

Accelerate Healthcare Reform with Information Technology

The current agenda is clear: wherever possible, reduce costs and improve quality-of-care services. These directives are in perfect alignment with the role of virtual and cloud computing infrastructure technologies, which help to lower costs and increase clinician productivity while future-proofing IT investments. As healthcare reform deadlines rapidly approach, choosing the right information technology (IT) platform will be critical to the success or failure of new services and exchanges. It will determine the ease or difficulty of updating existing applications and managing new ones. It will also serve as a foundation to help ensure that all healthcare services are secure, accessible and easy enough for citizens to access and use.

Critical Success Factors

Enacted as part of the American Recovery and Reinvestment Act (ARRA) of 2009, many of the Health Information Technology for Economic and Clinical Health (HITECH) Act provisions—from health information exchanges to accountable care organizations to defining meaningful use for electronic medical record implementation and exchange—will require federal and state organizations, as well as providers and payers, to adopt new platforms. As they do, these organizations will need to consider how the technologies support critical healthcare reform requirements such as the following:

- **Information privacy and security** – How are patient records protected, and how will records and systems remain secure and compliant as data is electronically transferred between patients, caregivers and facilities? Are cloud solutions, such as Amazon Web Services, secure enough for healthcare?
- **Mobility** – How will healthcare organizations empower clinicians at the point of care—in hospitals, offices, clinics and even at home—on the mobile devices they choose, without raising costs and premiums?
- **Interoperability** – How portable are applications, and will they work immediately when moved among private, hybrid and public clouds, creating efficiencies and avoiding vendor lock-in?
- **Quality** – How will IT deliver nonstop, mobile access to all critical patient-care applications without the risk of downtime?

Why Cloud Computing? Why VMware?

Cloud computing enabled by virtualization offers an ideal approach to accelerating healthcare reform and improving patient outcomes. Healthcare organizations can create a completely connected and collaborative care environment—where patients have real-time, on-demand, secure access to their personal health information (PHI); physicians and nurses have always-available clinical applications at their fingertips; and payer interactions are seamless. Organizations can decrease costs and address growing pressures for IT to be more agile, efficient and responsive to needs, helping to reduce operational risks. And they can deliver desktops and clinical workspaces, providing clinicians with rapid access to applications and data in mobile workspaces that are always on and available.

Cloud computing can help make IT more reliable without sacrificing security and governance, but not all cloud solutions are built to deliver what is truly needed. More than 480,000 customers trust VMware and the extensive VMware partner ecosystem to help transition from their rigid, legacy, physical infrastructures to flexible, virtualized cloud environments. KLAS-rated VMware vSphere® virtual infrastructure has been broadly adopted by hospitals of all sizes—ranging from the largest multifacility systems to critical-access facilities.

Large private clouds and a global network of public clouds, all based on VMware® technology, are enabling a new era of IT. In the federal government, more IT infrastructure is virtualized on VMware than on any other platform. VMware virtualization solutions are run by all 15 executive branch agencies; by all Department of Defense agencies, services and joint commands; and throughout the legislative and judicial branches. In healthcare, nearly 80 percent of hospitals run VMware technology—making VMware the industry leader in virtualization, the foundation for cloud computing.¹

One Solution. Better Outcomes.

VMware provides everything needed to help meet stringent HITECH requirements. VMware vCloud® for Healthcare is the industry's first end-to-end-care cloud computing platform for exchanging information and delivering products and services that can lead to better availability of healthcare systems. Flexible and customizable, it is a comprehensive framework supporting the entire IT care environment—from point-of-care to the most critical patient-care systems—to help safely accelerate the transition to truly connected care.

vCloud for Healthcare helps transform the cost, quality and delivery of patient care while providing the necessary control and transparency for regulated organizations to establish and maintain compliance in their virtual and cloud environments. Designed to future-proof the entire IT care environment, vCloud for Healthcare enables organizations to

- **Reduce costs** – Healthcare providers have reduced data center and capital costs by as much as 60 percent—without sacrificing compute performance.²
- **Increase mobility** – Healthcare organizations deliver desktops and clinical workspaces that roam with clinicians, providing fast access to applications and data—without requiring multiple passwords—in a workspace that is always on and readily available.
- **Protect information privacy** – VMware solutions significantly reduce the threat of lost or stolen PHI by keeping all data in the data center—not on PCs or mobile devices. When end users log in to applications—onsite or offsite—the experience is just like using a local application, but because information is delivered from the data center, it cannot be downloaded to the device or any external storage device. As a result, when a device is lost or stolen, data remains safe.
- **Enhance security** – VMware solutions position security services exactly where they are needed—from application segmentation to trust zone maintenance.
- **Maintain compliance** – VMware solutions can continuously and automatically monitor and update infrastructure and applications. They support detailed discovery and assessment across physical and virtual systems to centrally control changes and configuration. They also inspect for compliance, assess configurations against best practices, and perform automatic remediation.

- **Increase IT efficiency** – Organizations have used VMware solutions to decrease time spent on routine administrative tasks by about a third.³
- **Achieve interoperability** – VMware spearheaded the Open Virtualization Format (OVF), which has received industry-wide acceptance and is an ANSI standard for portability. With VMware, organizations can move applications between virtualization and cloud platforms—to private, hybrid and public clouds and back again. Because VMware supports open APIs, organizations can also streamline management and control of workloads across clouds.
- **Drive quality** – VMware technology helps organizations avoid unplanned downtime and service interruptions with always-available access to critical patient-care applications.
- **Reduce energy costs** – Organizations have cut data center energy costs by up to 80 percent using VMware solutions.⁴
- **Avoid vendor lock-in** – VMware supports application portability and cloud interoperability. In contrast to other public cloud services, such as Amazon Web Services, applications running in VMware environments can easily be moved to another provider or cloud without significant loss of productivity or capital.

Contact VMware

VMware delivers the first end-to-end-care cloud computing platform to improve patient care across the healthcare continuum while also providing the control and transparency necessary to maintain privacy, security and compliance. For more information, visit <http://www.vmware.com/go/healthcare>.

1. HIMSS Analytics. "Virtualization Software Market Share," 2013.

2. IDC. "Datacenter Trends Survey," <http://www.vmware.com/solutions/cost-savings/index.html>.

3. IDC. "Datacenter Trends Survey," <http://www.vmware.com/solutions/cost-savings/index.html>.

4. IDC. "Datacenter Trends Survey," <http://www.vmware.com/solutions/cost-savings/index.html>.

