



U.S. Department of Defense

**MHS** MILITARY HEALTH SYSTEM

**OCIO** Office of the Chief Information Officer



Chuck Campbell, SES, Military Health System Chief Information Officer

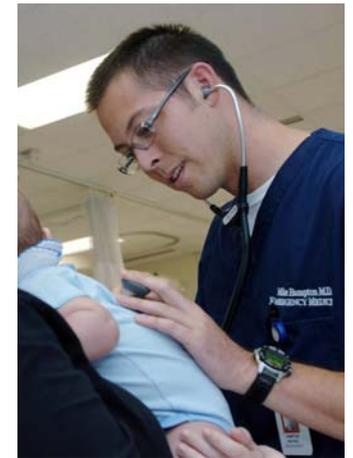
# Agenda

- Mission
- Continuum of Care
- Electronic Health Records
- Focus Areas for Improvement
- Potential Value of Structured Data
- Virtual Lifetime Electronic Record
- Wrap Up

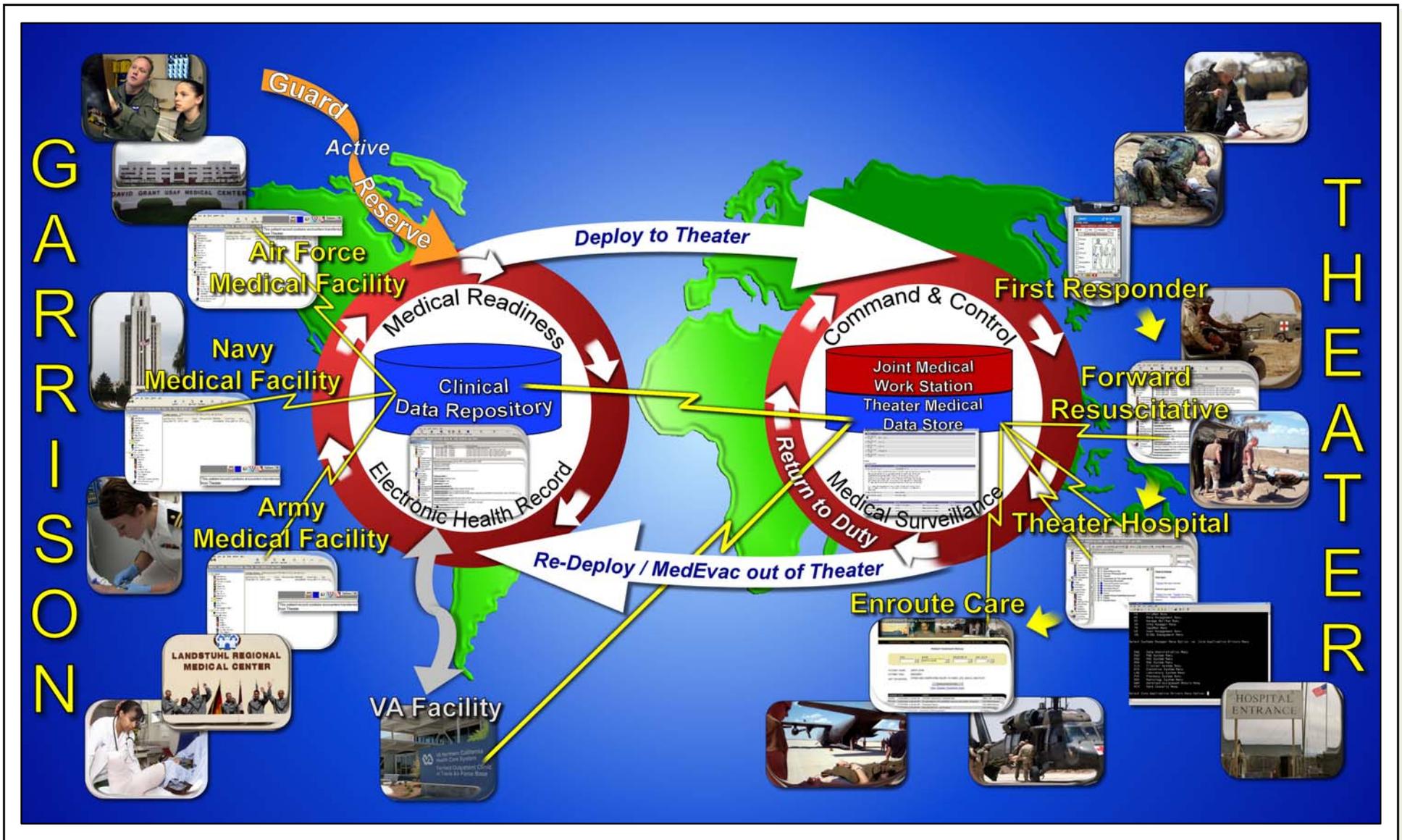


# Mission

Provide the right information to the right customers at the right time to improve and maintain the health status of our beneficiaries across the entire continuum of health care operations



# Healthcare Is Local... Information Is Global



# Electronic Health Records

## **Problem**

After the first Gulf