

Buyer's Guide

To Mobilizing
Business Forms

Help Your Employees Build
Apps that Meet Real World
Requirements

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ABOUT

Buyers Guide to Mobilizing Business Forms

Organizations have been dealing with a huge bottleneck when it comes to getting "enterprise-grade" mobile forms and business apps out the door. And when these apps do get built and deployed, they often don't deliver for end-users or, ultimately, the business. Amid an exploding requirement to mobilize the business, a shortage of mobile app developers and often budget constraints, enterprises are turning to mobile forms builders and business app builders to get the job done. Here's what you must consider as you evaluate these products.

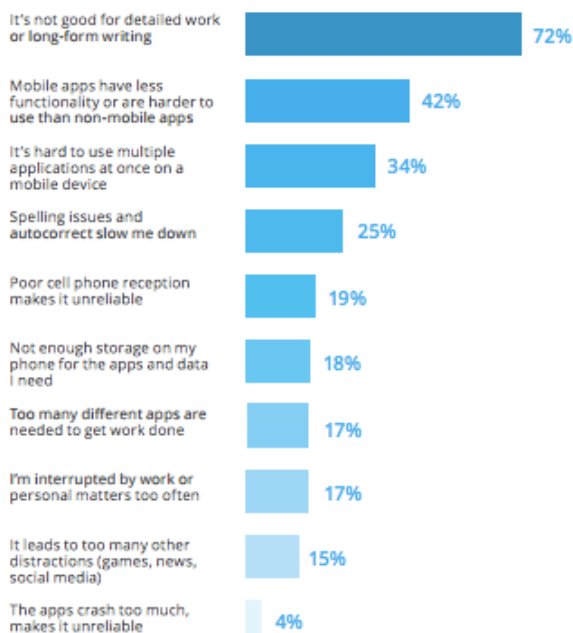
Adopting a New Mindset

While more mobile business apps are slowly getting into the hands of business workers, the results have been slow and disappointing. Wrike ("Source: Wrike, "2016 Mobile Productivity Report") surveyed 850 professionals from marketing, IT, finance, and human resources departments about their mobile usage and how it affected their daily productivity. While respondents viewed mobile devices as indispensable to their work, they listed a range of problems and productivity issues encountered with their business apps.

Top complaints centered on:

- app inefficiencies
- limited app functionality
- the unique challenges of mobile data capture
- disconnected situations
- limited device storage.

What problems do you face when working on your mobile device? (Please select your top 3)



Outstanding design and user experiences on B2C apps have set business user expectations high. Users want mobile devices to power their daily work with photo capture, bar code lookups, photo markups, mapping and audio recording. B2B app users expect sophisticated, task-focused, mobile-first apps that leverage the latest mobile device capabilities and work whenever and wherever they need them to -- flawlessly.

Unfortunately, this data indicates the current development model, often driven by developers who gather business requirements from business units, delivers suboptimal results. Clearly the process can be optimized to deliver an experience business users expect. How? By allowing business users to directly craft the business apps they or their colleagues will be using.

