STATEMENT OF
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BEFORE THE
SENATE COMMITTEE ON VETERANS AFFAIRS

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Good afternoon,

Chairman Isakson, Ranking Member Blumenthal, distinguished members of the committee, thank you for the opportunity to discuss the progress that the Department of Veterans Affairs (VA) is making towards modernizing our information technology (IT) infrastructure to provide the best possible service to our VA business partners and our Nation's Veterans. I will also discuss scheduling, medical record sharing, and cyber security initiatives at the Department.

I am pleased to be accompanied today by Assistant Secretary for Information Technology and Chief Information Officer, Ms. LaVerne Council, Ms. Laura Eskenazi, Executive in Charge and Vice Chairman, Board of Veterans Appeals, and Mr. Ron Burke, Assistant Deputy Under Secretary for Field Operations, Veterans Benefits Administration.

In order to successfully carry out major IT initiatives and the department's consolidation of community care programs, VA will need a digital health platform and IT solutions that will meet the evolving needs of our Veterans, as well as support our streamlined business processes.

The Veterans Health Administration (VHA) and the Office of Information & Technology (OI&T) are essential partners in delivering quality service to our Veterans. Meeting the demands of 21st century Veterans requires an interconnected system of systems, based on a single platform, which supports an electronic health record (EHR) as one of several components.

IT plays a critical role in enabling care for our Nation's Veterans. VA's current EHR modernization efforts focus on delivering the tools for clinicians to provide more comprehensive, patient-centered care and will support VA's progress to a digital health platform.

We have made substantial progress in delivering new capabilities leveraging VistA, the VA Health System's EHR, while also strategizing for our future needs. While our efforts to modernize the VA's EHR and our plans for the digital health platform are not mutually

exclusive; the success of the digital health platform is not dependent on any particular EHR.

VistA Evolution / Interoperability

Current State of VistA Evolution

VistA Evolution is the joint VHA and OI&T program for improving the efficiency and quality of Veterans' health care by modernizing VA's health information systems, increasing data interoperability with the Department of Defense (DoD) and network care partners, and reducing the time it takes to deploy new health information management capabilities. We will complete the next iteration of the VistA Evolution Program—VistA 4—in fiscal year (FY) 2018, in accordance with the VistA Roadmap and VistA Lifecycle Cost Estimate. VistA 4 will bring improvements in efficiency and interoperability, and will continue VistA's award-winning legacy of providing a safe, efficient health care platform for providers and Veterans.

VA takes seriously its responsibility as a steward of taxpayer money. Our investments in VistA Evolution continue to make our Veterans' EHR system more capable and agile. VA has obligated approximately $510 million in IT Development funds to build critical capabilities into VistA since FY 2014, when Congress first provided specific funding for the VistA Evolution program. In addition, VA has obligated $151 million in IT Sustainment funds and $110 million in VHA funds for VistA Evolution. The VHA funding supports the operational resources needed for requirements development, functional design, content generation, development, training, business process change, and evaluation of health IT systems.

It is important to note that VistA Evolution funding stretches beyond EHR modernization. VistA Evolution funds have enabled critical investments in systems and infrastructure, supporting interoperability, networking and infrastructure sustainment, continuation of legacy systems, and efforts—such as clinical terminology standardization—that are critical to the maintenance and deployment of the existing and future modernized VistA. This work was critical to maintaining our operational capability for VistA. These investments will also deliver value for Veterans and VA providers regardless of whether our path forward is to continue with VistA, a shift to a commercial EHR platform as DoD is doing, or some combination of both.

Interoperability

We know that a Veteran's complete health history is critical to providing seamless, high-quality integrated care and benefits. Interoperability is the foundation of this capability as it enables clinicians to provide Veterans with the most effective care and makes relevant clinical data available at the point of care. Access to accurate Veteran information is one of our core responsibilities. The Department is happy to report that, thanks to a joint VA and DoD effort, on April 8, 2016, we jointly certified, to the House and Senate Committees on Appropriations, Armed Services, and Veterans' Affairs that

we have met the interoperability requirement of the National Defense Authorization Act for Fiscal Year 2014 (NDAA) Section 713(b)(1). We have not stopped our modernization efforts, as we envision further enhancements that we know are necessary for greater efficiency.

For front-line health care teams, the two most exciting products from VistA Evolution are the Joint Legacy Viewer (JLV) and the Enterprise Health Management Platform (eHMP). JLV is a clinical application that provides an integrated, chronological display of health data from VA and DoD providers in a common data viewer. VA and DoD clinicians can use JLV to access, on demand, the health records of Veterans and Active Duty and Reserve Service members. JLV provides a patient-centric, rather than facility-centric view of health records in near real time. Veterans Benefits Administration (VBA) offices have access to JLV and can use it to expedite claims in certain situations.

