VA Office of Inspector General

OFFICE OF AUDITS AND EVALUATIONS

Department of Veterans Affairs

Review of Alleged Mismanagement of the Real Time Location System Project

December 19, 2017
15-05447-383

ACRONYMS

ePMO	Enterprise Program Management Office
IOC	Initial Operating Capability
ISO	Information Security Officer
IT	Information Technology
OIG	Office of Inspector General
OI&T	Office of Information and Technology
PMO	Project Management Office
PMAS	Project Management Accountability System
RTLS	Real Time Location System
VA	Department of Veterans Affairs
VHA	Veterans Health Administration
VIP	Veteran-Focused Integration Process
VISN	Veterans Integrated Service Network

EXECUTIVE SUMMARY

Why We Did This Review

In September 2015, the VA OIG received an allegation claiming VA management failed to comply with VA policy and guidance when it deployed Real Time Location System (RTLS) assets without appropriate project oversight. The complainant also stated that VA deployed RTLS assets without meeting VA information security requirements.

In 2011, the Veterans Health Administration (VHA) selected RTLS as the technology to provide tools to assist in the automation and improvement of operations and health care services VA provides to its veterans. Specifically, VHA implemented RTLS to support VA's Health Care Efficiency major transformation initiative, with the goal of automating certain procedures and replacing VA's manual processes for tracking and monitoring medical items. In addition, the goal of RTLS was to enable VHA to achieve focused clinical objectives, administrative process efficiency, and total asset visibility. RTLS uses multiple technologies for locating and tracking medical equipment and other items, which includes but is not limited to Wi-Fi-based location finding, active and passive Radio Frequency Identification, ultrasound, and infrared. Initially, VA planned to deploy RTLS to 19 Veteran Integrated Services Networks (VISN) and six Consolidated Mail Outpatient Pharmacies. Ultimately, VA plans to deploy RTLS to all VA medical facilities.

What We Found

The OIG substantiated the allegation that VA management failed to comply with VA policy and guidance when it deployed RTLS assets without appropriate project oversight. Specifically, the RTLS Project Management Office (PMO) did not follow guidance from VA's Technology Acquisition Center to use an incremental project management approach to compensate for numerous known project management risks during the acquisition and deployment of RTLS assets. In addition, the RTLS PMO did not comply with VA policy requiring the use of Project Management Accountability System (PMAS) incremental oversight processes for all acquisitions and delivery of RTLS assets. Despite this guidance and VA policy, the RTLS PMO did not ensure the vendor could meet contracted functionality requirements on the initial $7.5 million VISN 23 task order, such as accurate asset tracking, before ultimately committing a total of $431 million to the same vendor for further RTLS deployments. The OIG also noted the Deputy Under Secretary for Health for Operations and Management approved the concurrent deployments of RTLS assets to other VISNs within six months of the VISN 23 task order award.

In June 2012, VA awarded a firm-fixed-price, indefinite-delivery, indefinite-quantity negotiated contract with a $543 million ceiling to Hewlett Packard Enterprise Services to deploy an RTLS nationally integrated solution. The contract was to include commercial off-the-shelf technologies and software applications over the course of five years. The ceiling was based on cost estimates for 19 VISNs and six Consolidated Mail Outpatient Pharmacies to support deployments, annual maintenance, and subsequent procurements to expand RTLS capability during the five-year period.

VA awarded an initial $7.5 million task order to deploy RTLS to VISN 23 with an expected delivery date in December 2013. However, during initial VISN 23 operational readiness testing in March 2015, VA identified 245 functionality defects that resulted in the issuance of a contract cure notice[1] to the vendor. By June 2016 the cure notice was still unresolved, as 46 significant defects were still outstanding including RTLS' inability to meet contract requirements for asset tracking and software functionality. Overall, the VISN 23 task order included more than 20 contract modifications that resulted in changes to the project's scope and schedule, and also significantly increased the final task order costs. Due to these vendor failures, VISN 23 management allowed this task order to expire on the contract end date in July 2016 and terminated its participation with the RTLS project.

In September 2016, VA completed a renegotiation of the RTLS contract due to the vendor's inability to implement a functional RTLS solution. The renegotiation was intended to realign the RTLS and expedite the implementation of the RTLS solution in each VISN. Specifically, VA executed a Global Settlement Agreement that resulted in extensive changes to the vendor's contract requirements, to include expiration of task orders for VISNs 8 and 23, reduction in scope of RTLS applications deployed, extension of the contract period of performance through June 2018, and commitment of $431 million in total costs to the vendor as of December 2016. According to the agreement, VA also released the contractor from any liability claims related to prior performance on the contract.

VA deployed RTLS assets without appropriate project oversight because management failed to provide effective oversight of the RTLS project from acquisition through development and implementation. Specifically, VA's Office of Planning and Policy Enterprise Program Management Office (ePMO) provided minimal oversight of RTLS project management activities and the RTLS Advisory Council was never successfully established to provide overall governance for the project. The OIG also noted the RTLS PMO did not follow project implementation policy, including adherence to VA's PMAS process. Furthermore, the RTLS PMO lacked the oversight authority and training to ensure success of an enterprise-level deployment involving information technology (IT).

PMAS is VA's principal means of holding IT project managers accountable for meeting cost, schedule, and scope milestones. PMAS was designed to reduce project implementation risks, institute monitoring and controls, establish accountability, and create a reporting discipline. A VA directive[2] mandated PMAS for all IT development projects. The PMAS mandate applied regardless of whether the project created new functionality or enhanced existing capabilities within VA's current systems or infrastructure, and whether funded by the IT Systems Appropriation or any other appropriation. It also applied to projects that were resourced at a value greater than $250,000 for total life cycle costs. Despite VHA and Office of Information and Technology (OI&T) memos requiring PMAS oversight of RTLS, the RTLS PMO chose not to implement mitigating controls for the identified project risks due to their belief that PMAS requirements did not apply to VHA projects and medical equipment. Due to the

[1] The Government may issue a contract cure notice when a vendor fails to perform certain conditions that endanger the performance of the contract. The cure notice would state that if conditions are not cured within 10 days of the notice, the Government may terminate the contract in accordance with the terms of the agreement.
[2] VA Directive 6071, *Project Management Accountability System.*

misinterpretation of PMAS requirements and VHA management's pressure to meet original RTLS project timelines, PMO management failed to provide direction to supporting staff regarding VA guidance that required PMAS usage.

The OIG substantiated the allegation that VA deployed RTLS assets without meeting VA information security requirements. More specifically, the OIG noted that the RTLS PMO and OI&T personnel deployed RTLS assets without the appropriate system authorizations needed to connect such devices to VA's network. While system authorizations existed for the general network, management could not provide evidence that RTLS security controls were tested and approved prior to deploying assets on the network in accordance with VA's risk management framework. This occurred because VA did not perform adequate project oversight to ensure that risk management activities were conducted on RTLS project deliverables in accordance with VA policy. As a result, VA's internal network faced unnecessary risks resulting from untested RTLS system security. RTLS was granted an initial system authorization to operate on VA's network in October 2016.

