U.S. Department of Defense

MHS MILITARY HEALTH SYSTEM

OCIO Office of the Chief Information Officer

MHS Office of the Chief Technology Officer (OCTO) Overview

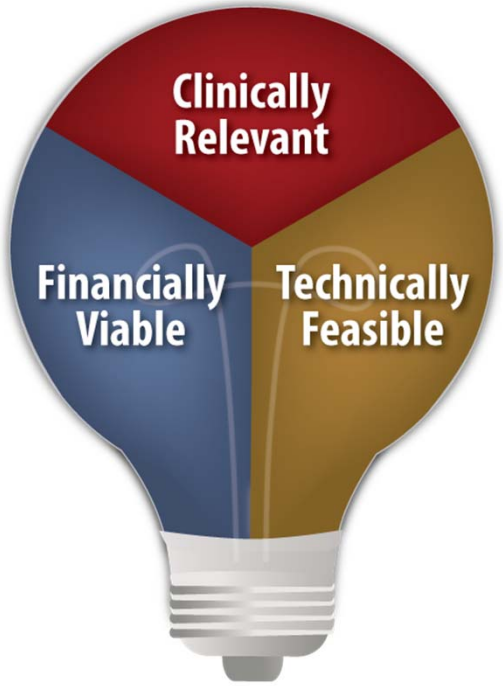
January 2012

Agenda

- MHS OCTO Overview
- CTO Roles and Responsibilities
- Overarching Objectives
- Strategic Initiatives

Identifying the need for the
MHS' first Chief Technology Officer (CTO)

- Created in 2010 to fill the need for an executive level position whose primary responsibility would be monitoring the technical integration occurring throughout the MHS **to ensure that technology is supporting current business needs**
  - Established to serve as the primary advisor to the Office of the Chief Information Officer on mission, scientific and technical issues related to information systems technology within the MHS
  - Focused on **synergizing development and innovation efforts across the enterprise** in an effort to improve the vast set of health IM/IT solutions available to MHS health care providers



Roles and Responsibilities of the MHS CTO

- **Serve as a bridge between the functional community and the technologists who represent capability delivery**
- Assess current and future management and technology trends in software intensive systems
- **Integrate and synthesize the efforts of different Program Offices and their technologies**
  - Improve the overall performance of OCIO product capabilities
  - Facilitate transparency and consistency of innovative ideas and programs across the Portfolio
- Define, lead, and/or oversee projects that synergistically combine the Agency's IM/IT resources into matrix management arrangements to accomplish mission and corporate objectives

OCTO Mission and Vision

- Our mission is to provide the MHS community with the **visionary guidance to facilitate strategic business, technical, and functional synchronization across the Portfolio** in an effort to realize efficiencies and cultivate controlled innovations that support the delivery of health care for our service members and their families

- Our vision is to serve as the trusted technical authority and change agent for the MHS, **focused on uniting the business, technical, and functional communities**; creating an environment built on innovative technologies; and shaping a Portfolio that is comprised of clinically relevant, technically feasible, and financially viable solutions

Influencing movement towards an actionable, strategically focused enterprise

Overarching Objectives

Category	Objective Description
Strategy	Align enterprise technologies with enterprise wide business decisions
	Manage technology lifecycle to identify efficiencies for enterprise value
	Identify and mandate standards from best practices
Governance	Lead enterprise governance for adherence to business and technology architecture
	Lack of champions with accountability for cost, delivery and customer acceptance
Execution	Guide enterprise architecture and decisions
	Define technical roadmap for the enterprise
	Facilitate collaboration through enterprise repository
	Create proof of concept, enterprise accelerators to foster voluntary compliance

Providing value through horizontally-aligned strategic focus areas

Governance and Standards: Reduce redundancies within the current governance process, and establish centralized reporting and project restructuring to simplify internal governance and accelerate individual project monitoring

Long Range Technical Architecture Plan: Develop an overarching, technology-focused Long Range Architecture (LRA) for the enterprise, including 1, 3, & 5 year views and a 10-year technology vision

Decision Support: Evolve a quantitative framework that aligns with enterprise strategy, considers business and technical needs, and translates them into tactical IT enablement

Service Oriented Enterprise: Define, implement, and manage the creation of a SOE that is aligned with business priorities by providing an organizational framework for instilling, governing, and evolving the culture of 'reuse' and 'sharing' of enterprise assets for improved interoperability and agility in the delivery of health care

Innovative Technologies: Develop a coordinated innovation management process to identify, research, develop, test, and evaluate innovative solutions that benefit the MHS enterprise

Governance & Standards

- Reduce redundancies within the current governance process, and establish centralized reporting and project restructuring to simplify internal governance and accelerate individual project monitoring

Key Benefits

- Ensures that established standards and open modularity drive and constrain designs and decisions
- Recognizes that multiple acquisition paths exist to address different enterprise needs
- Central decision making ensures that stakeholders understand consistent strategic messages and that all are informed regarding requested changes