As of June 5, 2016, JLV had more than 170,000 authorized users in VA and DoD together, including 109,000 authorized VA users. The team is authorizing several thousand new users in VA each week. Of those VA users, more than 10,000 VBA personnel are authorized to use JLV to help process claims.

The process for granting access to JLV is both simple and secure. JLV allows us to monitor access and usage by capturing logins, records viewed, activities by users, and transactions per hour. In the interest of privacy, security, and safety, JLV is restricted to health care providers and benefits administrators. Beneficiaries cannot access JLV, but this in no way affects their rights to copies of their health records upon request. We simultaneously maintain tight controls over the system and ensure efficient access to clinicians and benefits administrators who need it to do their jobs.

JLV has been a critical step in connecting VA and DoD health systems, but it is a read-only application. Building on the interoperability infrastructure supporting JLV, the Enterprise Health Management Platform (eHMP) will ultimately replace our current read-write point of care application. The current application, called the Computerized Patient Record System, or CPRS, has been in use since 1996. CPRS served VA for many years as an industry leading point of care tool for providers, but it has many limitations for modern care delivery.

eHMP will overcome these limitations, and provide a modern web application and clinical data services platform to support Veteran-centric, team-based, quality driven care. eHMP will also natively support interoperability between VA, DoD and community health partners. We are deploying an initial read only version of eHMP now, and will begin deploying eHMP version 2.0 with write-back capabilities in the second quarter of FY 2017. Clinicians will be able to write notes and order laboratory and radiology tests in version 2.0. eHMP 2.0 will also support tasking for team-based management and communication with improved tracking to ensure follow through on tasks.

Veterans will benefit from eHMP in several ways. For example, eHMP will provide a complete view of a Veteran’s health history from all available VA, DoD and community

provider sources of information. This will help providers develop a more complete picture of a Veteran's history, enabling better treatment decisions.

The Veteran's voice will also be front and center in eHMP. Veterans' goals and preferences for care will become part of the information all providers see. eHMP will also provide a feature dedicated to recording and maintaining a Veteran's service history, including duty locations and what type of work they performed during their service. This information could then be used to proactively identify Veterans who may be at risk for certain health issues, or eligible for medical care based on locations or times in which they served.

Veterans will also benefit from VA care teams who can work together more efficiently and effectively using the care coordination and task management tools eHMP will provide. For example, if a Veteran is referred for a particular test or consultation with a specialist, workflow management tools in eHMP will ensure the right activities have taken place in advance of the referral. This will help reduce wasted or unneeded appointments, save time for both Veterans and providers. In turn, if providers are more efficient, they are able to serve more Veterans, which will have an overall positive impact on Veteran access to care. All of these efforts align with the goals outlined by the Federal Health Information Technology Strategic Plan 2015 – 2020 and Connecting Health and Care for a Nation: A Shared Nationwide Interoperability Roadmap, produced by the Office of the National Coordinator for Health Information Technology (ONC) in collaboration with VA, DoD and other partners.

Upon completion, eHMP will support the following capabilities:

- **Veteran-centric health care—**eHMP will allow clinicians to tailor care plans to specific clinical goals and help Veterans achieve their health care goals.

- **Team-based health care—**eHMP will provide an interoperable care plan in which clinical care team members, including the patient, will understand the goals of care and perform explicit tasks to execute the plan. eHMP will also monitor tasks that are not completed as specified and escalate them to the appropriate team.

- **Quality-driven health care—**eHMP will support the diffusion of best practices, including evidence-based clinical process standardization. eHMP will collect data on how clinicians address conditions and power analytics to generate new evidence for better care and best practices.

- **Improved access to health information—**eHMP will integrate health data from VA, DoD, and community care partners into a customizable interface that provides a holistic view of each Veteran's health records.

Fundamentally, our efforts to improve information systems are about data, not software. Regardless of the software platform, we need to be able to access the right data at the

right time. Health data interoperability with DoD and network providers is important—but it is equally important to understand that this is just one aspect of having a comprehensive profile to streamline and unify the Veteran experience.

Using eHMP as a tool, health care teams will better understand Veterans' needs, coordinate care plans, and optimize care intensity in VA and throughout the high-performing network of care.

Looking to the Future

Modernization is a process, not an end, and the release of VistA 4 in FY 2018 will not be the "end" of VA's EHR modernization. VA has always intended to continue modernizing VA's EHR, beyond VistA 4, with more modern and flexible components.