Conclusion

As of December 2016, $431 million had been obligated for RTLS assets and services without a Government acceptance of a functional RTLS solution. Given the uncertainty of the project, future RTLS cost estimates are unknown. Moving forward, VA must exercise cost control, sound financial stewardship, and discipline in RTLS development. VHA and OI&T must also demonstrate that RTLS is a worthwhile investment, providing taxpayers with a good return on investment. Consequently, it is imperative that VA use incremental and validation-based project oversight processes to ensure that VA does not incur additional project costs without achieving RTLS required functionality. VA's failure to deliver a successful RTLS solution will prevent the department from achieving its Health Care Efficiency goal of facility automation, administrative process efficiency, and total asset visibility. In addition, VA's internal network faced unnecessary risks resulting from untested RTLS system security controls.

What We Recommended

The OIG recommended the Acting Under Secretary for Health, in conjunction with the Acting Assistant Secretary for Information and Technology, apply additional resources and implement improved integrated project management controls for the reminder of the RTLS project to restrict further cost increases. The OIG also recommended the Acting Under Secretary for Health, in conjunction with the Acting Assistant Secretary for Information and Technology, enforce the use of incremental project management controls, such as those used within the Veteran-focused Integration Process (VIP) on all remaining RTLS task orders to ensure such efforts will provide an adequate return on investment. The OIG recommended the Acting Assistant Secretary for the Office of Information and Technology ensure that risk assessments are conducted on future RTLS deployments to identify potential risks and vulnerabilities that may adversely affect other VA systems.

Agency Comments

The Executive in Charge for the Veterans Health Administration and the Acting Assistant Secretary for the Office of Information and Technology concurred with the OIG's recommendations. The Executive in Charge and Acting Assistant Secretary provided acceptable action plans to address the recommendations and the OIG will follow up on implementation.

The Executive in Charge disagreed with certain parts of the findings presented in this report. Specifically, the Executive in Charge did not agree with the OIG's finding that the RTLS PMO did not comply with VA policy requiring the use of PMAS for certain elements of the RTLS project. Rather, the Executive in Charge stated that the decision to not apply PMAS to certain RTLS project elements was a joint decision made by VHA and OI&T and was not an independent decision made by the RTLS PMO. However, this decision was contrary to an April 2011 memo, *Real-Time Locating Systems*, signed by the Under Secretary for Health and the Assistant Secretary for Information and Technology that identified the need for proper governance and required all elements of RTLS to be managed through VA's PMAS process. Also, the OIG stated in this report that OI&T concurred with the RTLS PMO's decision to not use PMAS for certain RTLS project elements. Accordingly, the OIG has not modified the finding.

The Executive in Charge also disagreed with the finding that the RTLS PMO did not follow guidance to utilize an incremental project management approach for the acquisition and deployment of RTLS assets. Rather, the Executive in Charge stated that the decision to procure RTLS assets for numerous facilities and phase their deployment was based on risk assessments and project goals. As stated in the report, the decision to procure RTLS assets for numerous facilities did not follow guidance from VA's Technology Acquisition Center to use an incremental project management approach during the acquisition of RTLS assets. Accordingly, the OIG stands by the original finding as presented.

The Executive in Charge did not agree with the finding that RTLS did not have a proper Authority to Operate prior to connecting to VA's network. While a system authorization existed for the general network, management could not provide evidence that RTLS security controls were tested and approved prior to deploying assets on the network in accordance with VA's risk management framework. Accordingly, the OIG does not agree with the Executive in Charge's assertion that RTLS had an appropriate system authorization prior to connecting to VA's network. However, the OIG acknowledges that RTLS security controls were reviewed to support an "Authority to Operate" decision in October 2016, after the system boundaries for RTLS deployment were finalized.

LARRY M. REINKEMEYER
Assistant Inspector General
for Audits and Evaluations

TABLE OF CONTENTS

INTRODUCTION

Objective

In September 2015, the VA Office of Inspector General (OIG) received an allegation of contract mismanagement involving the Real Time Location System (RTLS). The complainant alleged that VA management failed to comply with VA policy and guidance when it deployed RTLS assets without appropriate project oversight. The complainant also stated that VA deployed RTLS assets without meeting VA information security requirements. The OIG conducted this review to determine whether contract and project mismanagement occurred during the deployment of RTLS assets.

Background

In 2011, the Veterans Health Administration (VHA) selected RTLS as the technology to provide tools to assist in the automation and improvement of operations and health care services that VA provides to its veterans. RTLS was created to support VA's Health Care Efficiency major transformation initiative and to enable VHA to achieve clinical objectives, administrative process efficiency, and total asset visibility. RTLS uses multiple technologies for locating and tracking medical equipment and other items, which includes but is not limited to: Wi-Fi-based location finding, active and passive Radio Frequency Identification, ultrasound, and infrared. Initially, RTLS will be deployed to 19 Veterans Integrated Service Networks (VISN) and six Consolidated Mail Outpatient Pharmacies. Ultimately, VA will deploy RTLS to all medical facilities nationwide. RTLS is designed to interface with several information systems and is intended to exchange data and provide messaging functionality.

In January 2011, a Memorandum of Understanding and Agreement was created between the Office of Information and Technology (OI&T) and VHA to manage RTLS, identify a governance structure under an RTLS Advisory Council, and ensure compliance with VA standards. The VHA Deputy Under Secretary for Health for Operations and Management issued several memos providing guidance for RTLS acquisitions, deployment, and operations. The RTLS procurement and implementation process was a cooperative effort between the Office of Acquisition and Logistics, VHA, and OI&T.

In June 2012, VA awarded a firm-fixed-price, indefinite-delivery, indefinite-quantity negotiated contract with a $543 million ceiling to Hewlett Packard Enterprise Services to deploy a nationally integrated RTLS solution, to include commercial off-the-shelf technologies and software applications, over the course of five years. The ceiling was based on cost estimates for 19 VISNs and six Consolidated Mail Outpatient Pharmacies to support deployments, annual maintenance, and subsequent procurements to expand RTLS capability during the five-year period.

RESULTS AND RECOMMENDATIONS

Finding 1 Real Time Location System Deployed Without Adequate Oversight

The OIG substantiated the allegation that VA management failed to comply with VA policy and guidance when it deployed RTLS assets without appropriate project oversight. Specifically, the RTLS Project Management Office (PMO) did not follow guidance from VA's Technology Acquisition Center to use an incremental project management approach during the acquisition and deployment of RTLS assets to compensate for numerous known project management risks. In addition, the RTLS PMO did not comply with VA policy requiring the use of Project Management Accountability System (PMAS) incremental oversight processes for all acquisitions and delivery of RTLS assets. Despite this policy and guidance, the RTLS PMO did not ensure the vendor could meet contracted functionality requirements on the initial $7.5 million VISN 23 task order, such as accurate asset tracking, before ultimately committing a total of $431 million to the same vendor for further RTLS deployments. The OIG also noted the Deputy Under Secretary for Health for Operations and Management approved the concurrent deployments of RTLS assets to other VISNs within six months of the VISN 23 task order award.

