Accessibility and Allocation of Resources for Veterans

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Table of Contents

Our Understanding of the Situation

The United States Department of Veterans Affairs (VA) currently serves over nine million veterans and employs almost 280,000 people, the essential healthcare needs of these veterans are performed by the Veterans Health Administration (VHA). The VHA and its patients are currently struggling with numerous issues including inadequate access to care, registration inefficiencies, underperforming facilities, and budget constraints. Deloitte aims to provide a solution that effectively leverages innovative technologies in an effort to improve the patient experience as well as solve staffing and resource usage concerns. These solutions will pave the way for the VA to become a leader in technological innovation while keeping the human experience at its core.

Approach

Deloitte will address problems regarding **patient access to care** by:

- Implementing the Updox telehealth software to allow for virtual check-ups and streamline patient-provider communication

Deloitte will address problems regarding **staffing and resource usage** by:

- Integrating Real Time Location System (RTLS) technology to track the utilization of resources

The implementation of these solutions over the next one and a half years will strengthen the VA's ability to operate as the USA's largest integrated health system and continue its mission to deliver the highest quality healthcare for veterans.

Solution

All implementation/development will be done using an agile approach. Bi-weekly sprints will be conducted to ensure project deliverables are completed within the one and a half year project scope. Solutions with the greatest impact towards patient access to care will be prioritized in an effort to align with the VA's mission, while remaining on time (A.1) and on-budget (A.2).

S.1 Patient Access Considerations

Updox's Complete Communication Platform will be implemented to provide the VA with software capabilities including telehealth, patient engagement, and practice productivity. Updox is a cloud-based HIPAA compliant telemedicine solution that will provide the VA with a scalable platform to modernize their current infrastructure. All communications conducted through the Updox software are secure, ensuring that patient and provider data is safeguarded.

Updox will **enable patients** to:

- Attend routine check-ups via secure video chat, eliminating the need for excessive travel
- Access direct messaging to facilitate communication with providers in a fraction of the time
- View a patient portal, fill out health forms, and schedule appointments online
- Answer questionnaires, providing insight on the quality of care they recieve

Updox will **enable VA employees** to:

- Manage appointments and communication remotely
- Design and implement treatment plans
- Streamline patient intake
- Process electronic payments

VA patients are currently clustered throughout the east coast and southern United States (A.3). With trends showing that veterans are moving towards rural southern areas (further from VA care centers) the implementation of Updox will enable veterans to limit the need for travel and greatly increase their access to information and care. Expanding telemedicine opportunities will aid in recruiting and retaining top talent for the VA. The Updox software and telemedicine approach will provide the VA the best overall solution to increase patient access to the quality care they deserve.

S.2 Staffing and Resource Considerations

Konkat.io Real Time Location System (RTLS) technology will be implemented to track the utilization of moveable medical equipment within VA medical centers. The associated Kio Cloud software will provide a customizable dashboard for employees to view and allocate various tracked resources. This will combat the VA's current issues regarding supply/tool shortages while reducing long-term costs caused by resource usage inefficiencies.

Konkat.io RTLS technology and the Kio Cloud enables the following **VA capabilities:**

- Equipment availability and sterilization data prior to their need for usage
- Resource budget optimization
- Ability to tag individual pieces of movable medical equipment with an ID number transmitted by infrared beacons within range
- Determine what medical equipment/rooms are not being used and where bottlenecks occur
- Investigate whether proper protocols are being followed

Proposed changes to current infrastructure will be communicated to VA employees and patients prior to their final release. Training videos and instructional documentation will be provided to impacted parties in order to conduct a smooth transition to updated systems. System support plans will be documented and agreed upon with stakeholders prior to project completion.

Recommendation

The design and implementation of the solutions addressed above will transform the VA into a more technologically integrated health system, while increasing patient access to care, improving resource usage, and driving down long-term costs. The proposed systems will allow the VA to be able match their rising demands while continuing to put veterans first.