Empowering Business Users to Build their Own Mobile Forms and Business Apps

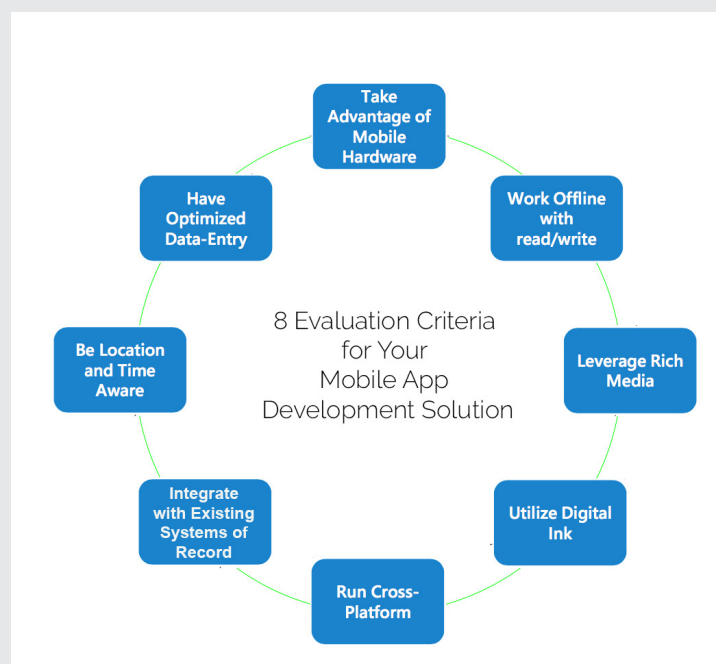
Engaging Your Business Users

So how are IT organizations going to quickly get hundreds of forms digitized and business apps built that satisfy all the requirements from line of business users? They're not - they are busy focusing on security and data integration and governance issues. There's only one way companies will get hundreds -- or even thousands -- of B2B and B2E apps built quickly and have them continually improved and updated in a "we're mobile" world.. They must democratize the building of mobile forms and business apps. How? By enabling line of business employees -- already familiar with the business processes and information required to get business done -- to build business apps .

Mobile forms builders and low-code app development tools have emerged to allow business users who cannot code to mobilize paper forms and digitize business processes without needing help from IT. These web or mobile app builders allow business users to more closely align the app to their needs, the type and way they need to capture mobile data, all while speeding time to deployment. Yet, it's important to note that these builders are not equal. The best mobile forms builders allow business users and experienced developers to do what they do best – while delivering outstanding mobile app experiences with no limits.

Finding the Right Product

While many builders have similar capabilities, some offer sophisticated capabilities that solve usability issues mobile users frequently complain about. While every app you build may not require each capability, your overall mobile approach will likely be unsuccessful if you don't select a product that can



8 Evaluation Criteria for Your Mobile App Development Solution

easily handle these common business app requirements.

1. Utilize device-specific hardware capabilities. Product must support the use of: camera, specialized detectors, GPS, or local file system storage - which expands the amount of data an app can handle. These data entry capabilities are impossible to deliver through a browser-only experience. That's where the difference between mobile forms and a mobile business app come into play.
2. Support offline work. A mobile form isn't truly mobile if it can't work when a user is without a WiFi or cell connection, but an offline mobile app is not good enough. Enterprise-grade mobile apps should be able to automatically synchronize stored information (even large media files) and intelligently handle data conflicts (beyond "last-in wins") when reconnected with the backend system. There should be data persistence when the app is closed or the battery dies, including data not saved to the server. Offline capabilities that only allow you to add records versus reading data from a database for editing or deleting are of limited value.
3. Manage the various rich media types available on mobile devices. Field workers can take pictures, video or record audio notes on their phones and tablets, so your mobile apps should have these capabilities as well. If the user captures images or audio while offline -- think of an insurance claims adjuster working in a tornado-struck area -- the app must be able to save these larger data files without any difficulty. Only a mobile app that can access the device hardware meets this need.
4. Deliver digital ink as a data type, and support stylus annotation. Users in the field may be doing inspections, taking notes on repairs or editing diagrams. Touch-sensitive drawing experiences are important in all types of field apps.
5. Run cross-platform. A good rapid app development platform will produce apps that run like native apps on tablets, smartphones, and the desktop regardless of operating system or screen size. The software will have careful consideration of how – and how often – an end user will interact with the mobile app on the device.
6. Be location-, time-, and mobile-context-aware. With powerful mapping in their B2C apps, users in the field don't want to waste time opening maps to find an address or inputting a time or location into a data file. Solid business apps should automatically capture important field-level data as part of the experience.
7. Optimize experiences for devices and specific tasks. This includes capabilities to dynamically produce custom keyboards (such as a digit-only keyboard for numeric entry fields), and apps that require only one hand or a single finger to operate. Ergonomics can be directly designed into the app.
8. Integrate with existing systems of record and workflows. The most valuable apps do not operate in a vacuum; they drive daily processes and impact the business in real time. Make sure you're producing apps that tie into the systems and processes that already drive your organization.

...And 5 Advanced Capabilities That Can Set an App Apart

The first list of 8 criteria offer a great checklist to keep handy while you're evaluating mobile app development products or form builders. However, in situations where requirements go beyond data capture, this list of 5 advanced requirements should be considered. These capabilities turn a field data capture app into a powerful business tool that streamlines field work and drives business in real time.

Ask if the product can:

- Scan Bar or QR codes and perform relative look-ups against remote data sources or on-device databases.
- Take advantage of web services.
- Pre-fill data on a mobile app from a corporate system of record.
- Initiate SMS or emails based on calculation or transformations performed on the collected data.
- Create dynamic and filtered picklists for much faster and more accurate data input.

