Selecting a Mobile App Development Vendor

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Analyst(s): Ken Parmelee

Ensuring that mobile app development vendors meet requirements and are viable requires an understanding of the complexities of mobile development. This decision framework will enable IT leaders to select the right mobile application development vendors for their initiatives.

Key Challenges

- As the number of vendors in the mobile application development (AD) market grows, differentiating is becoming increasingly difficult.
- There are many hidden costs to mobile applications that will surprise those who are novices in developing mobile applications.
- The demand for mobile applications will continue to accelerate.
- Mobile technologies will continue to evolve, defeating enterprise attempts to standardize on a single software approach or tool.
- Vendor stability is difficult to ascertain.

Recommendations

- Select vendors that align best to your organization’s mobile strategy.
- Standardize viable vendors over the next several years to contain costs and complexity.
- Use co-development practices with the selected vendor to learn mobile best practices and avoid pitfalls with initial applications.

Strategic Planning Assumptions

By 2015, mobile AD projects targeting smartphones and tablets will outnumber native PC projects by a ratio of 4-to-1.

Through 2015, mobile app development will reduce the productivity of enterprise AD teams by 20%.
Introduction

The pace of innovation in the mobile space will continue to increase. Cross-device development continues to be important for any company’s ability to scale mobile capability. As mobile requirements grow, companies will require large numbers of mobile apps going forward. There will need to be a mix of internal and external apps and sites, all with different requirements. The drop in development team productivity will be due, in large part, to IT organizations going through the process of integrating mobile AD into their organizations. At the same time, the mobile software development tools vendor space is getting much more cluttered. This research provides criteria to use in evaluating service providers and tool vendors for mobile projects.

Analysis

Determining Vendor Viability

The mobile development market has changed considerably in the last few years. Many acquisitions have taken place and new vendors are entering the market at a rapid pace. With this type of volatility, determining vendor viability is not an easy task.

Key questions to ask potential vendor partners are as follows:

- How many projects have been delivered over the last three months? Of the vendor’s customer base, get a reference client who has used them for multiple projects.
- Ask for the financial picture. While you may not get the detail you want, this information, along with the other data points, will give you a better idea of the strength of the company.
- How many vendors are in the product professional services organization? This is an indicator of the strength of the company and how many projects they can deliver.
- Ask how long it takes them to port an app to a new version of an OS. What about porting to entirely new OSs such as Win 8?
- In this market, if a mobile company does not grow a strong partner ecosystem, they are not likely to grow at pace with the market. Ask how much they do with partners and who their partners are. You want a good mix of technology and sales partners.

Minimizing Risk and Cost

Mobile creates opportunity for the enterprise to evolve business practices and create new revenue streams. There can, however, be significant risk that can lead to unforeseen costs. A few examples of these risks are getting locked into proprietary vendor tools, integration customization required of the enterprise, and poor design producing limited use applications. Mobile requires different skill sets. There is a need for design people who understand OS capabilities and user experience. Data synchronization and the effect of thousands or millions of server requests on your architecture require integration and security people who understand the impacts. There may also be a need for
different developer skill sets based on the types of development that will be done. The following key questions will help minimize those unforeseen areas:

- What backends do they have experience integrating with? Many enterprise-grade applications integrate to backends in the corporate data center. Your selected vendor should have experience with the backends you want to mobilize.

- How do they handle data synchronization? In some cases, an app requires an offline data store so it can run without a network connection. Apps that do not do anything when there is no connection are typically very poorly received.

- Can the vendor handle any internal customization that may be required? An example might be alterations to Web services.

- What design services do they provide? Good design services do not focus solely on the appearance of the app. They also focus on usability, flow, and use of things like gestures to enhance the user experience.

- Is the platform cloud-based? What is the largest user base supported in a current implementation? Are there any additional costs to scale? With the pace of change, cloud services are an excellent method for reducing infrastructure and support costs for a given solution. Usage tiers can help protect from surges in bills for highly utilized applications. Make sure that there are not charges for additional hardware or software to scale.

- Is the pricing model a one-time fee or a monthly charge? How are enhancements handled? Another area that can easily destroy your mobile development budget is constant, expensive enhancement charges. Mobile apps should be extensible and allow for updates to changing content. Apps that do not conform to these basics will not have great adoption or a long life.

Outsourcing development for initial projects is a suggested course of action. By outsourcing your first project or two and working with a proven vendor in a co-development model, you can scale your internal team based on experience and learn mobile best practices. Align the choice of developers and their experience in delivering similar projects with the kind of apps you will need to produce.

