FEDERAL COMPUTER SECURITY MANAGERS' (FCSM) FORUM: THE DEPARTMENT OF VETERANS AFFAIRS (VA)

Dominic Cussatt
Chief Information Security Officer
Office of Information Security (OIS)
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Agenda

This presentation comprises information relative to VA’s cybersecurity program including VA’s relationship with the Office of Inspector General (OIG), VA’s transition to the Enterprise Cybersecurity Strategy Program (ECSP), and VA’s alignment with Federal Guidelines.

1. Setting the Stage: VA by the Numbers
2. VA OIG Remediation Efforts
3. VA Enterprise Cybersecurity Strategy Team (ECST) Remediation Accomplishments
4. The Transition from ECST to Enterprise Cybersecurity Strategy Program (ECSP)
5. VA’s Alignment with National Institute of Standards and Technology (NIST) Risk Management Framework (RMF) and Cybersecurity Framework (CSF)
6. Looking Forward: VA’s Partnership with DoD
“To care for him who shall have borne the battle, and for his widow, and his orphan.”

- President Abraham Lincoln

“I think both the President and I believe not only have veterans earned this, but this [fixing VA systems] is actually a matter of national security.”

- Former VA Secretary Dr. David Shulkin
VA by the numbers...

• **3 Administrations and 3 Major Functions:** Veterans Health Administration (VHA), Veterans Benefits Administration (VBA), National Cemeteries Administration (NCA)

• **Second Largest US Federal Agency**

• **VA Is the Size of a Fortune 10 Company**

• **$186B Annual Operating Budget**

• **$4B Annual IT Budget**

• **$400M Annual Cybersecurity Budget**

• **350,000+ Federal Employees Across the US and Abroad**

• **VA Supports 20 Million US Veterans**

• **145 Hospitals and 1,231 Outpatient Facilities, making VA the largest Health Care Organization in the US**

• **56 Regional Benefits Offices**

• **135 Veteran Cemeteries**
# VA Benefits & Health Care Utilization

**Updated 1/25/18**

<table>
<thead>
<tr>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Veterans Receiving VA Disability Compensation (as of 12/31/17)</td>
<td>4.60 M</td>
</tr>
<tr>
<td>Number of Veterans Rated 100% Disabled (as of 12/31/17)</td>
<td>625,947</td>
</tr>
<tr>
<td>Number of Veterans Receiving VA Pension (as of 12/31/17)</td>
<td>272,712</td>
</tr>
<tr>
<td>Number of Spouses Receiving DIC (as of 12/31/17)</td>
<td>396,823</td>
</tr>
<tr>
<td>Number of Total Enrollees in VA Health Care System (FY 17)</td>
<td>9.12 M¹</td>
</tr>
<tr>
<td>Number of Total Unique Patients Treated (FY 17)</td>
<td>6.41 M¹</td>
</tr>
<tr>
<td>Number of Veterans Compensated for PTSD (as of 12/31/17)</td>
<td>978,226</td>
</tr>
<tr>
<td>Number of Veterans in Receipt of IU Benefits (as of 12/31/17)</td>
<td>351,333</td>
</tr>
<tr>
<td>Number of VA Education Beneficiaries (FY 17)</td>
<td>946,829</td>
</tr>
<tr>
<td>Number of Life Insurance Policies Supervised and Administered by VA (as of 12/31/17)</td>
<td>6.06 M</td>
</tr>
<tr>
<td>Face Amount of Insurance Policies Supervised and Administered by VA (as of 12/31/17)</td>
<td>1.22 T</td>
</tr>
<tr>
<td>Number of Veterans Participating in Voc Rehab (Chapter 31) (FY 17)</td>
<td>132,218³</td>
</tr>
<tr>
<td>Number of Active VA Home Loan Participants (as of 12/31/17)</td>
<td>2.96 M</td>
</tr>
<tr>
<td>Number of Health Care Professionals Rotating Through VA (Academic Year (AC) 17):</td>
<td>122,949</td>
</tr>
<tr>
<td>Number of OEF/OIF Amputees (as of 1/01/18)</td>
<td>1,718²</td>
</tr>
</tbody>
</table>

Source: VBA Office of Performance Analysis and Integrity; Health Services Training Report; VBA Education Service; ¹ VHA OABI and VSSC (10E2A); ² DoD. Produced by the National Center for Veterans Analysis and Statistics; ³ Includes 1,651 Veterans in interrupted case status over one year.

