

Business Agility in the Mobile Age

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Movement towards the mobile enterprise is gaining momentum based on the clear business value afforded by better leveraging today's increasingly disconnected and on-the-go workforce. However, corporate IT developers are struggling to keep up with the pace of mobile workers' demands for access to key business processes and applications.

This white paper describes the challenges enterprises face in empowering a new generation of mobile workers. It also illustrates how solutions delivered on the Appian BPM Suite enable developers to rapidly deliver secure and high-value mobile process solutions.

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The Next Age of Mobile Computing

With the rapid advancement of mobile computing over the past few years, consumers are expecting more out of their mobile devices than ever before. Previously, we were content to use mobile devices as a collaboration tool for voice communication, SMS messaging, and Email/Calendar, while leaving the heavier lifting of web browsing and enterprise computing to our PC devices. With new operating systems specifically designed for mobile computing, continued miniaturization of powerful processors, and new mobile form factors like tablet computers, mobile devices are rapidly reaching parity with their PC Desktop counterparts.

In early 2010, Gartner predicted “By 2013, mobile phones will overtake PCs as the most common Web access device worldwide. According to Gartner’s PC installed base forecast, the total number of PCs in use will reach 1.78 billion units in 2013. By 2013, the combined installed base of smartphones and browser-equipped enhanced phones will exceed 1.82 billion units and will be greater than the installed base for PCs thereafter.”¹

Mobile devices are providing consumers with a level of connectivity (to friends, co-workers, communities of interest, and data) that has never been achieved by PC desktops. Mobile computing processors are now practically on par with many PC Desktop/Laptop systems currently in use, utilizing dual-core processors and up to 1 gigabyte of memory. In addition, mobile devices are delivering features never obtained on a PC, such as instant-on operating systems, extreme portability, low cost, and always-on Internet connectivity. Consumers are reacting to this surge in mobile innovation with an unprecedented boom in mobile device sales. IDC reported growth in mobile devices from 2009 to 2010 increased by 55% with more than 269.6 million devices shipped.²

Corporate IT organizations must be prepared to rethink their existing strategies for delivering technology solutions to now consider this mobile revolution. It is no longer adequate to assume employees, partners, and customers will be bound to a PC when accessing your corporate applications. Corporate applications today must be accessible from virtually any device or platform, while still providing the same level of security and functionality in today’s PC devices.

Mobile Business Process Management

Business Process Management (BPM) platforms have delivered large gains in efficiency across a wide variety of business processes. For example, UPS has reported a savings of \$28 million

¹ source: <http://www.gartner.com/it/page.jsp?id=1278413>

² source: <http://www.idc.com/getdoc.jsp?containerId=prUS22486010>

per year through the implementation of a BPM platform for IT Service Management across Shared Services. Nokia Siemens Networks has bench-marked \$16 million in annual savings from a comprehensive BPM program. BPM unites systems and organizations into a single, manageable process with detailed tracking and efficiency analysis at every point. But a natural barrier exists that no amount of process modeling and analysis can overcome: mobile access to the process by participants across (and outside of) the organization.

BPM's dependence on PC access by every participant has created a physical barrier to process efficiency. The benefits of mobile enabling access to key business processes has been known for quite sometime. A 2005 BlackBerry Whitepaper noted common benefits of a mobile enabled enterprise, including better decisions, faster decisions, and shortened cycle times.³ But for the past 10 years, these communications have been embedded in email chains, disconnected from a measurable and repeatable processes managed in a BPM platform.

Companies are now using BPM as an application development platform for creating fast access to critical processes and information for new mobile BPM applications. Mobile BPM applications bridge the technology gap created by PCs that restricts both access to important information and process decision making while mobile.

Information at the Point of Decision

Mobile BPM applications drive more than just process efficiency. They empower workers to make smarter decisions by providing more information at the point of decision. Critical decisions are made in the field every day that define a company's interaction with customers and partners. For example, In this mobile age where a customer can walk into a store and, using their mobile device, price compare every item against every other store in the world, the employees need to be equally empowered with information to win the customer sale.