VA awarded the initial $7.5 million task order to deploy RTLS to VISN 23 with an expected delivery date in December 2013. However, during initial VISN 23 operational readiness testing for RTLS in March 2015, VA identified 245 functionality defects that resulted in the issuance of a contract cure notice[3] to the vendor. By June 2016, the cure notice was still unresolved as 46 significant defects were still outstanding, including RTLS's inability to meet fundamental contract requirements for asset tracking and software functionality. Due to these vendor failures, VISN 23 management allowed this task order to expire on the contract end date in July 2016 and terminated its participation with the RTLS project.

In September 2016, VA completed a renegotiation of the RTLS contract due to the vendor's inability to implement a functional RTLS solution and to realign RTLS with the intent to expedite the implementation of the RTLS solution in each VISN. Specifically, VA executed a Global Settlement Agreement that resulted in extensive changes to the vendor's contract requirements to include expiration of task orders for VISNs 8 and 23,

[3] The Government may issue a contract cure notice when a vendor fails to perform certain conditions that endanger the performance of the contract. The cure notice would state that if conditions are not cured within 10 days of the notice, the Government may terminate the contract in accordance with the terms of the agreement.

reduction in scope of RTLS applications deployed, extension of the contract period of performance through June 2018, and commitment of $431 million in total costs to the vendor as of December 2016. According to the agreement, VA released the contractor from any liability claims related to prior performance on the contract.

VA deployed RTLS assets without appropriate project oversight because management failed to provide effective oversight of the RTLS project from acquisition through development and implementation. Specifically, VA's Office of Planning and Policy Enterprise Program Management Office (ePMO) provided minimal oversight of RTLS project management activities and the RTLS Advisory Council was never successfully established to provide overall governance for the project. The OIG also noted the RTLS PMO did not follow project implementation policy, including adherence to VA's PMAS process to validate increment delivery of required system functionality. Furthermore, the RTLS PMO lacked the oversight authority and training to ensure success of an enterprise-level deployment involving IT. As a result of inadequate project management, VA lacked assurance of an effective return on $431 million in RTLS investment and that deployed assets were operating in accordance with contract requirements.

Criteria

In April 2011, the Under Secretary for Health and the Assistant Secretary for Information and Technology signed a memo, *Real-Time Locating Systems*, defining how OI&T and VHA would work collaboratively to implement RTLS technologies and requiring that the final product meet VA's mission requirements. The memo also identified the need for proper governance and required all elements of RTLS to be managed through VA's PMAS process. PMAS has been VA's principal means of holding Information Technology (IT) project managers accountable for meeting cost, schedule, and scope milestones. PMAS was designed to reduce project implementation risks, institute monitoring and controls, establish accountability, and create a reporting discipline. VA directed[4] that PMAS was mandated for all IT development projects, whether the project created new functionality or enhanced existing capabilities within VA's current systems or infrastructure and whether funded by the IT Systems Appropriation or any other appropriation. The mandate applied to projects resourced at a value greater than $250,000 for total life cycle costs.

Allegations Substantiated

The OIG substantiated the allegation that VA management failed to comply with VA policy and guidance when it deployed RTLS assets without appropriate project oversight. Specifically, the RTLS PMO did not follow guidance from VA's Technology Acquisition Center to use an incremental project management approach during the acquisition and deployment of RTLS assets to compensate for numerous known project management risks.

[4] VA Directive 6071, *Project Management Accountability System*.

In addition, the RTLS PMO did not comply with VA policy requiring the use of PMAS incremental oversight processes for all acquisitions and delivery of RTLS assets. Despite this policy and guidance, the RTLS PMO did not ensure that the vendor could meet the initial VISN 23 contracted functionality requirements before committing a total of $431 million to the same vendor for further RTLS deployments. Some significant initial contract requirements not met include accurate asset tracking functionality, successful application integration with active directory, successful operational readiness testing, and Veterans Information Systems and Technology Architecture interface report query functionality. The OIG also noted the Deputy Under Secretary for Health for Operations and Management approved the concurrent deployments of RTLS to other VISNs within six months of the VISN 23 task order award. Consequently, VA awarded task orders for RTLS deployment to 13 additional VISNs before VISN 23 had started operational readiness testing in March of 2015.

VA awarded an initial $7.5 million task order to deploy RTLS to VISN 23 with an expected delivery date in December 2013. However, during initial VISN 23 operational readiness testing in March 2015, VA identified 245 functionality defects that resulted in the issuance of a contract cure notice to the vendor. By June 2016, the cure notice was still unresolved as 46 significant defects were still outstanding, including RTLS's inability to meet contract requirements for asset tracking and software functionality. Due to these vendor failures, VISN 23 management allowed this task order to expire on the contract end date in July 2016and terminated its participation with the RTLS project. Overall, the VISN 23 task order included more than 20 contract modifications that resulted in changes to the project's scope and schedule, and significantly increased the final task order costs. Furthermore, the work continued on these task orders until a partial stop work order was ordered in May 2016.

Despite the delays in fully deploying RTLS to VISN 23, the PMO initiated additional task orders to the same vendor from June 2012 to September 2015 for further RTLS deployments. In September 2016, VA completed a renegotiation of the RTLS contract due to the vendor's inability to implement a functional RTLS solution and to realign RTLS. The intent of the realignment was to expedite the implementation of the RTLS solution in each VISN. Specifically, VA executed a Global Settlement Agreement that resulted in extensive changes to the vendor's contract requirements to include expiration of task orders for VISNs 8 and 23, reduction in scope of RTLS applications deployed, extension of the contract period of performance through June 2018, and commitment of $431 million in total costs to the vendor as of December 2016. According to the agreement, VA released the contractor from any liability claims related to prior performance on the contract.

Table 1 provides a listing of contract changes resulting from the settlement agreement.

Table 1. Reduction of RTLS Deployment Scope

RTLS Solution	Facility Deployments Before Settlement	Facility Deployments After Settlement	Change	Percent Change
Asset Tracking	92	47	-45	-48.9%
Catheterization Lab	40	30	-10	-25.0%
Sterile Processing Workflow	80	66	-14	-17.5%
Temperature Monitoring	71	5	-66	-93.0%
Totals	**283**	**148**	**-135**	**-47.7%**

Source: VA OIG analysis of RTLS applications before and after VA RTLS renegotiation and settlement of September 2016.

