

# MobileKidney SDD Addendum

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## MobileKidney 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.

Software Name	MobileKidney
Project Increment	TBD
Product Version	1.0.0
Git Repository	<a href="#">Stash Link</a> <a href="#">Stash Clone Link</a>
Intended Audience	<input checked="" type="checkbox"/> Veteran/Service Member <input checked="" type="checkbox"/> Caregiver <input type="checkbox"/> Provider <input type="checkbox"/> Public
Software Type	<input type="checkbox"/> Service <input checked="" type="checkbox"/> App <input type="checkbox"/> Background Process <input type="checkbox"/> Other: <Specify>

## Data Classification

### Usage

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		Blood Presssure, Pulse, Weight, Glucose, Cholesterol, Journal Entries and Reminders	Health Tracker Services, Notification Services, Authorization Services, Document Composition Services
Does Mobile Application store information or data entered by the User? If yes, where is it stored?	X		Data is stored in associated VAMF services. No PII/PHI is stored in the browser or on a device	
Does Mobile Application transmit/push data entered outside of the VAMF to VA?		X	No data is pushed by the application or services.	
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		User information is stored	Auth Services 4.x and Metrics 1.0.x

## Risk Classification

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)	
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)	X

## Application Design

This application is a full-featured web application built on AngularJS that is designed to interact with a subset of VAMF services.