War, DoD realized that health information must be captured in a machine-computable manner to enhance and expand research and analysis capabilities

## **Solution**

The Military Health System developed a new Electronic Health Record family of systems that captures standardized, computable patient data in Garrison and Theater

# Current Electronic Health Record Family of Systems

## DoD Electronic Health Record

*Available worldwide to all authorized users*

### **Garrison Outpatient Documentation**

More than 135 Million outpatient clinical encounters captured electronically

### **Theater Documentation**

More than 3 Million outpatient clinical encounters captured electronically

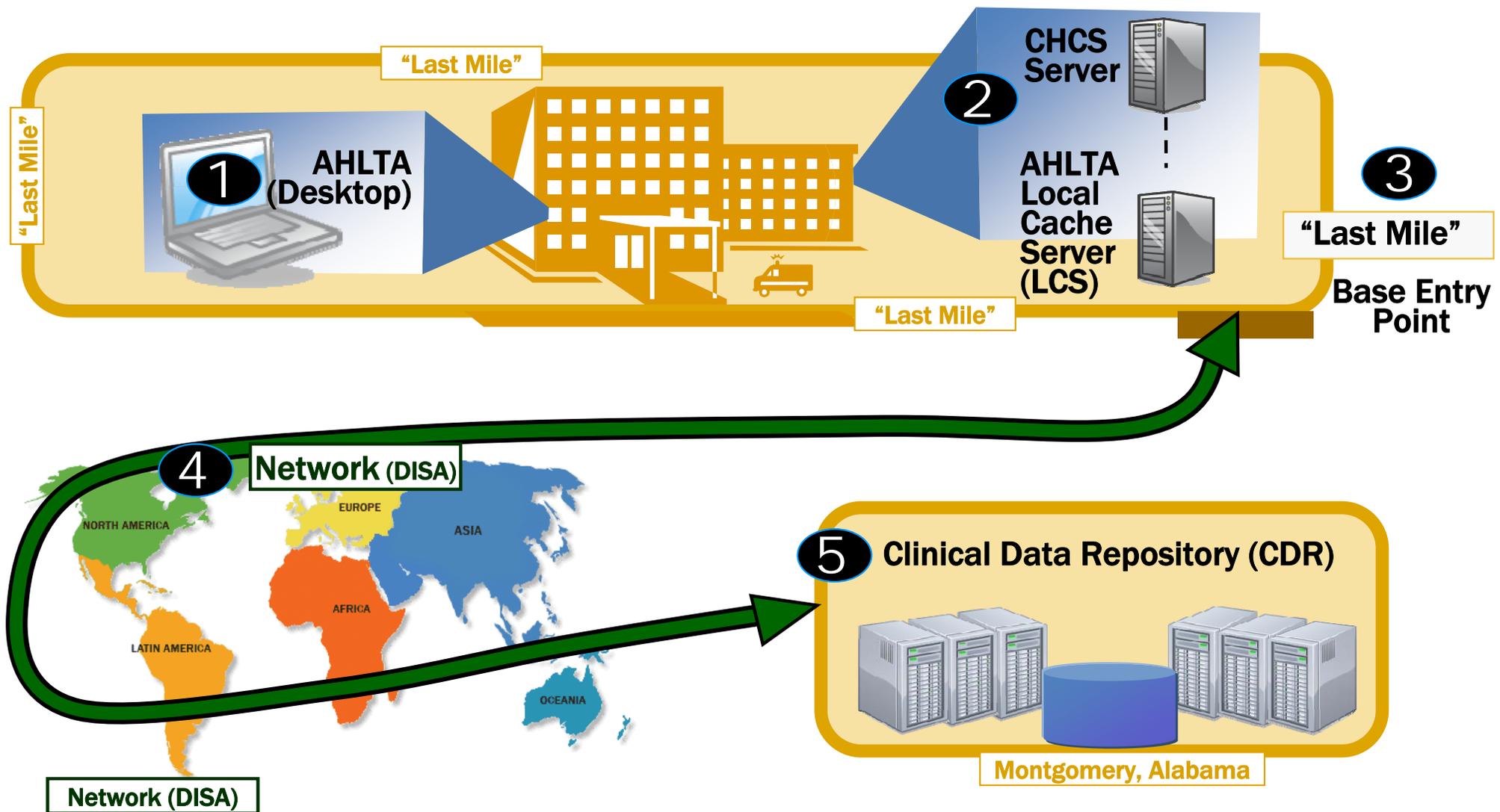
### **Garrison Inpatient Documentation**