Ineffective project oversight also occurred during the RTLS acquisition phase. During this phase, the Source Selection Evaluation Board and the Technology Acquisition Center identified several significant RTLS acquisition risks that were presented to VA management. The Technology Acquisition Center identified the following project risks and thus recommended an incremental approach to verify RTLS system functionality as a compensating control:

- Elements of RTLS have sequential interdependencies that were acquired simultaneously.
- Data standardization for RTLS does not exist.
- Interdependencies of Wi-Fi infrastructure are not well understood.
- Business requirements are not well defined.
- Lessons learned from existing technology implementations were not applied during the acquisition process.

VA management acknowledged some of these risks and developed mitigating strategies, such as the requirement to develop RTLS using the PMAS incremental development approach. However, the RTLS PMO chose not to implement mitigating controls for the identified project risks due to its belief that PMAS requirements did not apply to VHA projects and medical equipment. This decision was contrary to the 2011 VHA and OI&T memo[5]

[5] *Real-Time Locating Systems,* April 2011.

that required all elements of RTLS to be managed through VA's PMAS process. Reasons for bypassing PMAS requirements are discussed in further detail below.

Why This Happened

Noncompliance with VA policy regarding RTLS project management and the use of PMAS during RTLS deployment was the result of VHA's minimal executive oversight and ineffective project management.

Minimal Executive Oversight

VA failed to provide adequate executive oversight of the RTLS project from the acquisition stage through implementation. Under VA's Health Care Efficiency major transformation initiative, VA's Office of Planning and Policy ePMO was directed to oversee the RTLS project and ensure completion of all defined sustainment and transition objectives prior to transitioning the project to the RTLS PMO. In addition, VHA's Office of Healthcare Transformation worked directly with VA's ePMO to oversee the RTLS project and to keep VA senior leadership informed regarding the status of the project. The ePMO's involvement was important to define senior management responsibilities and help ensure success of the project. Specific objectives of VA's Office of Planning and Policy ePMO included:

- Expanding staffing for the RTLS Program office to accommodate the RTLS deployment schedule
- Directing the creation of a VA level Advisory Council to assist with the RTLS project and provide guidance on technology deployment
- Transitioning the overall RTLS management and deployment to the RTLS PMO

However, the OIG noted that VA's Office of Planning and Policy ePMO did not successfully complete several prescribed objectives during the transition of the project to the RTLS PMO. Specifically, the ePMO did not ensure that staffing was provided to the RTLS PMO for additional project oversight or ensure successful implementation and sustainment of the RTLS Advisory Council. In addition, the council did not include senior members from OI&T, and received only limited support from VA senior leadership. The advisory council was ultimately abandoned prior to RTLS meeting expected contract functionality requirements.

Recommendation 1 addresses the need for the Acting Under Secretary for Health, in conjunction with the Acting Assistant Secretary for Information and Technology, to apply additional resources and implement improved integrated project management controls for the remainder of the project to restrict further RTLS cost increases.

Ineffective Management

The RTLS PMO did not follow guidance from VA's Technology Acquisition Center to use an incremental project management approach during the acquisition and deployment of RTLS assets to compensate for numerous

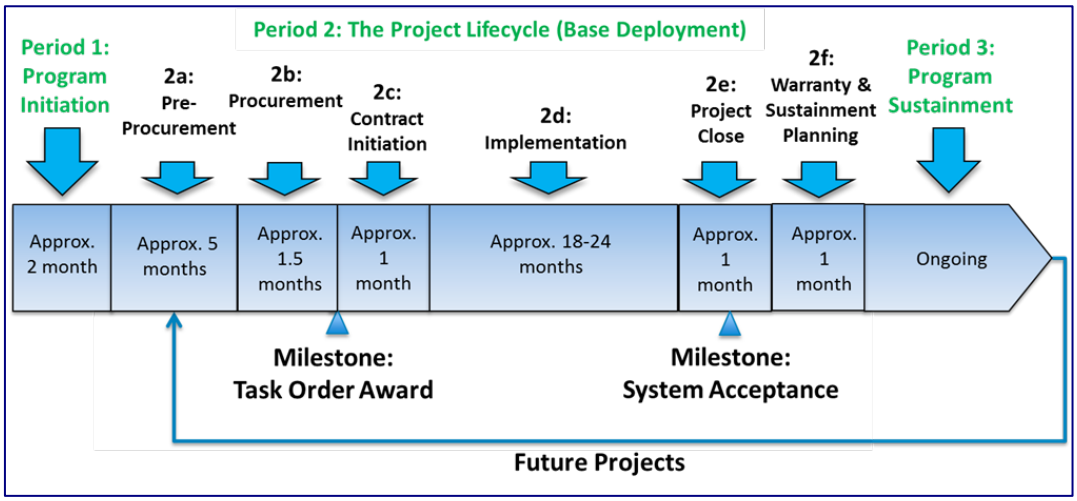
known project management risks. Furthermore, the RTLS PMO did not comply with VA policy and guidance requiring the use of PMAS for all RTLS acquisitions. The PMO also did not use PMAS oversight processes during the delivery of all RTLS task orders. For instance, from a total of 21 RTLS task orders, the OIG noted that only two task orders complied with PMAS requirements as those task orders exclusively involved OI&T processes. For the remaining task orders, the OIG noted that three contained no reference to PMAS requirements and the other 16 task orders included this statement: "PMAS is not applicable to this Task Order as this is considered a VHA project that is inclusive of medical equipment."

VA Directive 6071 requires VA officials to develop, follow, and enforce policies that support the PMAS methodology for all IT development projects, whether funded by the Information Technology Systems Appropriation or any other appropriation, and if they are resourced at a value greater than $250,000 total life cycle cost. Due to the misinterpretation of PMAS requirements and VHA management's pressure to meet original RTLS project timelines, the PMO failed to provide direction to supporting staff regarding VA guidance that required PMAS usage.

The OIG also noted that OI&T project management was aware of the PMO's misinterpretation of PMAS requirements and concurred with this approach. Instead of following PMAS requirements, the PMO relied on its own methodology, using a distributed functional organization composed of the RTLS PMO, contracting officer's representatives, and contracted program management staff. Following its own methodology, the PMO organized workgroups and steering committees to manage functional areas of the program, created a SharePoint site to function as a central repository for project coordination, and created an RTLS Handbook that provided oversight guidance for project contracting officer's representatives and program management staff.

However, the review identified that this methodology focused on awarding subsequent RTLS task orders as opposed to evaluating delivered functionality in accordance with PMAS requirements. For instance, the RTLS Handbook milestones identified in Figure 1 emphasize procurement and project closeout rather than following the PMAS process. The PMAS process is consistent with the Technology Acquisition Center's guidance for VA to use an incremental project management approach during the acquisition and deployment RTLS assets. In addition, the PMAS process requires project managers to validate incremental delivery of required system functionality before allowing projects to deliver additional products.

Figure 1. RTLS PMO Developed Lifecycle for RTLS Task Order



Source: RTLS National Handbook Version 1.3

For the two of 21 task orders that followed PMAS requirements, the OIG noted that PMAS was effective in limiting certain Government costs. For example, the $7.7 million National Data Repository project was put on hold and ultimately closed because of changing functionality requirements. In this case, following the PMAS process reduced VA's contractual obligation by $5.2 million.

