

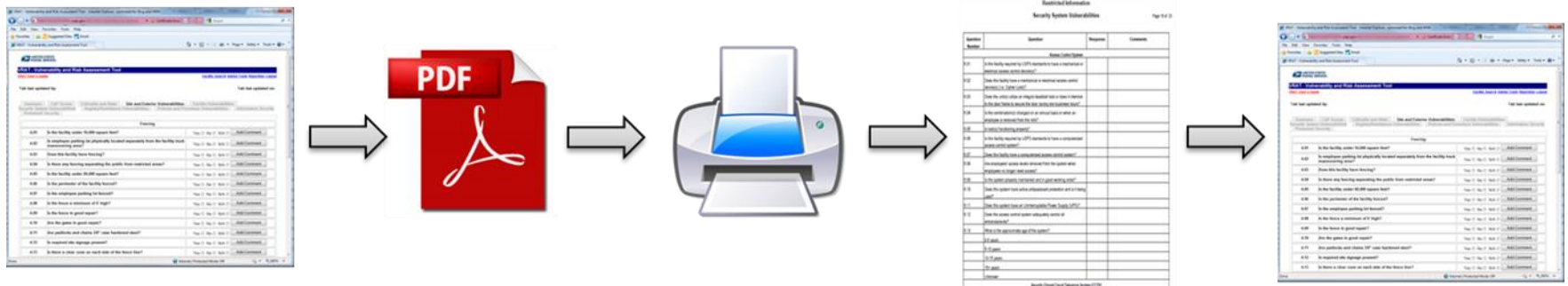
Transitioning Legacy Applications to Mobile Platforms

November 2015



Customer Challenge

- A legacy application depends upon the manual collection and entry of data:
 - Download paper surveys → Complete them in the field → Reenter data in the application after coming back to office



- Duplicate data entry → Inefficient use of time
- Lengthy surveys taking several days to complete → Lost printed hard copies
- Data (re)entry errors → Inaccurate reporting

Salient CRGT's Approach

- Develop a vulnerability and risk assessment tool – Web-enabled application to conduct surveys on facilities to increase the safety and security of their facilities
- Mobile version of tool
 - Mobile version of legacy application was developed and deployed successfully
 - Mobile version allows users to easily complete surveys remotely, thereby increasing employee productivity and cost savings

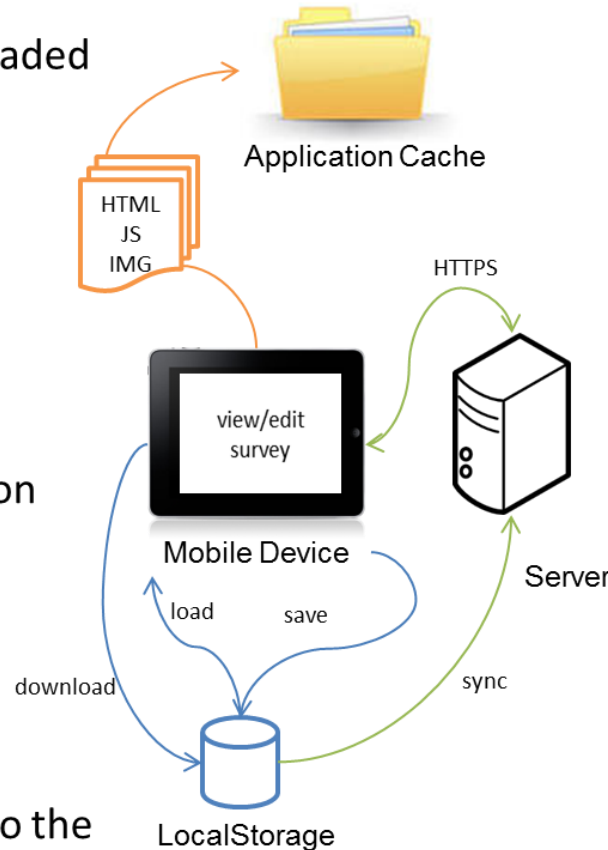
Mobile Tool Functionality

ACTION

The survey can be downloaded to the device & accessed *offline*

Surveys can be edited and changes are saved locally on the device.

Updates are synced back to the server anytime. The survey can also be submitted and cleared from the device.



TECHNOLOGY

A **Cache Manifest** specifies which files need to be downloaded to the **Application Cache**.

Local persistent storage is used to store survey data as a **JSON** string.

AJAX is used to pass survey data to and from the **WebSphere** server, which uses **RESTful APIs**, **Spring MVC/Hibernate** and an **Oracle** database.

Mobile Tool Benefits

- Mobile tool:
 - **HTML5 based** application that could be easily deployed on any modern browser or mobile device (Android, Blackberry, iOS, IE9+, Chrome, Firefox, etc.)
 - Most of all the legacy **code reused** + UI enhanced to take advantage of mobile features, allowing survey completion even in '**offline**' mode
 - Seamless integration with legacy application – **Synchronization** in 'online' mode
 - Updates downloaded automatically – No need to access app store & download updates
- Benefits to Customers:
 - Improved user productivity
 - Reduced data entry errors from manual process
 - Increased revenue from duplicate data entry elimination