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Statement of Mike Sicilia
Executive Vice President for Global Industries
Oracle Corporation

Before the

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Committee on Appropriations, Subcommittee on Military
Construction, Veterans Affairs and Related Agencies

Hearing on the Department of Veterans Affairs
Electronic Health Record Modernization Program

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Introduction:

Chairman Carter, Ranking Member Wasserman Schultz, and members of the Subcommittee, thank you for the opportunity to speak with you today to provide an update on Oracle's work on the Department of Veterans Affairs' (VA) Electronic Health Record Modernization (EHRM) program.

I am Mike Sicilia, Executive Vice President for Global Industries at Oracle. I am responsible for Oracle vertical businesses, including Oracle Cerner.

I want to begin by thanking you for your past and current support of the EHRM program. Since Oracle's acquisition of Cerner in June 2022 we have seen the critical importance of not only your support, but also your active engagement and concern for the program's success.

The EHRM program is the largest health IT modernization project in history. The goals of the overall program can be summarized in three bullets:

1. To offer a single longitudinal health record from enlistment with the Department of Defense (DoD) through lifelong care at VA.
2. To replace the existing decades old system that is both plainly, and objectively, past its prime.
3. To improve patient outcomes by deploying modern technologies across the entire data set of active duty and retired service members to ensure the highest quality of care.

Doing so will put both DoD and VA at the leading edge of health care technological innovation.

When fully deployed across the VA healthcare system, 171 medical centers will go from using 130 different versions of the current VistA EHR to using a single enterprise-wide EHR that is shared between VA, DoD and Coast Guard. The problems of data silos creating gaps in patient data and care, veterans being tethered to specific medical centers, and a patchwork system that inhibits the full potential of data analytics go away. These benefits of a modern EHR remain an extremely important goal worth protecting as they deliver significant improvements in healthcare services and outcomes for our nation's service members and veterans.

To date, the Millennium EHR has been fully deployed for the Coast Guard and the National Oceanic and Atmospheric Administration. It is also deployed across all domestic DoD medical facilities. Even with limited VA facilities live on the new EHR, we are seeing seamless care being delivered across VA and DoD:

- 3 million records have been reconciled between community care and the new EHR.
- 58,205 patients have received care from multiple agencies using the new EHR.
- 33,024 opioid prescription orders have been modified by providers due to an Opioid Advisor alert – a clinical decision support tool in the new EHR.
- 20,324 alerts have been triggered at one agency by information gathered at another using the new EHR.
- 37,000 duplicate lab tests and radiology exams have been avoided.
- More than 9,000 prescription orders have been placed at one agency but filled at another.

We have made great progress with the deployment of the new EHR to DoD. Since the beginning of 2023, DoD carried out three major wave deployments which included Walter Reed National Medical Center, transitioning 31,000 new users over to MHS GENESIS. Like other DoD deployments, this was accomplished with zero patient safety issues and has since returned to pre-deployment, clinical productivity.

With the system fully deployed domestically for DoD, it now supports 165,000 end users and 6.9 million beneficiaries. Overseas deployments are scheduled to start in October 2023. DoD has evolved their thinking from asking how they will deploy Oracle technology to instead asking how the Military Health System can leverage their new tools to improve care quality across all facilities, improve patient outcomes, and expand access to care through virtual first initiatives all while eliminating unnecessary costs. We believe similar success and evolutionary journey is possible in partnership with VA.

With VA's announcement on April 21, 2023, of a reset for the EHRM program and the announcement on May 16, 2023, of the completed EHRM contract renegotiation and extension, I want to state again that Oracle is proud to continue working together with VA to modernize its EHR system.

We are cognizant that Congress and this Subcommittee – as we do - consider the VA EHRM a high priority for our veterans; so today I want to give you a frank assessment of where Oracle believes the program is currently, especially given the reset, as well as reiterate Oracle's commitment to keeping our costs in line.

Current Assessment:
Oracle Cerner is working with VA during the reset period to make needed changes, most of which require decision-making and direction from VA before Oracle Cerner can move forward with implementation. We believe that our joint work will be successful. Oracle also acknowledges that there are continued challenges at the live VA facilities with productivity, revenue collection and user satisfaction that we are working to address.

With the effort Oracle continues to contribute, regardless of the pause, we are seeing increased momentum in positive outcomes.

The EHR system is performing, with 100 percent uptime for the last four consecutive months. Updates and improvements that have been implemented are resulting in encouraging KPIs at current live sites. For example, urgent care throughput in Spokane and Columbus is, respectively, 10 minutes and 30 minutes faster than VistA baselines.

