It's naïve to think everything will just work smoothly.

Tip#10: When planning a mobile project – make sure to have a specific milestone for building a secured environment that will simulate the production farm. It has a better chance to uncover and solve problems in advance that would otherwise occur at the last minute just before the go-live.

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For more information, please visit Gil's Mobilefever blog:
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Gil will co-host a webinar with Kevin Benedict, CEO of Netcentric Strategies, on "How to Avoid Costly Mistakes when Implementing a Mobile Solution, being held Tuesday, Aug. 31st at 11 EST Register at: http://www.clicksoftware.com/lp_mobilitywebinar10.htm