Deployed at 30 sites, covering 67% of DoD's inpatient beds

# Focus Areas for Improvement

- Speed
- Reliability
- Usability
- Efficiency
- Interoperability
- Capability speed-to-market
- Health record completeness

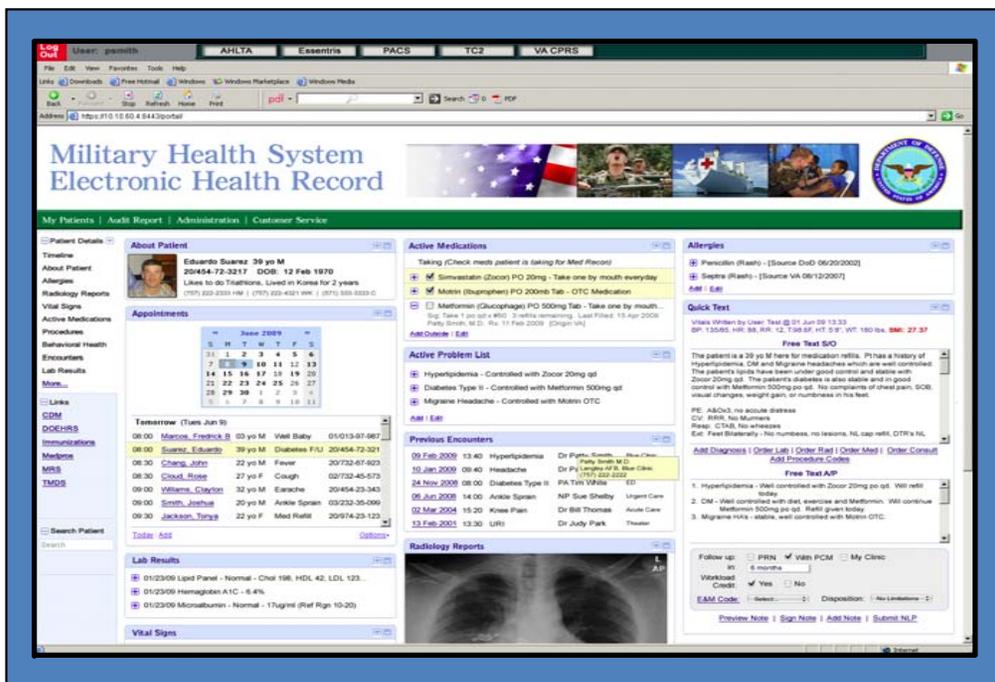
