Evaluating Mobile Technology the Right Way

How to Select Everything You Need for Your Environment the First Time Around
Table of Contents

1. Enjoy Your Trip: How to Start Your Mobile Road Trip
2. What’s Fueling Your Buying Journey
3. Before you Start Planning
4. Invite Others Along for the Ride
5. Be Willing to Go with the (Work)Flow
6. Remember: You’re Not Buying for a Traditional Office Worker
7. Mobile Technology Requirements Worksheet
8. Reconfigure Your Budget Based On Your Requirements
9. Moment of Truth: Test Drive Short Listed Mobile Devices
10. How to Calculate the "Total Cost"
11. Insider Tips: Make These Adjustments before Hitting the Road
12. The Road to Success
13. Look to the Future
The use of mobile technology has become almost mandatory in every industry worldwide. Every worker, regardless of their job, is now expected to maintain a certain level of communication and visibility with colleagues, customers, partners and prospects. That notion is not easily achieved by desk-bound employees, or “fixed” computer setups. Thus, the urgency to “mobilize” workforces, workflows and operations systems. But the consequences of hastiness can be costly.

Of the tens of billions of dollars collectively spent by global organizations on mobile technologies every year, we’d bet that the majority of that is later classified as “wasteful spending”. The crowded mobile device marketplace can make for a tedious and confusing buying journey, and many honest missteps can be made along the way. For example, it’s not enough to deploy out-of-the-box platforms from familiar consumer brands in order to check a few boxes and make the claim that you’re now a “mobile” organization. Nor can you spend a few extra dollars on a “rugged” case and prove the business case for an iPad in an industrial or field service environment. Rugged tablet “knockoffs”, those that claim to be inherently rugged but lack quality engineering and testing, can be deceiving too. Very few manufacturers engineer flexible rugged tablet technologies that allow you to implement future-proof mobility solutions with immediate benefits, without compromising on features, price or performance today.

In other words, buying mobile technology for your workforce is very different from buying a device for personal use. Sifting through the multitude of mobile device variations is far from simple. Especially when you are trying to find a device to improve process efficiency and (hopefully) drive your operations to greater performance and profitability levels. The good news is that it is not impossible. Even better, you don’t need extensive IT resources to source an effective mobility solution. You just need to know how to evaluate and buy mobile devices the right way for your environment: the professional way.

We’ll walk you through, step-by-step, how to evaluate mobile solutions without having a (communications, IT systems or even emotional) breakdown. We’ll also give you insider tips on how to procure a best-in-class mobility solution, without breaking the bank. This guide is a win-win, and exactly what you need to boost your credibility with colleagues, customers, and C-level executives alike.

Enjoy Your Trip
The “compelling event” that initiated your search for a better business solution will ultimately inform your mobile technology requirements:

**Paper Records Should Be Left in the Past - Once and For All**

Paper is nearly impossible to capture, analyze, and apply massive volumes of data.

**Signals are Getting Crossed, Connections are Being Lost**

Deadlines are being missed. Communications are lacking, and that’s affecting on-the-job performance, emergency readiness and responsiveness, etc.

**It’s Time to Reboot All of Our Technology Systems**

Everything is complex, archaic, underperforming, fragmented. We need a device that enables our transition to other digital technologies.

**We Are Transitioning to New Operational Technologies**

Our old mobile devices don’t support our new requirements for RFID tracking modules, HDMI-In, Industry 4.0-level automation, etc.

**Disruptions are Happening Too Frequently**

There’s too much downtime during hardware or software upgrades. When our fixed terminal PC is offline, or the vehicle it’s mounted in is out of service, so are my workers.

**Workers Won’t Buy-In to Technology**

The current worker on-boarding process for new applications and devices is too long. Then, workers complain they don’t like the devices, so they revert to pen and paper.

**We Want to Accelerate towards Automation**

Workers need one device, a central point of communications and data access; something that connects them to machines and multiple data systems in real time.