OCTO Strategic Focus Area

Governance & Standards:
Key Activities

In a general sense, enterprise governance is the integrated set of processes and procedures used by an organization and its stakeholders to control, direct, or strongly influence the actions and conduct of the aggregate organization through the use of policy and/or directives in an agile and collaborative manner. While the governance structure currently in place provides a foundation, the OCTO has planned a number of activities to streamline decision making. In order to accomplish this focus area, the OCTO will:

1. Complete the MHS Governance Assessment (COMPLETE)
2. Integrate Governance Boards and Establish Central Forum for Enterprise Service Management (UNDERWAY)
3. Establish Enterprise Strategic Management Tool (UNDERWAY)
4. Integrate Investment Sequencing into the MHS Governance (UNDERWAY)
5. Conduct an IT Personnel Skills Assessment and HR Planning for SOA Implementation

Long Range Technical Architecture Plan

- Develop an overarching, technology-focused Long Range Architecture (LRA) for the enterprise, including 1, 3, & 5 year views and a 10-year technology vision

Key Benefits

- Roadmap for MHS IT architecture transformation
- Unified vision for the future adoption of virtualization, cloud computing, and SOE technologies
- Unification of multiple architecture documents and artifacts
- Enterprise architecture Governance process

OCTO Strategic Focus Area

Long Range Technical Architecture Plan:

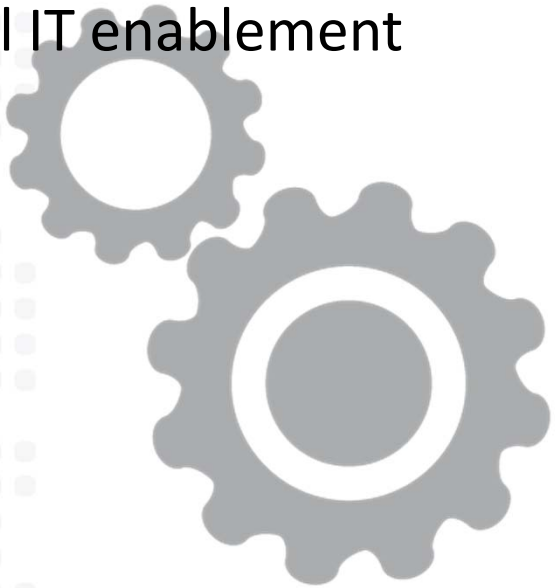
Key Activities

The LRA contributes to the goal of evolving current architecture and processes to enable rapid, secure delivery and life cycle support of IT products and services. The ultimate objective of the LRA is to provide technical and technology guidance, direction, and specific roadmaps to the future MHS architecture and technology vision. Establishing an LRA plan will help to evolve the current architecture and processes to enable rapid, secure delivery and life cycle support of IT products and services. In order to accomplish this initiative, the OCTO will:

1. Analyze Current and Future Operational Capabilities and Other Architecture Drivers
2. Identify Major IT Initiatives, Projects, and Enabling Technologies to be included in LRA; and their Infrastructure Dependencies
3. Prioritize Investments Based on Decision Support Methodology Assessments
4. Establish 10-Year MHS Architecture Technical Vision, Technology Forecast, and Architecture Technology Guiding Principles
5. Develop, Document, and Adopt Technology-focused MHS Architecture Reference Models
6. Complete an Architecture Transformation Roadmap and Transition Plan
7. Establish an MHS LRA Stakeholder Working Group
8. Re-evaluate Investment Sequencing and Portfolio Changes and the Impact on the LRA (annually)

Decision Support

- Evolve a quantitative framework that aligns with enterprise strategy, considers business and technical needs, and translates them into tactical IT enablement



Key Benefits

- Quantitative portfolio rationalization
- ROI-driven acquisitions
- A dynamic roadmap for SOE implementation
- A decision tool that defines 'what if' scenarios that can be used for informed decision making

OCTO Strategic Focus Area

Decision Support:
Key Activities

The Decision Support process uses a quantitative framework that links capabilities to the underlying business processes that use the capabilities. By integrating the supply (capabilities) with the demand (business processes), investment sequencing identifies just how effective and efficient the capability is for the particular enterprise by examining the maturity of the service offering and the usefulness of the capability when compared to the business process. In order to accomplish this initiative, the OCTO will:

1. Establish Investment Sequencing and Decision Support as an Enterprise Technical and Business Driver (UNDERWAY)
2. Implement Investment Sequencing Reviews per MHS Strategic Priorities (UNDERWAY)
3. Integrate Investment Sequencing Services into the Portfolio Management Process (UNDERWAY)
4. Extend Framework to Facilitate Transition Planning
5. Analyze and Prioritize Departments of Defense and Veterans Affairs (DoD/VA) Sharing Initiatives using Established Framework (COMPLETED)
6. Create Strategy Portal for Self-Service Decision Support and Forecasting