To illustrate how these 5 advanced capabilities can take business apps to a new level, here are a few real world examples that the Alpha Software environment solves:

- A construction worker building a bridge may see that 2 beams are further apart than the specification, or a maintenance worker may see that the pressure in boiler is approaching a dangerous level. In this case, the app needs to immediately initiate a workflow or send an SMS/Email to remediate the problem.
- A field service worker without a cell or WIFI signal needs to service various generators. S/he needs to scan the bar code on the generator and pull up the service manual and/or service videos for that piece of equipment, requiring this large data file be stored on the mobile device for use offline.
- While collecting inspection data on a mobile device, an inspector needs the app to perform complex calculations, data validations or transformations on-the-fly to determine what items are passing or failing the inspection and what additional information must be gathered.
- A solar power technician determines that a power inverter needs to be replaced. While filling out a work order on his or her mobile device, the technician can check to see if a suitable inverter is available and instantly view of the number of units in stock. In this case, the app must lookup data using an API Callback (assuming there is connectivity) or against an on-device database (when offline).
- While collecting inspection data on a mobile device, an inspector needs the app to perform complex calculations, data validations or transformations on-the-fly to determine what items are passing or failing the inspection and what additional information is needed. [See this example of a sophisticated inspection and repair mobile app built in a few hours in Alpha TransForm.](#)

Enterprise app developers -- in IT or the line of business -- must realize that mobile apps and forms are very different from desktop applications or traditional paper forms. Business app builders will only disappoint end-users and see low adoption and usage rates if they fail to incorporate these types of mobile experiences into their business apps.

Ensuring Success

Another Perspective:

Gartner's 6 Criteria for Selecting a Mobile App Development Tool

Two of the leading mobile app development analysts at Gartner, Richard Marshall and Van Baker, identified 6 key criteria that enterprises must address when selecting a mobile app development product, or they risk falling short of business app development needs:

1. Can this product connect to my back-end systems?
2. Do I have or can I find development talent that can use this product?
3. Do the apps this product produces work offline?
4. What is the licensing model?
5. Does this product connect to my development infrastructure?
6. Does this product support my mobile devices?

(Source: "Picking the Best New Mobile AD Tech: MBaaS and RMAD" presented by Richard Marshall and Van Baker of Gartner at Gartner Application Architecture, Development and Integration (AADI) Summit)

Vendors often claim that users can become proficient quickly, scaling is easy and affordable and you can build all the apps you'll ever need, but buyer beware. Doing some extra homework during the evaluation could pay off big. Before you decide which of these packages is best for your organization, talk to current users of the product. If the software vendor won't direct you to reference accounts, you can always find customer reviews and product comparisons on 3rd-party product review sites like G2Crowd, Capterra or TrustPilot. You may also be able to join the vendor's user community.

Questions to ask to obtain the information you need to select the right vendor and get the best pricing:

1. How long did it take to build your first app on the platform? How long did it take to become proficient with the product?
2. Are sample templates available to kick-start learning? If yes, were they free or paid?
3. Was training necessary? Was it free or paid? What training or services did you find most helpful?
4. Who in your organization is building apps with the product now? Is use growing?
5. Have costs been predictable as you add more apps or scale usage? Have you had any surprises?
6. What did you wish you'd known about/taken advantage of earlier in the onboarding process?

Work with a vendor that has shown long-term success at turning new users into successful app developers in days or weeks, not months or years. Ask for case studies, review sample app libraries and speak to other users that have been developing with the product for less than a year.

Getting the Best Deal for Your Organization

A Novel Idea: The Power of "Mentoring"

Some forward-thinking vendors recognize that today's fast-paced, business users need more personalized training on the spot. Companies are launching innovative programs to fit the needs of business users. For example, Alpha Software offers 1:1 mentoring to add help just when a user needs it. In the case of mentoring, a product expert (think: personal trainer) is assigned to the customer on a "beck and call" basis. Some uses of mentoring might include:

- Speeding onboarding
- Focused training on a new version or new feature of the product
- Troubleshooting an app project
- Adding a particularly complex feature to an app
- Finishing an app to meet a critical deadline


App development is rarely a one-and-done effort. Apps need to be maintained and updated. Once an app is complete, it requires iteration, or users request a follow-on app. Organizations are moving away from monolithic apps that try to do everything and are moving to many smaller, task-oriented apps. With this evolution taking place, it's critical to consider how any product you select will scale over time.

How will price and performance be affected when you:

- Update apps?
- Add new apps?
- Add more business users/developers?
- Add more end-users?
- Adapt to new operating system updates?
- Integrate new mobile device/IoT features?