**We Want to Use Mobile Technologies to Refine Sales and Operational Planning**

We need a device that will facilitate real-time product/service demand planning and decision-making.

**Did you know that many existing “mobility” issues stem from the device’s form factor?**

Fixed terminal PCs and laptops are not truly mobile. Handhelds, which are mobile, don’t have the complete computing capabilities you will need to advance your business and digital technology goals with ease. Therefore, it’s important that you consider the viability of tablets early on in your evaluations, even if they weren’t on your initial shortlist. Not only do tablets provide a true handheld and vehicle-mounted mobility solution, but the best tablets mimic desktops and laptops by providing a no-compromise computing platform.
Before You Start Planning

How Much Do You Have to Spend?
It is unlikely that you will have unlimited funds to fix the issues at hand. Therefore, you must define your budget before you can commit to any new mobility project and begin planning.

Will the “Journey” Be Worth It?
Be prepared to submit a thorough and detailed business case and plan to conduct a benefits analysis ahead of time to support your case. Project sponsors will want to see “the value” before they sign off on any project. Your finance department should have a template that you can use. If not, just make sure you know how long it will take for your project to pay for itself.

The most common ways to calculate the return on investment (ROI) for technology projects are breakeven analysis, payback period, net present value, and internal rate of return.

Want to Ensure Your Mobility Project Gets the Green Light?

Know what it takes to get approval:
Is any project with a 6-month payback automatically approved? Does it require a minimum 15% internal rate of return to even be included in the stack rank list of projects?
Invite Others Along for the Ride

Secure an executive sponsor first.

It will be hard to get anywhere fast without an executive sponsor backing your project and approving your budget. Get them on board with your plan before you get started to avoid spinning your wheels for months on end.

Then pick the right co-pilot.

It is as important to shop for the right partner as much as the right product. You need a technology provider that’s working in your best interests, not just their own. Make sure they offer a “support team” that will not only work with you to deploy an effective mobility solution upfront, but continuously optimize the solution’s capabilities to sustain performance levels over time.

And, don’t forget to include these people on your project team.

- Workers
- Software Developers
- Peers
- Customers
- 3rd Party Integrators
- Solutions Architects
- OEMs
- Partners
Be Willing to Go with the (Work)Flow

Examine Your Current Resources (What’s Working, What’s Not)

You’re (most likely) not shopping for yourself. Don’t assume that you know what your “customers” – meaning the mobile devices’ end users – actually need or want.

The only way to truly know which mobile devices will work best, and why, is to spend a day in the life of your workers. Go for ride-alongs with the technicians that will have to use the devices you’re buying. Understand how you must automate their workflows to make their lives easier. Ask them for honest feedback about what’s worked well in the past and what hasn’t. Then take everything they say to heart. If you don’t buy the right mobile device, or choose to ignore their input for whatever reason, you will have costly acceptance challenges later on.

Next, take time to analyze business processes, find ways to improve productivity and remove waste.
Remember: You're not buying for a traditional office worker.

Don’t spec a mobile device like you would a desktop. Beyond security configurations, not much is the same due to the wildly different use environments and application designs from the office to the field.

Take some time to articulate your mobile technology requirements categorically using a "must have" vs. "must consider" framework:

Now, the really important part
(Don’t skip this step)

Think you’re done scoping your project?

Have you defined your “Criteria for Success” yet? If no, then you must do that now. Determine how you will measure and score the capabilities of each product and/or solutions provider. Define what “success” looks like. Once you do, it will be easier to find exactly what you’re looking for and to know immediately when you do.
<table>
<thead>
<tr>
<th>Feature/Capability</th>
<th>Must-Have</th>
<th>Must Consider</th>
<th>Don't Need</th>
<th>Justification</th>
<th>Specifications</th>
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<td><strong>Operation System</strong></td>
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Reconfigure Your Budget Based On Your Requirements
(Then confirm you still have buy-in from your executive sponsor.)
Make sure that each line item directly correlates with your pre-defined criteria.