The Joint Health Information Exchange (JHIE) recently added the Carequality network, significantly expanding the reach of the JHIE from 75 percent to more than 90 percent of US hospitals. Veterans will benefit from this expansion because more of their records from non-VA providers will now be brought into their VA EHR. Additionally, in November a pilot will be introduced at a VA clinic in Oregon that will help automate the incorporation of external healthcare data into the new EHR workflow. This will streamline and prioritize clinician facing data to improve efficiencies in navigating relevant data and empower care delivery with the right data at the right time.

Supporting the Reset

Since April, even with news of the reset, Oracle teams have continued to drive enhancements to improve the reliability, stability and usability of the EHR system.

In August, we hosted over 100 VA staff employees in Kansas City to collaborate across VA councils and create execution plans for each of the 270 configuration changes logged by end users at the live sites and that were scoped into Increment 1's Rapid Enterprise Baseline Initiative (REBI).

Subsequently, each national council began working with respective site resources in order to work through associated design decisions related to these reconfiguration requests. These changes will optimize the existing system and ultimately improve end user satisfaction and productivity. We are tracking the completion of this work by the end of October 2023.

In addition to the 270 configuration changes identified as part of the REBI workstream, we believe there are key updates, that if approved by VA, will significantly improve the functioning of the EHR and the user experience, such as optimization of the medication history / reconciliation workflow; standardization of favorites and quick orders; education on the use of message center; and improved compliance with SC/SA determinations.

We are fully committed to making continued improvements that not only will provide meaningful impact for VA, but for our other federal customers as well. All of this work will help VA achieve its stated goals for the reset period:

- Address the Concerns of the Live Sites;
- Invest in Foundational Enterprise Work; and
- Prepare for FHCC.

We strongly believe that VA can achieve success similar to DoD's, but to do so we need to agree on a standard baseline for workflows, capabilities and interfaces so that we can achieve what we term a "repeatable model" for implementation at the VA sites. It is critical, therefore, that VA establishes and upholds a defined governance model for enforcing local VA Medical Centers to conform to a national standard, timely decision-making, prioritization and timely execution of needed contract items. Once this governance structure and the repeatable model are in place, we will be able to speed deployments and reduce the customizations for individual sites and the associated costs of those customizations. We are encouraged that VA intends to address these issues in the next increment of the reset.

Finally, we believe that the work being done now for the planned deployment at the Lovell Federal Health Care Center in Chicago in March 2024, which is a joint VA–DoD facility, will demonstrate that the system is scaled to function well and handle operations at complex facilities.

Oracle stands ready for VA to put their success criteria into a plan and provide a schedule for resuming deployments.

The Contract

In May 2023 Oracle and VA completed a renegotiation of the EHRM contract. This renegotiation provides a one-year extension of the contract with 22 new and/or expanded Service Level Agreements (SLAs). Failure to meet the SLAs will result in significantly increased financial penalties compared to the original contract.

Instead of a five-year extension, we agreed with VA to a one-year extension with an annual evaluation for further one-year extensions. We believe this approach will help to better hold both Oracle and VA accountable for making progress each year.

Overall, this new agreement reflects Oracle's commitment to veterans' health care as well as complete confidence in our technology and our partnership with the VA to successfully deliver the EHR system for our veterans.

Performance Update

We are currently meeting all of the SLAs in the modified contract.

Oracle owned outage free time (OFT) has been 100% for 11 of the past 12 months, including August 2023. April 2023 was at 99.319% due to two systems related incidents. Both of these incidents went through our comprehensive Corrective Action / Preventative Action (CAPA) program for a full technical review. As a result, Oracle took immediate action to harden our layered technologies and have modified significant aspects of our domain restart sequencing to resolve the core issue.

These, as well as all major incidents, are thoroughly and transparently discussed with lessons learned along with short and long term irreversible corrective actions to prevent reoccurrence. Every week Oracle conducts detailed operational reviews with VA EHRM-IO and DoD PMO leaders. There has been significant improvement in system performance since the time of the acquisition, which reflects the strong engineering expertise Oracle has brought to this project.

We also have significantly reduced the instances of less severe, but still frustrating, degradations in service going from an average of 28 high severity incidents a month to 14, and continue to decline with August holding at 9. Since January of this year, we have only had 3 level one severity incidents.

Appendix A provides a chart of current metrics on performance.

On the Technical Roadmap of 41 items that we provided to VA on September 2, 2022 – the list of items we need to deliver to make the federal enclave perform reliably – we have completed 34 already. These items are available to you to view on our Congressional Dashboard, as well as our progress on items specified in the letters from Congress dated June 27, 2022 and January 18, 2023.

Lastly, Oracle Cerner has achieved the contract Support Service Level Agreements for service ticket management despite ticket volumes that have been higher than projected. We have achieved 100 percent attainment of all Ticket Management Service Level Agreements in July and August 2023. Ticket closures

outpaced incoming volume consistently over the last four months resulting in a 62 percent reduction in incident ticket backlog and future flexibility to absorb additional ticket volumes.

