Prepared Statement

of

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REGARDING

ELECTRONIC HEALTH RECORD MANAGEMENT

BEFORE THE

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Chairman Roe, Ranking Member Walz and distinguished Members of the Committee, thank you for the opportunity to testify before you today. I am honored to represent the Department of Defense (DoD) and discuss the Department's experience in implementing a modernized electronic health record (EHR). I also want to highlight the tremendous opportunity to comprehensively advance interoperability with the VA and private sector providers as a result of the VA's recent decision to acquire the same commercial EHR that the DoD is now deploying.

The decision by DoD to acquire a commercial EHR was informed by numerous advantages offered by this pathway: introducing a proven product that can be used globally in deployed environments and in military hospitals and clinics in the US; leveraging ongoing commercial innovation throughout the EHR life cycle; improving interoperability with private sector providers; and offering an opportunity to transform the delivery of healthcare for service members, veterans, and their families.

Our mission aligns with Secretary Mattis' National Defense Strategy (NDS) to modernize the Department of Defense and provide combat-ready military forces. The threats facing our nation continuously evolve and a medically ready military force is critical to our national defense. MHS GENESIS, our new EHR, supports that mission.

Similar to the VA, the DoD was an early pioneer in the development of a provider-centric electronic health record. Over time, demands by the private sector health institutions, as well as federal investments, led to major advances in civilian health care technology. As result, in 2013 the DoD made the decision to transition from multiple home-grown government-developed EHRs to a single, integrated commercial-off-the-shelf (COTS) capability.

The Department recognized that MHS requirements could be better met by state-of-the-market commercial applications. Furthermore, the DoD could leverage private sector investments in technology and established data sharing networks with civilian partners to enhance healthcare, reduce costs and improve the customer experience. Staying current with the latest advancements in technology without being the only investment stream enables the DoD to benefit from some of the best products in health IT without carrying the financial burden alone.

In July 2015, the DoD awarded a $4.3 billion contract to Leidos Inc. to deliver a modern, secure, and connected EHR. The Leidos Partnership for Defense Health (LPDH) team consists of four core partners, Leidos Inc., as the prime integrator, and three primary partners in Cerner Corporation, Accenture, and Henry Schein Inc. MHS GENESIS provides a state of the market COTS solution consisting of Cerner Millennium, an industry-leading EHR, and Henry Schein's Dentrix Enterprise, a best of breed dental EHR module.

In 2017, the Department reached an important milestone by deploying to all four Initial Operational Capability (IOC) sites in the Pacific Northwest, culminating with deployment to Madigan Army Medical Center (MAMC), the largest of the IOC sites, in Tacoma, Washington. The other sites include the 92nd Medical Group at Fairchild Air Force Base; Naval Health Clinic Oak Harbor; and Naval Hospital Bremerton – all in Washington State.

DEPLOYMENT, STABILIZATION AND OPTIMIZATION

To streamline and improve healthcare delivery, MHS GENESIS will integrate inpatient and outpatient best-of-suite solutions that connect medical and dental information across the continuum of care, from point of injury to the military treatment facility, providing a single patient health record. This includes garrison, operational, and en route care, increasing the quality of care for our patients and simplifying medical record management for beneficiaries and healthcare professionals. Over time, MHS GENESIS will replace DoD legacy healthcare systems and will support the availability of electronic health records for more than 9.4 million DoD beneficiaries and approximately 205,000 MHS personnel globally.

The deployment and implementation of MHS GENESIS across the MHS is a team effort. Complex business transformation requires constant coordination and communication with stakeholders and partners, including the medical and technical communities, to ensure functionality, usability, and data security. DoD engaged stakeholders across the MHS to identify requirements and standard workflows. The result was a collaborative effort across the Services and the DHA to ensure the clinical workflows enabled by MHS GENESIS are standardized and

consistent across the enterprise to minimize variation in the delivery of healthcare.

Representatives from functional communities also collaborated to identify critical data to transfer from legacy systems into MHS GENESIS: Problems, Allergies, Medications, Procedures, and Immunizations (PAMPI). Other data, including lab results, radiology results, discrete notes, discharge summaries, etc., are still available through the Joint Legacy Viewer (JLV) as we sunset legacy systems.