Technology and clinical capabilities must consistently evolve to meet the growing needs of our Veterans. The VistA Evolution program is just that—an evolving capability that is an invaluable part, but not the end of VA's EHR modernization.

Digital Health Platform

Due to the expansion of care in the community, a rapidly growing number of women Veterans, and increased specialty care needs, the need for more agility in our EHR has never been greater. We are looking beyond what VistA 4 will deliver in FY 2018, and we are evaluating options for the creation of a Digital Health Platform to ensure that we have the best strategic approach to modernizing our EHR for the next 25 years.

The VA healthcare system must keep the Veteran experience at its core and incorporate effective clinical management, hospital operations capability, and predictive analytics. We do not have all of this today with VistA.

To prepare for this new era in connected care, VA is looking beyond the EHR to a digital health platform that can better support Veterans throughout the health continuum. These factors drive the need for continuous innovation and press us to plan further into the future.

The EHR is the central component of the digital health platform. However, an EHR by itself does not have all of the capabilities required to manage care in the community, respond to the changing needs of the Veteran population, support clinical management, and provide the best overall Veteran experience with the VA healthcare system.

We have conducted a business case outlining our vision for the digital health platform. Our goal is to have a modern and integrated health care system that would incorporate best-in-class technologies and standards to give it the look, feel, and capabilities users have come to expect in the private sector.

The digital health platform will be agile, and will leverage international open-source standards such as the Fast Healthcare Interoperability Resources (FHIR) framework. FHIR converts granular health data points into standardized data formats already well known to healthcare IT application developers. The main goal of FHIR is to simplify implementation without sacrificing information integrity. VA is working with standards organizations and industry partners to further refine FHIR to allow the level of interoperability necessary for the functionality described above.

Health Level 7 International (HL7), a not-for-profit American National Standards Institute (ANSI)-certified standards developing organization, developed FHIR. HL7 has produced healthcare data exchange and information modeling standards since its founding in 1987. Emerging industry practices and lessons learned from previous standards frameworks informed HL7's development of FHIR.

The digital health platform will be a system of systems. It is not dependent on any particular EHR, and VA can integrate new or existing resources into the system without sacrificing data interoperability. One of the digital health platform's defining features will be system-wide cloud integration, a marked improvement over the more than 130 instances of VistA that we have today.

Scheduling

We recognize the urgent need for improvement in VA's appointment scheduling system. We are evaluating the Veteran Appointment Request (VAR) application and the VistA Scheduling Enhancement (VSE) through simultaneous pilot programs. We are testing VAR at two facilities. We have been testing VSE at 10 locations, and are in the training phase for national deployment of VSE.

VAR is a new Veteran facing capability allowing Veterans to directly request primary care and mental health appointments as face-to-face, telephone, or video visits by specifying three desired appointment dates. The software allows established primary care patients to schedule and cancel primary care appointments directly with their already-assigned Patient Aligned Care Team provider.

We are testing VAR at two facilities in the VA New England Health System (Veterans Integrated Service Network (VISN) 1)—the VA Connecticut Healthcare System (West Haven) and the VA Boston Healthcare System (Jamaica Plain).

VSE updates the legacy command line scheduling application with a modern graphical user interface. This capability reduces the time it takes schedulers to enter new appointments, and makes it easier to see provider availability. VSE provides critical, near-term enhancements, including a graphical user interface, aggregated facility views, profile scheduling grids, single queues for appointment requests, and resource management reporting.

Our ten VSE Initial Operational Capability sites are:

1. Charles George VA Medical Center in Asheville, NC
2. West Palm Beach VA Medical Center in West Palm Beach, F
3. Chillicothe VA Medical Center in Chillicothe, OH
4. VA Hudson Valley Health Care System in New York
5. Louis Stokes Cleveland VA Medical Center in Cleveland, OH
6. VA New York Harbor Health Care System in New York, NY
7. VA Salt Lake City Health Care System in Utah
8. VA Southern Arizona Health Care System in Tucson, AZ
9. James H. Quillen VA Medical Center in Mountain Home, TN
10. Washington, DC VA Medical Center in Washington, DC

VA schedulers tell us that they need a system focused purely on scheduling. VSE and VAR pilots are available now and show positive results in meeting the business requirements of our partners. In contrast, the Medical Appointment Scheduling System (MASS) project includes additional features that add complexity, leading us to put MASS on a strategic hold while our team ensures that we meet all requirements without undue processing difficulties. VA will carefully measure the results of the VSE pilot to determine the best use of resources that will meet Veteran needs. VA is working hard to ensure that every technological tool and improvement makes judicious use of taxpayer dollars while providing solutions that support today's Veterans' needs.