Recommendation 2 addresses the need to enforce the use of incremental project management and validation controls, such as those used within the PMAS or the Veteran-focused Integration Process (VIP), on all remaining RTLS task orders to ensure such efforts will provide an adequate return on investment.

Results of Ineffective Management

In September 2016, VA completed a renegotiation of the RTLS contract due to the vendor's inability to implement a functional RTLS solution and to realign the RTLS Program. The intent of the realignment was to expedite the installation of the RTLS solution in each VISN. The renegotiation of the RTLS contract resulted in a $431 million total obligation to the vendor as of December 2016. The OIG determined the RTLS Project Manager's failure to effectively coordinate or adequately measure the effect of project interdependencies had resulted in numerous project delays at a significant increased cost to the Government. Without Government acceptance of a functional RTLS solution, VA lacks assurance that RTLS would result in a viable facility automation system for tracking the flow of assets.

Conclusion

As of December 2016, $431 million has been obligated for RTLS assets and services without a Government acceptance of a functional RTLS solution. Given the uncertainty of the project, future RTLS cost estimates are unknown. Moving forward, VA must exercise cost control, sound financial stewardship, and discipline in RTLS development. VHA and OI&T also

must demonstrate that RTLS is a worthwhile investment, providing taxpayers with a good return on investment. Consequently, it is imperative that VA use incremental and validation-based project oversight processes to ensure that VA does not incur additional project costs without achieving RTLS required functionality. VA's failure to deliver a successful RTLS solution will prevent the department from achieving its Health Care Efficiency goal of facility automation, administrative process efficiency, and total asset visibility.

Recommendations

1. The OIG recommended that the Acting Under Secretary for Health, in conjunction with the Acting Assistant Secretary for Information and Technology, apply additional resources and implement improved integrated project management controls for the remainder of the Real Time Location System project to restrict further cost increases.

2. The OIG recommended that the Acting Under Secretary for Health, in conjunction with the Acting Assistant Secretary for Information and Technology, enforce the use of incremental project management controls, such as those used within the Veteran-focused Integration Process, on all remaining Real Time Location System task orders to ensure such efforts will provide an adequate return on investment.

Management Comments

The Executive in Charge for VHA and the Acting Assistant Secretary for OI&T concurred with the recommendations. For Recommendation 1, the Executive in Charge reported VHA and OI&T are addressing program resourcing and project management controls and will implement improved controls. She stated OI&T committed a senior project manager resource and VHA will pursue approval of increased staffing. In addition, an RTLS Governance Council, which will have responsibility for defining cost, scope, and schedule performance metrics, is in development. For Recommendation 2, the Executive in Charge reported the RTLS Governance Council will assure implementation of project management oversight that includes organizational risk management for technology deployment.

The Executive in Charge disagreed with certain parts of the finding. Specifically, the Executive in Charge did not agree with the finding that the RTLS PMO did not comply with VA policy requiring the use of PMAS incremental oversight processes for all acquisitions and delivery of RTLS assets. Rather, the Executive in Charge stated that the decision not to use PMAS for certain RTLS project elements was a joint decision made by VHA and OI&T and was not an independent decision made by the RTLS PMO.

The Executive in Charge also disagreed with the finding that the RTLS PMO did not follow guidance to utilize an incremental project management approach for the acquisition and deployment of RTLS assets. Rather, the

Executive in Charge stated that the decision to procure RTLS assets for numerous facilities and phase their deployment was based on risk assessments and project goals.

OIG Response

The Executive in Charge's corrective action plans are responsive to the recommendations. The OIG will monitor implementation of planned actions and will close the recommendations when the OIG receives sufficient evidence demonstrating progress in addressing the identified issues.

The Executive in Charge expressed concerns about the finding regarding the RTLS PMO not complying with PMAS policy because the decision not to use PMAS for certain RTLS project elements was a joint decision made by VHA and OI&T. However, this decision was contrary to the *Real-Time Locating Systems* memo signed by the Under Secretary for Health and the Assistant Secretary for Information and Technology, which identified the need for proper governance and required all elements of RTLS to be managed through VA's PMAS process. Additionally, the OIG has stated in this report that OI&T concurred with the RTLS PMO's decision to not use PMAS for certain RTLS project elements. Accordingly, the OIG has not modified the finding in this report.

The Executive in Charge expressed concern about the finding regarding the RTLS PMO not following guidance to utilize an incremental project management approach. However, as the OIG reported, the decision to procure RTLS assets for numerous facilities did not follow guidance from VA's Technology Acquisition Center to use an incremental project management approach during the acquisition of RTLS assets. Based on this, the OIG stands by its report conclusions as presented.

Finding 2 Real Time Location System Was Deployed Without Required Security Controls Testing

The OIG substantiated the allegation that RTLS assets were deployed without meeting VA information security requirements. More specifically, the OIG noted that RTLS PMO and OI&T personnel initially deployed RTLS assets without the appropriate system authorizations[6] needed to connect such devices to VA's network. While system authorizations existed for the general network, management could not provide evidence that RTLS security controls were tested and approved prior to deploying assets on the network in accordance with VA's risk management framework. This occurred because VA did not perform adequate project oversight to ensure that risk management activities were conducted on RTLS project deliverables in accordance with VA policy. As a result, VA's internal network faced unnecessary risks resulting from untested RTLS system security controls. In October 2016, RTLS was granted an initial system authorization to operate on VA's network.

Criteria

OI&T is responsible for ensuring VA system security is managed in a manner that is compliant with Federal laws, regulations, and guidelines governing IT security. VA Directive 6500, *Information Security Program*, provides the framework for managing VA's Security Risk Management Program. The directive, in concert with VA Handbook standards,[7] establishes policy and procedures for incorporating the security requirements defined by the National Institute of Standards and Technology. The VA Handbook[8] also establishes requirements and responsibilities for VA to ensure compliance with system assessment and authorization and continuous monitoring requirements.

Evaluation and Testing of Security Controls

Based on interviews with PMO and OI&T personnel and reviews of system security documentation, the OIG noted system authorizations existed for the general network hosting RTLS assets. However, VA could not provide evidence, such as an RTLS Security Assessment Report, that all requisite security controls were evaluated or tested prior to connecting RTLS assets to the VA network. Consequently, existing network system authorizations were no longer valid once RTLS assets were deployed, as they constituted a significant change to the network control environment. According to VA

[6] System authorization is an official management decision to authorize the operation of an information system and to explicitly accept the system security risks based on the implementation of an agreed-upon set of security controls.
[7] VA Handbook 6500, *Risk Management Framework for VA Information Systems – Tier 3: VA Information Security Program.*
[8] VA Handbook 6500.3, *Assessment, Authorization, and Continuous Monitoring of VA Information Systems.*

standards,[9] any significant changes to the network environment require, at a minimum, a risk analysis and could require a formal reauthorization of the system. Furthermore, the VA Handbook[10] states that authorization is a thorough inspection process of the entire system development life cycle that offers a credible statement of security protection. Contrary to the defined policy, VA did not ensure risk management activities were conducted on all RTLS project deliverables in accordance with VA's risk management framework. In October 2016, RTLS security controls were reviewed to support an Authority to Operate decision after the system boundaries for RTLS deployment were finalized.[11] RTLS was granted an initial system authorization to operate on VA's network in October 2016.