Block 9 and Pharmacy Enhancements
Block 9 updates to the EHR system were implemented at the end of August 2023, delivering 10 percent more solutions than Block 8 while reducing incident minutes by 44 percent.

We continue to deliver pharmacy enhancements in an accelerated manner. Block 9 delivered 5 capabilities (TO52 Numbers 4-6; TO31 Mobile Receiving, TO31 Purchase Order Import), including TO52 Number 5, which was originally scheduled to be delivered next February in Block 10 but was pulled forward and included in Block 9.

Taken together, pharmacy enhancements Numbers 4, 5 and 6 provide key improvements to assist pharmacists, pharmacist technicians and providers in productivity and to increase pharmacy supply chain operational efficiencies.

- Enhancement Number 6 alone is saving pharmacists and techs two and half minutes in processing refills for veterans and has already been used nearly 1,200 times in the first week of utilization.
- Enhancement Number 4 has been used 140 times in the first week- this aids in pharmacist efficiency in discontinuing prescriptions.

Appendix B includes a full list of all pharmacy enhancements under task order and their scheduled deployment dates, if not already deployed.

As a reminder, prior to our acquisition, Cerner had originally provided an estimate of up to three years to complete the pharmacy seven enhancements. Oracle delivered the most critical enhancements in a matter of months, and we are on track to deliver the full suite of enhancements in less than a year and a half.

Aside from the pharmacy enhancements, Block 9 included other critical updates to the EHR system, including:
- An update to extend the visibility of patient record flags across all users, including schedulers, by its addition to the Revenue Cycle function, which will increase overall patient safety;
- An update to reduce manual and duplicative work efforts previously required by medical support assistants to setup video telehealth appointments;
- Twenty seven freeze and hang improvements that will reduce freezes by approximately 15,000 freezes per month (23% improvement);
- Four crash improvements that will reduce crashes by approximately 800 crashes per month (14% improvement);
- Eight performance fixes that will improve performance across registration, pharmacy, labs, problem lists, orders and more for more than 20,000 users; and
- 23% forecasted reduction in Millennium application freezes with recent Code Block 9 upgrade.

Costs:
Oracle is committed to being a good steward of both public and private funds. Our work with VA, DoD the U.S. Coast Guard and other federal stakeholders is no exception.

A year ago, I committed in testimony to the Senate Appropriations Committee to keep costs in line with the contract ceiling, barring new requirements from VA. This commitment also includes the moving of the EHR to a modern, cloud-based system at no additional cost—to ensure the system works for all stakeholders including patients and health care providers.

Once we resume deployments, we will need to speed deployments as compared to the original schedule. As I mentioned earlier, to do so will require establishing a repeatable model for implementation across VA's facilities and responsive VA governance. Not only will this minimize costs associated with workflow and interface sprawl and allow deployments to occur on a predictable timeline, but it will also allow VA to achieve a consistent veteran experience and quality of care regardless of venue of care.

DoD's contract for modernizing its EHR system was issued in 2015. By October 2017 it had only deployed to four facilities and after that they went nearly two years with no additional facilities going live. During that time DoD, Leidos and Cerner focused collectively on:

- Fine-tuning and adhering to a standard, enterprise baseline of capabilities, workflows and connectivity;
- Enabling a repeatable deployment methodology; and
- Establishing a local and enterprise governance structure with clear lines of accountability that remained committed to delivering an enterprise system.

With those conditions in place and steady leadership from DoD, implementation resumed in September 2019. Deployments accelerated and went from four live sites to being complete domestically today with 165,000 total users seeing 6.9 million beneficiaries in less than four years.

We can achieve a similarly repeatable model with VA and that should be a key goal of this reset period and a key determinant of costs going forward.

Closing:
Everyone involved in this EHRM project is rowing in the same direction. The reset period is critical to getting things right so that the new EHR can be deployed across VA's health system.

Oracle remains fully committed to this project and is working tirelessly to do everything we can to make sure EHRM succeeds at VA and provides our nation's veterans with the type of modern healthcare system they deserve.

We look forward to continuing to work with you and thank you for the opportunity to share our views at today's hearing.

Appendix A – VA Key Performance Indicators (KPIs)

KPIs (Combined VA & DoD Experience)	Dec 2022	Jan 2023	Feb 2023	Mar 2023	Apr 2023	May 2023	Jun 2023	Jul 2023	Aug 2023*
Availability: Outage Free Time (OFT) % **	100	99.9	100	100	99.32	100	100	100	100
Oracle-Owned Outage Free Time (OFT) %	100	100	100	100	99.32	100	100	100	100
Incident Free Time (IFT) % **	33.0	74.0	73.6	80.6	83.8	85.3	81.0	82.2	80.8
Oracle-Owned Incident Free Time (IFT) %	88.6	88.9	83.4	90.5	90.2	90.4	96.0	94.8	98.5
p99 User Interruptions	n/a	19.42	20.68	22.32	22.83	22.15	23.44	22.92	22.41

* Preliminary numbers. Incident data for the month is not finalized until the 15th.