Service Oriented Enterprise (SOE)

- Define, implement, and manage the creation of a SOE that is aligned with business priorities by providing an organizational framework for instilling, governing, and evolving the culture of ‘reuse‘ and ‘sharing‘ of enterprise assets for improved interoperability and agility in the delivery of health care

Key Benefits

- Migration from systems-based to services-based approach
- Empowered governance
- Reusable enterprise assets lifecycle
- Improved interoperability and streamlined external partner interaction
- Improved ability in adapting to changing enterprise business needs

OCTO Strategic Focus Area

Service Oriented Enterprise:
Key Activities

Today, the MHS is moving towards a net-centric SOE framework, mandated by the SECDEF/SECVA during pre-acquisition synchronization as the joint governance and technology approach. A SOE is an expansion of traditional Service Oriented Architecture (SOA) practices into a mechanism that allows for enterprise adoption and management. By identifying and leveraging policies and processes across the enterprise, and establishing a central, horizontal governance framework to oversee and manage the SOE, the MHS can become much more effective through central and consistent management of enterprise services. In order to accomplish this initiative, the OCTO will:

1. Define the SOE Strategy and Foundational Framework (COMPLETED)
2. Capture "As-Is" Maturity Assessment (COMPLETED)
3. Complete Gap Analysis between Current and Target Maturity Level (COMPLETED)
4. Develop SOE Roadmap (COMPLETED)
5. Establish Governance/Control Model (UNDERWAY)
6. Establish SOE Governance Center (SOEGC) (UNDERWAY)
7. Complete SOE Reference Implementation (COMPLETED)
8. Define and Execute Compliance Reviews
9. Author SOE Policies, Processes, and Standards (UNDERWAY)
10. Establish and Maintain SOA Portfolio
11. Develop and Maintain Toolkits
12. Define and Maintain a SOE Balance Scorecard
13. Provide Mentoring and Education on SOA
14. Define and Execute Organizational Change Management (UNDERWAY)

Innovative Technologies

- Develop a coordinated innovation management process to identify, research, develop, test, and evaluate innovative solutions that benefit the MHS enterprise

Key Benefits

- Uses innovation strategically to fulfill mission capabilities and gaps and increase speed to market
- Reduces cost of converting the existing multiple solutions to a single enterprise solution
- Leverages the MHS Innovation Alliance relationships to spread the costs of R&D
- One program to serve all "gaps and needs”

OCTO Strategic Focus Area

Innovative Technologies:
Key Activities

The objective of an innovation life cycle process is to discover capabilities and solutions in any phase of maturity, validate their functional relevancy and technical feasibility, and create rapid, streamlined paths of enhancement, and/or scaling to achieve MHS requirements and portfolio acceptance. The process will also improve a solution's ability to assimilate IT innovation into the organization by ensuring that programmatic elements such as funding, time, and other key resources are set aside for the organization to implement the innovation. In order to accomplish this initiative, the OCTO will:

1. Develop and Implement the MHS Innovation Alliance Charter (UNDERWAY)
2. Establish and Adopt Criteria for Evaluating Innovation Candidates (COMPLETE)
3. Create Reference Catalog of Current Needs and Available Solutions (UNDERWAY)
4. Establish the Policy, Organization, Structure, Process, Funding mechanisms, and Metrics for Innovation Lifecycle Management (UNDERWAY)
5. Establish Processes for Migrating Innovation Projects to the Enterprise (UNDERWAY)
6. Conduct Call for Innovations

Other Support Activities:
Workgroups supporting the future state

Infrastructure and Enterprise Architecture Working Groups

- The MHS CTO currently serves as a leading authority in support of DoD/VA synchronization efforts, specifically **overseeing the Infrastructure and Enterprise Architecture Working Groups**
- To date, the group has accomplished activities in pursuit of joint information technology interoperability which includes: development of a Plan of Action and Milestones (POA&M) document for a joint Service Oriented Architecture (SOA) solution; development of a common security infrastructure; development of common development and test centers; implementation of semantic interoperability; implementation of joint identity management and access control solutions; development of a joint Enterprise Architecture; and agreement on common data centers

Health Information Technology Innovation and Development Environments Subgroup (HITIDE SG)

- The MHS CTO currently serves as **co-chair for the HITIDE SG**, alongside Dr. Douglas Rosendale of the Veterans/Office of Health Information Joint Interoperability Ventures
- HITIDE SG was formed with the concurrence of Dr. Stephen Ondra of the Office of Science and Technology Policy under the Executive Office of the President and is focused on advancing the development of interoperable health IT systems and new applications that operate across those systems through the coordinated creation and use of a common federated health IT innovation and development environment

For more information on
OCTO projects and initiatives, please visit

www.health.mil/OCTO