Mobile BPM combines the delivery of information and action in a single interface to empower workers to make smart decisions that drive enterprise processes. A wide variety of industries have field personnel making important, process-driven business decisions every day that could benefit from mobile access, such as:

- Sales Representatives
- Financial Appraisers
- Insurance Adjusters
- Field Technicians
- Legal Consultants
- Government Case Workers
- Government Inspectors
- Healthcare Providers

³ source: http://us.blackberry.com/ataglance/get_the_facts/Business_Benefits_of_Industry_Specific_Mobile_Apps_IDC.pdf

Each of these industries trusts that field personnel interacting with customers are making informed decisions to drive critical business processes. An insurance claims adjuster, for example, must evaluate a claim in the field and recommend an action based on business rules and collective knowledge set by the corporate headquarters. Mobile BPM access to information, rules and processes would allow the adjuster to make an immediate and better informed decision while in consultation with the client, as well as increase the efficiency of the overall claim process through mobile actions. This example of mobile BPM has a number of positive effects including:

- Increased customer satisfaction
- More complete claims information
- Reduced cycle times
- Fewer process exceptions

The Mobile Development Challenge

Building new mobile BPM applications can be a daunting endeavor given the variety of platforms, devices, and development languages. Corporate IT professionals face a number of challenges including:

- Platform development complexity across Apple iOS, Google Android, RIM BlackBerry, Windows Phone 7 and HP WebOS
- Providing security guarantees for all information handled on mobile devices
- Cost of development and outfitting staff with mobile devices
- Lack of mobile development expertise

Companies need to recognize the importance of delivering mobile applications while not locking themselves into a specific mobile platform, or creating security gaps to corporate data. Like Internet technologies in the mid-1990's, mobile device technologies are rapidly evolving with an overwhelming number of choices and options for mobile application development. There are a number of key points developers should keep in mind when selecting a mobile development platform, including:

- The use of Service Oriented Architecture (SOA) standards like REST and SOAP
- Multi-platform deployment - Design once and deploy on every mobile device
- Storage of a minimum amount of data on the mobile device to ensure security
- Supporting secure communication using SSL and VPN
- Empowering non-developers to model and implement Mobile Applications
- Integrated with enterprise processes and systems

These points will typically rule out using any of the standard SDK platforms from the Mobile Device manufacturers, such as Apple xCode, Google Android, or RIM BlackBerry so as to prevent locking into a specific platform. Enterprise developers should recognize that the majority of mobile business applications only need to deliver data discovery and reporting, with interfaces to view and complete electronic forms, and the ability to participate in collaborations (and all within the context of a business process). Rich graphical mobile apps typically seen in games development are typically not necessary to empower most enterprise mobile applications.

Modern BPMS development platforms provide the necessary multi-platform support, SOA standards, and integration to existing systems to make an ideal choice for most mobile enterprise business applications. BPMS platforms are additionally focused on agile and fast development methodologies, allowing for rapid prototyping and deployment.

For these reasons, Business Process Management Suites (BPMS) with mobile BPM capabilities deliver the optimum amount of speed to deployment and flexibility for a standard mobile application development framework. BPMS platforms use a highly visual design environment that is easy for business users to both understand and deploy. In many cases, complete mobile enabled process applications can be created without writing a single line of code. In addition, BPMS platforms tie together people and systems in a cohesive process, providing a single interface to interact with all systems and participants. **A single mobile BPM application can serve as the main mobile interface for every interaction with a variety of back-end systems, simplifying mobile development, deployment and use.**

Appian BPM Suite

Appian is the leading innovator in BPM software and the first to:

- Offer a complete BPM suite both on-premise and in the cloud
- Provide native mobile BPM
- Make Social BPM business-value focused

The 100 percent web-based Appian BPM Suite is simple to use and comprehensive in capability, providing natively-integrated process, business rules, reporting and analytics, content management, data integration and collaboration. Appian additionally includes a revolutionary interface (dubbed “Appian Tempo”) that extends process visibility and participation through native mobile device access, real-time collaboration, filtered and personalized views of key business events, integration to external systems, and the ability to take direct action in a familiar and intuitive social media interface.

Figure 1 shows the components of the Appian BPM Suite across Process, Data and Social capabilities