** OFT / IFT : (*Minutes Free of Incident / Total Minutes*) X 100% (All incidents are included, regardless of responsible party)

Appendix B – Table of Pharmacy Enhancements by Task Order

Type	Pharmacy Capability	Description	Client Validation Ready in Non-Prod	Current VA PROD Desktop Upgrade Timing
VA TO 52	#1: Toggle Prescription Synonym Visibility	Guide providers to order prescriptions (or supplies) based on what is preferred through the VA's formulary and more likely to be stocked at the local pharmacy. Intent is to help reduce re-work needed by pharmacists and/or providers to adjust prescriptions after initial order entry and contain costs.	**Complete** Nov 2022	**Live 3/6 (Block 8 Code install)** ~~Block 9: Aug 2023~~
VA TO 52	#2: Optional Order Stop Date in Retail Med Manager	Keep ongoing medications for a patient on the active medication list so providers and pharmacists continue to have easier visibility to the medications even when a new prescription is needed.	**Complete** Nov 2022	**Live with Block 8: Feb 2023** ~~Block 9: Aug 2023~~
VA TO 52	#3A: Display Rx Legal Expiration Date in Orders	Visibility for providers when a prescription is no longer fillable (past legal expiration date), to help identify when a new prescription is needed.	**Complete** Nov 2022	**Live with Block 8: Feb 2023** ~~Block 9: Aug 2023~~
VA TO 52	#3b: Display Rx Dispensing Details in PowerOrders	Update the provider's view of prescriptions to reflect how prescriptions are dispensed by the pharmacy to the patient.	**Complete** Dec 2022	**Live with April 2023 Cube** ~~Block 9: Aug 2023~~
VA TO 52	#4: Support mCDS Discontinue in Retail Med Manager	Reduce steps/clicks for pharmacy staff to discontinue duplicate prescriptions within the drug interaction checking (mCDS) alerts window.	**Complete** Q2 2023	**Live with Block 9: Aug 2023**
VA TO 52	#5: Enable PowerOrders Renewal Action on Retail Med Manager Prescriptions	Allow providers to easily Renew and take other actions on Outpatient Pharmacy-generated prescriptions for consistency with provider-entered prescriptions.	**Complete** Q3 2023	**Live with Block 9: Aug 2023** ~~Block 10: Feb 2024~~
VA TO 52	#6: Optional Pharmacist Verification for Pharm Tech Refills	Increase pharmacist efficiency (save pharmacist time) by removing pharmacist verification requirement for refill initiation entered by pharmacy technicians.	**Complete** Q2 2023	**Live with Block 9: Aug 2023** ~~Block 10: Feb 2024~~
VA TO 52	#7: Request Refills from PowerChart to Outpatient Pharmacy	Provide better service to patients and more efficient by allowing nurses/physicians/other roles as appropriate to initiate a refill request to the pharmacy on behalf of the patient. For example, if the patient says 'I need to get that med refilled' during a clinic visit, the provider can send the refill request to the pharmacy while in the patient's chart, and potentially reduce the wait time for the patient once they arrive at the pharmacy following the visit.	Q4 2023	Block 10: Feb 2024
VA TO 52 Mod6	Override Address Validation	Provide the ability for the pharmacist to override the address validation status for an address that fails the United States Postal Service (USPS) validation.	Q4 2023	Block 10: Feb 2024
VA TO 31	E-Rx Monitor Filtering	Increase pharmacy efficiency by improving work queues used by pharmacy managing provider entered prescription actions	**Complete** Dec 2022	**Live with Block 8: Feb 2023**
VA TO 31	Weekly Multum Release	Increase release cadence for Multum content to move from monthly releases to release weekly, allowing for increased delivery of drug content as content is updated.	**Complete** Dec 2022	**Live as of December 2022**
VA TO 31	Three Drug Image	Enables use of additional drug image sources (e.g. white pill with N 25 imprint) and support up to three images in the Outpatient Pharmacy dispensing verification workflows to visually confirm the right drug is being dispensed.	Q3 2023	Block 10: Feb 2024

| VA TO 31 | Mobile Inventory Scanning | Provide mobile application for scanning inventory to generate a request/requisition for reordering supplies to increase efficiency of managing the inventory | **Complete** Q3 2023 | **Live with Block 9: Aug 2023** ~~Block 10: Feb 2024~~ |