VA OIG Remediation Efforts

VA has been committed to remediating the OIG’s findings and improving the agency’s overall security posture. In response to the OIG FY15 FISMA report, VA developed and implemented plans associated with the 35 OIG FY15 FISMA Audit recommendations. The plans of action (POAs), took on a new approach to strategically tackle the findings going forward.

Under the ECST, POAs were designed to capitalize on efficiencies (e.g., use of existing tools and licenses) and to incorporate the previous findings along with the new findings from the FY15 FISMA audit.

The POA effort was completed at the end of calendar year 2017.

We have made improvements in our security posture from FY15 to FY17. We continue to decrease the total number of recommendations for improving VA’s information security program year after year. From FY15 to FY17, we have closed a total of nine (9) recommendations.

Sources: Enterprise Cybersecurity Strategy Team (ECST) Corrective Action Plan Update. 06/01/2017 / Audit Status Chief Financial Officer (CFO) Briefing. 01/23/2018 / Cybersecurity Policy Compliance Analytics Support (CSPCAS) 5.4.1 (D) Quarterly Executive Summary Report. 03/05/2018
VA OIG Remediation Efforts – Continued Progress

A review of the FY15-FY17 OIG FISMA Audit Reports indicates that VA has decreased the total number of recommendations for improving VA’s information security program. From FY15 to FY16, OIG reported that VA closed five (5) OIG recommendations; however, OIG also identified three (3) new recommendations in FY16. Moreover, VA successfully closed an additional four (4) recommendations in FY17, totaling nine (9) closed recommendations since FY15.*

*Information herein was developed from the final FY15 and FY16 OIG FISMA Audit Reports, as well as the draft FY17 OIG FISMA Audit Report. **In response to the Material Weakness identified during the FY15 OIG FISMA audit, VA created individual Plans of Action (POAs) to address tactical security issues and were not established prior to the FY15 OIG FISMA audit.
VA ECST Remediation Accomplishments

Below are some accomplishments associated with the completion of the POAs, which were based on the FY15 OIG findings. These accomplishments stem from the 35 ECST POAs that were created and completed in response to the FY15 OIG FISMA audit.

**Contingency Planning:**
Developed Standard Operating Procedures (SOPs) to apply standards and practices developed within VA to define backup tape retention policies, a data loss migration strategy, disaster recovery, and data protection standards for agency-wide backup strategy.

**Identity Management and Access Controls:**
Reduced the number of elevated privileged user accounts for employees and contractors by 96% since mid-2015.

**Configuration Management Controls:**
Implemented the DbProtect database scanning tool, which enables VA to perform blocking, locking, and termination functions when malicious activity is detected; and integrated it with the Nessus Enterprise Web Tool (NEWT), which provides an automated analysis of our multiple security scans.

**Agency – Wide Risk Management Program:**
Updated the Assessment and Authorization (A&A) process by focusing on increasing System Owner accountability in order to reduce the number of systems with an expired Authority to Operate (ATO).

**Change Management Controls:**
Developed and provided training and accountability for VA personnel with change management responsibilities.

**Contractor Systems Oversight:**
Revised and created policies in order to address cloud security policy gaps.

**Incident Response and Monitoring:**
Published VA Directive and Handbook 6513: Secure External Connections, governing the process for managing and continuously monitoring VA connections.

Sources: Progress reported by VA lead and reflects accomplishments reported as of 03/30/2018 / CRISP Remediation Services Support (RSS) Update 03/30/2018
Enterprise Cybersecurity Program Overview

VA evaluated their 2015 Enterprise Cybersecurity Strategy as well as the ECST program. VA then took a step back to analyze where they have had successes, and where they needed to shift their priorities. VA then evolved their program from the ECST to the ECSP, where they plan to continually evaluate, prioritize, and evolve so they can stay ahead of the dynamic and ever-changing threat landscape, Federal statutes and requirements, and feedback from their partners and OIG.