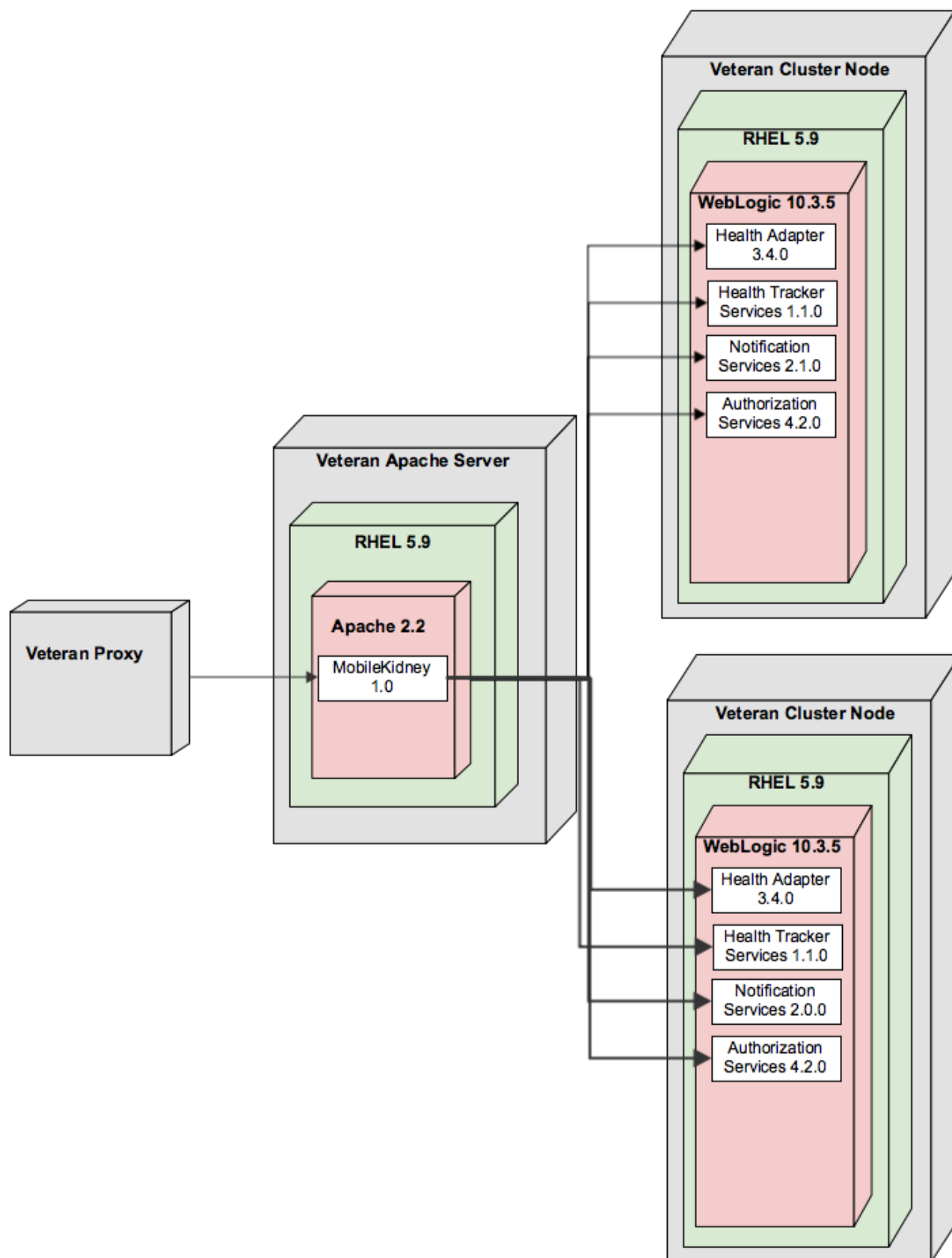
## Mobile Kidney App

Document organized according to the menu layout as seen by the user. Please refer to sequence diagrams in [HTS 1.1.0 Appendix - Patient Reported History](#) for each of the section. The home screen represents both an unauthenticated landing page for the application and a means of providing summary information for authenticated Patients who use the application regularly.