Evaluating the Tools

There are reasons to support a mix of mobile development architectures that include mobile Web, hybrid and native. Each is suited for some purposes better than others. Native enables the highest user experience, which is why you see it used regularly for consumer or external-facing applications. Hybrid provides good portability across devices and more standards-based development. Mobile Web is needed by most companies for portal-type apps and consumer sites. Mobile development platforms (see "Magic Quadrant for Mobile Application Development Platforms") provide for an approach that many times reduces the rework between the mobile OSs and can package apps across several, if not all, types of mobile development architectures — mobile Web, hybrid and native.

Key Questions:
■ What developer skills are required? Too much custom skill requirement will mean nontransferrable skills and vendor lock-in.

■ What training is available? How long are the courses? You should be able to easily onboard new developers in order to scale the team as needed.

■ What does the developer community look like? Is it an active and large group? Are there public code libraries, forums, and training? Ask for several weeks to access the software and evaluate.

■ What kind of metrics and reporting do the tools provide? This is a very valuable capability, but when charged to produce lots of custom reports, it becomes another area of continual enhancement charges.

■ How quickly are new devices or OSs supported? And how quickly are new features supported? As the OSs add features like Passbook and Android Wallet, it is important to understand how quickly initial support and deeper support are typically available. We suggest that for new device support you get an SLA in the contract.

Evaluating Vendor Approaches and Trade-Offs

Most organizations will need to build up a mobile competence in order to meet the demand for mobile apps over the next few years, even if they initially outsource much of the work. This strategy will allow for a ramping up of mobile knowledge and skill while working with experienced external vendors in a co-development model. This includes hiring or outsourcing user experience designers, mobile developers, and integration architects that will enable your enterprise to scale. Selecting technologies that are based on standards and that have a high degree of portability will reduce possible rework and allow for switching technologies as required.

However, be forewarned that this approach can force applications to be more simplistic, as cross-platform often means that the differentiated features of each platform may not be supported. Many mobile platform development tools utilize proprietary code or unique tagging that means that an app cannot work separately from that platform without significant rework. Weight must be given to the automation, management and deployment tools and the cross-device, cross-packaging that they provide. The question is, how proprietary is the platform? Would it be 20% rework or 80% rework if you moved to another vendor? Use an experienced mobile developer to evaluate the development tools and the code that they create.

Another consideration is whether to select niche vendors that focus on particular types of solutions or general purpose vendors that support a wider range of needs but are not as deep. Some projects may benefit from focused solutions where vendors know a particular area very well and are able to produce deep applications quickly. It is important to understand how these solutions will fit into your support and maintenance processes so they do not become one-off projects that have no future.

In the following paragraphs, we provide some example vendors in the various spaces. These are by no means exhaustive and are meant only to serve as examples of the type of vendors for the space.

The large consulting and system integrator (SI) companies have not, in large part, created general mobile competencies. These companies specialize around an area like financial services and
develop custom mobile projects, and include AT&T, Accenture, CSC and IBM Global Services. They typically focus on larger-scale projects and costs are generally higher than the smaller development shops and platform companies. There are a variety of smaller or regional consulting companies that have a mobile focus and have produced good bodies of work that allow for a better evaluation; these include Cognizant, Infosys, and Wipro.

For specific needs, there are a wide variety of niche vendors and agencies that focus on certain backends, industries or consumer experiences. The mobile AD platform vendors have the most experience in implementing sophisticated mobile projects (Gartner rates these vendors in the "Magic Quadrant for Mobile Application Development Platforms"). Companies include Antenna, Appcelerator, IBM Worklight, Kony and SAP Sybase. Verify experience with similar projects and check app store and market ratings for any public apps. Also make sure that the vendor’s road map aligns with the future vision of your corporate mobile strategy.

**Recommended Reading**

*Some documents may not be available as part of your current Gartner subscription.*

"Magic Quadrant for Mobile Application Development Platforms"

"What Enterprise Architects Must Do About Mobility"

"CIOs' Next-Generation Mobile Strategy Checklist"

**More on This Topic**

This is part of an in-depth collection of research. See the collection:

- The Mobile Imperative: Mobile Application Strategies and Architecture
GARTNER HEADQUARTERS

Corporate Headquarters
56 Top Gallant Road
Stamford, CT 06902-7700
USA
+1 203 964 0096

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AUSTRALIA
BRAZIL
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