Through a tailored acquisition approach, DoD leveraged commercial best practices and its own independent test community to field a modern, secure, and connected system that provides the best possible solution from day one. One example of leveraging commercial best practices was opting to utilize commercial data hosting, which allowed DoD to combine private sector speed and technology with the Department's superior data security knowledge and provide advanced analytics for our end users and beneficiaries. While there is still much work to be done, the integration of the commercial data hosting into DoD networks and systems represents a new direction in Pentagon information technology (IT) culture and practice. This innovative approach set the bar for COTS systems and commercial partnerships by the DoD and other federal agencies in the future.

Additionally, we are employing industry standards to optimize the delivery of MHS GENESIS. Rollout across the MHS follows a "wave" model. Initial fielding sites in the Pacific Northwest were the first wave of military treatment facilities (MTFs) to receive MHS GENESIS. By deploying to four IOC sites that span a cross-section of size and complexity of MTFs, we are able to perform operational testing activities to ensure MHS GENESIS meets all requirements for effectiveness, suitability, and data interoperability to support a decision to continue MHS GENESIS deployments in the coming year. Deployment will occur by region—three in the continental U.S. and two overseas—in a series of concurrent wave deployments over the next four years. Each wave will include an average of three hospitals and 15 physical locations and will last approximately one year. Regionally grouped waves, such as the Pacific Northwest, will run concurrently. This approach allows DoD to take full advantage of lessons learned and experience gained from prior waves to maximize efficiencies in subsequent waves, increasing the potential to reduce the deployment schedule in areas where necessary. We are sharing our planned

deployments with our colleagues at the VA, and plan to synchronize deployments where possible.

As with any large-scale IT transformation, there are training, user adoption, and change management opportunities. The configuration of MHS GENESIS deployed for IOC provided a minimally suitable starting point to assess the system as well as the infrastructure prior to full deployment. Now that DoD has the results from operating MHS GENESIS in a representative cross-section of military hospitals and clinics, DoD is making adjustments to software, training, and workflows.

We are working with our industry partner, LPDH, to engage representatives from the sites, the functional communities, the technical community, and the test community with the goal to validate the MHS GENESIS baseline software configuration based on IOC lessons learned. For an eight-week period starting in mid-January, we sent representatives from DoD and contract partner offices to collaborate with initial fielding site users with a focus on MHS GENESIS configuration as well as training, adoption of workflows, and change management activities. Specific areas of refinement included: roles, clinical content, trouble ticket resolution, and workflow adoption. Following this period, we collected feedback, evaluated, and provided enhancements to the system. These activities were always part of our IOC process, and we are experiencing measurable improvements. End user feedback is positive. Our approach has and always will be functionally led and frontline informed.

MEASURING USER ADOPTION OF MHS GENESIS

Recognizing the sizeable investment in an EHR for its 9.4 million beneficiaries and more than 200,000 providers, the DoD required a standardized way to independently measure the progress and effectiveness of MHS GENESIS adoption. To that end, the DoD engaged the Healthcare Information and Management Systems Society (HIMSS) Analytics to assess adoption and conduct IOC usability assessments for MHS GENESIS. HIMSS Analytics provided adoption scoring and benchmarking gap analysis assessments on IOC sites to rate the top usability principles including the Electronic Medical Record Adoption Model (EMRAM) and the Outpatient-Electronic Medical Record Adoption Model (O-EMRAM).

The HIMSS Analytics EMRAM is widely recognized as the industry standard for measuring EHR adoption and rated from Stage 0 to Stage 7. Prior to MHS GENESIS deployment, the average score for the IOC sites was below a Stage 2 EMRAM and slightly above Stage 2 O-EMRAM. Post deployment, the sites scored at or above a Stage 5 on the EMRAM and O-EMRAM, with Fairchild Air Force Base achieving an O-EMRAM Stage 6. These scores are well above the national averages of Stage 2 and Stage 3 respectively. It is important to note, Stage 6 obtained by Fairchild is an indicator that an organization is effectively leveraging the functionality of its EHR. Stage 6 is an accomplishment only 20 percent of ambulatory healthcare organizations have attained. To achieve this level, the facility was required to demonstrate a number of technology functionalities that contribute to patient safety and care efficiency, including establishing a digital medication reconciliation process, a problem list for physicians, and the ability to send patient preventative care reminders.

We recognize that our success is dependent on strong clinical leadership both here in our headquarters, and by clinical champions at the point of care. The Department is focused on maintaining this clinical leadership as we move to the next deployment wave.

