

# VA Real Time Location System (RTLS)

Industry Day Conference

Date: November 8, 2011



## **RTLS Administrative Overview**

Lateefah Parker, Contract Specialist



## **Administrative Matters**

- Please set all phones to vibrate
  - If you must take a call, please step outside of the conference room
- One-on-one conversations between the Government and vendor community are not permitted during this session
  - ➤ However, VA strongly encourages one-on-one conversations amongst the vendor community
- > Restrooms are located outside of the conference room on the left

#### > LUNCH

- ➤ Tex-Mex Buffet in the hotel restaurant, Revive. \$11 without drink; \$13 with drink.
- Grab 'n' Go in the hotel bar. Sandwich, chips, fruit, cookies, granola bars and a drink for \$7.



## Introductions

- ➤ Today's Presenters:
  - Wendy McCutcheon, Associate Executive Director, TAC
  - Kimberly Brayley, Director, RTLS Project Management Office, VHA
  - Richard Degurski, SD&E PAO RTLS Project Manager, OI&T
  - ➤ Paul Fernandes (MITRE), OI&T Systems Engineering Support
  - Kathy Carda VISN23 RTLS Manager, VHA
  - Andrew Mazotas RTLS Healthcare Technology Manager, VHA
  - ➤ Lateefah Parker, Contract Specialist, TAC Austin
  - ➤ Jeff Bishop, Contracting Officer, TAC Austin
  - > Frances Bond, Small Business Specialist, OSDBU



## **Agenda**

- ➤ Registration Opens 8:00 am 8:30 am
- ➤ Administrative Overview 8:30 am 8:40 am
- Opening Comments 8:40 am 8:50 am
- RTLS Overview 8:50 am 9:55 am
- ▶ Break 9:55 am 10:10 am
- ➤ Acquisition Overview 10:10 am 10:40 am
- ➤ Technical Overview of Requirements 10:40 am 11:40am
  - > Enterprise System Engineering (ESE), Interfaces, VISN 23 Deployment
- Opportunity to Document & Collect Contractor Questions
- ➤ Lunch 11:50 am 1:00 pm
- ➤ Teaming to Win 1:05 pm 1:40 pm
- ➤ Answer Contractor Questions 1:40 pm 2:20 pm
- ➢ One-on-One Overview & Closing Statements 2:20 pm 2:30 pm



## **Purpose of Industry Day**

- Provide acquisition information prior to Request for Proposal (RFP) being released:
  - > Technical and functional requirements
  - Business/contracting considerations
  - Acquisition approach
  - > Small business participation
  - ➤ Q&A between vendor community and VA
- Obtain industry input and feedback
- > Enable networking opportunity



## Note Cards & Contractor Questions

- Each firm should have received 5 note cards:
  - ➤ Blue: RTLS Overview Questions
  - > Yellow: Acquisition Questions
  - ➤ Purple: Task Order ESE & Interface Questions
  - ➤ Green: Task Order VISN23 Questions
  - Pink: OSDBU Questions
- ➤ Please write all questions for VA clearly on the corresponding note card. VA will provide answers at the conclusion of the Industry Day Conference and online.
  - ➤ All questions, even those answered today, will be documented and responses posted on the TAC VOA website at <a href="https://www.voa.va.gov/">https://www.voa.va.gov/</a>





## **Disclaimers**

- Presentations are based upon current information and current plan of action
  - ➤ All subject to change at any time
  - ➤ In the event of a conflict between information presented at Industry Day and any acquisition that is announced, the written solicitation takes precedence.



## **Opening Remarks**

Wendy McCutcheon, Associate Executive Director, TAC



## **RTLS Overview**

Kimberly Brayley, Director, VHA RTLS Project Management Office



## **Questions/Comments?**

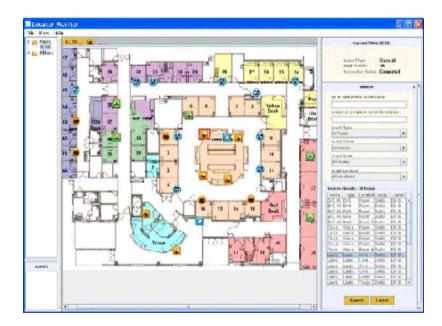
- Please use your Blue Note Card:
  - Blue: RTLS Overview Questions