ECST

July 2015:
In response to the Office of Management and Budget (OMB) M-16-04 “Cybersecurity Implementation Plan (CSIP)”, VA formed the ECST, to tackle VA’s longstanding challenges to enterprise cyber resiliency. The ECST has focused on the following:

Strategy:
Eight (8) Domains created as a result of VA’s 2015 Enterprise Cybersecurity Strategy

Remediation:
35 POAs created in response to the FY15 OIG FISMA audit

ECSP

Create a program that spans from government-wide statutory requirements to the information system level

Align VA with the NIST CSF

Enable prioritization of cybersecurity projects
NIST CSF and the ECSP

In response to Presidential Executive Order (EO) 13800 on “Strengthening the Cybersecurity of Federal Networks and Critical Infrastructure”, each federal agency is required to use the NIST CSF to manage the agency's cybersecurity risk. Through the ECSP, VA aims to make prioritized, defensible decisions related to the implementation of cybersecurity projects (that may be technical or procedure-based), and align programmatic activities with the NIST CSF.
NIST CSF and the ECSP (Continued)

The CSF provides agency-level visibility into cybersecurity capabilities and outcomes, while the RMF generates system-level risk indicators that, when rolled up to the agency-level focus of the CSF, create a comprehensive risk management program under the ECSP. The VA Cyber Security Operations Center (CSOC’s) core functions map directly to the NIST CSF.
NIST RMF and the ECSP

When VA implemented the NIST CSF, they wanted to rely upon as much of the existing RMF program as they could, so they’ve incorporated data from their RMF process to inform the prioritization of activities under the auspices of the NIST CSF. To that end, VA was very well positioned ahead of the release of the May 2017 EO on Strengthening the Cybersecurity of Federal Networks and Critical Infrastructure, and so had a head start on implementing an agency-wide approach that standardizes the organizational management of identified risks.

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### Risk Scoring

<table>
<thead>
<tr>
<th>ID</th>
<th>NIST Control Title</th>
<th>VA Common Control</th>
<th>Cited in NFR</th>
<th>Impacted by HIPAA</th>
<th>Included in &quot;CIS Top 20&quot; Report</th>
<th>Confidentiality</th>
<th>Integrity</th>
<th>Availability</th>
<th>Risk Score</th>
<th>Risk Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>CA-02.1</td>
<td>Security Assessments</td>
<td>No</td>
<td>FY16 &amp; FY17</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>857</td>
<td>High</td>
</tr>
</tbody>
</table>

The risk criteria for CA-02.1 results in a risk score of 857, a high risk control.

### The Prioritization Tool

As the highest risk control associated to the project, the risk score for CA-02.1 is used as a prioritization factor.

Source: National Institute of Standards and Technology (NIST) Special Publication (SP) 800-37
NIST RMF and the ECSP (Continued)

The RMF provides VA with the ability to assess compliance, measure operational risk, and ultimately make risk-based determinations for an information system’s Authority To Operate (ATO). VA RMF is the foundation where system-level risk is aggregated and driven up to the CSF to allow VA executives to make risk-based decisions from both a systems and agency perspective in alignment with cybersecurity capabilities.

Source: National Institute of Standards and Technology (NIST) Special Publication (SP) 800-37
Looking Forward: Our Partnership with DoD

As part of VA’s mission to serve and honor Veterans, VA is collaborating with the DoD across multiple information technology domains, specifically information security. The goal of this collaboration is to provide uninterrupted service to the armed forces during the transition from active duty to Veteran status. VA seeks to further build on the momentum with DoD and create a stronger connection between both agencies in order to facilitate integrated services for Servicemembers and Veterans.

Proposed adoption of the DoD EHR tool, to advance EHR interoperability of health records.

Sharing and analysis of security and privacy controls, ATO documentation, and security artifacts.

Creation of an ATO Reciprocity memo to include the EHR system and other ancillary partnership efforts between VA and DoD.

Acquisition of the eMASS Governance, Risk Management, and Compliance (GRC) tool.

Establishment of the VA KS, which will contain security policies and guidance, as well as NIST security control implementation and assessment procedures.

Source: VA Secretary Announces Decision on Next-Generation Electronic Health Record, 6/5/2017