Appendix

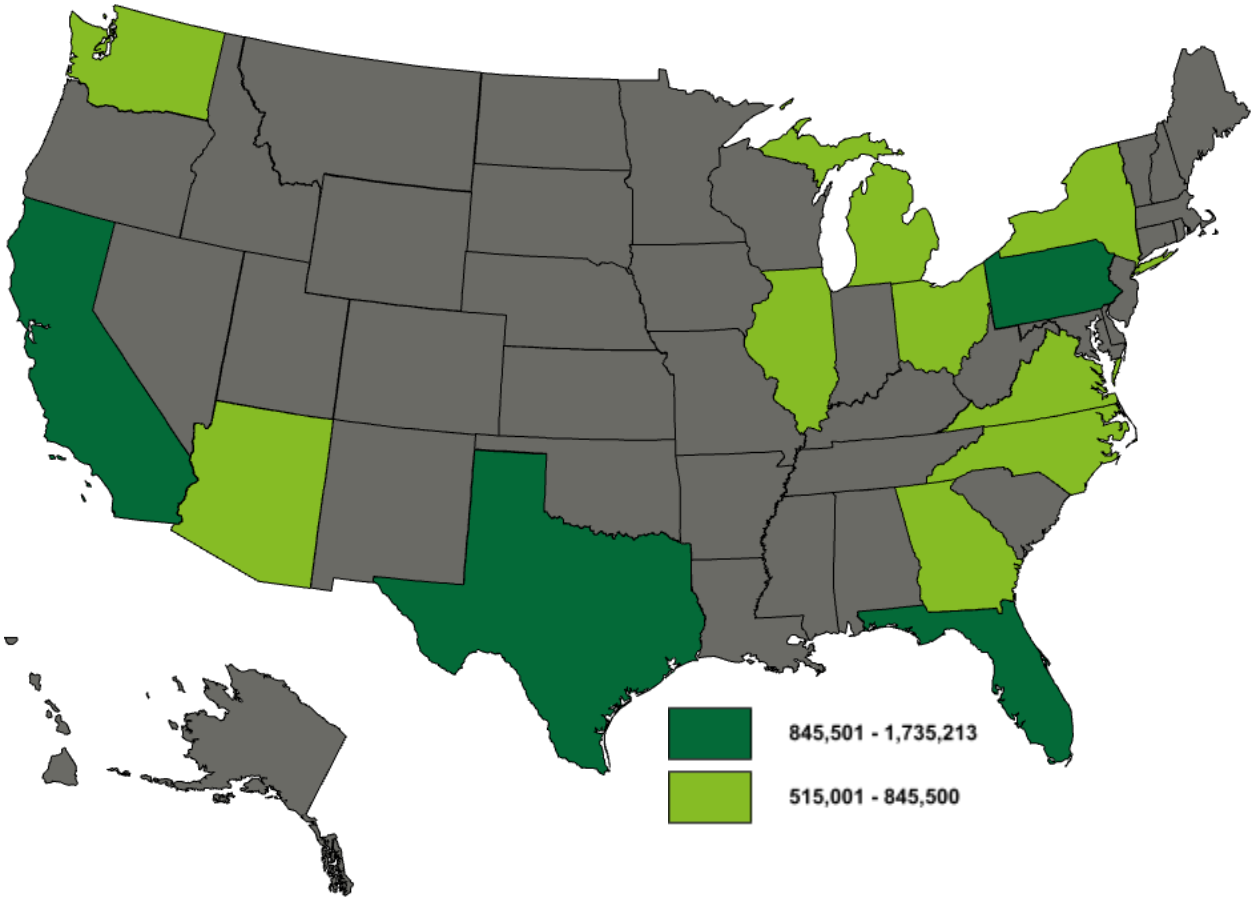
A.1 High-Level Project Timeline

Task	Status	Delivery Date
Planning	Completed	
• Identify System Value to the VA	Completed	10/5/22
• Conduct Feasibility Analysis	Completed	10/7/22
• Generate Project Plan	Completed	10/10/22
Analysis	Completed	
• Analyze As-Is System	Completed	10/11/22
• Interview Employees and Gather User Stories	Completed	10/12/22
• Finalize Requirements	Completed	10/13/22
• Design To-Be System	Completed	10/15/22
• Submit System Proposal	Completed	10/20/22
Design	In progress	
• Develop Design Strategy	In progress	12/20/22
• Design System Architecture	Not started	2/20/23
• Design User Interfaces	Not started	4/20/23
• Submit System Specifications	Not started	6/20/23
Implementation	Not started	
• Conduct System Construction	Not started	1/15/24
• Install Proposed Systems	Not started	3/25/24
• Create Training Plan for Employees and Patients	Not started	4/1/24
• Establish Support Plans	Not started	4/4/24

A.2 Pricing Table

Updox Telemedicine Software	**Costs (Estimate)**
● Perpetual Licensing ○ $1,000/Month/Location ○ 171 VA Medical Centers	$2,052,000/Year (Recurring)
● Data Migration ○ $25,000/Location ○ 171 VA Medical Centers	$4,275,000 (One-Time Fee)
● Full Customization	$25,000 (One-Time Fee)
● Training Materials	$5,000 (One-Time Fee)
Total Cost: Updox Telemedicine Software Implementation	$6,357,000
Bluetooth LE-Based RTLS Technology	**Costs (Estimate)**
● Individual Asset Tag (8 Year Lifespan) ○ $25/Unit ○ 760 Tags/Location ○ 171 VA Medical Centers	$3,249,000 (one-time fee)
● Up Front Hardware Costs ○ $25,900/Location ○ 171 VA Medical Centers	$4,428,900 (one-time fee)
● Kio Cloud Asset Tracking Software ○ $26/Asset Tag ○ 760 Tags/Location ○ 171 VA Medical Centers	$3,378,960 (one-time fee)
Total Cost: RTLS Technology Implementation	$11,056,860
Total Fixed Costs	**$15,361,860**
Total Recurring Costs	**$2,052,000/Year**

A.3 States With The Highest Veteran Populations



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