## **RTLS Overview**

- ➤ About VA
- > RTLS
  - Vision and objectives
  - > What is it and why do it
  - > History, Approach, Transition Plan
  - ➤ What RTLS intends to deliver
- > Three key things to remember





## **About VA Programs**

#### > Veterans Health Administration (VHA)

- > VA operates the largest direct health care system in America
- ➤ 152 medical centers and 1400 community based outpatient clinics, community living centers, Vet Centers, and Domiciliaries



- ➤ Health Care Efficiency (HCE) represents one of Secretary Shinseki's top 16 Major Transformation Initiatives for the VA
- ➤ Facilities Automation is one work stream under HCE and RTLS is the chosen tool to meet that goal to:
  - ➤ Improve Consistency of Services
  - > Improve Patient Care
  - > Improve Staff Efficiency
  - > Improve Managerial Decision Support
  - Reduce Inventory and Equipment Costs
  - ➤ Improve Staff and Customer Satisfaction



### **RTLS Vision**

To provide tools to assist in the automation and improvement of operations and healthcare services VA provides to our Veterans



## **RTLS Primary Objectives**

- > Deploy the set of nationally standardized RTLS solutions to:
  - > VHA Medical Centers, Clinics, non-patient care locations

#### > That will:

- Improve operational efficiency and the quality of Veteran care
- Decrease operational costs
- Maximize equipment utilization
- > Increase efficiencies and staff productivity
- Reduce delays and improve patient care
- Minimize lost and misplaced items
- Improve customer and staff satisfaction
- Improve the quality and safety of service from patient, physician, and institution perspectives



## **RTLS Primary Objectives**

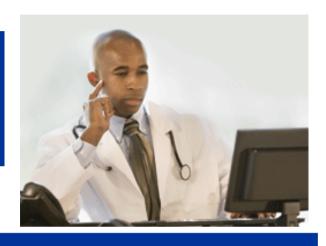
- Establish a capability that is compatible and interoperable with existing information systems internal and external to VA. Ensure integration, scalability and ease of sustainment across technologies
- Provide medical centers and other VA facilities with the real-time capability to actively track selected assets, significant medical supplies, staff, patients, and environmental conditions (e.g., temperature and humidity) through a common interface and reporting tool
- ➤ National Data Repository (NDR): Deploy a single instance of a NDR solution, for aggregation and in-depth analysis of data from individual "front-end" RTLS instances



### **RTLS: What is It?**

#### RTLS is...

A long-term initiative to procure and deploy technological solutions for real time location technologies in VA facilities.





#### RTLS has...

#### **Two Primary Components:**

- 1. A RTLS System with a single user interface that allows for viewing and managing all locating technologies.
- A National Data Repository with Analytics and Business Intelligence tools.



## RTLS: Why do It?

- ➤ As public stewards, we must account for, report and manage billions of dollars of VA assets TODAY, this is mostly a manual, time intensive process
- ➤ Healthcare costs continue to rise and VA must play its part in reducing those costs by:
  - > Streamlining operations
  - > Reducing delays in care
  - Enhancing and protecting patient safety
  - Increasing satisfaction for our patients, families, and staff

VA requires improved Business Processes and increased automation in the way we deliver care.



## **RTLS History**

2009

 Acquisitions begin in VHA with single facility deployments of a variety of technologies

2010

- VHA establishes RTLS Project Management Office
- Work begins on a National Procurement Strategy
- RTLS is aligned under the Transformation Initiative (HCE)
- VHA and OIT develop an MOU to jointly support and deploy technology

2011

- VISN 10 &11, and Charleston CMOP selected for VHA early adopter sites.
- National Acquisition Team began posting RFI's for Industry review



## **RTLS Approach**

<b>Review Prior</b>
Investments

- Assess requirements
- Study lessons learned
- Document programmatic information
- Assess process flows
- Identify outcomes and ROI
- Determine needs for hardware and software

#### **Design Plan**

- Determine sequential dependencies between requirements and procurements
- Identify and apply critical success factors
- Standardize procurement strategies and outcomes