## Architecture Diagram

### Components

This diagram provides a high-level view of the Deployment components that *MobileKidney* is dependent upon.



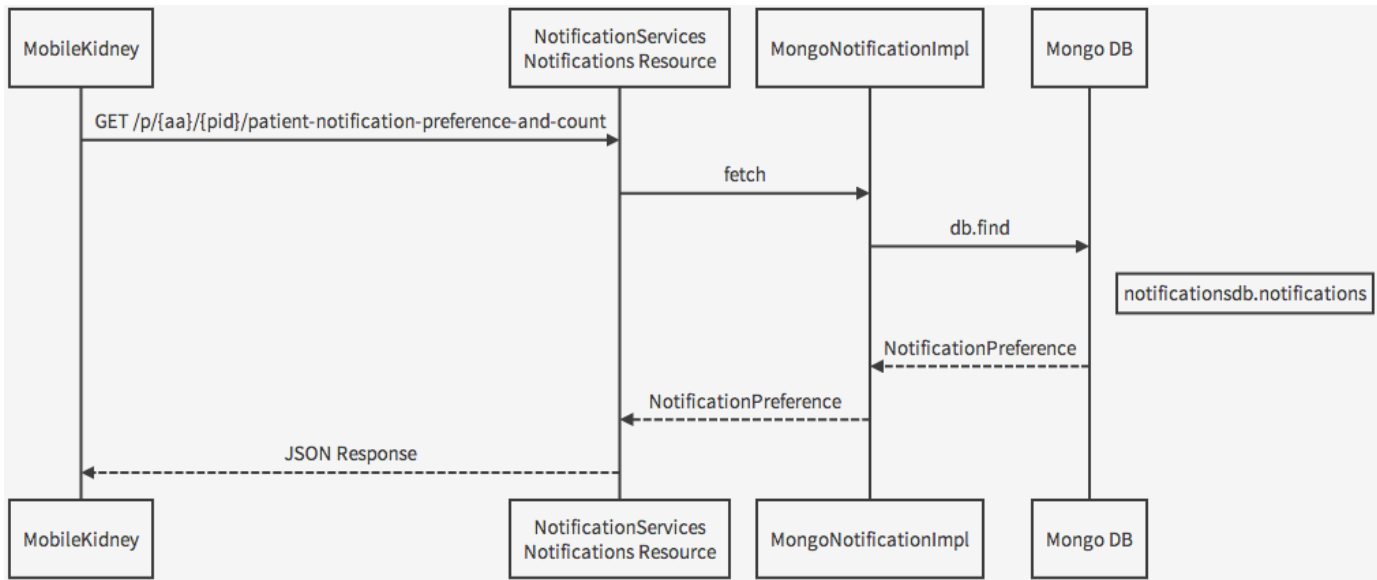
The home page displays the latest relevant patient-entered information for a patient with Kidney disease

Following acronyms used in all of the sequence diagrams in this document.

