

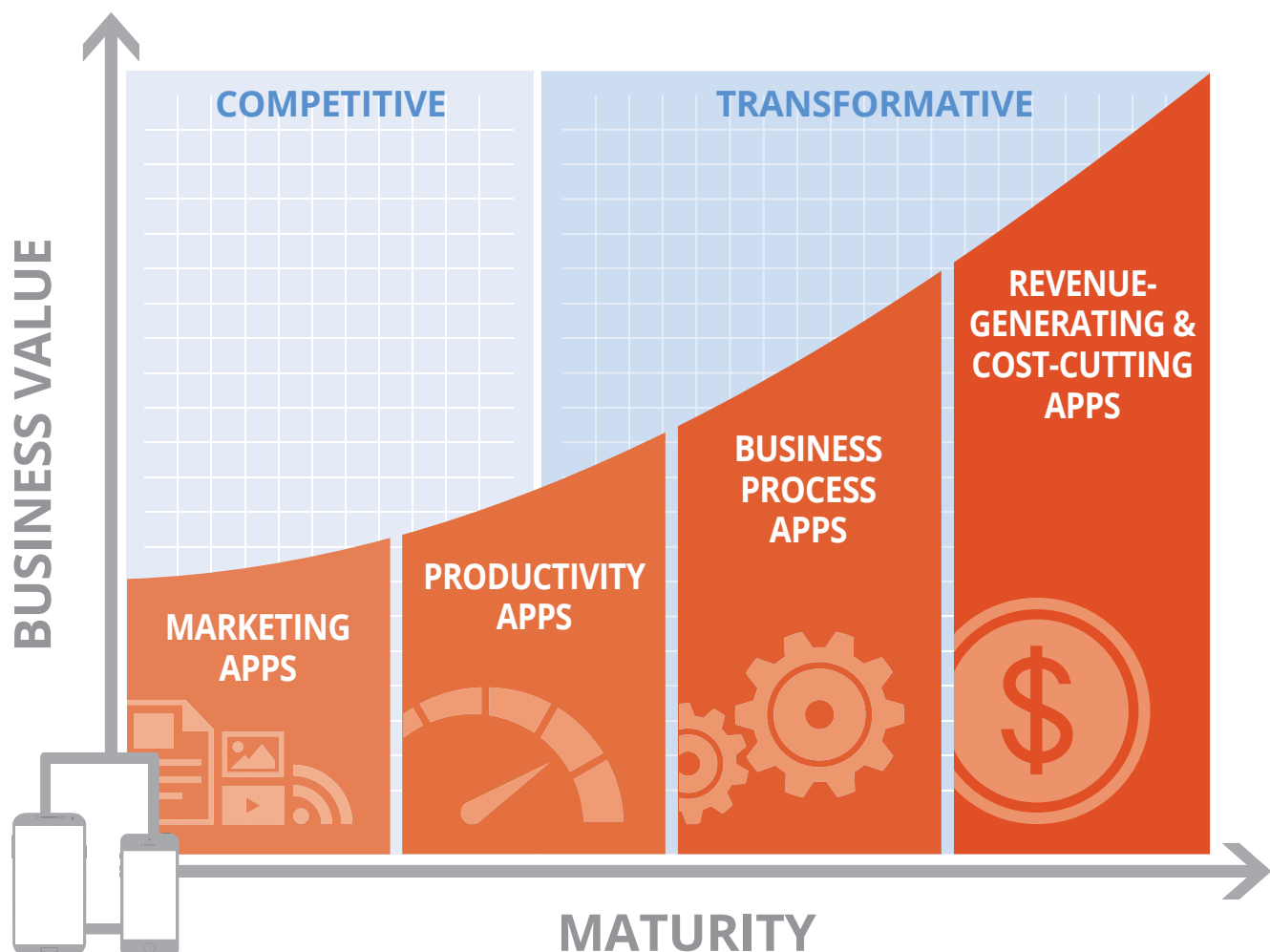
THE ENTERPRISE MOBILITY MATURITY MODEL



The Enterprise Mobility Maturity Model

Mobile apps in the enterprise have serious potential. Beyond simple marketing apps, organizations can take advantage of mobile enabled workflows to increase productivity, improve business processes, and ultimately increase revenue and lower costs. An enterprise's mobile strategy typically follows a maturity curve

that progresses through these steps; as the organization moves up the curve, they face more numerous and more difficult challenges, but also start to realize transformative benefits from the apps they deploy.