# Speed and Reliability



# Usability and Efficiency

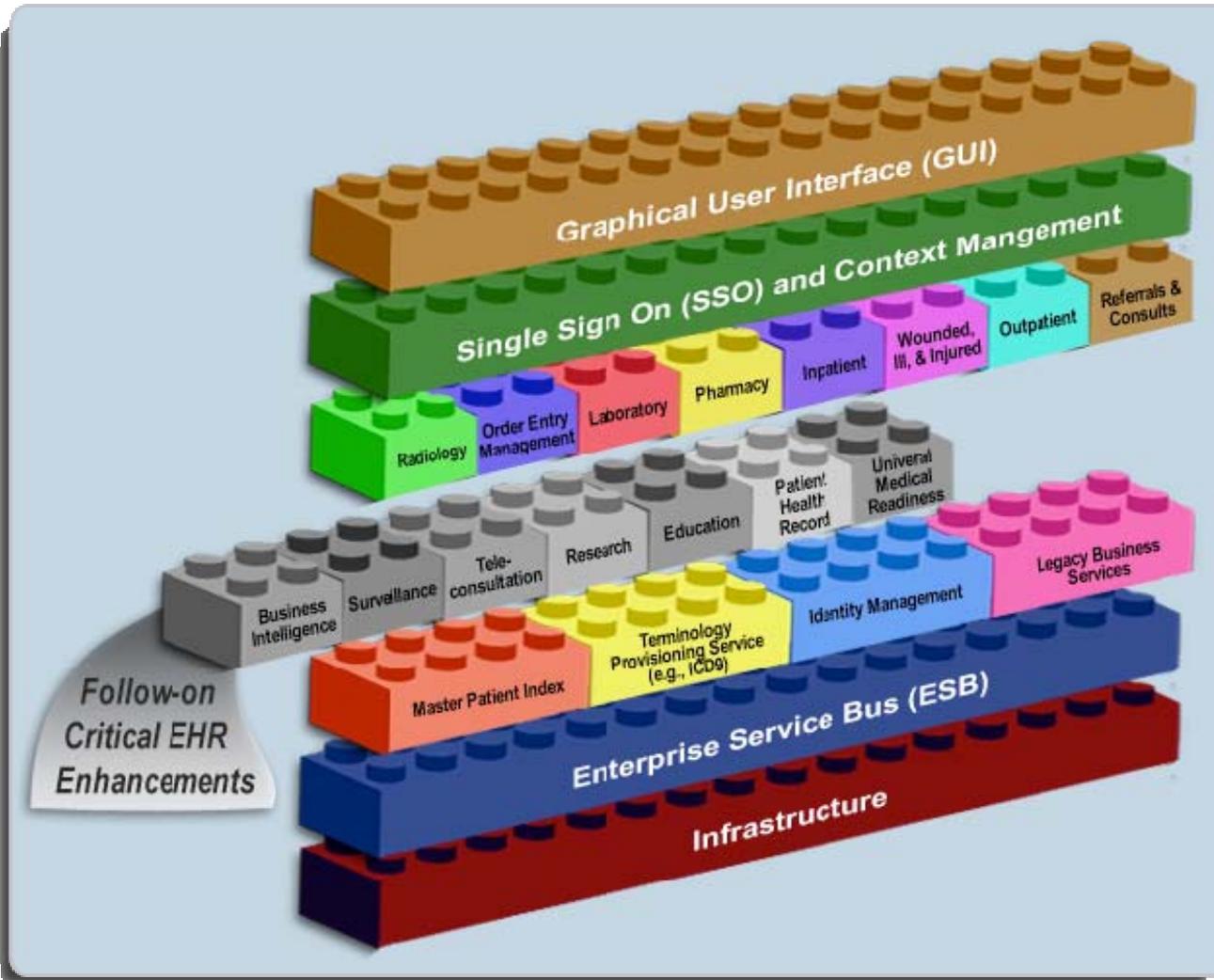
## Graphical User Interface

## Single Sign-On and Context Management



- Users log in once and have access to multiple systems
- Select a patient once and active clinical applications display patient's data