- p - patient
- aa - assigning-authority
- pid - patient unique id.

Notifications

Displays the number of unread notifications (generated from personal reminders and those sent by providers) by interacting with *Notification Services*. This count will be a sum of unread notifications generated from reminders created in MobileKidney and all unread notifications sent from a VA provider. Notifications are retrieved by the pull operation in Mobile kidney app.



Latest Blood Pressure

Displays the latest Blood Pressure record via *Health Tracker Services*. Please refer to [HTS 1.1.0 Appendix - Patient Reported History#PatientReportedHistory-VitalSigns](#) for sequence diagram .

Latest Weight

Displays the latest Weight record via *Health Tracker Services*. Please refer to [HTS 1.1.0 Appendix - Patient Reported History#PatientReportedHistory-VitalSigns](#) for sequence diagrams.

Latest Glucose

Displays the latest Glucose record via *Health Tracker Services*. Please refer to [HTS 1.1.0 Appendix - Patient Reported History#PatientReportedHistory-ChemistryLabs](#) for sequence diagrams.

Kidney Trackers

For all of the below operations the user can add, view, modify and delete.

Blood Pressure and Pulse

Please refer to [HTS 1.1.0 Appendix - Patient Reported History#PatientReportedHistory-VitalSigns](#) for sequence diagrams, rest endpoints and data model for CRUD operations.

Weight

Please refer to [HTS 1.1.0 Appendix - Patient Reported History#PatientReportedHistory-VitalSigns](#) for sequence diagrams, rest endpoints and data model for CRUD operations.

Glucose

Please refer to [HTS 1.1.0 Appendix - Patient Reported History#PatientReportedHistory-ChemistryLabs](#) for sequence diagram, rest endpoints and data model for CRUD operations.

### Kidney Journal

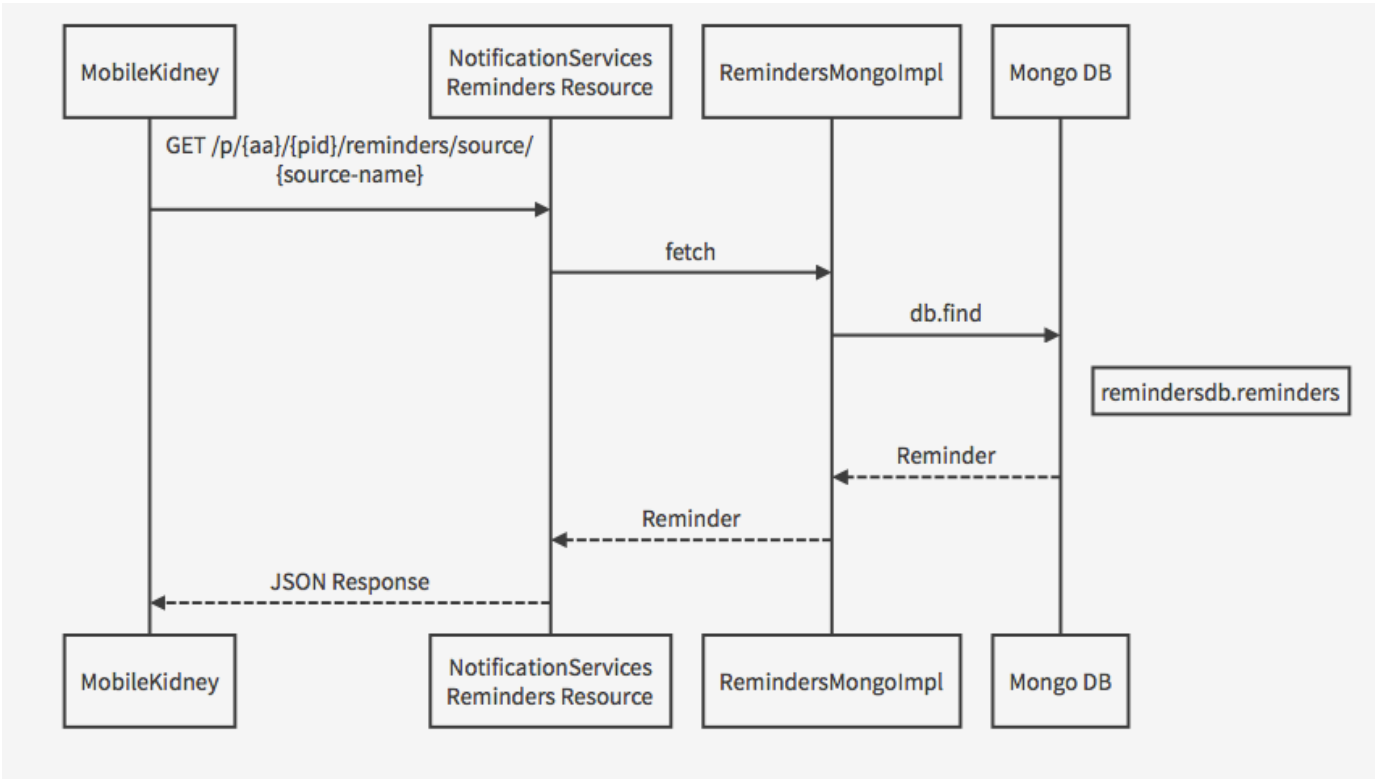
Please refer to [HTS 1.1.0 Appendix - Patient Reported History#PatientReportedHistory-PatientNotes](#) for sequence diagram, rest endpoints and data model for CRUD operations.

