Web and Mobile – A unified digital strategy

As the mobile revolution marches on, healthcare payers and providers are under pressure to provide anytime, anywhere capability to their consumers. What this means is that what consumers are able to do from their home, they must be able to do the same using their smartphones even when they are not in the home. To enable the same capability on both web and mobile requires a good unified digital strategy.

There are broadly two approaches to extend the feature set available on a web portal to smartphones – make the web portal work well in the small form factor of smartphones or create mobile apps that can be installed on smartphones. We will examine these approaches.

Responsive Web Approach

Extending the web portal to smartphones is typically done in one of two ways. Few years ago, healthcare payers and providers created an additional mobile optimized website, commonly referred to as the .mobi site. This website duplicates a subset of the capability available on the web portals. This is no longer seen as a viable approach because IT has two websites to maintain and enhance. The primary issue is that new features introduced in the web portals take much longer to make it to the .mobi site. A newer approach takes advantages of advances in HTML technologies (more specifically, HTML 5 and CSS 3 media queries) to make the same website reorganize the content and adapt to devices of all sizes. This approach, called as the responsive web design, enables the users to use the same web portal on smartphones well. The primary advantage is that there is only code base to maintain and hence any new features added to the portal are available on smartphones immediately. However, one key issue is that it is still a website—even though the site presents a nicer, compact view on smartphones, it is still a site accessed via smartphone's browser. It is still not a rich mobile app that takes advantages of all of the device capabilities.

Mobile App approach

To present a rich and natural look-and-feel it is best to go with mobile apps. Mobile apps can provide significantly more capability including some offline capability when the mobile phone loses network connection temporarily. It can

also interact with phone features such as use of Apple Pay for online payment or adding agents contact info into the phone contact list.

While mobile apps are definitely more superior to responsive web portals, creating mobile apps are not easy. It requires brand new development using skillset that is often not readily available within Insurer's IT. There are certain device independent app technologies such as PhoneGap that promise easy creation of apps using HTML 5, a skillset available in Insurance IT. While it works to certain extent, the performance and richness of user interface do not match those of real native apps. Another disadvantage is that this is still a new development and a new software paradigm (single page web application) compared to portal web development.

Unique unified digital approach

Based on the experience building portal and mobile solutions to our carrier partners, we have come to realize that one single code base for both web and mobile while feasible is not able to take advantage of capabilities of smartphones and provide a rich user experience. However, building out two separate solutions one for web and one for mobile is also not a good strategy. Based on significant research we have arrived at what we believe is a unique unified digital strategy. In this strategy, it does not matter if there are multiple code bases but however the codebase should be compact and should not require changes when there is a feature change and not a technical capability change. What this means is that if the business wants to change some fields in a page or alter workflow for a transaction, the change should be made through configuration of the pages and workflow without requiring code changes. Code change will however be necessary if a new technical capability has to be supported for example, Apple Pay. The configurations which we call as metadata tells the portal and app, what features are available to a user and what information is to be collected for a transaction (say online payment) and what API is to be invoked when user submits a transaction and what information is to the displayed after the API call. The portal and app implementations read the metadata and configure the user interface to allow permitted transactions for the user. Since the portal and app are metadata driven, simply by changing the metadata it becomes possible to change the portal and app behavior without programming. This does not eliminate all programming but by defining metadata configuration well, we can minimize customizations that will be needed to portals and apps. Primary advantages of this approach are:

1. It achieves unified digital goal of extending the same capability on both web and mobile and at the same time take advantage of richness of each platform.
2. Compact code base that does not change often. Feature changes are made simply by making configuration changes to metadata.
3. There is no need to implement multiple apps or websites one for agents and one for insured. The apps and portal are role based and limit feature set based on the logged in user.

One disadvantage is multiple codebases. However, the code is compact, configurable, delivers significant capability and does not require frequent customization. This approach not only lets users access their data whenever and wherever, but there is also really no need to build multiple portals or apps for each user community.