

Safe Patient Handling v1.0.0 SDD

Mobile Application System Design Document (SDD) Addendum

The System Design Document (SDD) is a dual-use document that provides the conceptual design as well as the as-built design. This document will be updated as the product is built, to reflect the as-built product. Per the Project Management Accountability System (PMAS) Guide, the SDD with conceptual design is required prior to the Milestone 1 Review. The as-built for each delivery must be incorporated prior to the Milestone 2 Review.

****Replace the blue instructional text in the various fields and tables below****

Mobile Application Information

Project Increment / Release Designation: [SPH](#)

Product Version: [1.0.0](#)

	Veteran	Care Giver	Provider	Public
Intended Audience for Mobile Application			X	X

Question	Yes	No	If Yes, what information / data	If yes, then identify any consumer or source system(s) for the data
Does the user enter information or data into the mobile application?	X		Algorithm and Assessment answers	In memory on the device
Does Mobile Application store information or data entered by the User? If yes, where is it stored?	X		Local Storage / Algorithm and Assessment	In memory on the device
Does Mobile Application transmit/push data entered outside of the VAMF to VA?		X		
Does Mobile Application pull data from a VA Database (external to VAMF)?		X		
Does the Mobile Application store in the VAMF or on the device data pulled from a VA Database?		X		

This application can be classified as one of the following:

Mobile Application Classification (Only one box may be checked)	Mark with X
1 – Very Low: Mobile Application does not use VA Resource	
2 – Low: Read only access to VA Resource(s) (No PII / PHI)	X
3 – Medium: Write access to VA Resource(s)	
4 – High: Read and/or Write access of sensitive data to VA Resource(s) (Includes PII/PHI/other sensitive)	

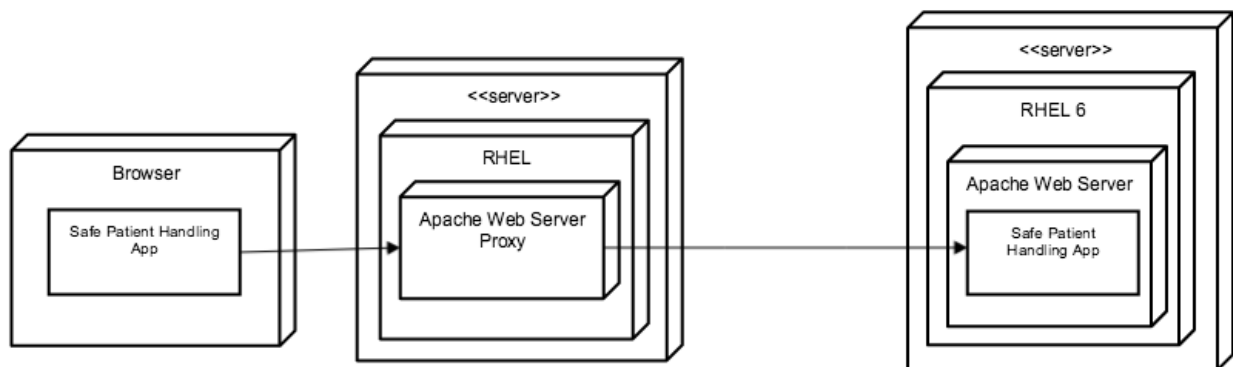
Application Design

Safe Patient Handling app helps nurses with recommendations for moving the patients. (Concept [REDACTED] [REDACTED])

Safe Patient Handling app is developed using AngularJS and Bootstrap framework. Safe Patient Handling app is build using the following components:

1. container – Container bootstraps the application by creating the layout with header, menus, content and footer sections. It also creates menu items based on the module configuration.
2. core – core handles the common features required across the app including EULA, ROA and Resource Directory.
3. modules –
 - a. modules – Modules are the core features of the application. This app has Home, AORN, CPAA, NAON, resources, SAST, all the modules can work with out user authentication.
 - i. The interactions from the user and the app are all self-contained within each module. There are no outside calls; we are asking questions and using pattern matching to determine the result for each algorithm and assessment. The data stored is the answered questions; there is no personal information of any kind.
 - ii. The pattern matching is done using javascript and regex; built off of the answer list. (1A, 2B...etc).
 - iii. CPAA Module include the following components:
 1. Constants - this is the JSON that sets up the assessment and the algorithm.
 2. Assessment Service - This service builds out the questions and determines the answer sheet.
 3. Recommendation Engine - this matches the JSON answerCriteria to the built out answerSheet, and determines the recommendation.
 - iv. SAST Module has algorithms, but with a different scoring system. Thus the Constants, RecommendationEngine and Assessment Service are localized to that module (not shared).
 1. The Recommendation Engine for SAST is built off of the constants.questions.
 2. We are counting a total score; so we're not building an answer sheet.
 3. Each algorithm uses all the same questions, so we don't provide a subset.
 4. Recommendations are built through the constants (the solution is based on the array placement, which mimics score)
 - v. AORN, NAON, Resources, Home modules are basic content placement.
 - b. The data from the two modules (CPAA and SAST) are stored in localStorage.
 - i. The items stored are the chosen algorithm JSON object, the questions with selected answers (if any), and if they read the EULA.
4. ui-components – Modals, Forms, accordions, etc are available in this section.
5. utilities – Utilities represent browser sniffer.

Application Deployment Diagram



Device's OS	Native	Hybrid	Web-Only	OS version supported	Targeted devices (iPhone, iPad, Samsung model...)	Estimated Storage Required for Device
iOS			X	8.0.x	iPhone	n/a

Chrome			X	35+	Tablets	n/a
Windows 8			X	IE11	Desktop	n/a

Libraries

Technologies, Libraries, and Tools Used in the App	Version	On the TRM? (If not, provide a link to the waiver)	Used for
HTML5	5	Yes	
JavaScript	5.x	Yes (Confirmed v5.1)	
Bootstrap	2.1.x	Yes (Confirmed v3.2)	UI Formatting and Styling
jQuery (Mobile)	1.11.x	Yes (Confirmed v1.4)	HTML traversal, HTML manipulation, event handling, animation, and Ajax
AngularJS	1.3.5	Yes (Confirmed W/C v1.3.x)	Foundational HTML enhancement framework that supports ajax interactivity with VAMF Services
Snap.js	1.9.x	Submitted; Under Review (Confirmed W/C)	Mobile-friendly Slide-out Menus
Lo-dash	2.4.x	Yes (Confirmed W/C v2.4)	JSON data formatting and manipulation
Modernizr	2.6.x	Yes (Confirmed v3.0)	Browser feature detection
Require.js	2.1.x	Yes (Confirmed W/C v2.1)	Library Compression & Concatenation

Data Architecture

Not applicable, no database used.

Expected concurrent and maximum size of the user base?

User Category	Total Number of Users	Concurrent Users
Public	1000	200

Existing VAMF Interfaces Used

No interfaces used.

Dependencies/SLA

No dependencies.

Traceability

EPIC	FEATURE	USER STORY	DESIGN COMPONENT
See SPH RTM			

Developer & PM Contact Information

Developer Name/Point of Contact (POC)	VA E-Mail Address	Phone Number
		