Appian

Actionable Data Drives Critical Operations as Wearable Healthcare Takes Form

Executive Summary

Mobile enablement is now an established trend in business. However, with the onset of mobile hardware such as Apple Watch and Google Glass, the landscape is again changing as the value of wearables shifts beyond consumers to provide big gains for leading industries to better serve their customer base.

Perhaps no industry is more primed to turn futuristic technology into reality than healthcare. Organizations across the globe are already implementing portable devices and mobile solutions to improve healthcare provider service delivery and healthcare payer operational efficiencies in our fast moving digital world.

From an IT perspective, the key to healthcare organizations achieving success with wearables is to turn large amounts of critical data into action for healthcare providers and payers. While the wearables themselves continue to get most of the attention, physicians, patients and health insurers must be able to access data easily and efficiently from anywhere at any time if such devices are going to evoke long-term industry value.

This paper examines how healthcare organizations must look to modern application platforms as the bridge to connect data from wearable technologies to actual process execution and business value. An application platform approach within IT allows organizations to more rapidly become aware of events and milestones, become knowledgeable about them to make smart decisions, and take action on data from an endless amount of sources. The result is business innovation capable of revolutionizing global health practices.

Introduction

Consumers across the globe are no strangers to wearable technology. Wearables are coming on fast, and soon people of all ages and interests will become experts on this new wave of technology that has redefined how we communicate, behave, and take action.

Try to remember (if you were even born at the time): What was life like before cell phones? How did we get anywhere without GPS? Is there anything scarier than a bad Wi-Fi connection?

These are just a few of the advancements in the last decade that have become the norm in daily life. And before we know it, we will be accustomed to the latest wave of wearable technology such as the Apple Watch, Google Glass, next-generation health monitors, Augmented Reality, and beyond.

Staying connected, getting updates and taking action from our favorite personal devices is nothing new for consumers. We could argue about how much personal transformation is accomplished checking one's Facebook on the subway, Instagramming a selfie, or shopping on Amazon from a smart watch. But it's clear that doing those things at work delivers zero business value. The problem for all businesses – not just health care organizations – is that consumer technologies in the enterprise don't actually deliver value without a re-casting of what's great about those technologies into a business context. Want proof? Look at the rapid hype-to-bust cycle of "Social Business" from just a few years ago. Enterprise social collaboration technologies are thriving today, but only now that those capabilities are being embedded in, and driven by, work data, events, and processes.

The same is true of the advancing wearables wave as it makes its inevitable move from novelty to mainstream consumer, to the enterprise. Where wearables and smart devices may be different than preceding consumerization waves is in their even more rapid pace of adoption. As bring your own device, or BYOD, policies becomes more common in the workplace, we are seeing more and more forward-looking organizations expand their existing enterprise mobility strategies to include wearables.

And perhaps in no other industry is this wave more prevalent and impactful than in healthcare.

The Provider Perspective: Wearables' Emergence Creates Cutting-Edge Services

Healthcare providers continue to face the challenge of improving the quality of care while reducing cost and remaining compliant with industry standards. The use of wearables can help providers more easily connect with their patients to track data and collaborate more openly around health status, preventative measures and treatment outcomes. Mobile and wearable devices are already helping facilitate in-home care delivery today, and the trend is rising. By 2020, a projected 70 percent increase in home health aides signifies the importance of secure device management solutions outside of traditional care facilities.

For healthcare providers, interactions between people, process, and data can be dynamic, ad hoc, and unpredictable. And, with all the changes taking place in an already complex environment, it's more important than ever to make sure your technology is an enabler, not a roadblock. Wearable technology has made huge strides in allowing individuals to better-manage their own health and health data. Healthcare providers must have the policies and technology platform in place to consume that data, collaborate around it with the patient and colleagues, enact a treatment decision, and monitor progress.

Imagine an advanced glucose and blood sugar device with the potential for patients to revolutionize how they monitor and manage diabetes. Such a device could be made portable, allowing patients to instantly check their blood sugar levels in the morning after the gym or at work in between meals. The scores would be collected by the device and automatically sent to the patient's physician on a monthly basis – drastically reducing the time spent dedicated to routine checkups. As a result of this acceleration, one-on-one time spent between the patient and doctor could be devoted to discussing exercise programs or developing the proper diet to live a healthier lifestyle.

Or perhaps a nurse could track real-time monitoring of in-home hospice patients. When caring for the terminally ill, nurses require the ability to work hands-free in order to ensure a comfortable setting.

Enter Google Glass.

Thought to be off the map from the enterprise technology scene, Google Glass is making a comeback at the business level, and healthcare seems to be a logical industry for adding value. In this scenario, nurses would have their hands free in order to tend to patient needs – while filling out reports and checking off tasks with a simple tap to their pair of Glass.

