

Statement of Kem Clawson
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Subcommittee on Oversight & Investigations
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Chairman Buyer, Congresswoman Hooley, and distinguished members of the Oversight and Investigations Subcommittee, I am Kem Clawson, Director of Advanced Technology Solutions at EMC. It is an honor and pleasure to be here this morning.

EMC is the world leader in enterprise information storage systems, software, networks and services. Our company is focused exclusively on delivering solutions that enable organizations of all sizes to better and more cost-effectively manage, protect, share, and store information. Every dollar we invest, every engineer we employ, is focused on information storage. With revenues of over \$5 billion in 2002, EMC has developed storage solutions for the majority of the world's largest banks, financial institutions, airlines, telecommunication companies, transportation companies, Internet Service Providers, educational institutions, and Federal government agencies.

I welcome the opportunity to offer an industry perspective on the benefits and technological feasibility of developing a seamless electronic record and sharing medical information between the Department of Defense (DoD) and the Department of Veterans Affairs (VA). EMC has a deep understanding of the information storage and management challenges at the heart of healthcare today; over 90 percent of the world's largest healthcare organizations depend upon EMC to store and manage their data. Major customers include the UCLA Medical Center, University of Chicago Hospitals, Johns Hopkins Medical Center, Memorial Sloan Kettering Cancer Center, and Harvard Medical School, among others.

The fact that the VA and DoD have established a joint executive committee to oversee this worthy initiative, and have identified specific goals and objectives for information sharing, is extremely positive. Because of the size and complexity of the DoD's and VA's healthcare

delivery systems, Congress should not underestimate the significant challenges facing these Departments in creating a seamless patient information exchange.

Historically, the healthcare industry has been slow to adopt information technologies that provide dramatic increases in efficiency and reductions in cost. However, the number of successful implementations of integrated healthcare information systems in single-site and regional hospital systems is growing daily. In most cases, the obstacles to achieving this end are just as great from an organizational standpoint as from a technological standpoint. Change is never easy. From our experience in the private sector, it requires active, forceful, senior-executive direction from within an organization. Evidence of growing collaboration between the VA and DOD in the delivery of healthcare is a positive indicator that these agencies are firmly committed to overcoming institutional and cultural resistance to change often inherent in large organizations. The executive leadership of each agency must maintain this focused and continuous commitment to succeed.

As the members of this Subcommittee know, the challenge of squeezing inefficiencies out of the healthcare system, while improving the care that patients receive is considerable. One obvious impediment is that our healthcare system remains a stubbornly paper-intensive and minimally automated environment. It has not fully embraced the productivity enhancing benefits of an electronic healthcare information capability. Walk into almost any doctor's office today and the first thing you'll see through the glass partition is a floor-to-ceiling file of patient records held inside bulging manila folders. Each day, doctors and their staffs spend time retrieving files, adding new records that often come in by FAX, moving them to exam rooms, and then refileing the record when the patient's visit is over. Rarely are these records complete because documents get misplaced and because important patient treatment history is often scattered across the offices of various specialists, hospitals, pharmacies, insurers, and patients' homes. The nation's nearly 20,000 group practices and clinics generate billions of pages of medical records each year. That equates to incredible inefficiencies and results in time wasted in shuttling documents back and forth.

When given a prescription, for example, we carry a small piece of paper with illegible script to the pharmacy. The pharmacist has trouble deciphering the handwriting and may misread the prescription. And without a call to the doctor's office, the pharmacy often has no way of knowing what, if any, drugs we're allergic to or whether a new drug will cause an adverse reaction with other medications that we may be taking. The Institute for Safe Medication Practices estimates that pharmacists make about 150 million phone calls back to physicians' offices each year just to clarify prescriptions.

If we're referred to a specialist, most of us are forced to carry our own medical files, assuming we've bothered to corral and retain all of this information, or rely on our memory, when recounting our history. If we find ourselves incapacitated in the emergency room and unable to recall our medical history, our diagnosis may be delayed and, in some cases, our treatment is compromised. An Institute of Medicine study conducted a few years ago found that between 44,000 and 98,000 Americans die in hospitals each year from preventable medical errors.

So, what would be *the ideal scenario* of patient information sharing? Consider, for instance, an American serviceman serving in Iraq who is wounded; transferred to a medical hospital in Germany; flown to Walter Reed Army Medical Hospital in Washington; and lastly, flown home to receive treatment at a local VA hospital. How is this soldier's medical information going to be shared between the medical professionals at these DoD and VA facilities in different locations and on separate continents? Currently, that soldier's medical information is contained in a mixture of paper and electronic formats. These records reside in separate information domains and do not adhere to a standard format. As a result, a comprehensive view of the soldier's entire medical record by an attending physician is not possible.