Enterprise Cybersecurity Strategy

OI&T is facing the ever-growing cyber threat head on—we are committed to protecting all Veteran information and VA data and limiting access to only those with the proper authority. This commitment requires us to think enterprise-wide about security holistically. We have dual responsibility to store and protect Veterans records, and our strategy addresses both privacy and security.

In order to achieve and maintain the highest level of security, we need the active participation of everyone who accesses VA systems. We are providing comprehensive education to ensure that all VA employees remain vigilant. We have updated our National Rules of Behavior and our annual security training, and we are emphasizing continuous engagement with our employees. Information security poses constant challenges, and it is only through continuous reinforcement that our employees can support us in this battle.

The first step in our transformation was addressing enterprise cyber security. We delivered an actionable, far-reaching, cybersecurity strategy and implementation plan for VA to Congress on September 28, 2015, as promised. We designed our strategy to counter the spectrum of threat profiles through a multi-layered, in-depth defense model enabled through five strategic goals.

- **Protecting Veteran Information and VA Data:** We are strongly committed to protecting data. Our data security approach emphasizes in-depth defense, with multiple layers of protection around all Veteran and VA data.

- **Defending VA's Cyberspace Ecosystem:** Providing secure and resilient VA information systems technology, business applications, publically accessible platforms, and shared data networks is central to VA's ability to defend VA's cyberspace ecosystem. Addressing technology needs and operations that require protection, rapid response protocols, and efficient restoration techniques is core to effective defense.

- **Protecting VA Infrastructure and Assets:** Protecting VA infrastructure requires going beyond the VA-owned and VA-operated technology and systems within VA facilities to include the boundary environments that provide potential access and entry into VA by cyber adversaries.

- **Enabling Effective Operations:** Operating effectively within the cyber sphere requires improving governance and organizational alignment at enterprise, operational, and tactical levels (points of service interactions). This requires VA to integrate its cyberspace and security capabilities and outcomes within larger governance, business operation, and technology architecture frameworks.

- **Recruiting and Retaining a Talented Cybersecurity Workforce:** Strong cybersecurity requires building a workforce with talent in cybersecurity disciplines to implement and maintain the right processes, procedures, and tools.

VA's Enterprise Cybersecurity Strategy is a major step forward in VA's commitment to safeguarding Veteran information and VA data within a complex environment. The strategy establishes an ambitious yet carefully crafted approach to cybersecurity and privacy protections that enable VA to execute its mission of providing quality health care, benefits, and services to Veterans, while delivering on our promise to keep Veteran information and VA data safe and secure.

In addition, we have a large legacy issue that we need to address. In the FY 2017 budget request, VA has increased requested spending on security to $370 million, fully funding and fully resourcing our security capability for the first time. We are committed to eliminating our material weakness in FY 2017, and these funds are enabling those efforts. In addition, VA is investing over $50 million to create a data-management backbone.

IT Transformation and Enterprise Program Management Office (EPMO)

OI&T is transforming. Persistent internal challenges exist in delivering IT services, and external pressures have compelled us to change and adapt. Through the MyVA initiative, VA is modernizing its culture, processes, and capabilities to put Veterans first, and is giving our team the opportunity to make a real difference in Veterans' lives. This momentum is driving us to transform OI&T on behalf of our partners, our employees, and Veterans.

EPMO is building our momentum in OI&T's transformation. EPMO hosts our biggest IT programs, including the Veterans Health Information Systems and Technology Architecture (VistA) Evolution, Interoperability, the Veterans Benefits Management System, and Medical Appointment Scheduling System (MASS). EPMO also supports the Federal Information Technology Acquisition Reform Act (FITARA) requirements.