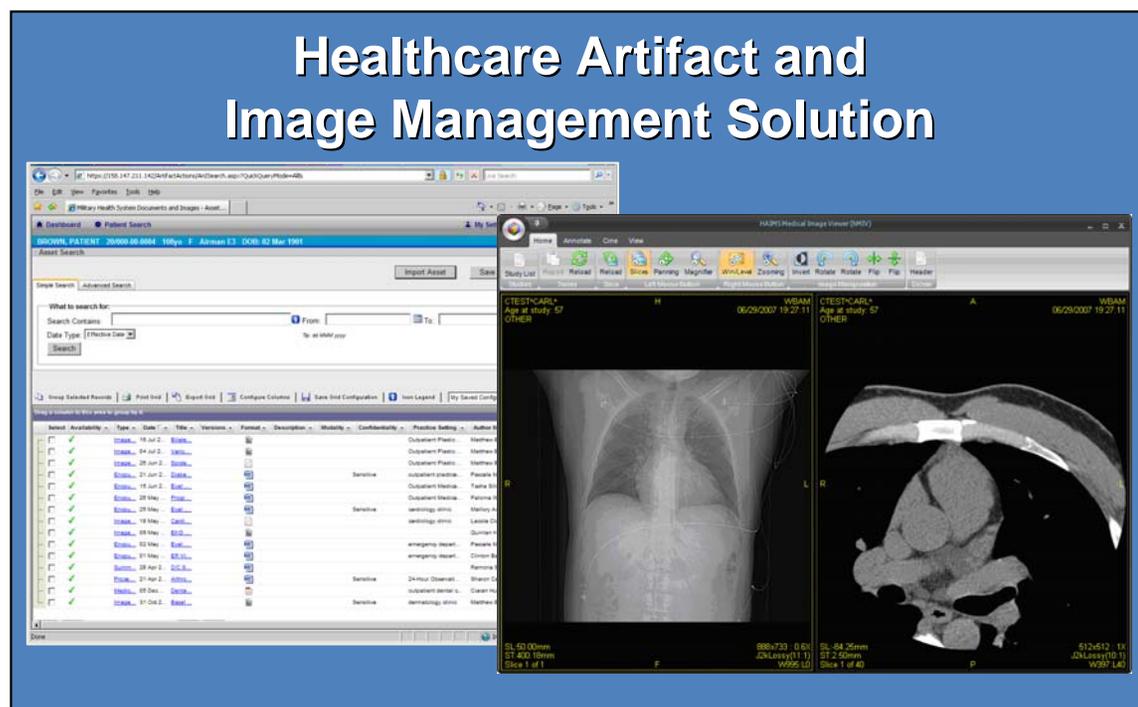
# Interoperability and Capability Speed-to-Market



A flexible, modular backbone will improve interoperability, enabling faster delivery of needed information and capabilities as identified within the Functional Community

# More Complete Patient Records

- Current records include core clinical data for patient care
- Functional Community identifying additional data types needed
- Improved architecture and infrastructure can enable plug-and-play
- Images and artifacts will be among the first data types added



*Global visibility of images and scanned or attached artifacts*

# Structured Data Collected Once, Used Many Times

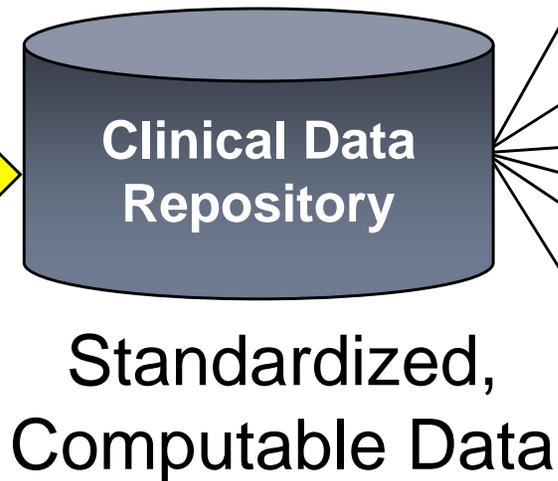
Collected Once

Stored Centrally

Available Globally



Patient Visit  
(Point of Care)



Provider Care  
*Patient Record, Safety Alerts,  
Best Practice Reminders*



Business  
Decisions  
*Health System  
Management*



Research  
*Clinical Practice  
Guidelines*



Command and  
Control  
*Health Surveillance*



Billing Processes  
*Coding, 3rd-Party  
Collections*

# External Interoperability

## Problem

More than 60% of care in the Military Health System is purchased from civilian sources, yet.....