### Reminders (applies to each Health section)

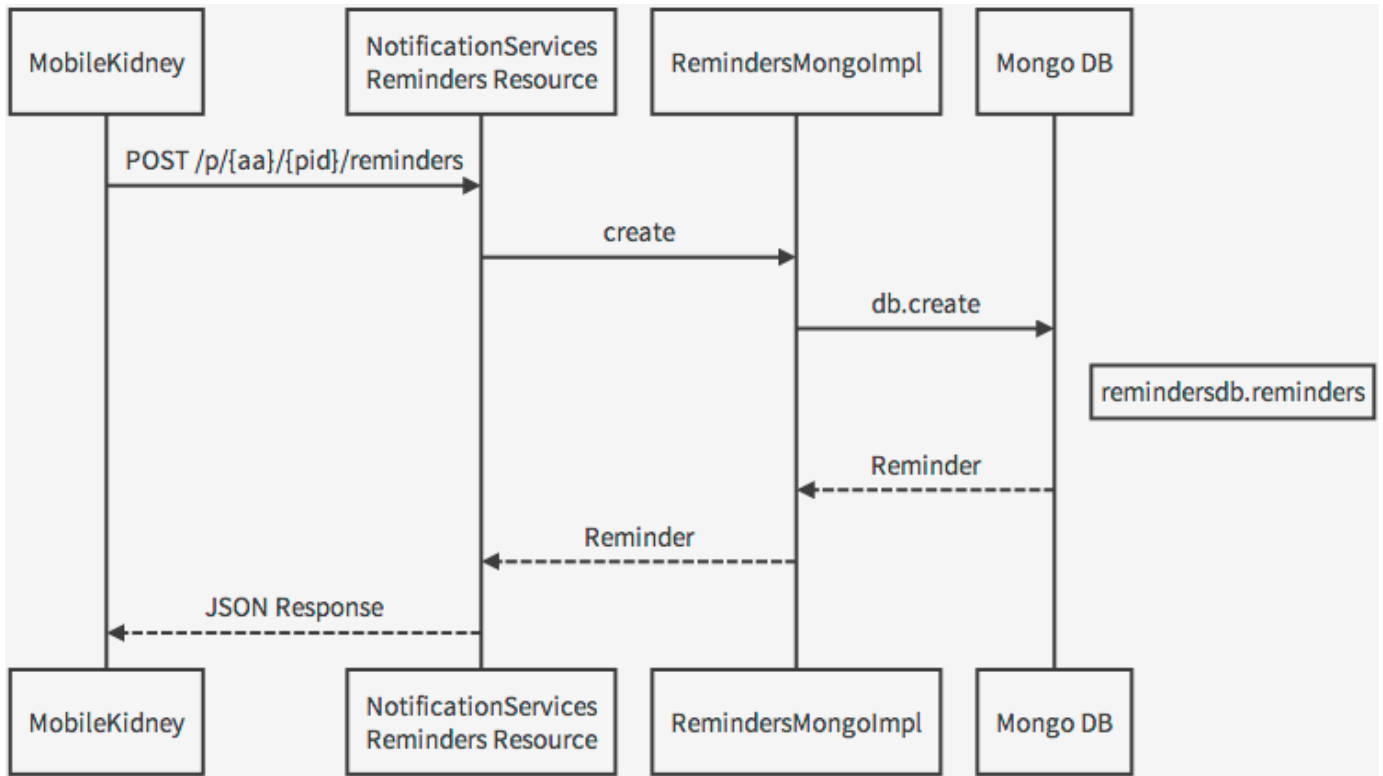
source-name corresponds to source for which the reminder is retrieved.