Why This Happened

The deployment of systems without requisite system authorizations occurred due to inadequate risk management oversight during the implementation of RTLS assets. The OIG noted a National Information Security Officer (ISO) was assigned to manage RTLS information security and risk management activities during system development. However, the Regional ISOs who were responsible for the operational network security did not evaluate RTLS system security controls before allowing RTLS assets to connect to VA's network. The responsible ISOs were required to maintain an appropriate operational security posture by effectively monitoring the system control environment. Other ISO duties include developing and updating security plans, managing and controlling system changes, and assessing the security effect of system changes in accordance with VA information security policies.

The OIG also noted the RTLS PMO did not provide regional ISOs with sufficient information, such as an RTLS system description and access requirements, in order to facilitate the required system security reassessments on the regional networks. The facility ISOs at sites visited had little knowledge of RTLS activities, to include risk management oversight of system deployments within their facilities. As a result, the processes involving RTLS system assessment, authorization, and connection to VA's network did not include oversight from local ISOs as required.

Recommendation 3 addresses the need to implement improved risk assessment oversight on future RTLS deployments to identify potential vulnerabilities that may adversely affect other VA systems.

[9] *Ibid.*
[10] VA Handbook 6500.5, *Incorporating Security and Privacy into the System Development Life Cycle.*
[11] OI&T provided that the authorizing official granted RTLS an Authority to Operate after system boundaries were finalized and review of system controls.

Effects of Unauthorized Systems Deployment

RTLS assets were deployed within the VA network without assurance that requisite security controls were tested, implemented, and performing as intended. Thus, VA's internal network faced unnecessary security risks of potential unauthorized network access resulting from untested RTLS system security controls. Although RTLS assets were still in development and no operational user data were passing over these systems, they were connected to the VA network and were actively participating in test and disaster recovery operations.[12] VA's failure to ensure risk management activities were performed prior to placing RTLS assets onto the VA network prevented the system authorizing official from evaluating the risks associated with significant changes to the security control changes environment.

Conclusion

VA's fundamental mission of providing benefits and services to veterans is dependent on the department deploying secure IT systems and networks. VA's information security program and its practices are designed to protect the confidentiality, integrity, and availability of VA systems and data. The OIG noted that inadequate oversight of RTLS risk management activities has left VA mission-critical systems and data susceptible to unauthorized access, loss, or disclosure. In addition, VA needs to ensure that RTLS assets are periodically reevaluated and reauthorized to operate in accordance with VA policy.

Recommendation

3. The OIG recommended the Acting Assistant Secretary for the Office of Information and Technology ensure that risk assessments are conducted on future Real Time Location System deployments to identify potential risks and vulnerabilities that may adversely affect other VA systems.

Management Comments

The Acting Assistant Secretary for O&IT concurred with the recommendation. The Acting Assistant Secretary reported that O&IT will conduct risk assessments prior to future deployments to minimize risks associated with the deployments.

The Executive in Charge for VHA did not agree with the finding that RTLS did not have a proper Authority to Operate prior to connecting to VA's network.

OIG Response

The Acting Assistant Secretary's corrective action plan is responsive to the recommendation. The OIG will monitor implementation of the planned action and will close the recommendation when the OIG receives sufficient evidence demonstrating progress in addressing the identified issues.

[12] OI&T personnel within Austin Information Technology Center provided details that RTLS was on the VA network but not using live data; they were only participating in testing.

Regarding the Executive in Charge's statement regarding a system authorization, while a system authorization existed for the general network, management could not provide evidence that RTLS security controls were initially tested and approved prior to deploying assets on the network in accordance with VA's risk management framework. Accordingly, the OIG does not agree with the Executive in Charge's assertion that RTLS had an appropriate system authorization prior to connecting to VA's network. However, the OIG acknowledges that in October 2016 RTLS security controls were reviewed to support an Authority to Operate decision after the system boundaries for RTLS deployment were finalized.

Appendix A Background

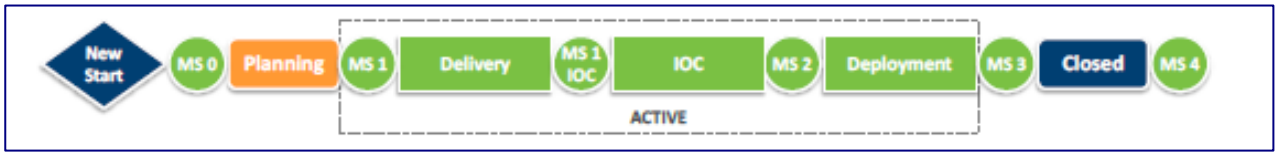
RTLS Project Origin

The RTLS Program was created to support VA's Health Care Efficiency major transformation initiative to automate those areas where VA currently uses manual processes for tracking and monitoring assets. RTLS uses multiple technologies for locating and tracking items including: Wi-Fi-based location finding, active and passive Radio Frequency Identification, and ultrasound and infrared technologies. RTLS was to be predominantly funded through the individual VISN budget processes. The RTLS solution is composed of a web-based front end for system users and a National Data Repository back end that provides users with the requested information. The National Data Repository is intended to be a centralized national database of information aggregated from regional RTLS databases.

PMAS

To address existing problems with IT project development, VA announced in 2009 that every IT project would be managed through PMAS. PMAS established a discipline to ensure that an IT project's customer, project team, vendors, and all stakeholders would focus on a single compelling mission—achieving on-time project delivery. PMAS projects may be in only one of four states at a time. There are four standard states: New Start, Planning, Active, and Closed. As a project progresses through its development activities, the level of monitoring and reporting is determined by its position in the PMAS States Life Cycle, as noted in Figure 2.

Figure 2. PMAS Standard States for All PMAS Increments



Source: PMAS Guide 5.0

The primary PMAS state responsible for ensuring functionality and return on investment is the Active state, which includes Initial Operating Capability (IOC). IOC is a cycle within the project schedule for large or complex projects to test new functionality and determine if the features and functionality perform as expected and do not adversely affect the existing functionality of the product/system. While achieving IOC, no additional delivery work is done except work that is specifically required by the production environments being used. Within PMAS, an increment achieves IOC when it delivers a capability into production, where it can be used by the customer for the purpose it was built.

