

VMware Solutions for Healthcare



Healthcare: An Industry in Transition

The healthcare industry is in the midst of a major transformation. Electronic health records (EHR) and electronic medical records (EMR) hold the promise of improving the safety, quality, efficiency and cost-effectiveness of healthcare delivery. The United States federal government has set forth an ambitious goal of establishing a national EHR/EMR infrastructure by the year 2015, and is offering financial incentives for early adopters that demonstrate "meaningful use" of EHR/EMR and other modern healthcare information technologies.

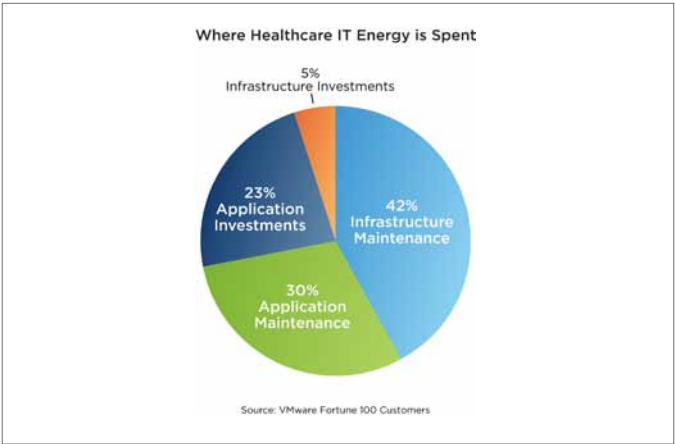
Yet despite the proven benefits of EHR/EMR and incentives for adopting these technologies, most healthcare organizations have struggled to satisfy even the most basic requirements for meaningful use of EHR and EMR. The reason is that they are saddled with costly, complex IT infrastructures that require tremendous energy just to maintain, leaving little time or money for new IT investments that directly impact patient care.

The result is a healthcare IT dilemma that simply can't be solved with traditional solutions. Only with a new approach can healthcare providers go beyond the limits of traditional IT and transform patient care.

By adopting VMware solutions in the datacenter and on clinical desktops, your healthcare organization can safely accelerate the implementation of EHR/EMR systems and other healthcare IT solutions while reducing the cost and complexity of existing applications and infrastructure.

Why Healthcare Providers Choose VMware

- VMware provides the industry's most stable and reliable virtualization platform for running clinical applications with maximum availability, flexibility and agility.
- VMware solutions safely accelerate the adoption of critical new healthcare services and technologies such as EHR, EMR, PACS and health information exchanges.
- VMware solutions help customers make more efficient use of existing IT resources so they can devote more energy to innovations that directly impact patient care.
- VMware solutions give caregivers anytime, anywhere access to clinical applications, resulting in quicker, more reliable access to critical patient information.
- VMware solutions facilitate security and HIPAA compliance by keeping PHI and other sensitive data off of physical endpoint devices that are vulnerable to theft or loss.



Transform Healthcare IT Through Virtualization

Virtualization is a proven technology that has helped countless organizations transform and modernize IT to reduce costs, streamline operations and improve business agility. As the global leader in virtualization¹ and cloud infrastructure, VMware provides solutions for healthcare that are built on the industry-leading virtualization platform used by nearly 200,000 customers worldwide.

"By reducing the time and costs associated with maintaining our IT infrastructure, VMware vSphere allows us to put more resources toward creating a superior patient experience."

— Joe Egan, Senior Network Engineer, Children's Hospital Central

Consolidate and Rationalize Your IT Infrastructure

For many healthcare organizations, the journey begins by consolidating server hardware to reduce costs and increase hardware utilization. Many VMware customers are able to achieve server consolidation ratios of 15:1 or more, which in turn has helped to cut their IT capital expenditures by more than 50 percent.

But consolidation is just the first step. VMware solutions also give you the ability to eliminate hardware and application silos by transforming server, storage and network resources into a singular "resource pool" that can be rapidly allocated on demand.

The result is a private cloud infrastructure that you can use to deliver IT as a utility-like service that offers all the benefits of public clouds, but with the security and control that you need to ensure the privacy, portability and integrity of protected health information.

¹ Gartner, Inc. Magic Quadrant for x86 Server Virtualization Infrastructure, Thomas J. Bittman, Philip Dawson, George J. Weiss, 26 May 2010. <http://www.vmware.com/company/news/releases/gartner-magic-quadrant-10.html>

Streamline IT Management

VMware solutions take the complexity out of IT management by replacing manual, error-prone processes with policy-driven automation that results in “zero-touch” infrastructure with self-service provisioning. This approach makes it possible to increase agility and respond more quickly to the needs of patients and physicians while retaining complete control over all policies.

In addition, VMware solutions simplify security management by providing dynamic protection against internal and external threats, eliminating the need to constantly reconfigure static environments. You also get detailed logging and configuration management capabilities that make it easier to demonstrate compliance with HIPAA and other government regulations.

Best of all, VMware solutions utilize open, standards-based technology and provide seamless interoperability with leading third-party management solutions, allowing you to leverage and extend your existing tools, policies and processes.

Optimize Clinical Applications

Only VMware offers a pragmatic path that lets you encapsulate legacy applications and move them to a modern cloud infrastructure without rewriting a single line of code.