## Procure and Install

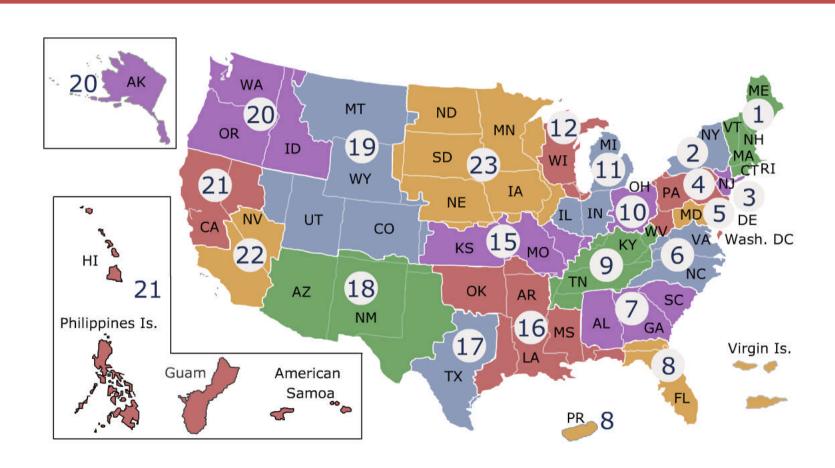
- Provide solution on a National Contract
- Implement comprehensive, sustainable and repeatable system and user training
- Controlled deployment in VA facilities for system and applications / use cases.

#### Implement Change Management

- Ensure active involvement of leadership and staff for adopting use of technology
- Sustain communication and education
- Ensure programmatic and business concerns are addressed
- Continue to grow uses for technology

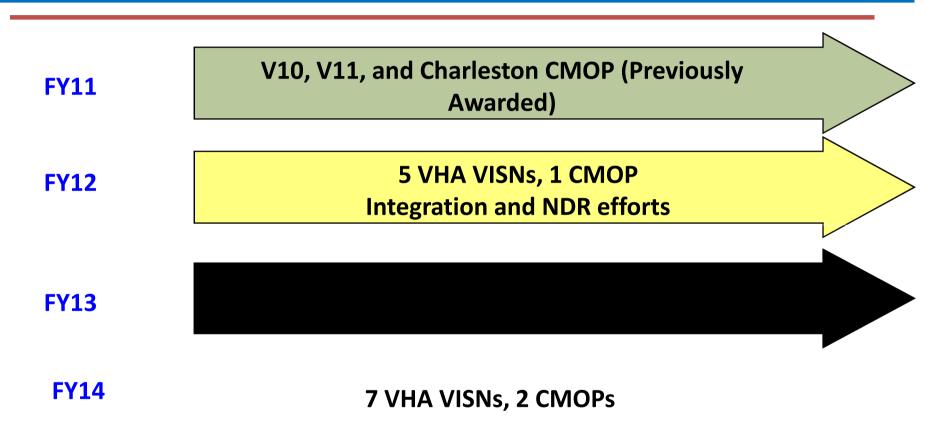


## RTLS VHA Deployment Plan - Overview



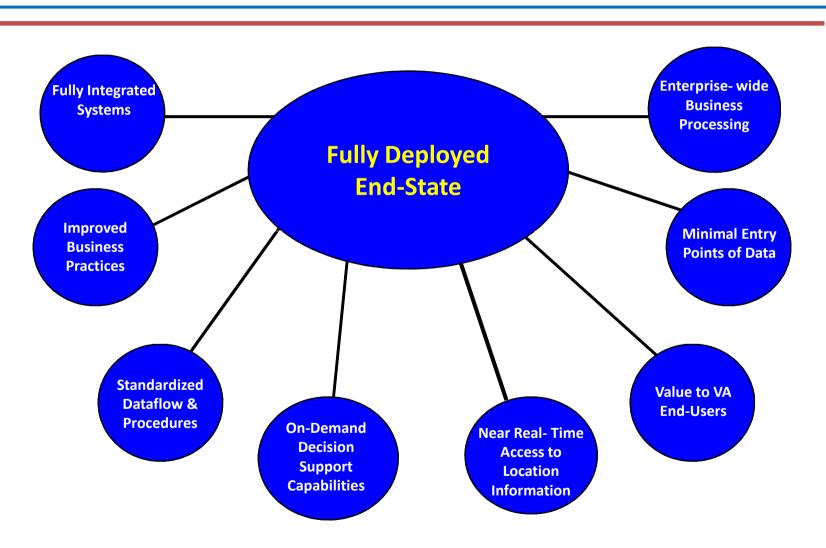


## **RTLS Deployment Plan - Projected**





## **Anticipated Benefits of RTLS**





## **Key Things to Remember**

#### > RTLS is:

- > Enterprise-wide
- ➤ Has a variety of applications and technologies
- ➤ Long-term strategic deployment