VIP

In December 2015, the VA Assistant Secretary for Information and Technology approved the transition from PMAS to the VIP. VIP is the follow-on framework for managing IT development projects and is intended to streamline existing PMAS processes. The VIP framework unifies and

streamlines IT oversight and is intended to deliver IT products more efficiently, securely, and provide more rigor toward veteran-focused delivery of IT capabilities. VA expects VIP will allow greatly needed IT services to be delivered to veterans more frequently, with a minimally invasive oversight process. Figure 3 provides the significant differences between VIP and PMAS oversight processes.

Table 3. PMAS to VIP Differences

From (PMAS)	To (VIP)
58 Artifacts	Data Driven (7 Data Categories + ATO)
5 Phase Gates/ Milestones	2 Critical Decision Events
Multiple Releases processes	1 integrated Release process
6 month delivery cycle	3 month delivery cycle
Ad-hoc hierarchy of programs and projects	Portfolio-based management
Waterfall	Agile
Security + Architecture late in the process	Security + Architecture standards leveraged during the planning phase
Project-centered (tactical)	Portfolio-centered (Strategic)

Source: Veteran-focused Integration Process Guide 1.0

Appendix B Scope and Methodology

Scope

The OIG conducted its review work from February 2016 through February 2017. The OIG focused its review on RTLS contract procurement activities and practices used to manage RTLS project cost, scope, and schedule. The OIG also evaluated the project for compliance with VA and Federal regulations related to contract acquisitions, IT project management, and information security.

Methodology

To accomplish its objectives, the OIG reviewed applicable laws, regulations, policies, procedures, and guidelines. During its review, the OIG conducted site visits to VA medical centers in Salt Lake City, UT; Minneapolis, MN; and Palo Alto, CA. The OIG interviewed VISN 19, VISN 21, and VISN 23 RTLS Project Managers and local OI&T staff to identify levels of RTLS responsibilities during deployment. In addition, the OIG interviewed nationally and regionally assigned OI&T personnel responsible for RTLS project management, implementation, and information security compliance. Finally, the OIG interviewed the RTLS PMO Director, PMO staff, and RTLS Contracting Officer to obtain information relevant to the review.

Data Reliability

The OIG used computer-processed data provided by the RTLS PMO and RTLS Contracting Officer for background information, which related to purchase orders, contract modifications, and obligations issued under RTLS task orders. The OIG tested the reliability of these data by comparing certain elements, such as the invoice number and amounts, to original contract documents. The OIG concluded these data were appropriate and sufficient for its audit purposes.

Government Standards

The OIG conducted this review in accordance with the Council of the Inspectors General on Integrity and Efficiency's *Quality Standards for Inspection and Evaluation*. The evidence obtained provides a reasonable basis for the findings and conclusions based on the OIG's review objective.

Appendix C Management Comments – Office of the Under Secretary for Health

Department of Veterans Affairs Memorandum

Date: October 11, 2017

From: Office of the Under Secretary for Health

Subj: OIG Draft Report—Review of Alleged Real Time Location System Project Mismanagement – VAIQ 7761463

To: Assistant Inspector General for Audits and Evaluations (52)

1. Thank you for the opportunity to review the Office of Inspector General (OIG) draft report, Review of Alleged Real Time Location System (RTLS) Project Mismanagement. The Veterans Health Administration (VHA) concurs with recommendations 1 and 2 and provides the attached action plan. VHA defers to the VA Office of Information and Technology (OIT) to respond to recommendation 3. VHA has significant concerns about the content of the draft report and we provide explanatory comments below.
2. VHA finds OIG incorrectly interpreted VA's decision not to use the Project Management Accountability System (PMAS) for some elements of the RTLS project. The decision not to apply PMAS to certain elements of the RTLS project, such as deployment of commercial off the shelf (COTS) applications, was made jointly by VHA and OIT. The decision was not made independently by the RTLS Project Management Office (PMO). VHA previously provided documentation to OIG to demonstrate that OIT approved the decision to apply PMAS for software development and specific technical work, and not for installation, configuration, training, and sustainment of the COTS RTLS product.
3. VHA disagrees with OIG's finding that the RTLS PMO and OIT personnel deployed assets without the appropriate system authorizations needed. An Authority to Operate (ATO) was in place for all systems that were deployed to the network prior to October 2016. VA provided documentation to OIG to demonstrate that an ATO was in place. VHA provides the timeline below to outline critical steps:

   TIMELINE:
   12/2012: VA awards Contract to Vendor for Veterans Integrated Service Network (VISN) 23 Task Order and includes effort for a certification and accreditation task. This was a Certification and Accreditation and not an ATO.

   10/2014: OIT Architecture and Engineering Review Board Committee determines that an ATO is needed and the previous guidance that the system did not require and ATO was incorrect. VISN 23 was approved for deployment under the National Data Center ATO and VA moved forward with process to receive an ATO for the rest of the facilities not in VISN 23 or supported by the Austin Information Technology Center General Support System.

   4/2016: VHA verbally notified by ISO/OIT that they would need their own ATO and no longer fall under the General Support System ATO. Additional work begins to certify as a standalone system.

   10/2016: System ATO provided for all field deployments.

   11/2016: First RTLS application (outside of VISN 23) deployed and accepted under existing ATO.
4. VHA disagrees with OIG's position that the RTLS PMO did not follow policy and guidance from VA's Technology Acquisition Center (TAC) to utilize an incremental project management approach during the acquisition and deployment of RTLS. During the acquisition phase, the TAC, OIT, the enterprise

Program Management Office, and VHA collectively engaged in a risk assessment and evaluated acquisition strategies for procurement and deployment. The final decision balanced mission goals and risk. The decision to procure RTLS for numerous facilities and phase their deployment provided the opportunity to assess initial deployment success, while progressing with other installations. Upon indication at the initial site of potential failed requirements, VHA issued a contract cure notice and no new RTLS procurements were executed. The project was realigned and rescoped before further deployment testing continued.

5. VA's RTLS project was established to improve healthcare operations through process automation. RTLS uses a system of integrated technologies, including tags and laser etching on items, multiple wireless communication technologies, and software to locate and track medical items. RTLS location accuracy and performance varies based upon technologies utilized and business case needs. The complexities of designing and deploying RTLS in healthcare are substantial. With technology projects of the scope and complexity of RTLS, it is not uncommon to periodically reassess the program and realign the approach to achieve the desired outcome and to minimize the cost to the taxpayer (Gartner, Lars Mieritz, 6/1/2012; Harvard Business Review, Budzier and Flyvbjerg, September 2011; CIO Publication, Florentine, 5/11/2016). In 2016, VA realigned the RTLS implementation strategy to deploy applications in phases. Fifty applications have been deployed across 40 facilities and these applications are positively impacting the delivery of care for Veterans. Implementation of aggressive project management controls and phased deployment will allow VA to continue steady deployment of RTLS and realize operational benefits on our investment.
6. If you have any questions, please email Karen Rasmussen, M.D., Director, Management Review Service at VHA10E1DMRSAction@va.gov.