This evolutionary approach lets you improve the quality and performance of existing clinical applications by allocating resources dynamically based on predefined policies and service level guarantees. You also gain the ability to maximize the availability of your clinical applications through always-on IT capabilities that deliver zero-downtime maintenance, fault tolerance, automated failover, backup and disaster recovery—all without the need to for duplicate hardware.

VMware recognizes the vital importance of clinical applications, and is working closely with the world’s leading healthcare application and imaging technology providers—including Cerner, McKesson, and FujiFilm Medical Systems—to build fully compatible, validated and supported solutions. For more information about these partnerships, visit <http://www.vmware.com/solutions/industry/healthcare/apps.html>.

“EMR implementations are complicated projects for hospitals, and providers have many concerns, including compatibility with existing IT infrastructure,” said Judy Hanover, Research Director, IDC Health Insights. “Hospitals need to be able to streamline and centralize their desktop and application management in order to quickly and cost-effectively move to an EMR system by 2011. Virtualizing desktops and applications can enable healthcare providers to centrally manage, provision and update existing or new applications and desktops independently of one another and in a fraction of the time these tasks normally take with a traditional desktop model.”

—Judy Hanover, Research Manager, IDC Health Insights

Improve Clinician Mobility, Productivity and Satisfaction

The traditional approach to delivering clinical desktops is complex and inefficient. Some applications are installed locally on endpoint devices, some run over the network, and others still can only be run on specific PCs and thin client terminals because of compatibility issues. The result is a cumbersome workflow for the caregiver—finding the right terminal, using the right login, launching the right application—that takes time away from patients.

VMware enables healthcare providers overcome these obstacles by virtualizing clinical desktops and hosting them in private clouds where they are easier to provision, maintain and secure. Moving to a desktop cloud model also helps to keep personal health information off of physical endpoint devices that are vulnerable to theft or loss.

This approach enables every end user to access their own complete, customizable desktop environment from any location through any endpoint device, giving physicians faster access to clinical applications and patient data and applications as they move from room to room, floor to floor, and site to site.

“VMware View makes it easier for us to create and maintain a highly available and easily accessible desktop environment for the doctors and nurses at our new hospital. Taking advantage of this technology frees up our staff to do what they do best: taking care of our patients.”

— John Meharg,
Director Health Information Technology
Norman Regional Health System

Leverage Cloud Services Without Losing Control

Some healthcare organizations are considering third-party cloud services as a way to lower IT costs, reduce the risk of medical errors, and make vital information more accessible to patients and caregivers. But many public cloud services lack the security and control that healthcare providers need to protect patient privacy and maintain compliance with internal policies and government regulations such as HIPAA.

In contrast, VMware solutions also allow you to leverage third-party cloud services from VMware vCloud™ partners while retaining complete control over your IT environment. These services extend the logical boundaries of your datacenter and leverage public cloud computing services based on secure and proven VMware technologies.

With VMware, you get the freedom of choice to run all your clinical applications in the optimal location (a private or public cloud) while fully retaining the ability to move workloads between private and public cloud infrastructures as needed. The result is a hybrid cloud approach that lets you realize the full benefits of cloud computing without sacrificing security or control.

VMware Solutions for Healthcare IT

VMware vSphere

VMware vSphere™ is the industry's most complete, scalable and powerful virtualization platform, and the best platform for building dynamic, highly responsive cloud infrastructures. Used by nearly 200,000 customers—including all the Fortune Global 100—and leveraging more than a decade of proven VMware technology, vSphere provides unparalleled agility, control and efficiency while fully preserving customer choice.

VMware Virtualization and Cloud Management Solutions

VMware virtualization and cloud management solutions, which include the VMware vCenter™ family of products, fundamentally simplify healthcare IT management by accelerating IT service delivery, increase operational efficiency, and reduce business risks. Healthcare providers rely on VMware solutions such as vCenter Configuration Manager to ensure continuous compliance with out-of-the box templates and toolkits for such as HIPAA and other regulatory mandates.

VMware View

VMware View™ is the industry's leading desktop virtualization platform, and the only purpose-built solution for delivering desktops as a managed service. VMware View extends the vSphere platform to the desktop for unparalleled levels of availability, while streamlining desktop management for reduced costs. A consistent high performance desktop experience ensures end users satisfaction.

VMware ThinApp

Offered as part of VMware View or as a standalone solution, VMware ThinApp™ virtualizes applications reducing the cost and complexity of application delivery and management. Applications can be managed and updated centrally ensuring standardization across the organization.

VMware vShield

For organizations that want to leverage the benefits of cloud computing without sacrificing security, control or compliance, the VMware vShield family of security solutions provides comprehensive protection for virtual datacenters and cloud environments, enabling customers to strengthen application and data security, improve visibility and control, and accelerate IT compliance efforts.

VMware vCloud Datacenter Services

VMware vCloud Datacenter Services are ready-to-run enterprise-class public cloud service offerings delivered through VMware certified service providers, and built on proven VMware cloud infrastructure technologies.

VMware vCloud Datacenter Services extend internal datacenters and private clouds through to trusted, compatible public cloud environments. By adopting VMware vCloud Datacenter Services, you can create an interoperable service delivery model and harness the power of public cloud offerings while preserving security and control over PHI and other sensitive data.

Find Out More

To learn more about VMware solutions for healthcare, visit us online at <http://www.vmware.com/go/healthcare/>. For information or to purchase VMware products, call 877-4-VMWARE (outside of North America dial 650-427-5000), visit www.vmware.com/products, or search online for an authorized reseller.