We need committed, experienced partners to help us realize our vision



## **RTLS Acquisition Overview**

Jeff Bishop, Contracting Officer, TAC - Austin



## **Questions/Comments?**

- Please use your Note Card:
  - Yellow: Acquisition Questions





## **RTLS Proposed Acquisition Strategy**



#### What is RTLS?

#### RTLS is:

- Contractor-provided integrated solution for a Real-Time Location System
  - Task Areas include: hardware, software, installation, technical engineering services, training
  - Use Cases include: asset tracking, sterile processing and distribution automation, inventory management (medical supplies), automated temperature monitoring, business process workflow, National Data Repository (NDR)
- Contract ceiling \$550M
- Five-year Indefinite Delivery/Indefinite Quantity (IDIQ) Single Award Task Order/Delivery Order contract
- > Individual Task Orders shall be issued on a Firm-Fixed-Price (FFP) basis
- Use of COTS technology emphasized
- Appropriate re-use of previous investments

#### RTLS is not:

- Only a hardware contract
- Intended to "lock in" a single provider indefinitely



## Why RTLS?

- > VHA identified a need to rapidly respond to requirements gaps.
- Supports Program Management Accountability System (PMAS)
- Standardization across the enterprise
- "Best" solution identified once
- Affords access to best-in-class vendors
- ➤ Savings for the Government reduced cycle time, single source selection, leverage volume pricing, increased savings associated with contract administration, program management
- Enterprise approach and support
- Incremental approach to drive rapid fielding of solutions to users



## **MARKET RESEARCH**



#### **Market Research**

- Disciplined process & analysis
- Supports acquisition and small business strategy
- Responses to market survey
- Industry Day feedback
- One-on-One sessions
- Meetings with industry
- Other sources



#### **Market Research**

- NAICS 334119 Other Computer Peripheral Equipment Manufacturing
  - This U.S. industry comprises establishments primarily engaged in manufacturing computer peripheral equipment (except storage devices and computer terminals).
- > Predominant requirement
- Representative of industry sector
- Market survey feedback
- Alternate NAICS under Consideration:
  - > 541511, Custom Computer Programming Services
  - > 541512, Computer Systems Design Services
  - > 541519, Other Computer Related Services
  - 334290, Other Communications Equipment Manufacturing
  - 334419, Other Electronic Component Manufacturing



## PROPOSED ACQUISITION STRATEGY



## **Proposed Acquisition Strategy**

#### **BASIS FOR AWARD**

- Award will be made on a best value basis
- Evaluation Factors will include: Technical, Past Performance, Veteran Involvement, Small Business Participation, Price
  - Evaluated Task Orders Technical Factor
    - > Enterprise Systems Engineering
    - > Interfaces
    - ➤ VISN 23
- Provide Feedback on Potential Factors
- Aggressive Small Business Subcontracting goals for all offerors
  - > Proposed goals will be made part of the contract
  - Subcontracting Compliance Review Program



# PROPOSED CONTRACT/ORDERING REQUIREMENTS



#### **Contract Considerations**

#### Security and Privacy

- ➤ Health Insurance Portability and Accountability Act (HIPAA) requirements
- ➤ Certification and Accreditation (C&A)
- ➤ Information Security (System and Personnel) in accordance with:
  - > Federal Regulations
  - > VA Handbook 6500.6





- Monthly Contract Status Report
  - > Status of Government Furnished Equipment Report
  - ➤ Monthly Equipment and Service Report
  - Warranty Status Report
  - ➤ Meetings and Reviews
- Subcontracting (closely monitored)



#### **Proposed Meeting and Reviews**

- > Post Award Conference
- ➤ Project Progress Reviews
- ➤ Task Order Kickoff Meetings



#### **Acquisition Timeline**

#### **MILESTONES**

- ➤ Request for Proposal (RFP) DRAFT Release Dec. 2, 2011
- ➤ RFP Release Dec. 16, 2011
- ➤ Site Visits for VISN 23 facilities Begin Jan. 5, 2012
- ➤ Proposals Due Feb. 13, 2012
- ➤ Contract Award May 18, 2012



#### **Questions and Contact**

- ➤ Direct inquiries to the Contracting Officer
- > All inquiries must be in writing
- Point of Contact
  - ➤ <u>Lateefah.Parker@va.gov</u>
- > Thank You!





