J6 - Health Information Technology: Enabling Joint Readiness
Session 11, Monday, February 20, 2017
Richard N. Terry, Colonel, USAF, Acting Military Health System Chief Information Officer, Defense Health Agency
Speaker Introduction

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Acting Military Health System (MHS) Chief Information Officer (CIO)
Acting Director, Health Information Technology (HIT), Defense Health Agency (DHA)

Speaker Introduction: Colonel Richard Terry is the Acting MHS CIO and Acting Director, J6 - HIT, DHA. DHA HIT is an $11B combat support directorate responsible for cyber security, emerging technologies, functional integration, health informatics, applications, and management of IT infrastructure to operate MHS clinical/business practices at 699 Military Treatment Facilities (MTFs) worldwide.
Conflict of Interest

Richard N. Terry, Colonel, USAF, MSC has no real or apparent conflicts of interest to report.
Agenda

• Learning Objectives & Introduction
• DHA HIT Organization
• Shared Services Business Cases
• DHA HIT Stepping Stones
• Summary & Questions
Learning Objectives

• Describe the important changes, direction, and benefits of the DHA HIT services

• Discuss how DHA HIT ensures the right information is accessible to the right customers at the right time and in the right way

• Explain how DHA HIT is facilitating partnerships amongst the Services, Defense Health Agency, and Combatant Commands via the implementation and sustainment of an integrated and protected health IT environment
An Introduction of How Benefits Were Realized for the Value of Health IT

Consolidating and optimizing MHS infrastructure will deliver a single, secure, interoperable infrastructure for DoD medical communications and IT operations that:

- Replaces duplicative Service Medical and MHS networks
- Reduces overall network maintenance costs
- Enables standardization of clinical and business processes
- Provides robust, secure and highly available service
- Improves access to health care information within the Military medical community
- Promotes effective, efficient health operations
DHA HIT Organizational Overview

**DHA HIT BY THE NUMBERS**

- **9.4 MILLION** Beneficiaries
  - At 1,000 Locations
  - Across 16 Countries

- **4.9 MILLION** Beneficiaries in Active Registries

- **125,000+** End User Devices

- **95,000+** Active Users

**DHA HIT DIVISIONS BY THE NUMBERS**

- **300+** Terabytes of Global Operational Data
- **$13M** Processed in Med Supplies and Rx Daily
- **420** Accredited Systems (Only 3.9% Expired)
- **125+** DHP Funded IT Systems
- **175+** Support Agreements
- **38** Services Offerings in Catalog of Services
- **99.92%** EHR System Availability
- **1,000+** Available MHS Review Reports
- **10** Year-Technical-Architecture Landscape Detailed in the LRTA
1. **IT Management Staff**
   - Efficiencies gained by bringing three Services and DHA together

2. **Consolidation Infrastructure**
   - Standardizes IT down to the desktop and consolidates duplicative product lines

3. **Portfolio Rationalization**
   - Rationalizes the portfolio of existing applications and solutions - collapsing down to 1 MHS solution vice 3 Service solutions

   - Standard capabilities across DHA and the local IT support staff
   - Improves service levels and Operational Availability – making one component responsible for all MHS IT (efficiency, jointness, standardization)
   - Focus on rationalizing the functionality and needs of the functional community at the service level
Shared Service Business Cases Savings

Savings Summary

- Cuts impacted achievable savings
- Deployment schedule moved infrastructure investment to the left
- Absorbed Zero-based Budget Review (ZBR) reductions via BCAs

Obstacles Faced

- Additional directed reductions from future ZBR cycles
- Unknowns related to new EHR
# DHA HIT Strategic Plan

## Our Mission
Implement, manage, and sustain an integrated and protected medical information enterprise in order to ensure the right information is accessible to the right customers at the right time and in the right way.

## Our Vision
A premier system of health IT, enabling integrated healthcare delivery for those who serve in the defense of our country, retirees, and their families.

## Our Customers
- MHS Strategic Plan
- MHS Quadruple Aim
- MHS Operational Approach
- DHA Director’s Priorities

## Our Strategic Drivers
- Technology Investment Roadmap
- Consolidated Standardized IT Infrastructure
- Single, Reliable Medical Network
- Cyber Security

## Our Stepping Stones for Success
- MHS GENESIS
- Data Analytics
- Mobility
- Standardized Portfolio
- Customer Service

What the Strategic Plan Reflects

- **DHA HIT Goals and Priorities**
- Plans for communication and collaboration with our stakeholders
- Aligns activities with the MHS Quadruple Aim
Stepping Stones: Consolidated Standardized IT Infrastructure

One Help Desk
A single help desk capability

One Forest
Active Directory and Enterprise Management

One Network
Consolidate multiple networks

One Datacenter
A single datacenter hosting strategy

One Desktop
A single desktop configuration and strategy

One E-mail
Put everyone on the same e-mail system
The consolidated delivery platform for IT network, security, and infrastructure services

Provides infrastructure support for the implementation of MHS GENESIS

Improves information sharing with Federal and Commercial Partners
Med-COI will connect authorized users from the DoD and the Department of Veteran Affairs (VA) to Med-COI