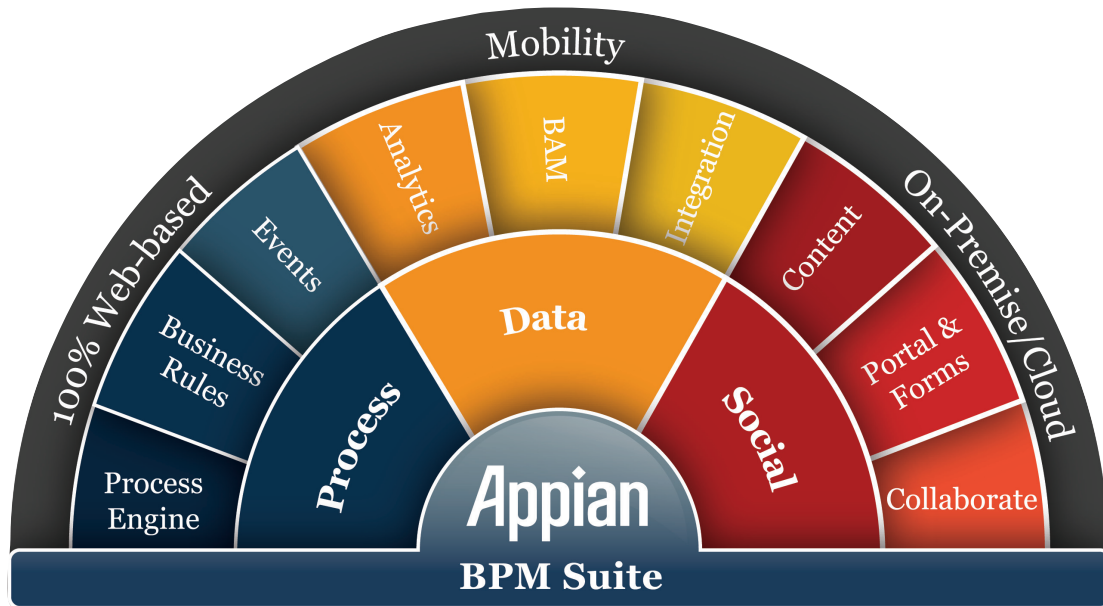


Figure 1

“Appian leads the pack with the best overall combination of modeling, design and development.”

– Forrester Research BPM Wave 2010

“I was impressed with the way Appian has hidden a huge amount of complexity behind a relatively simple interface.”

– Dennis Howlett, ZD Net

Utilizing the Appian BPM Suite and Tempo interface, mobile application design is reduced to simple drag-and-drop design for both user interface and process orchestration. The powerful and web-based Process Modeler and Forms Design tools provide business user level control of the interface and flow and mobile BPM applications.

When ready, a designer simply publishes the new mobile application from the web interface. The application is now immediately available on Apple iOS, RIM BlackBerry, and Google Android devices with no need to compile code or publish to an app store.

