

SOURCING AN ENTERPRISE MOBILE SOLUTION

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Introduction

Mobility. You've been reading a lot about the subject. Some of your competitors have already taken the step and your board has now made the business decision to procure a mobile solution. This is an important decision. You have been appointed to direct the sourcing of the solution and the question you may be asking yourself is, where do I start?

The following is food for thought. Some may find it uncomfortable reading. Some will no doubt try to otherwise persuade you of their own preferences, but I want to provide you with a straight to the point, honest picture of the main options and the dangers you can expect, based on many years of frontline experience.

Forewarned is forearmed. I hope my guide helps you on your journey.

Option 1 - Asking your ERP Vendor?

In my experience of 40 years in software, the brains of engineers who build ERP systems are 'wired' slightly differently from those who build mobile systems. ERP vendors can't help trying to build mini mobile versions of what already exist in their ERP systems. It can be challenging for them to think differently.

As a system gets closer to operations and the customer, it needs to be more 'real' and the language has to change from status codes to what operations people and customers understand in plain English.

Historically, ERP companies haven't been great at mobility and the reason some customers may have bought mobile solutions from them is that are under the impression that it will somehow be easier buying from a single source – my experience suggests it won't. You can't afford to wait 18 months for another ERP upgrade, with the promise that "things will be great".

If you do buy from your ERP vendor, they will probably make it work, but it will be 'clunky' and you will pay one heck of a lot more for the privilege. A now-retired CIO of one of my customers has a great saying - *"Implementing an ERP system takes about the same time as good World War, about 3-5 years"*. It's a saying I've never forgotten and one that has proven it's worth over a long time.

Option 2 - Asking your IT Department?

Internal IT staff love to build mobile apps, because it's a lot more sexy than ERP and other legacy systems, and it looks great on their CV. However, the problem is that they have different skills from experienced mobile software designers.

Take the analogy of surgery. Would you expect all surgeons to be qualified in medicine? Yes. Would you expect all surgeons to know how to make incisions, then stitch you up again? Yes. Would you want a plastic surgeon performing cardiac surgery on you, or vice-versa. Definitely Not. So why do some companies think that because they have an IT department, the skills IT people have include the knowledge and experience to build an enterprise mobile solution?

If you get your IT department to build it, they will probably get simple apps working. However, it won't be long before they'll hit some serious 'bear traps' they didn't even know existed. The effort they spend is likely to be severely underestimated and they might never get there. Building a fully integrated, enterprise scalable, off-line capable and highly useable suite of inter-connected apps to cover all aspects of your operation will be extremely challenging.

By the time your IT team hit the serious problem layer, it may be too late. They'll have to re-engineer work they've already done, the project will drag on for months (or years). The danger is your board ends up spending time and money - the very things you are trying save – trying to solve fundamental technical problems that could have been avoided in the first place. You'll feel pressure to continue down the same path until you finally scrap the project and say goodbye to the sunk costs, wasted opportunity time and start again from the beginning to find a solution that works.

Option 3 – Asking a Mobile Software Company?

A mobile solution requires some core technical elements:

- Deep integration to the ERP system
- Workflows
- A very, very good user experience that your operations team will intuitively understand
- Fully offline/disconnected capability
- Enterprise security within and outside your company
- Support for Auto-Identification and the Internet of Things
- Support for multiple device types
- Multi-company
- Multi-region
- Multi-language
- Multi-currency

If you want mobility, you need a good range of enterprise-strength apps 'out of the box', covering:

Logistics Apps:

- Deliveries
- Returns
- Transfer
- Move
- Re-rent
- Pack
- Unpack
- Third party logistics

Field and Depot Service Apps:

- Inspection
- Repair
- Test
- Field Service, including
- Dynamic checklists
- Customer evidence reports
- Planned maintenance routines

Warehouse Apps:

- Goods Receipt (including mobile label printing)
- Put Away
- Stock Count

Knowing the effort and cost involved, it would be surprising to me if it was cost-effective for an internal IT team to design, build, integrate, deploy and support a mobile software platform. I draw a distinction between apps and software platform, because you must have a platform first.

If you don't know the difference between apps and a platform, then my advice is don't even think about buying a mobile system until you do. Otherwise, you'll just be funding the building a bunch of ad-hoc apps and that's when your problems will start. Deployment will not be in 8-12 weeks. Finally, you need a team that thinks from the user perspective and that means from the user backwards, not from the ERP system forwards.

You're There

So, let's assume you've implemented a good solution and you're now on solid ground.

Using an analogy, you now have two things:

- An 'X-Ray scanner' that lets you see inside your operations
- And a 'Black Box Flight Recorder' that logs the date, time and location of every item of equipment and every person who has ever executed any process step on that equipment since the day you put the system live

I guarantee you'll see things you never even knew were happening. One example is that six weeks after one implementation, a senior executive at one customer called me to say the system wasn't working.

It was telling him that 60% of the orders were being changed between the rental centre and picking and shipping at the depot. He had been in the business 20 years and "knew that wasn't right". I went to see him with one of my team and we proved to him that the system information was correct.

Root cause analysis showed that depot technicians were adding small items of additional equipment, because they were more familiar with the jobs from previous orders and knew for example, that they needed extra cable or earth spikes.



It had been too much hassle in the past for the depot technicians to do this through the ERP system, so they weren't reporting it. Because it was easy to record through the mobile system, they were now reporting it and the problem was fixed by additional training at the rental centre and simultaneously allowing a controlled level of flexibility at the depot.

From an Operations Perspective

- Errors are gone
- Avoidable delays are history
- You see your operations in real-time
- Deliveries are on time
- And you have consistent service processes

From a financial perspective

- Invoicing is clean
- Productivity and equipment utilization are up
- Revenue leakage and DSO are down and you start seeing an impact on Shareholder Value

A Final Piece of Advice

There will be no lack of input from external and internal parties assuring you that they can deliver a successful project. Don't be seduced by big company claims. Their 'A' team may be selling it, but you might find their 'Z' team delivering it.

I've heard polished presentations from people in the biggest of companies who clearly have limited (or no) experience of delivering successful mobile projects. Question everything, take nothing for granted and always get evidence.

If you only avoid the obvious pitfalls I've pointed out, you'll have a great chance of making it. Look at almost any aspect of the modern world and you'll see mobility. As investments in your time and money go, mobility will prove to be one of the best - IF you get it right.

If you're looking only for some short, free, straightforward advice to minimise risk, I'll be happy to take your call.

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ABOUT SPARTAN

Spartan Solutions is a supplier of Mobile Apps to international companies in the oil and gas, utilities and industrial equipment sectors. Our mission is to remove the error, delay and cost of paper-based processes.

Spartan's PHALANX solution is a mobile App Store for the management of work, people and physical assets in industrial environments.

PHALANX has streamlined the operations of companies such as Aggreko, Swire Oilfield Services and Balfour Beatty.

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