Explore Your Options
It’s time to start shopping around. Use credible sources to inform your fair comparisons:

- Articles
- Analyst Reports
- White Papers
- User Boards
- Peer Reviews
- Case Studies
- Etc.

Ask Questions
Lots of them. Then start to build a shortlist of tablet computer candidates and request demos. Seeing is believing. Especially since rugged devices are not always engineered or tested the same way. Ask each manufacturer to show you why their devices are best, in real-life.

Now is a good time to also inquire about shipping lead times, third-party installation/implementation support and service policies. Ask about accessibility to the manufacturer’s support team post-sale, warranties and repair processes. (Even the most rugged computing device is bound to break at some point, right?)

Don’t get distracted by acronyms and “spec speak”. Ask sales reps to explain why their platform is best in terms that are universal. Better yet, have them show you.

Leave the technical conversations to the IT experts, unless you are one. In which case, you should drill down on the product specifications to verify that what the manufacturer’s selling on “paper” will meet performance standards when applied to your specific operating environment.
But just like you would want to experience a car’s performance on city streets and highways alike, you should push your shortlisted mobile devices to the limits in multiple, real-life environments. Simulated trials aren’t sufficient to prove the business case and confirm performance with complementary software and systems.

- Give them to workers and allow them to handle the device as they would if you weren’t watching. You need to make sure the devices are engineered rugged enough to withstand the abuse of normal users in typical work environments.

- Run your actual workflow software. Monitor performance. Document speeds, connection reliability, and security concerns. Determine if the issues arise from device insufficiencies or software/system design.

- Identify gaps in your feature wish list. Reassess your “must have” vs. “must consider” designations. Make adjustments and additions, as necessary, based on actual results from field testing.

- Train your workers on the mobility solution. Take note of how long it takes to on-board users and, more importantly, how long it takes those users to accept the solution combination completely. Consider how the device’s ergonomics may impact their experience in every usage scenario.

**Proof of performance is invaluable. It will ultimately give you the confidence and concrete evidence you need to convince others that your recommended tablet platform is the right tool for the job(s).**

Don’t skip the evaluation period, unless you have trusted peers that can vouch for the mobility solution. Even then, it’s still important for companies committing to larger deployments to “test drive” the tablet, for example, to configure and refine the platform to your standards.
Consider how much you’ll have to spend to see the project through to completion:

**TIME**
- Time to decide on a solution
- Time to implement just one component and/or entire solution
- Time to refine (if bundled) every time new workflow capability is required
- Time to correct errors/failures (either from inefficient methods, fragmented system...)

**DEVICE FAILURE**
Costs of frequent device failures and replacement

**PLANNING**
Inventory cost overruns or lack of materials due to insufficient planning/timing

**TCO OVERSIGHT CALCULATOR**

**LOSS OF BUSINESS**
Business lost due to quality issues, supply chain inefficiencies, inability to meet deadlines or keep pace with rising demand

**SOFTWARE**
Costs to address software incompatibilities or lost efficiencies due to inability to run the right software

**DATA ERRORS**
Cost of data input errors, lost data, or insufficient data to make effective decisions

**PEACE OF MIND**
Complete security control and easy accessibility for remote MDM/EMM

**CAREFUL CONSIDERATIONS AHEAD**
Ask about the average failure rates for each device, as well as the average time-to-failure. Ensure the mobile device’s expected lifespan aligns with your overall business plan and technology roadmap. If you’re expecting your solution to last five years, and the device is only expected to last two, then you’re going to find yourself reinvesting in - and reinventing - complete IT systems too frequently.

If your selected solution still seems like a win-win, now’s the time to “sell” it to other stakeholders.
How Do You Buy Mobile Technology Now?