For this effort, the DHA identified 1,070 circuits for Med-COI Wide Area Network (WAN) optimization
Stepping Stones: Standardized Portfolio

**Productivity Platform**
Updating our operating system improves and standardizes end-user access to core applications

**Standardized**
Industry standard tech over customized silo capabilities simplifies and accelerates release of new services

**Connected**
Modern connectivity solutions will enable us to make greater use of mobile devices and provide reliable and secure anywhere access

**Cloud Platform**
Secure cloud-based hosting and productivity services will provide built-in data protection tools and storage

**Service Ready**
Providing a self-service offering will enable a consistent guided end-user experience to escalate problems to structured support
Stepping Stones: Mobility

Changes in How We Work

Consumerization
95% of information workers use at least one self-purchased device for work

“Work on the Go”
Nearly 80% of workers spend at least some portion of their time working out of the office
Stepping Stones: Cyber Security

**Medical Data Value**
- It’s easier money – ransomware escalation
- Stolen health records bring more money with lower costs
- Stolen healthcare information can go undetected for years and be leveraged to submit fraudulent charges to insurers

**Data Privacy & Security**
- Even though medical identity theft nearly doubled in five years, the harms to individuals affected by a breach are not being addressed

**Cyber Today**
- Risk Management Framework
- PKI
- Win10
- Incident Management
- Reporting to SECDEF
- Cyber Scorecard
- CCRI
Stepping Stones: Data Analytics

MHS Review Overview

- Requirement of the MHS 90-Day Review
- Create a Performance Management System
- Configured as an app at first then designed as a website
- Four (4) Iterations – three (3) significant technology migrations
- The MHS Review Dashboard is only the beginning
Stepping Stones: Customer Service

Service Level Agreement with the Services

- Externally visible
- DHA HIT policy-oriented
- Measures to DHA leadership
- Included in the DHA HIT Catalog of Services
- Reports DHA HIT work critical to success of MHS GENESIS
- High quality, critical path or critical performance measures
- Outcome-focused, limit process-focused

% Targets Missed by Qtr

Schedule Status for Current Projects
Stepping Stones: Technology Investment Roadmap

Near-Term Needs (1-3 Years)
- Security At-Rest-and-Transit
- Network Last Mile
- Multimedia Storage Optimization
- Enterprise Service Bus

Mid-Term Needs (4-6 Years)
- Personal Cloud
- Geospatial and Location Intelligence
- Machine Learning

Long-Term Needs (7-10 Years)
- Augmented Reality
- Internet Of Things
- Cognitive Computing
- Prescriptive Analytics

Long Range Technical Architecture Plan
- Addresses evolving strategic needs of DHA HIT future-state requirements
- Enables quicker adoption and benefit from industry trends
- Eliminates critical and costly functional gaps
Semantic Open Source Software (SEMOSS) is an open-source, enterprise analytics platform to analyze and visualize data in a customizable, interactive format.

**Key Features and Benefits**

- Discovers redundancies between and within systems
- Prioritizes systems for migration
- Evaluates new technologies added value
- Manages overall enterprise architecture alignment
- Highlights discrepancies between program costs and business value
Stepping Stones: MHS GENESIS

1 Initial IOC Deployment
Fairchild Air Force Base (February 2017)

2 Remaining IOC Deployment
Pacific Northwest (PNW) Inpatient Facilities (As early as June 2017)

3 Full Deployment
All MTFs / Dental Treatment Facilities (2022)

Lessons from the PNW
- Importance of **early identification of resources** (staffing) to support initiative
- **Awareness of affect** on MTF operations
- Frequent **communication is a must**
- **Service leadership** support is key

Value Driven
- Providers and beneficiaries to move seamlessly and exchange health information across the enterprise
- **Removes sources of variance** to standard clinical capabilities and workflows
- **IT staff productivity increases** as the variability of infrastructure decreases
### Stepping Stones: MHS GENESIS

<table>
<thead>
<tr>
<th>Configure not Customize</th>
<th>Joint First</th>
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<tbody>
<tr>
<td>Adopt</td>
<td>This is a <strong>once-in-a-generation opportunity</strong> to shape the future of military medicine</td>
</tr>
<tr>
<td>Buy</td>
<td>Important that all perspectives are represented: clinicians, business leaders, support staff, and patients</td>
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<tr>
<td>Build</td>
<td><strong>Innovation built into acquisition</strong> - as a COTS product with 10 years of modernization – at no additional cost</td>
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<td>Technology is advancing at such a fast pace</td>
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<td>It doesn't make sense to build our own EHR</td>
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<td>Not cost effective to modify code</td>
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A Summary of How Benefits Were Realized for the Value of Health IT

- This presentation falls within the “S” – Savings category
- The Services and DHA HIT’s commitment to a shared service concept enables the MHS to consolidate and standardize IT infrastructure and management
- DHA HIT’s efforts will help absorb the $400M+ mandated budget reductions - while delivering improved service levels to its customer
Questions

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