- Weight - Mobile Kidney - Kidney Trackers - Weight
- Glucose - Mobile Kidney - Kidney Trackers - Glucose
- BloodPressureAndPulse - Mobile Kidney - Kidney Trackers - Blood Pressure And Pulse
- Kidney Journal - Mobile Kidney - Kidney Trackers - Kidney Journal

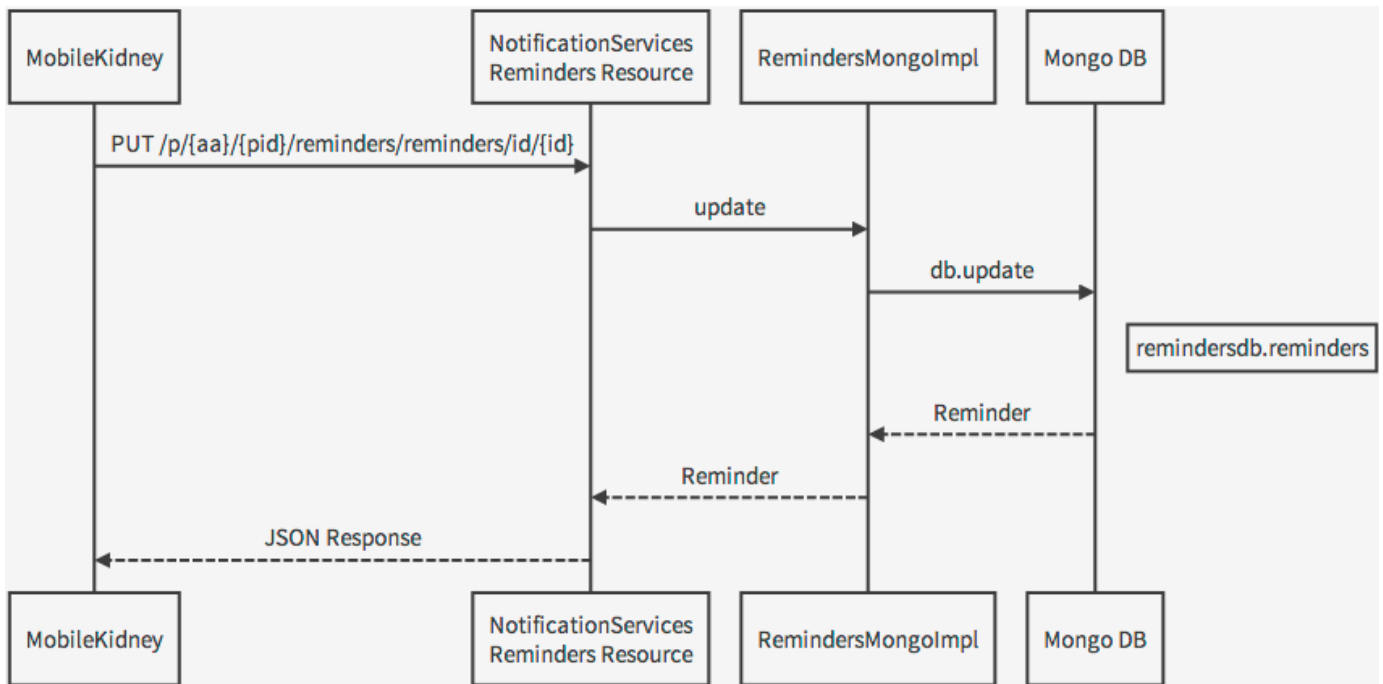
#### Retrieve



#### Create

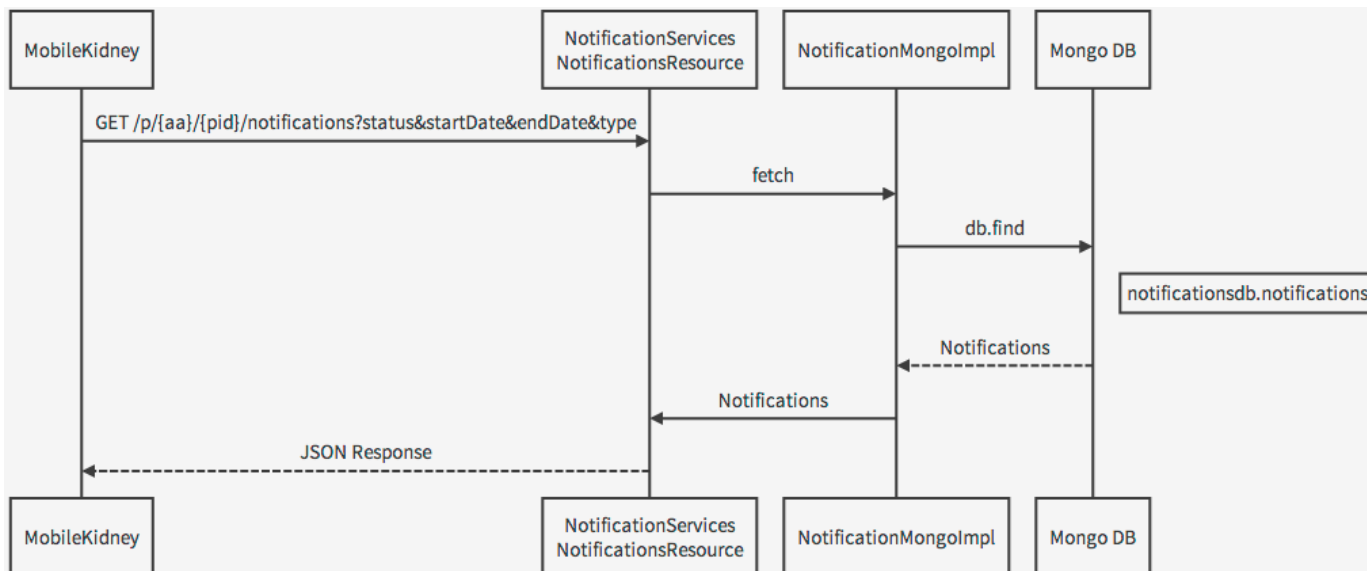


#### Update



## Notifications

Each notification section in the app performs read-only requests to Notification Services. Each section will follow a similar flow with different parameters. The following sequence will apply:



## All

For "All" notifications, the `type` parameter is set to `KIDNEY,STAFF`, status to `All` and date parameters will be used to retrieve all the staff and mobile kidney notifications.

## MobileKidney App

For MobileKidney notifications, the `type` parameter will be set to *KIDNEY*.

## VA (Provider)

For VA Notifications sent from providers, the `type` parameter will be set to *STAFF*

## Learn More

The learn content will be mobile-friendly static content that is packaged within the application and sourced from content available via the RTM.