The good news, Mr. Chairman, is that the impetus for change exists—it is called the “*Patient Information Lifecycle Management Strategy*.” In simple terms, this refers to providing medical caregivers—regardless of time, distance or geography—with an “*Electronic Patient Record*”—a comprehensive, unified, digital record that encompasses a patient's medical information from birth to death. By pursuing this approach, the Department of Defense and Department of

Veterans Affairs can provide medical professionals with vital information that can be managed and shared. In other words, it can be seamless.

So, how do we make progress today toward remedying the inefficiencies in the healthcare system and arriving at a future of providing the best possible care at the lowest cost? Here are four steps in the right direction:

First, acknowledge a fundamental inconsistency of healthcare: it is one of the world's most information-intensive yet one of the world's least electronically-enabled industries. Other information-dependent industries like financial services and retailing have experienced extraordinary productivity improvements by applying information technology to harness exploding accumulations of information. This technology provides direct online access to information and facilitates collaboration among individuals, groups, and entire organizations. By contrast, in healthcare, most patient records remain on paper. Even electronically enabled clinical and administrative systems remain stove-piped; information exchange is impeded or precluded without tying disparate applications and systems into one unified network.

Second, we must fully digitize and automate the collection, movement, and management of information throughout the healthcare environment. Doing so enables patient health information to be immediately accessible to authorized caregivers, thereby improving the likelihood that the most accurate diagnoses are made, the most appropriate procedures are performed, and that treatments are ultimately successful.

Digitization also amplifies a physician's diagnostic knowledge. When physicians are deciding what kind of diagnostic tests to order, instead of relying solely on their own clinical experience, they could draw on a rich database of hundreds or thousands of other physicians' experiences about which tests resulted in positive outcomes for patients with similar symptoms. The more often an *evidence-based* system is used, the larger its database grows, and the better it becomes at identifying the best tests up front. In Boston, as part of its effort to build a fully digital healthcare imaging environment, Brigham and Women's Hospital is piloting this very approach

to eliminate unnecessary imaging exams which are estimated to cost between \$3 billion and \$10 billion a year nationally.

Electronic records can improve both our public and governmental health systems' ability to share medical information. In the event of a terrorist act, a networked, online healthcare infrastructure can quickly arm state and Federal health officials with a comprehensive view of the number of available hospital beds, medical supplies, and personnel, as well as the urgent-care needs of ill or injured people.

Third, take inspiration from medical organizations making the transition to electronic health records. In central Alabama, the name Baptist Health Montgomery is synonymous with high-quality healthcare. The not-for-profit provider offers leading-edge health services and wellness programs from three core medical facilities and 11 additional locations including clinics, surgical centers, and administration. Baptist Health Montgomery has implemented an integrated Health Information System that ties together administrative, financial, imaging, and patient care applications.

From a business perspective, the new system provides Baptist Health Montgomery with a business continuity capability that ensures continuous access to information and virtually eliminates downtime. It also enables clinicians and administrative personnel to better manage and share vital patient data for faster patient diagnosis; supports Health Insurance Portability and Accountability Act (HIPPA) requirements and state regulations more effectively; and facilitates a highly effective business decision-making process. Similar implementations of multi-site integrated health information systems are ongoing at Yale/New Haven Health System, North Bronx Healthcare Network, Cornell/Columbia Presbyterian Medical Centers, Kindred Healthcare, Inc., and elsewhere.

In another example of pushing healthcare fully into the digital age, "*Connecting for Health*," a collaboration of more than 100 public and private stakeholders from every part of the healthcare system convened by the Markle Foundation, has reached a consensus on adopting an initial set of data standards and communication protocols for the sharing of healthcare information. These

standards will serve as the foundation for building secure communications among healthcare organizations.

Fourth, recognize that if we do not take full advantage of today's information technology, healthcare costs are going to continue to devour a larger and larger share of the annual budgets for both the DoD and VA. Moreover, critical patient information will remain fragmented and, in many cases, unavailable when needed. Again, the goal is to create a unified healthcare network that ties together disparate, stove-piped medical systems. Information technology delivers dramatically higher levels of efficiency to health care and lowers overall health care costs. Embraced by the VA and DoD, a *Patient Information Management Lifecycle Strategy* will provide the best possible medical care to active and retired military personnel at the lowest total cost.

In closing, Mr. Chairman, please allow me to make one final observation. While the technology exists to establish a seamless medical record between the DoD and the VA, the complexity of these healthcare systems create enormous challenges. These challenges can be—and will be—overcome. Success, however, will not be achieved overnight. Nor will it be attained without the continued and forceful involvement of each Department's executive leadership, as well as Congress' commitment to provide each Department with the resources it needs—in people and dollars—to execute on this vision. At the end of the day, even the world's best technology is only an enabler. What's needed is a determined resolve to build bridges—between the DoD, VA, and Congress—to get the job done. The result of this shared commitment will be better healthcare for the men and women who serve our country, and greater efficiencies and cost-savings for the American taxpayer.

Thank you.