You may find it painful and costly to scale app development if the platform does not have the right combination of licensing, hosting, services and new user training. You need to ask:

1. Does the vendor have free or cost effective training to ensure fast and consistent training for new users?
2. What will it cost to get new mobile forms and business apps built in terms of resources and hosting?
3. What will my ongoing licensing costs be?



Be sure to understand the different licensing types and how they'll affect your budget as needs evolve and usage grows.

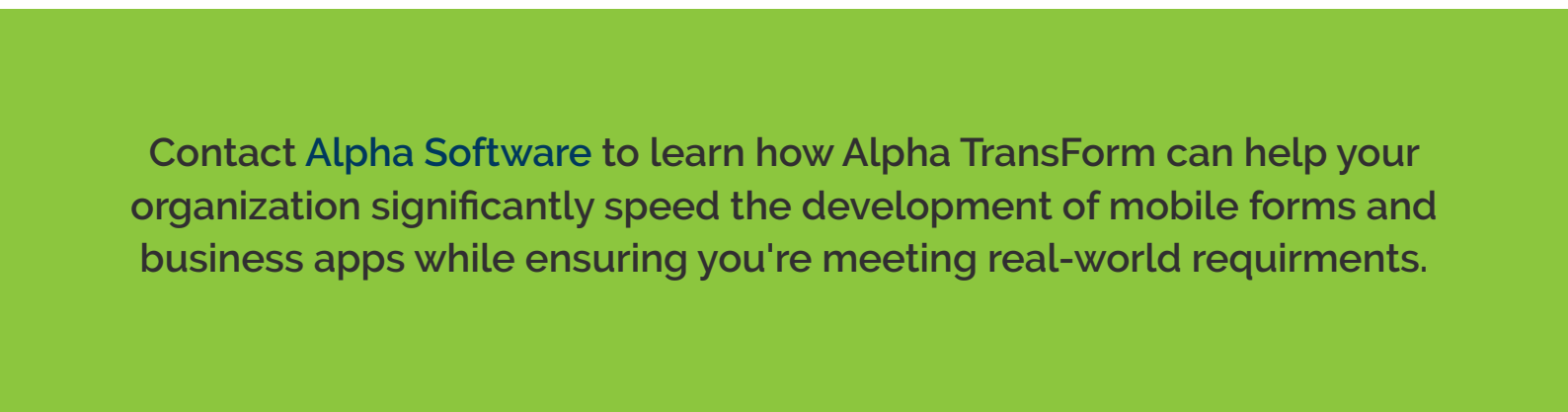
1. **Usage-Based Model.** A usage-based model, is not focused on the people with access, but rather how many users are on the app at exactly the same time (i.e. concurrent users). When the number of concurrent users exceeds a certain threshold, only then will an enterprise need to add additional servers to handle the increased server load and optimize performance. This model is increasingly attractive to customers who are scaling their business for two reasons: 1) customers pay only for the actual usage of the system 2) it scales up or down with the normal ebb and flow of load on the system at a more reasonable cost. In usage-based licensing models, vendors may calculate usage based on the number of servers deployed, the number of transactions run, or number of visitors to your website.
2. **User-Based Licensing.** With user-based licensing, once your app is built, there is a monthly, or yearly, charge for each user on the platform, regardless of how often or infrequently they use it. In this case, each end-user of the app needs a license, regardless of how much or little they use the app(s). This means that as you add on new users – or new apps -- the costs tend to add up quickly, even if the monthly charge per user is low. If you build a few department focused apps in the beginning, then hope to build enterprise-wide or channel based apps in the future, your prices could rise rapidly as you scale your apps to serve larger sets of users. .

When evaluating application development platforms, be sure to look carefully at the onboarding as well as the licensing model to see which vendor will offer your organization the best TCO and ROI in the short-term and the long-term. Think outside the box and find a vendor that better understands the challenges of democratizing app development across IT and lines of business and how the solution needs to scale in the future.

Summary

Considering all the tools available for mobilizing forms and apps, it's important to select one that not only delivers more productivity, but also a mobile experience and streamlined process that end-users expect. Select a product powerful enough for end users while allowing IT to ensure app reliability and security.

Buyers must consider the aforementioned 8 critical business app capabilities in their product evaluation checklists. They also must always ensure that the platform will never limit or slow down experienced application developers or citizen developers.



Contact [Alpha Software](#) to learn how Alpha TransForm can help your organization significantly speed the development of mobile forms and business apps while ensuring you're meeting real-world requirements.