DEPARTMENT OF DEFENSE AND OTHER AGENCY COLLABORATION

In June 2017, the VA announced its decision to adopt the same EHR as DoD, and last month, they executed a ten-year contract with Cerner Corporation. This decision and subsequent action is the next step toward advancing EHR adoption across the nation and is in the best interest of our veterans. As then Acting VA Secretary Wilkie said at the contract announcement, the contract will “modernize the VA’s health care IT system and help provide seamless care to veterans as they transition from military service to veteran status and when they choose to use community care.”

The VA’s adoption of the DoD’s EHR will fundamentally solve the problem of transitioning patient health record data between the Departments by eliminating the need for moving data altogether. The VA and DoD are committed to partnering in this effort and understand that the mutual success of this venture is dependent on the close coordination and communication between the two Departments which continues to be supported by the DoD/VA Interagency

Program Office.

During Fiscal Year 2018, the DoD and VA collaborated to provide updates on the Departments' modernization efforts, technical challenges, and joint capabilities. The DoD also supported joint collaboration meetings between DoD and VA Chief Information Officers (CIO) and other senior leadership to facilitate other future activities relating to a single integrated EHR. As a result of these meetings, leadership established a DoD-VA CIO Executive Steering Committee as well as working groups focused on identity management, joint architecture, and cybersecurity. Since the award of the VA contract, leaders from both Departments have been meeting to more formally integrate our management and oversight activities.

Our federal partnering extends beyond the VA. In April 2018, the DoD announced a partnership with the United States Coast Guard for MHS GENESIS. The Coast Guard will adopt and deploy MHS GENESIS to its clinics and sick bays. Approximately 6,000 active duty Coast Guard members receive care in DoD hospitals and clinics. A complete and accurate health record in a single common system is critical to providing high-quality, integrated care and benefits, and to improving patient safety. MHS GENESIS will supply Coast Guard providers with the necessary data to collaborate and deliver the best possible healthcare.

ADVANCING INTEROPERABILITY AND DATA SHARING

As the DoD transitions to MHS GENESIS, our commitment to expand interoperability efforts with the VA and private sector providers remains unchanged. Service members and their families frequently move to new duty assignments, they deploy overseas, and eventually, transition out of the military. As a result, there are many different places where they may receive medical care.

More than 60 percent of active duty and beneficiary healthcare is provided outside an MTF, through TRICARE network and non-network providers. Healthcare providers need up-to-date and comprehensive healthcare information to facilitate informed decision making whenever and wherever it is needed—from a stateside MTF to an outpost in Afghanistan, from a private care clinic within the TRICARE network to a VA hospital, and everywhere in between.

The DoD and VA are two of the world's largest healthcare providers and today, they share more health data than any other two major health systems. The two Departments currently share health records through the Defense Medical Information Exchange (DMIX) program, which includes the Joint Legacy Viewer (JLV), a health information portal that aggregates data from across multiple data sources, to include MHS GENESIS, to provide read access to medical information across multiple government and commercial data sources.

In addition to enabling enhanced data sharing between DoD and VA, JLV allows DoD to expand relationships with private-sector providers to give clinicians a comprehensive, single view of a patient's health history in real-time as they receive care in both military and commercial systems. JLV is available to DoD providers in AHLTA and is now incorporated into MHS GENESIS.

Over the past five years, DoD steadily increased its data-sharing partnerships with private sector healthcare organizations. In March 2017, there were over 20 Health Information Exchanges (HIE) that partnered with DoD. Today, the number has more than doubled as the DoD has nearly 50 HIE partners. DoD leverages its partnership with the Sequoia Project, a network of exchange partners who securely share clinical information across the United States. We are also targeting CommonWell—an independent, not-for-profit trade association with connections to more than 5,000 private sector healthcare sites as a partner. Leveraging this connection through MHS GENESIS will expand the great work DoD accomplished through HIEs. As DoD and VA continue to improve data sharing between the Departments and with the private sector, deployment of MHS GENESIS will enable more advanced data sharing capabilities through the existing architecture.

CONCLUSION

Thank you again for the opportunity to come here today and share the progress we've made to transform the delivery of healthcare for service members, veterans, and their families, as well as discuss the opportunity to strengthen the DoD-VA partnership as we move forward together with a

common EHR that will benefit millions of service members and veterans. As a partner in our progress, we appreciate the Congress's interest in this effort and ask for your continued support to help us deliver on our promise to provide world-class care and services to those who faithfully serve our nation. Again, thank you for this opportunity, and I look forward to your questions.