# Enterprise Systems Engineering Task Order Overview & Requirements

Richard Degurski, SD&E PAO RTLS Project Manager, OI&T Paul Fernandes (MITRE), OI&T Systems Engineering Support



#### **Questions/Comments?**

➤ Please use your Note Card:

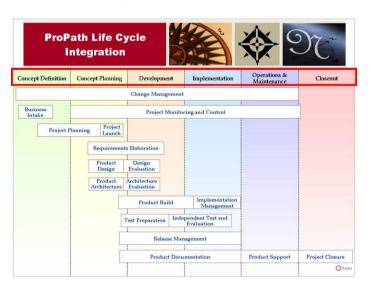
➤ Purple: Task Order ESE & Interface Questions





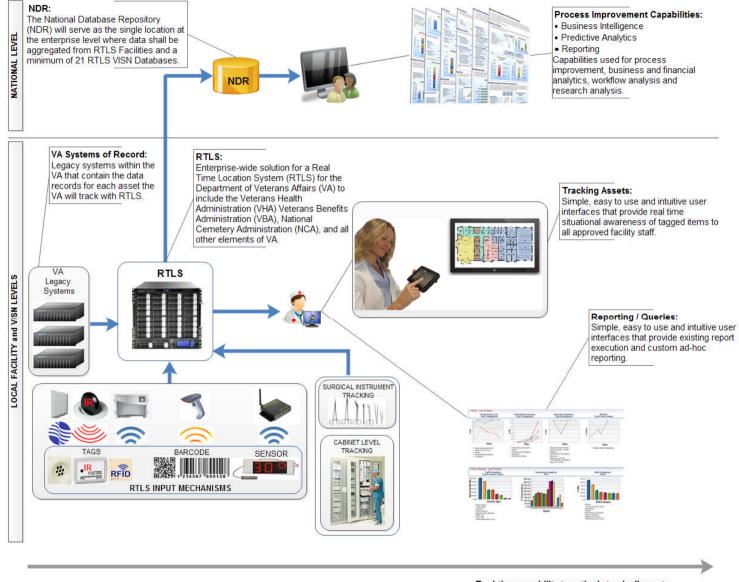
### RTLS Governed Under PMAS/ProPath

- RTLS provides new functionality across the VA
  - All VA IT projects that introduce new functionality fall under the management discipline of PMAS
  - PMAS uses incremental product build techniques for IT projects, with delivery of new functionality (tested and accepted by the customer) in cycles of six months or less



ProPath supports PMAS implementation by providing the detailed processes and instructions, including detailed descriptions, roles, responsibilities, and templates

## RTLS Operational View



Legacy VA Systems

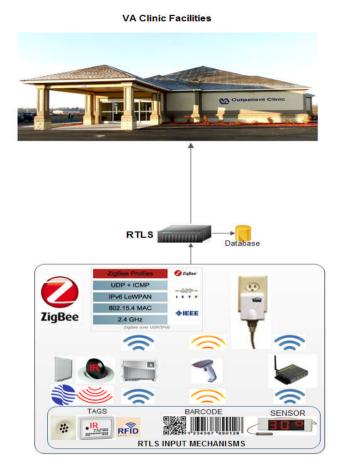
Integrated Legacy and RTLS Asset Tracking

Real-time capability to actively track all assets, significant medical supplies, staff, patients, and environmental conditions through a common interface.