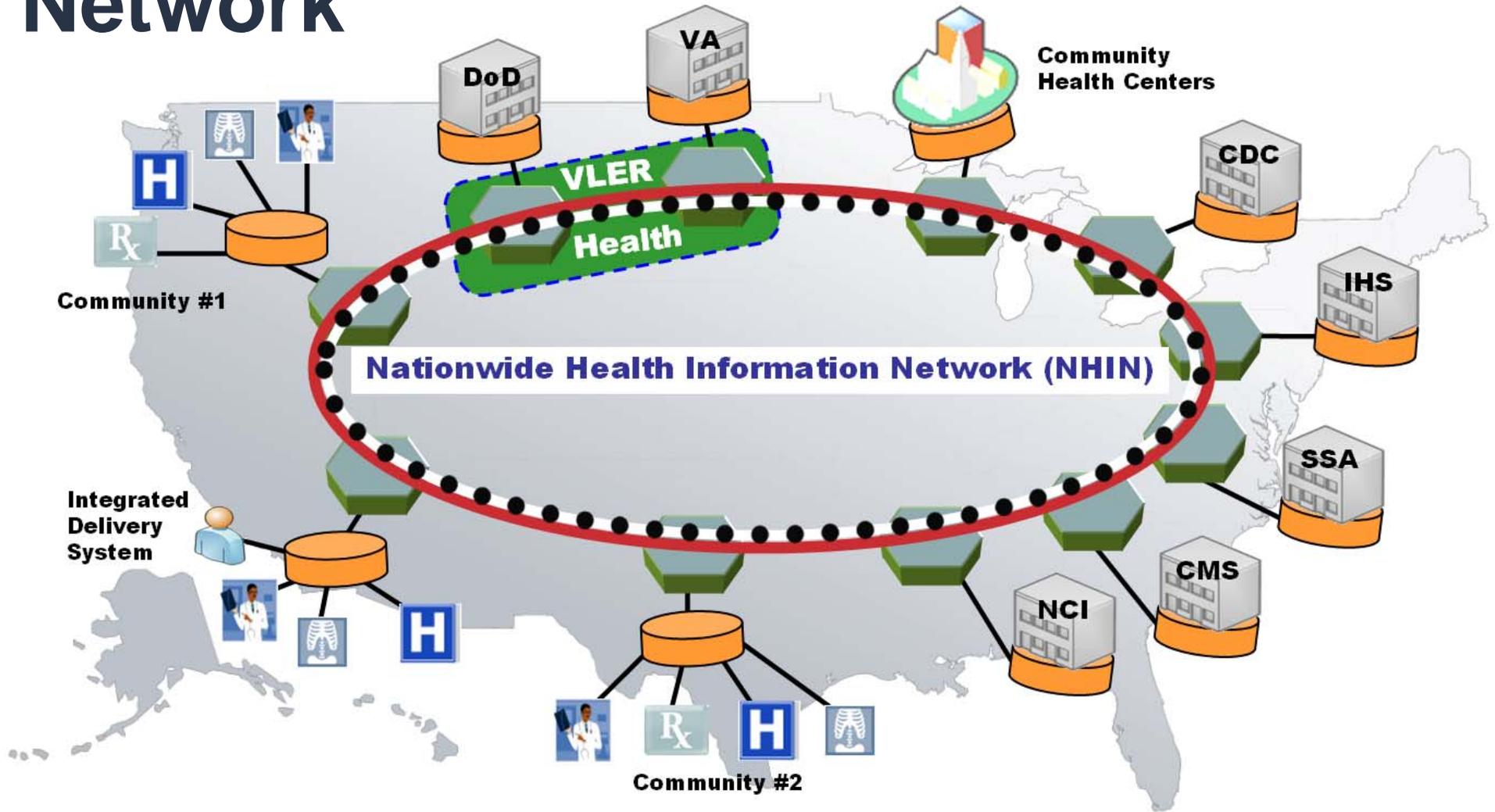
Only 8% of hospitals have basic electronic medical systems, and...

Only 17% of physicians use electronic records

## Solution

Develop a Virtual Lifetime Electronic Record (VLER) for beneficiaries by leveraging current efforts led by the Department of Health and Human Services

# Virtual Lifetime Electronic Record and the Nationwide Health Information Network



# Questions?