Apps for Mobile Marketing



The first step in enterprise mobility is consumer-facing apps for marketing purposes. These apps can be relatively simple in terms of execution: they require fewer security considerations and rarely connect to multiple enterprise backend systems.

While well-designed mobile apps for marketing are an essential consumer engagement tool, they are usually just an extension of the enterprise's web-based marketing efforts. They can be built quickly by external agencies and rarely expose the pain of connecting to enterprise systems of record on the backend.

Challenges:

The first step in the mobile maturity model has few challenges, but organizations can still feel pain here.

Often it is simply a lack of resources - whether it's a lack of person hours for internal development or budget for outsourcing the app to a dev shop, some enterprise lines of business struggle to produce effective marketing apps at an acceptable pace.

Examples:

Marketing apps need no explanation. There are thousands of effective, polished marketing apps available in the Google Play store and Apple app store today, with more added every day. The Kinvey Quoting app may be slightly more

advanced than some – it allows our users to build out and request a quote for a Kinvey instance – but is a good example.



Apps for Mobile Productivity



The next step in enterprise mobility is apps that allow the workforce to be productive on-the-go. These typically take existing business processes and wrap them in native or hybrid-native containers to allow employees secure and efficient access from mobile devices. These apps can have a positive impact on workforce efficiency, as employees are no longer tied to desktop devices to accomplish important business tasks.

However, these apps aren't truly "transformative" in that they don't recognize or take advantage of mobile-specific features and use cases. They take existing systems and business processes and expose them in such a way that makes them mobile accessible, but not necessarily mobile friendly.

Challenges:

At this point, enterprises start to experience the difficulty of integrating mobile apps with backend systems of record. Many of these systems use legacy, mobile-unfriendly APIs - expecting communication in the form of SOAP or XML requests, while mobile developers are used to coding against RESTful APIs. This creates a "tug-of-war" of sorts between enterprise IT and lines of business (LOBs): IT wants to maintain control and set security and compliance policies for the enterprise IT stack, while LOBs want rapid innovation and development and require mobile-friendly systems to do so.

Examples:

Kinvey's CRM app mobilizes Salesforce.com data elegantly and effectively. It behaves the way one would expect a mobile app to behave, offering secure offline access to maximize productivity, on-demand filtering of forecast and bookings reports, cross-platform (iOS and Android) support, and the ability to customize the display so sales teams can see the fields they need to see without additional clutter.



Apps for Business Process Improvement



Enterprise mobility becomes transformative when organizations create apps that improve or enable new business processes, instead of just adapting existing processes to mobile devices. These apps take into account mobile-specific features like cameras, accelerometers, and location data in order to improve workflows in a mobile-specific context. They also account for limitations of mobile devices like unstable network connections, reduced processing power, and the need to manage power consumption.

At this maturity level, apps are time consuming and expensive to develop and maintain. In addition to creating secure, reliable connections to legacy enterprise systems, organizations must consider frontend features like online/offline caching, data encryption, network management, and more. And as enterprises allow employees to use their own devices as well as company-owned ones, these considerations multiply for each client platform the organization decides to support.

Challenges:

Once an organization starts attempting to improve business processes via mobile apps, it will run into serious challenges. Because enterprises at this stage are often dealing with tens or hundreds of mobile apps (or plan to scale to that point) and are deploying these apps across multiple platforms, it becomes increasingly important for developers to have access to reusable components like online/offline caching and encryption. This necessitates a standardized mobile platform that sits on top of

the existing IT stack.