# Service Dependencies

MobileKidney relies upon a number of supporting services, each of which are versioned and documented externally. These services include:

Service	Version	SDD Link
Health Tracker Services	1.1.x	<a href="#">Health Tracker Services Release 1.1.0</a>
Notification Services	2.1.x	<a href="#">Notification Services 2.1.0 Release</a>
Document Composition Service	1.0	<a href="#">Document Composition Services 1.0 SDD</a>
Authorization Services	4.x	Program Level SDD
Health Adapter	3.x	Program Level SDD

# Device / OS Summary

Device's OS	Native	Hybrid	Web-Only	OS version supported	Targeted devices (iPhone, iPad, Samsung model...)	Estimated Storage Required for Device

iOS			X	7.0+	iPhone	n/a
Android			X	4.0+	Tablets	n/a
Windows 8			X	Windows 8	Desktop	n/a

## Technology & Libraries

Technologies, Libraries, and Tools Used in the App	Version	On the TRM? (If not, provide a link to the waiver)	Used for
Bootstrap	3.0.2	Yes	UI Formatting and Styling
jQuery	1.11.x	Yes	HTML traversal, HTML manipulation, event handling, animation, and Ajax
AngularJS	1.2.x	Yes	Foundational HTML enhancement framework that supports ajax interactivity with VAMF Services
Highstock	2.0.x	Yes	Interactive charts and graphing.
Lo-dash	2.4.x	Yes	JSON data formatting and manipulation
Modernizr	2.6.x	Yes	Browser feature detection
Moment.js	2.8.x	Submitted; Under Review	Datetime Formatting & Timezone Conversion
Require.js	2.1.x	Yes	Library Compression & Concatenation

## Data Architecture

Due to the complexity of the application, the data architecture for this application is documented and maintained in the service-specific SDDs.

- [Health Tracker Services SDD](#)
- [Notification Services 2.1 SDD](#)

## Expected User Base

User Category	Total Number of Users	Concurrent Users
Veterans	70,000	1000
Staff	400	10

## Estimated Data Profile

Table or Collection	Number of Rows / Entries	Estimated Size per Entry	Total Disk (with assumed user profile)
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Blood Pressure / Pulse <i>Health Tracker Services</i> medicalhistorydb.vitalsignsbundles	5-10	2KB	100KB - 200KB
Weight <i>Health Tracker Services</i> medicalhistorydb.vitalsigns	5-10	1KB	50KB - 100KB
Lipids <i>Health Tracker Services</i> medicalhistorydb.chemlabbundles	2-4	2KB	40KB - 80KB
Glucose <i>Health Tracker Services</i> medicalhistorydb.chemlabs	5-10	1KB	50KB - 100KB
Kidney Journal <i>Health Tracker Services</i> medicalhistorydb.notes	2-4	3KB	60KB - 120KB
Notifications <i>Notification Services</i> notificationdb.notifications	10 - 20	1KB	100KB - 200KB
Reminders <i>Notification Services</i> notificationdb.reminders	2-4	1KB	20KB - 40KB

## Interfaces

### Existing VAMF Interfaces Used

Interface Name (incl. version number)	Data Used by Mobile App	Source of Data	Data Retrieved - provide specific data elements used by this app
Health Adapter 3.x		IAM/SSOE and User	MhpUser : firstName, lastName, displayName, rightOfAccessAccepted  Patient : firstName, lastName, displayName, gender, age, dateOfBirth, patientIdentifier  Others : all data fields except patientIdentifier
Authorization Services 4.x			ResourceLastAccessTime: A means of determining the end of a user's 15 minute inactivity timeout period

## New/Updated VAMF Interfaces Added

This section should contain services that are being deployed with this app - RESTful / other web services that become part of the VAMF service inventory, but are not available in production yet.

Interface Name (incl. version #)	Data Used by Mobile App	Source of Data	Included in Program-Level SDD?
Health Tracker Resource 1.1.0	Vitals, Labs, Notes	User	No - Health Tracker Services 1.1 SDD
Notification Services 2.1.0	Notifications, Reminder	User	No - Notification Services 2.1 SDD

## Dependencies/SLA

This application is not dependent upon software that has yet to be developed by an external party.

## Traceability

Please refer to the associated [MobileKidney 1.0 Required Artifacts](#) page for the associated RTM attachment.

## Developer & PM Contact Information

Developer Name/Point of Contact (POC)	VA E-Mail Address	Phone Number
██████████	████████████████████	██████████
Developer Organization/Company	Contract Start Date	Contract End Date
██████████	██████████	██████████
Web and Mobile Solutions PM or POC	VA E-Mail Address	Phone Number
██████████	████████████████████	██████████
VA Product Development PM or POC	VA E-Mail Address	Phone Number
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