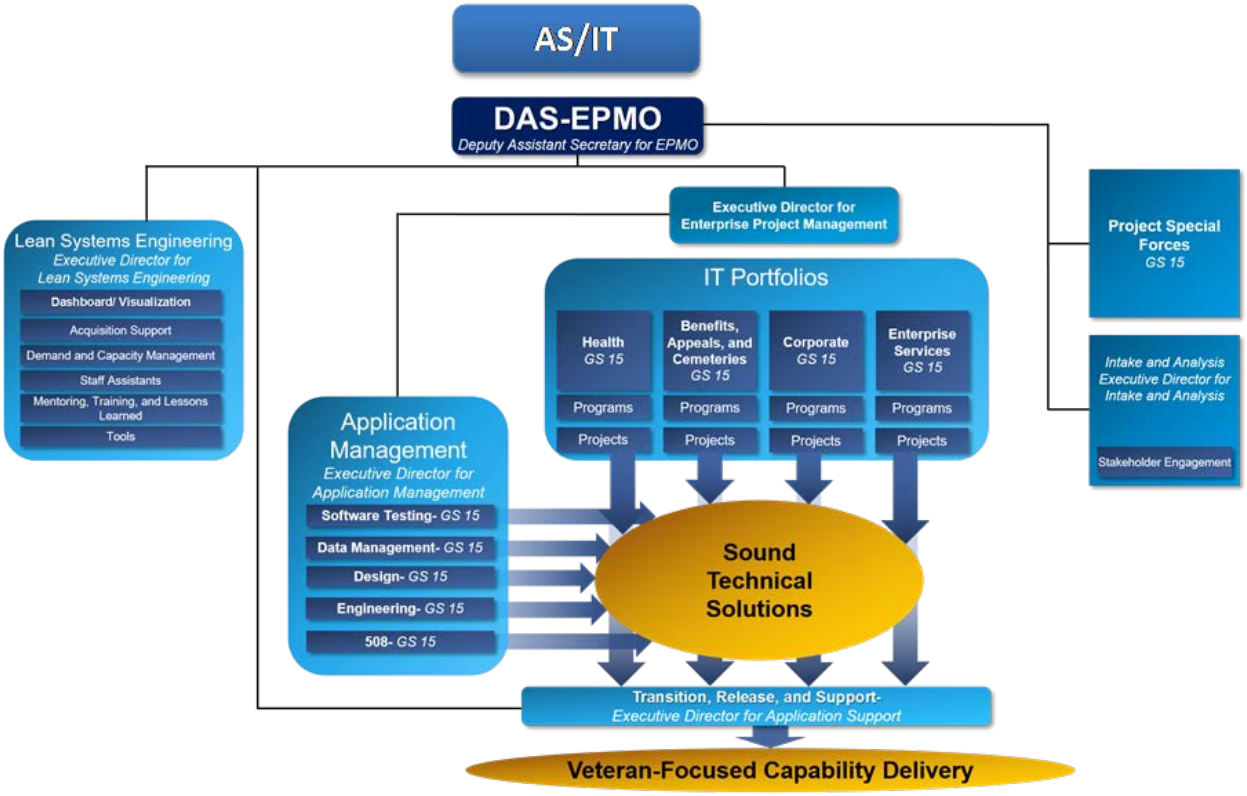

Fig. 1 – EPMO Organizational Chart

EPMO ensures alignment of program portfolios to strategic objectives and provides visibility and governance into the programs.

For enterprise initiatives, EPMO helps program and project teams to better develop execution plans, monitor progress, and report the status of these programs and projects. EPMO enables partnerships with IT architects for enterprise collaboration and serves as a program/project resource for the delivery of enterprise and cross-functional programs. This helps identify Shared Services Enterprise Programs and will help plan resource requirements with portfolios and architecture.

EPMO has already produced results. The Veteran-focused Integration Process (VIP) is a project-level based process that replaces the Program Management Accountability System (PMAS). VIP streamlines IT product release activities and increases the speed of delivering high-quality, secure capabilities to Veterans. VIP is revolutionary because it utilizes a single release process—designed to eliminate redundancy in review, approval, and communications—that will be fully implemented by the end of 2016. These releases are scheduled on a three-month cadence—an improvement over the

previous six-month standard—and allow greatly needed IT services to be delivered to Veterans more frequently.

VIP reduces overhead and is more efficient and cost effective than PMAS. VIP's efficiencies include reducing the review process from 10 independent groups with 90 people to a single group of 30 people focused on ensuring that products meet specified, consistent criteria for release.

VIP focuses on doing rather than documenting, with a reduction of artifacts from more than 50 to just seven, plus the Authority to Operate, and the shift from a six-month to a three-month delivery cycle. Further, as a guarantee to our work, EPMO will ensure that product teams stay assigned to their projects for at least 90 days after the final deployment.

Conclusion

VA is at a historic crossroad and will need to make bold reforms that will shape how we deliver IT services and health care in the future, as well as improve the experiences of Veterans, community providers, and VA staff. Throughout this transformation, our number one priority has and will always be the Veteran—ensuring a safe and secure environment for their information and improving their experience is our goal.

As with all issues, VA strongly values the input and support of all its stakeholders. We realize the vital role they play in assisting us in providing timely, high-quality care to Veterans, and we look forward to continued open dialogue.

This concludes my testimony, and I am happy to answer your questions.