### Base Technologies Vary by Facility



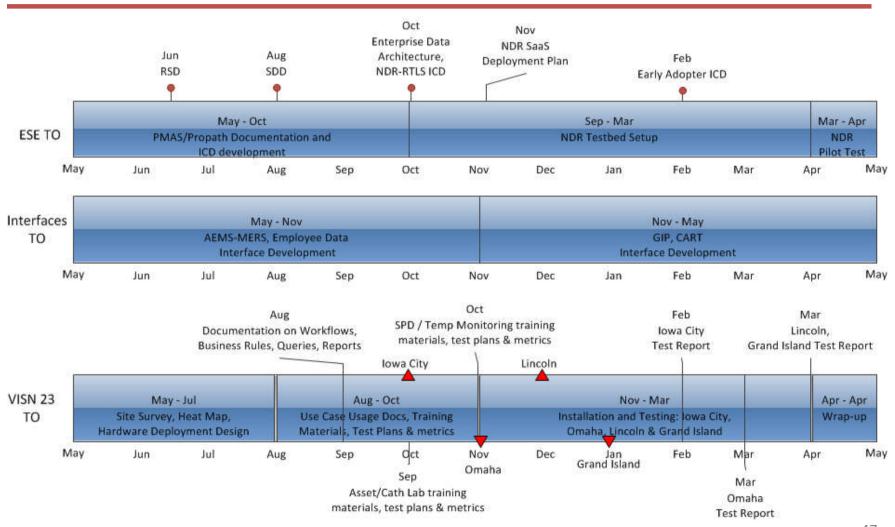
- The majority of VA facilities are having Wi-Fi installed
- Wi-Fi will be used as the base technology for RTLS with IR and Ultrasound as supporting technologies for areas requiring sub-room level resolution



- Some facilities will NOT have Wi-Fi installed
  - Smaller facilities, leased spaces
- Alternate RTLS technologies will be needed to satisfy use cases in those facilities
- Preference is technologies with smallest infrastructure footprint – easily installed and removed



### RTLS Task Order Timelines





#### **RTLS ESE Task Order Overview**

- Document the enterprise System Design for entire RTLS deployment (facility/VISN/National)
- > Document the RTLS Data Model constructed for the VA enterprise
  - ➤ Based on open, industry standardized models (GS1, UDI), and VA AVIVA efforts
- Design and Develop a National Data Repository (NDR) to support initial use cases, scalable to new and different uses in future
  - ➤ Development includes demonstration/test within VISN 23
    - Full deployment will occur under follow-on TO

### RTLS ESE Task Order Key Deliverables

- Complete System Design Document (SDD) leveraging initial SDD provided by VA
- Complete Data Model and artifacts
- ➤ NDR Interface Control Documents (ICD's)
  - Open interface for data exchange with NDR
- NDR Test Bed within VISN 23
- ➤ NDR Testing artifacts
  - > Test plan
  - > Test metrics
  - > Test results
- ➤ NDR Deployment Strategy

### RTLS ESE Task Order Key Capabilities

- > Developing and deploying large scale enterprise architectures
- Deploying large volume scalable databases
- Deploying global and national standards such as GS1 and UDI
- Normalizing multiple data sources into common data model
- Cloud based deployments

### RTLS ESE Task Order Key Milestones

- > Systems Engineering Documentation
  - ➤ Requirements Specification Document 45 Days
  - ➤ System Design Document 3 Months
  - ➤ Data Architecture 5 months
- ➤ NDR-RTLS ICD 5 months
- ➤ NDR RTLS Early Adopter ICD 9 months
- Establish NDR Test Bed within VISN 23
- ➤ NDR Demo and Test 12 months



### Interfaces Task Order Overview & Requirements

Richard Degurski, SD&E PAO RTLS Project Manager, OI&T Paul Fernandes (MITRE), OI&T Systems Engineering Support



#### **Questions/Comments?**

- ➤ Please use your Note Card:
  - Purple: Task Order ESE & Interface Questions



- ➤ VA currently maintains numerous systems of record for asset/patient/employee information
  - Primarily VistA
- RTLS needs to interface with these source systems of record for information and to exchange updates
- ➤ Based on Use Cases, VA requires non-proprietary open standard interfaces to the following VA VistA packages:
  - > AEMS-MERS
  - Generic Inventory Package (GIP)
  - Cardiovascular Assessment,
     Reporting, And Tracking for Cath
     Labs (CART-CL)

- Scheduling Package
- Patient File
- Other optional interfaces

### RTLS Interfaces Task Order Overview (cont.)

- This TO is for development and testing of these interfaces. VA will then deploy the VistA patches nationally
  - Development testing is expected to be at Contractor facility
  - Production testing at a VA facility to be named
  - ➤ Interface to be developed once deployed nationally by VA
- > RTLS facility implementations will now have access to VistA



➤ VistA Interfaces require standard ProPath artifacts be developed for each interface:

Master Test Plan	Software Quality Assurance Checklist	Security Guide						
Test Cases/Scripts	Defect Log / Defect resolution Plan	Tech Manual Updates						
Test Traceability Matrix	Evaluation Summary	User Guide Updates						
Interface ICD	Test Readiness Review Agenda	Field Test Certification						
Test results	Installation Guide	Initial Operating Capability Documentation						
Developer Checklist	Release Notes	Deployment Plan						
Software and Source Code								

### RTLS Interfaces Task Order Key Capabilities

- Developing MUMPS (M) based VistA code
- Releasing software to VA following ProPath guidelines for its Class 1 software
- Using VA Standards and Conventions (SAC) for M and GUI development
- Developing interfaces to VA databases of record
  - ➤ Using HL7, RPC and Cache mechanisms for interfacing with VistA systems

### RTLS Interfaces Task Order Key Technologies

- Experience taking VistA modifications through VA testing and accreditation
- Access to a development / test setup for VistA available from contract initiation
- ➤ Plan for providing and maintaining, across the life of the contract, a sufficient level of expert MUMPS programmers

### RTLS Interfaces Task Order Key Milestones

- Asset Tracking Interfaces
  - > AEMS-MERS Interface due 6 months
- > Catheterization Lab Interfaces
  - ➤ GIP, CART, Scheduling, Patient File Due 12 months



### VISN 23 Task Order Overview & Requirements

Kathy Carda, VISN 23 RTLS Manager Andrew Mazotas, RTLS Healthcare Technology Manager



#### **Questions/Comments?**

- Please use your Note Card:
  - Green: Task Order VISN23 Questions



### VISN 23 Task Order Overview

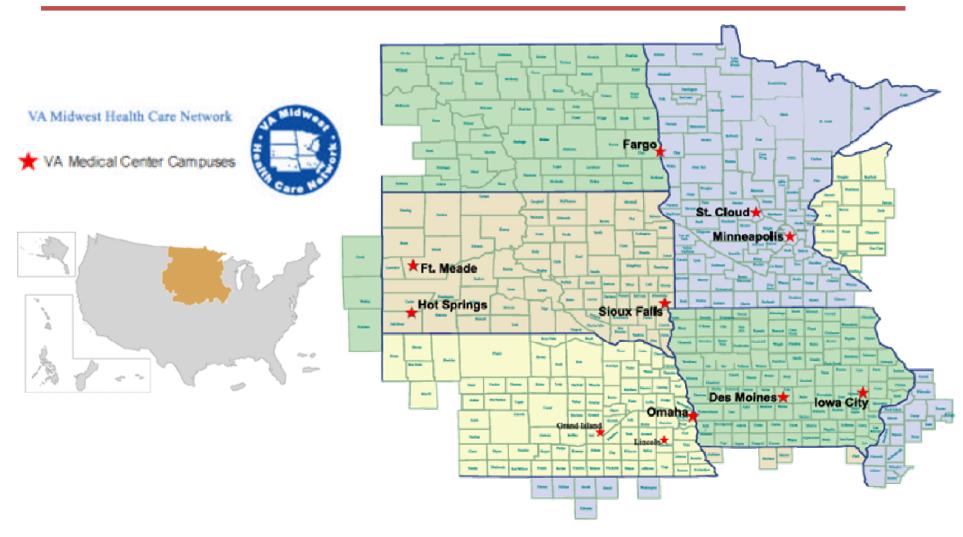
State	Health Care System	Campus			
North Dakota	Fargo	Fargo			
South Dakota	Sioux Falls	Sioux Falls			
	Black Hills	Fort Meade			
	DIACK TIIIS	Hot Springs			
Minnesoto	Minneapolis	Minneapolis			
Minnesota	St. Cloud	St. Cloud			
Iowa	Central Iowa	Des Moines			
	Iowa City	Iowa City			
		Omaha			
Nebraska	Nebraska-Western Iowa	Lincoln			
		Grand Island			

5 States

8 Healthcare Systems 11 Total Locations



### VISN 23 Task Order Geographic Location





### VISN 23 Task Order Acquisition Approach

- ➤ Evaluated Task Order to be awarded with Base IDIQ
  - > Implement RTLS at all eleven locations
    - First 4 locations: Iowa City, Omaha, Grand Island, Lincoln
    - Remaining 7 locations will be priced options
  - ➤ Solicitation will include facility site visits
  - Period of Performance
    - ➤ Initial Task Order award will have an 12-month period of performance