(Original signed by:)

Carolyn M. Clancy, M.D.

Executive in Charge – Office of the Under Secretary for Health

Attachment

Attachment

Veterans Health Administration (VHA)
Comments on OIG Draft Report
Review of Alleged Real Time Location System Project Mismanagement

VHA concurs with OIG's recommendations in the draft report and provides the following comments in response to the recommendations:

Recommendation 1: We recommended that the Acting Under Secretary for Health, in conjunction with the Acting Assistant Secretary for Information and Technology, apply additional resources and implement improved integrated project management controls for the remainder of the project to restrict further RTLS cost increases.

VHA Comments: Concur. VHA and VA Office of Information and Technology (OIT) are addressing program resourcing and project management controls and will implement improved controls. VA OIT committed a senior project manager resource to assist with coordination of joint program tasks and to coordinate tasks internal to OIT. VHA will pursue approval of increased staffing levels for budget/schedule management, contractor management, and application support. Information technology related development and infrastructure work continues to progress under OIT's project management control process (currently the Veteran-focused Integration Process). An RTLS Governance Council is in development and will be responsible for defining additional metrics to manage cost, scope, and schedule for the duration of the project. The target completion date below incorporates adequate time to demonstrate effectiveness of the RTLS Governance Council.

VHA will provide the following documents at completion of this action: Decision regarding staffing proposal; Charter for Governance Council; Project Metrics and Review Cycle

Status: In Process Target Completion Date: March 2018

Recommendation 2: We recommended that the Acting Under Secretary for Health, in conjunction with the Acting Assistant Secretary for Information and Technology, enforce the use of incremental project management controls, such as those utilized within the Veteran-focused Integration Process, on all remaining RTLS task orders to ensure such efforts will provide an adequate return on investment.

VHA Comments: Concur. The VA's approach from project inception was to deploy RTLS technology incrementally across VHA facilities. The OIG draft report does not fully reflect that project management controls were indeed implemented. For example, gate reviews were in place to assess key milestones. When the first facility did not initially successfully pass operational readiness testing, the contractor was directed to address deficiencies and VA decided not to initiate any new RTLS procurements. Additionally, software development (such as interfaces to legacy VistA applications) had to demonstrate Initial Operating Capability at several facilities prior to production release to all facilities. VA will continue to deploy RTLS with incremental project management controls.

In September, 2016, subsequent to the OIG review of the RLTS project, VHA reduced scope of contracted requirements and realigned implementation strategy to deploy applications independently and in phases. This project realignment increased incremental management control of schedule and financial risks. Delivery of functional benefits and technical requirements are assessed as each new application phase is deployed at initial sites. Upon acceptance of readiness testing, go-forward decisions are made for each application phase. This deployment approach has brought incremental return on investment, with over 50 RTLS applications currently implemented. Additionally, a benefits measurement tool has been developed to assess specific metrics regarding process improvements and user satisfaction. The RTLS Governance Council will assure implementation of project management oversight that includes organizational risk management for technology deployment. Several Task Orders are currently managed under the VA Office of Information and Technology project management control process (Veteran-

focused Integration Process), which incorporates incremental project milestones and gate reviews. The remaining program Task Orders will utilize comparable project management controls. VHA has implemented outcomes based success measurements that will be analyzed as RTLS applications are put into use.

VHA will provide the following documentation at completion of this action: Description of Project Management Processes associated with each Task Order; Benefits Measurement Tool – Definition of Success Outcomes

Status: In Process Target Completion Date: June 2018

For accessibility, the format of the original memo in this appendix has been modified to fit in this document, to comply with Section 508 of the Americans with Disabilities Act.

Appendix D Management Comments – Office of the Assistant Secretary for Information and Technology

Department of Veterans Affairs Memorandum

Date: September 22, 2017

From: Acting Assistant Secretary for OI&T, Chief Information Officer (005)

Subj: OIG Draft Report *"Review of Alleged Real Time Location System Project Mismanagement"*

To: Assistant Inspector General for Audits and Evaluations (52)

Thank you for the opportunity to review the Office of Inspector General draft report, "Review of Alleged Real Time Location System Project Mismanagement." The Office of Information and Technology submits the attached written comments. If you have any questions, contact me at (202) 461-6910 or have a member of your staff contact Bill James, Deputy Assistant Secretary, Enterprise Program Management Office, at 202-632-7390

(Original signed by:)

ROB C. THOMAS, II

Attachment

Attachment

Office of Information and Technology (OI&T)
Comments on OIG Draft Report:
"Review of Alleged Real Time Location System Project Mismanagement"

OIG Recommendation 1: We recommended that the Acting Under Secretary for Health, in conjunction with the Acting Assistant Secretary for Information and Technology, apply additional resources and implement improved integrated project management controls for the remainder of the project to restrict further RTLS cost increases.

OIT Comments: Concur. See VHA response with input from OI&T.

OIG Recommendation 2: We recommended that the Acting Under Secretary for Health, in conjunction with the Acting Assistant Secretary for Information and Technology, enforce the use of incremental project management controls, such as those utilized within the Veteran-focused Integration Process, on all remaining RTLS task orders to ensure such efforts will provide an adequate return on investment.

OI&T Comments: Concur. See VHA response with input from OI&T.

OIG Recommendation 3: We recommended the Acting Assistant Secretary for the Office of Information and Technology ensure that risk assessments are conducted on future RTLS deployments to identify potential risks and vulnerabilities that may adversely impact other VA systems.

OI&T Comments: Concur. VA OI&T has conducted risk assessments prior to previous RTLS deployments as part of its efforts to assign an Authority to Operate (ATO) to the RTLS systems. These continual assessments, along with OI&T involvement in gate reviews that will authorize future RTLS deployments, will assure that the risks associated with deploying additional RTLS systems on the VA network are minimized.

For accessibility, the format of the original memo in this appendix has been modified to fit in this document, to comply with Section 508 of the Americans with Disabilities Act.

Appendix E OIG Contact and Staff Acknowledgments

Contact	For more information about this report, please contact the Office of Inspector General at (202) 461-4720.
Acknowledgments	Michael Bowman, Director John Cefai Jack Henserling Shawn Hill Richard Wright

Appendix F Report Distribution

VA Distribution

Office of the Secretary
Veterans Health Administration
Veterans Benefits Administration
National Cemetery Administration
Assistant Secretaries
Office of General Counsel
Office of Acquisition, Logistics, and Construction
Board of Veterans Appeals

Non-VA Distribution

House Committee on Veterans' Affairs
House Appropriations Subcommittee on Military Construction, Veterans Affairs, and Related Agencies
House Committee on Oversight and Government Reform
Senate Committee on Veterans' Affairs
Senate Appropriations Subcommittee on Military Construction, Veterans Affairs, and Related Agencies
Senate Committee on Homeland Security and Governmental Affairs
National Veterans Service Organizations
Government Accountability Office
Office of Management and Budget

This report is available on our website at www.va.gov/oig.