- You try to bypass “corporate” because you know your team needs new mobile devices.
- IT specs mobile devices like they do every other computing device.
- You wait until the device has been selected – maybe even staged for deployment – to think about who will be responsible for end-user support.
- You buy the device first, then start thinking about software requirements.
- You force field technicians to use whichever device the “team” thinks is best without soliciting their feedback first.
- You cut the mobile device manufacturers/solution providers out of the tech trial to avoid interactions that could later lend themselves to “favoritism” during the final selection period.
- You buy based on “price” alone but only consider the upfront costs. Not the TCO.

How Should You Buy Mobile Technology?

- Get executive buy-in from day one. Without it, your project will get delayed if not completely canceled.
- Confirm exactly what the end-user will be doing with the device every day (via direct feedback) then determine which specs are needed to support every task.
- Assign the lead project manager early on and involve them in the evaluation process. Decide whether or not you need a helpdesk, and whether you or the tech provider will manage it – before you make a device decision.
- Pick your software first, test it (on multiple devices if needed), optimize it, then start focusing on which device will be widely deployed to the field.
- Hold hardware fairs/vendor days to give end-users an opportunity to see, feel and ask questions about the devices on your shortlist. Also conduct 30-day field trials if needed to get real-world feedback.
- Keep the solution providers involved every step of the way, including the trial period. By inviting all hardware and software candidates to assist with solution refinement now, you’re more likely to achieve success during the full deployment later.
- Choose a solution that best fits your work environment. (Rugged solutions will end up costing your organization much less when you look at hard and soft costs combined.)

REALITY CHECK:

A project of this scale can either be career-enhancing or the most frustrating experience of your career. Don’t be afraid to stop and ask questions or redefine your criteria as you learn from others’ experiences. At the same time, don’t be afraid to “act fast” if you find a solution that fits your requirements and your budget.
The Road to Success

Timing is Everything...

Know when you should be asking questions such as:

Will I need an “uplift” service such as extra batteries? Special in-vehicle mounting kits? Upgraded warranties?

Who will handle wireless activations?

Is there any staging required for trials/pilots or the actual implementation? Or lead times required for delivery of your pilot units? If so, will the solution provider be able to meet your timeline for delivery, configuration, etc.?

Who is the point of contact for hardware or software issues during the pilot period or post-deployment? Someone internally, externally (i.e. the device manufacturer) or both.

...So is Training.

- Train your end users on how to use the mobile device and other accompanying hardware, not just the software. Though we live in a digital world, don’t assume every worker has an acute level of tech savviness.

- Even better, ask your mobility solution provider – whether the device manufacturer or trusted partner – to “train the trainer” so that your internal team can on-board new hires.
Look to the Future

It’s just as important to plan for the future as it is to reflect on the past.

Start mapping your phase two, phase three, etc. goals when defining your initial roadmap. By doing so, it will be easier to architect a mobile solution with enough flexibility, stability and scalability to support your operational and systems growth.
Insider Tips: Shop for the Right Partner, as Much as the Right Product

Be sure your technology provider (i.e. project driver) isn’t going to abandon you after you reach your destination. You’ll want to shop for a “support team” that will not only work with you to deploy an effective mobility solution upfront, but continuously optimize its capabilities to sustain performance levels over time.

How to tell if your technology provider is serving your best interests, or their own:

- Test their flexibility and agility. Are they responsive? Willing to provide “feet on the street” for as long as it takes to identify and execute on the right solution? Around after they receive payment?
- Evaluate whether the proposed mobility solution has performed how other customers needed it to in the midst of ever-changing data processing and communications expectations.
- Consider whether they can easily accommodate your unique interoperability demands with past, present, and future IT system architectures.
- Ask how they can facilitate operational adjustments, without forcing you to make unnecessary changes to your entire technology structure that result in wasteful hardware and software spend.
- Verify that they’re not only knowledgeable in the engineering and implementation of mobility solutions, but in your industry and your workflows specifically.

Learn more about how Zebra can help you streamline your evaluation process and select the best-in-class mobility solution.

www.zebra.com

Zebra goes out of its way to deliver on every requirement, every time.