#### VISN 23 Task Order Scope

#### **Software**

- User interface
- Use Case modules
- Licenses
- Interfaces

#### **Hardware**

- Active & Passive Tags
- Fixed and handheld readers
- Printers
- Smart Cabinets
- Supplemental Technology Beacon/Reader

#### Incidental Services

- Installation
- Configuration
- Training
- System administration
- Warranty service and maintenance
- Associated documentation
- Tagging



#### **VISN 23 Task Order Use Cases**

- Asset Tracking
- Temperature/Humidity Monitoring
- Sterilization, Processing, and Decontamination (SPD)
   Workflow
- Cardiac Catheterization Lab Supplies

#### VISN 23 Task Order Key Deliverables – Project

- Kick-off Meeting
- Project Management Plan
- Change Management Plan
- ➤ Facility Level Use Case Definition
- Hardware Deployment Design
- Validation of VA Provided Signal Strength Heat Map
- System Security Certification and Accreditation Plan
- ➤ Monthly Progress Reports

#### VISN 23 Task Order Key Deliverables – Use Case

- Documents By Use Case
  - Usage
    - ➤ Work with VISN 23 on Workflow and Business Rules
    - ➤ Reporting
  - > Testing
    - > Test Plans
    - > Outcome Based Test Metrics
    - > Test Reports
  - > Training Materials



- ➤ Interface Task Order Dependencies
  - > AEMS/MERS
  - > GIP
  - > CART-CL
- ➤ Interfaces with VISN 23 Existing System
  - ➤ Minneapolis GE AgileTrac RTLS
  - Eight Censitrac Instrument Tracking Systems (ITS)
  - ➤ Multiple temperature monitoring systems

#### VISN 23 Task Order Summary of Important Metrics

		Tag Counts		Existing V23 Systems to Integrate				
V23 Health Care Systems	Campus	Active	Passive	RTLS Asset System	SPD ITS	Temp Monitoring System	# Cath Labs	# Cath Procedures Annually
Black Hills	Fort Meade	3500	6500		Censitrac	Checkpoint		
	Hot Springs				Censitrac	Checkpoint		
Central Iowa	Des Moines	4340	13020		Censitrac	Checkpoint	1	350
Fargo	Fargo	2743	6820		Censitrac	Checkpoint		
Iowa City	Iowa City	4750	14250		Censitrac	Metasys	1	500
Minneapolis	Minneapolis	0	27482	GE AgileTrac	Censitrac	Checkpoint	4	3220
Nebraska Western Iowa	Grand Island	7000	20572			Ekahau		
	Lincoln					Ekahau		
	Omaha				Censitrac	Ekahau	2	1400
Sioux Falls	Sioux Falls	2255	6768		Censitrac	Checkpoint		
St. Cloud	St. Cloud	2900	8100		Censitrac	Johnson Cntrl		
8	11	27488	103512	1	9	10	8	5470



#### **Document & Collect Questions**

#### > Each firm should have received 5 note cards:

➤ Blue: RTLS Overview Questions

> Yellow: Acquisition Questions

➤ Purple: Task Order ESE & Interface Questions

➤ Green: Task Order VISN23 Questions

Pink: OSDBU Questions





#### **RTLS**

Welcome back from lunch. Let's get started!



#### **OSDBU: Teaming to Win**

Frances Bond, Small Business Specialist, OSDBU



#### **Questions/Comments?**

- ➤ Please use your Note Card:
  - ➤ Pink: OSDBU Questions





#### **Questions & Answers**

- ➤ VA will now take the time to provide answers to questions collected from vendors
  - ➤ Any question that can not be answered at this time will be answered and posted online in the near future
  - ➤ All questions, including those answered today, will be posted online at on the TAC VOA website at <a href="https://www.voa.va.gov/">https://www.voa.va.gov/</a>



#### **Closing Comments**

- > Thank you for your participation!
- Continue to monitor FBO.gov for RFP updates
- ➤ All questions, including those answered today, will be posted online at on the TAC VOA website at <a href="https://www.voa.va.gov/">https://www.voa.va.gov/</a>