Additionally, at this point on the maturity curve organizations need to use data in new ways. With traditional applications, developers could count on the client device to be powerful enough to perform data mashups and other transformations; the limited processing power and battery constraints of mobile creates a need for this business logic to live outside the device.

Examples:

Kinvey customer Womack has used mobile apps to consolidate their sales process. Womack had invested heavily in Microsoft Dynamics CRM, but salespeople were taking notes of their meetings and phone calls with prospects in Evernote because of the latter's much more polished mobile UI.

Womack's new process, built on Kinvey, allows salespeople to continue taking advantage of Evernote's consumer-grade features; however, they can now email those notes to an alias that maps them to the correct record in their Microsoft Dynamics instance. The result is a win-win: salespeople can use the tools they find most effective, while IT gets to ensure all records are stored appropriately in the backend.



Apps that increase revenue and/or lower cost



Enterprises reach the final stage in the mobility maturity model when they produce apps that directly impact the top or bottom line of the business. While apps in the previous three categories may indirectly impact an organization's profitability, they typically do not create new revenue streams or cause a major reduction in expenditure.

Apps at this stage are transformative in two ways: they disrupt existing business models and cause widespread changes in business processes; and in order to do so they must transform data from the enterprise backend to fit a new mobile-first paradigm. The new business processes that these transformative apps create must be supported by complex business logic on the backend, which mashes up and integrates systems of data, identity, and engagement in new and innovative ways. Naturally, this additional complexity creates a challenge for enterprise IT, which must now expose the entire IT stack to supported mobile applications. As a result, few businesses today have achieved this level of mobile maturity.

Challenges:

As enterprises reach the end of the mobile maturity curve, they face even tougher challenges. For one, the transformative mobile apps these organizations are building will often integrate new, mobile-specific data and authorization types that require additional backend support, whether on-premise in the enterprise's data center or in a public or private cloud. These applications must

also support any device - which necessitates a mobile web version of the app. For security and compliance purposes, they'll often need a centralized administration portal and advanced tracking of in-app user behavior.

The ongoing maintenance and lifecycle management of the application is just as critical. Since these apps are a mainstay of the organization's business processes, 100% uptime and zero planned outages is mandatory. And the platform these apps are built on must be able to gracefully handle app versioning - ensuring that multiple iterations of the app can be supported simultaneously as end-users migrate to the newest version.

Examples:

Kinvey customer 75Fahrenheit has developed a suite of mobile apps that work together to create an optimal temperature control strategy for commercial and industrial buildings while drastically cutting cooling and heating costs. The system's central control units run on Android mobile devices and applications, while the storage and processing of data collected from the HVAC units is handled on the backend.



So How Do I Get There?

Transformative mobile apps have feature sets that can be broadly divided into three categories: the frontend, or user experience; the backend, comprising specifically of data, identity, business logic, and engagement features; and the platform, or features of a unified mobile architecture that supports the organization's mobile app initiatives.

The result of supporting this wide-ranging feature set is a complex and disjointed IT stack. As a result, enterprises cannot achieve this final stage of mobile app maturation without a mobile-first

mindset, or at least without regarding mobile processes equally important as their existing non-mobile counterparts.

All organizations who have created apps at this level have standardized their mobile app backends with software and systems architecture that forms an enterprise mobile backbone.



About Kinvey

Kinvey is the leading enterprise Mobile Backend as a Service (MBaaS) platform that helps enterprises, agencies, and developers launch successful and engaging apps. Kinvey provides comprehensive support for native, hybrid, and mobile Web applications and delivers out of the box enterprise capabilities including identity management, integration with enterprise data sources and a data store and file store for new mobile data, ability to run customized business logic, and a rich set of mobile engagement services. Kinvey runs in a multi-tenant cloud or in a dedicated public or private cloud. On average, Kinvey customers launch apps twice as fast and at half the cost as traditional methods.

For more information, visit kinvey.com.