The Payer Perspective: Re-Defining Data to Connect Millions

Healthcare-oriented wearables are most commonly part of a disease management program or as a personal health device. However, wearables on the provider side are just half the story of why healthcare is on the cutting edge of the newest wave of technology innovations. Forward-looking health payer organizations are adopting similar mobile strategies to take advantage of the wearables phenomenon.

One of the United States' leaders in health care solutions for the underserved and chronically ill has deployed an enterprise-wide transformational program for managing all operations associated with provider enrollment and provider data maintenance. These areas are of strategic importance to the business, as provider data informs the organization's relationships with all of its customers. The organization's first application gives Account Executives a native mobile, integrated solution to facilitate required inspections of provider offices to ensure they meet regulatory standards. While the scope of the entire transformation program is large and multi-faceted, this "mobile-first" quick win was used to start driving immediate value in accelerating provider on-boarding and compliance.

With razor-thin margins and high regulation, health payers must operate with efficiency and accuracy to avoid spikes to insurance costs. Elements of wearables and enterprise mobility present a tremendous opportunity for these organizations to leverage mobile devices to collect data from providers looking to partner with payers to offer top-end healthcare solutions. For this organization, the mobile inspection application presents a perfect opportunity for a wearable device.

Having the application run on a smartwatch would allow the payer to easily assess and collect data on the health center under review to decide whether they are a candidate for a partnership. Removing manual upload or spreadsheet management of data would drastically reduce the time for a health institute moving from under review to up and running and offering patient services.

Two Perspectives...One Application Platform

While the onset of wearables and smart devices in the healthcare industry is exciting, its potential value goes far beyond novelty. The data itself, not the device on which data is collected and transmitted, holds the transformational gains wearables can bring to worldwide health initiatives.

In the above use case scenarios, the "work" being done is all about data; accessing it in a new way but in support of the traditional cycle of collection, analysis, decision and resulting action. There is already a tremendous amount of data and documentation within healthcare organizations including patient medical records, organizational processes and policies, compliance procedures and obligations, and much more. The advent of wearables and smart devices in healthcare means a tremendous increase in how much data is out there to potentially be used. The crucial issue is how to make use of that data to accelerate positive health outcomes, operate efficiently to reduce cost and improve margins, ensure compliance, and improve the consumer experience. Both on the payer and provider side, organizations must be able to easily gather and interpret data to quickly turn knowledge into action to ensure optimal care. This is where smart devices present a huge opportunity. If a diabetic was feeling under the

weather, they could instantly send a physician their symptoms or glucose levels for review. Imagine how quickly a health scare could be detected and resolved. Now extend that interaction to a scale of millions of healthcare consumers. The implications are enormous.

We are an on-the-go society, constantly in motion, and constantly in demand of the best services possible. The measure of a truly successful digital business lies in the ability to extract knowledgeable data from what is now an endless amount of resources. Organizations must embrace enterprise technology that allows workers to take action on data and produce real work from anywhere at any time. This data needs to be accurate and efficient across all current and future devices.

This approach is what Appian defines as an application platform to deliver enterprise transformation. Appian infuses the industry's leading BPM engine with modern enterprise technology such as data management, mobility, and social collaboration to create new value and new work practices while preserving what is unique about an organization. Application platforms accelerate delivery of modern applications and true enterprise mobility through a visual and low-code composition approach that runs natively on desktop and mobile devices. Harnessing an application platform, today's leading healthcare organizations can embrace innovation and the potential of wearables by connecting people and data across a single intuitive user interface.

Ensuring seamless and accurate functionality across all devices is how Appian turns wearable technology into something that provides value to the business. Functional parity between desktop and mobile for all apps, achieved through Appian's "write once, deploy everywhere" architecture, removes the burden placed on IT departments to reconstruct or build additional applications to work across each new device introduced to market. Appian takes care of this upfront, giving power back to the business to define how applications can serve unique customer needs. Using a low-code development platform ensures that organizations can develop multiple apps quickly across the entire business, easily updated or changed over time to remain compatible with changes to the business.

**Appian's application platform connects users across an entire business
to the data and process needed to turn awareness into action, across any device.**

Conclusion

The possibilities are endless when it comes to wearables in healthcare. The level of enhanced care could be revolutionary on the provider side, while new mobile-driven ways to operate on the payer side could help control industry costs through better organization and management of networks of providers. Healthcare is a hands-on industry, already on the forefront of innovative solutions providing healthier lifestyles.

The healthcare payers and providers that will have the greatest impact introducing wearables will be those that can effectively apply actionable data across the device they wish to implement. Without the solution to connect people and places to data, wearable initiatives will just be another pilot program.

Appian brings together healthcare IT components to better connect everything that is essential to deliver rapid action and results across any device. In our fast-paced society, information sharing is critical, and patients rely on healthcare organizations to receive updates, collaborate, and initiate tasks and actions – all in real-time.

With the adoption of a data-centric application platform, deployed across today's trail blazing devices, the healthcare industry should continue to pave the way for enterprise wearable innovation.