System of Engagement Options for Health & Human Services

What approach suits you? Begin with your project requirements.

Rate the importance of each requirement for your organization:

Must have Important Nice-to-have

00

Browser-based ("mobile web" "web app" "mobile web app" "responsive web app" "mobile website") Mobile App Must use Browser-based Browser-based is Better App is Better Must use App Functional Requiremnts Access to Mobile Device Features GPS, accelorometer, camera (Over time HTML is moving this set closer to the middle) Secure notifications No installing of apps Offline availability O O O Avoid browser Avoid device OS compatibility issues compatibility issues O O O Control over distribution Ease of distribution O O O Ease of versioning O O O Performance Non-Functional Requiremnts Quality of user interface O O O Security Processor power off-loading Context-aware use More secure and performant local data storage

System of Engagement Options for Health & Human Services - Legend



Secure notifications

Notifications are big. Being able to send notifications makes the difference between offering a passive service and actively working with clients. Notifications are not an option through a browser-based service; the user always needs to take the initiative to begin any interaction with the agency. SMS texts, which are expensive and lack security, are not a viable substitute.

No installing of apps

If you really do not want your users to have to install an app, some form of browser-based approach is the only way to go.

Offline availability

While a browser-based solution can be made to offer some support for users when they're offline, it's a fish out of water. If you need your users to be able to do what they need to do even without an Internet connection, an app offers a more robust answer. Apps are better at saving and retrieving information on a mobile device and not as sensitive to whether an Internet connection is available.

4 Avoid device OS compatibility issues

One way to avoid compatibility problems with Android, iOS, and Windows is to insulate the user from them. There is a trade off though. Insulating your solution from mobile device operating systems means exposing them to browser compatibility issues (Internet Explorer, Chrome, Safari, Opera...). It can be like going from the frying pan into the fire. There are more browsers and versions of browsers than mobile device operating systems.

5 Avoid browser compatibility issues

Want to sidestep the browser wars? Get an app. Unlike a browser-based solution, apps are closer to the mobile device operating system bypassing the browser and potential browser compatibility problems.

Ease of distribution

Few things are easier than sharing a link to a web site (but making people aware of that link is another matter). Apps, on the other hand, need to be distributed through a download mechanism which could be a link, an e-mail, or a download from an app store. Some options are easier than others

Control over distribution

Do you want some control over who can get to your solution? Browser-based solutions offer none; apps give you options.

Ease of versioning

Updating a browser-based solution means that the user doesn't need to do anything to experience the upgrade. Of course, the need for testing new versions before releasing them is as great, if not greater, than when releasing an app upgrade.

Performance

There's no getting around it. An app, particularly a native app, will outperform a browser-based solution, particularly when there are any issues at all around the quality of the user's Internet connection.

10 Quality of user Interface

UI standards have advanced greatly in the years since the introduction of web browsers, but browser- based UIs generally have not. Implementing a browser- based solution presents significant challenges that require significant experience. While browser- based solutions can be made to simulate elements of an app experience, developing quality browser- based solutions for use on mobile devices is difficult and requires exceptionally skilled programmers and user interface designers.

Security

Browser-based solutions add a layer between the device and the back-end system behind it. Every layer introduces a point of attack. By offering fewer locks to be picked, native apps are inherently less vulnerable.

Processor power off-loading

One of the under-reported advantages of an app-based solution is that every user brings their own processing power to the table. Browser-based solutions put most of the burden on the back-end servers and, by extension, increase the costs to the agency providing the service. Processing power is relatively cheap but, when multiplied by millions of users, can add up and every bit of savings can be used somewhere else.

Context-aware use

Apps are better at taking advantage of one of the main strengths of a mobile device: the ability to sense the context for an event. Browser-based services are relatively blind to the environment a user is in at a given moment.

More secure and performant local data storage

While a web-based solution can store some data locally on a mobile device through use of the browser's cache, it's an approach with limitations. Apps have a considerable advantage when it comes to data storage on a mobile device. Being closer to the operating system of a mobile device, means the app is closer to how the device stores and retrieves data.