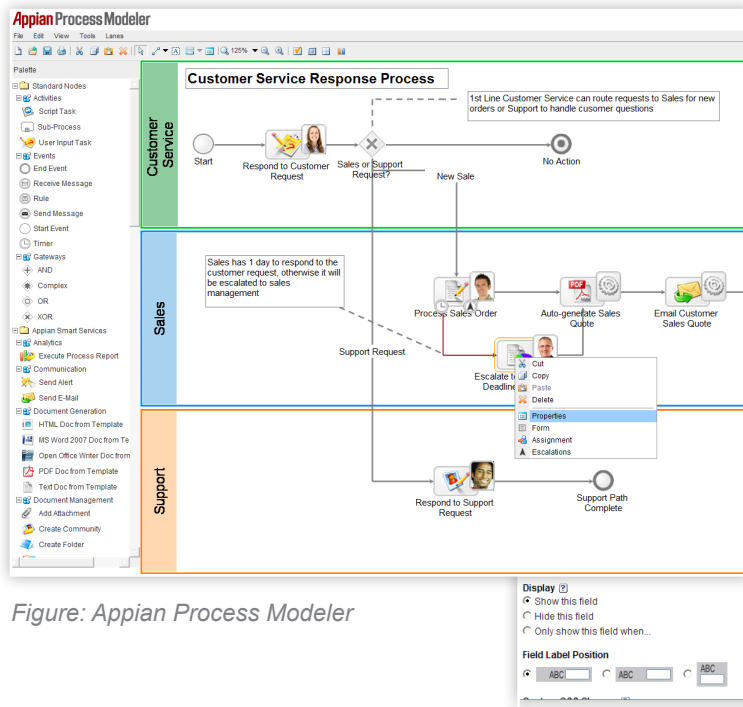


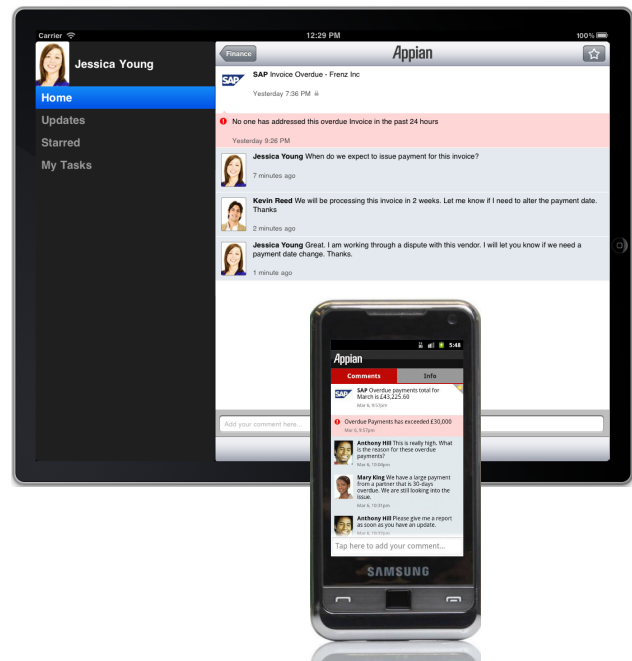
Figure: Appian Process Modeler

The screenshot shows a form titled "Application for Mortgage - Perform" in the Appian Forms Designer. The form includes a "Credit Check?" section with a note: "A loan application that has passed all numerical evaluations requires your review for a credit check." Below this are sections for "Customer Information" and "Loan Details". The "Customer Information" section contains fields for Full Name, Address, Age, Social Security Number, Marital Status, and Salary. The "Loan Details" section contains fields for Approximate Property Value, Property Address, Loan Amount Requested, and Loan to Value. The form is displayed in a preview mode with a toolbar at the top.

Figure: Appian Forms Designer

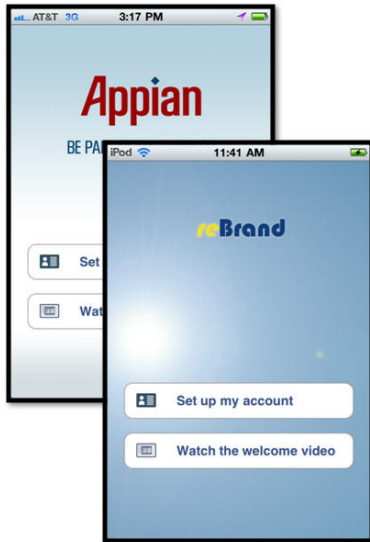
Appian Mobile BPM Application

Appian provides a native mobile client application for Apple iOS, RIM BlackBerry, and Google Android that enables users to securely authenticate and interact with your mobile BPM applications. Appian allows users to download the Appian branded mobile client from each respective application store. Once downloaded and installed, the client authenticates with the specific Appian servers to securely communicate with mobile BPM applications for that organization.



Appian allows organizations to private label the Appian mobile client application for either distribution in the public application stores under their brand, or direct side loading to select mobile devices approved to operate with that organization. Custom branding the Appian mobile client applications provides a unique branded experience for that organization, with custom application icons, welcome screens, and menus. Appian additionally provides managed branding, enabling our support organization to entirely

manage the process of distribution of mobile client applications to public application stores for a client. Managed branding removes the IT concerns of working with multiple application stores and ensures mobile client app versions are always compatible with your mobile BPM applications.



Appian’s mobile BPM offering allows employees to stay connected, informed and empowered to make important business decisions regardless of where they are. It also extends BPM participation beyond predefined process participants to include all levels of the organization.

Using mobile BPM from Appian, the mobile devices people already use can now allow:

- Executives to see and engage with the business event information they need to make better, faster decisions in guiding the organization
- Suppliers, distributors and field staff to be linked in real-time to corporate processes and data
- Customers to check account details, request information or see the status of a service request

David Carpenter, Director of BPM at leading apartment management firm Archstone, said, “The new capabilities of Appian’s already-robust business process management platform will deliver a new level of value for our customer service associates, who would welcome instant mobile access to our key enterprise processes and forms. These associates are locally managing thousands of disparate apartment properties, and can’t be tied to their desktops while responding to service requests.”

Conclusion

Enterprise computing is now at an important crossroads driven by the rapid adoption of mobile devices. Organizations must align their critical business processes with mobile to maximize both organizational efficiency and customer responsiveness to stay competitive in this new era of mobile computing.

The Appian BPM Suite is the ideal platform for rapid mobile deployment of key business processes and systems. Appian's native mobile client is available on every major mobile platform and provides a single point of access to critical information, systems, and tasks that drive key processes.

Appian provides free trials of the entire development and mobile client platforms for no-risk evaluations. The Appian mobile BPM applications can be downloaded from the Apple App Store, Blackberry App World, or Google Android Market sites.

About Appian

Appian is the global innovator in enterprise and cloud-based business process management (BPM) software. Appian's combination of simplicity and power provides everything business users need to drive transformational process improvement – on the desktop or via mobile devices. Commercial and government organizations around the globe use Appian to increase agility and collaboration, and accelerate business performance. Appian empowers more than 3 million users from large Fortune 100 companies, to the mid-market and small businesses worldwide. Appian is headquartered in the Washington, D.C. region, with professional services and partners around the globe. For more information, visit www.appian.com.

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