CLINICAL AND BUSINESS CHALLENGES
Healthcare providers around the world continue to face explosive data growth and cost pressures while implementing advanced clinical systems and complying with enhanced regulations for the protection, security, and privacy of patient information. In tandem, healthcare providers are working to transform patient care delivery through the acceleration of electronic care processes, interoperability for care coordination, and quality measuring, reporting, and improvement.

Government initiatives and stimulus programs—including ARRA HITECH in the United States, Canada’s Health Infoway, the European Commission eHealth Action Plan, and China’s Guidelines on Deepening the Reform of the Healthcare System—are all accelerating the adoption of clinical applications. In the U.S., eligible hospitals, critical-access hospitals, and professionals are implementing Electronic Health Record (EHR) capabilities to leverage phase-one ARRA HITECH Medicare and Medicaid incentives that require demonstration of “Meaningful Use of the EHR.”

SOLUTION DESCRIPTION
The EMC® EHR Infrastructure Solutions Suite provides a portfolio of offerings that include integrated, validated solutions with our industry-leading Healthcare ISV Partners’ clinical applications, using best-in-class hardware, software, and services from EMC to move your EHR deployment forward.

Whether your organization is just beginning a phased-roadmap approach to implementing EHR functionality including problem lists, medication history, and laboratory tests, or transforming electronic care process across the continuum, EMC and its partners can help you build the supporting IT Infrastructure aligned with clinical service needs for the highest levels of performance, availability, security, virtualization, and integration.
**IMPROVE QUALITY OF CARE AND PATIENT SATISFACTION**

To help improve clinical and business information workflow and the quality of care, EMC works with industry-leading Healthcare ISV partners in the lab to integrate, test, and certify commonly-deployed configurations for EHR functionality including: Radiology and Cardiology, PACS, CPOE, HIS, and Clinical Decision Support. In conjunction with our partners, support plans are built with formal problem-escalation policies which can be established to meet your service-level requirements and clinical protocols. All EMC partners are required to complete technical training and certification, so you’re assured a smooth installation and quick time-to-deployment.

The EMC Open Systems Architecture (OSA) Solution for Healthcare leverages a services-oriented architecture (SOA)-based approach, expanding the role that technology can play in your IT department. Deployed in a modular fashion, this offering aggregates medical images and other content from clinical, operational, and financial applications into an open, flexible, and highly scalable information repository with regulatory-compliant and cloud-optimized storage archiving platforms. This solution adds a set of complementary capabilities to your traditional PACS/RIS integrations, which enables documents, patient records, prescriptions, invoices, and other unstructured content to be easily accessed through a secure, virtual, and federated repository. The solution supports DICOM and open-standard message formats to reduce expensive point-to-point integrations that are typically required.

**MANAGE RISK AND COMPLY WITH REGULATIONS**

For safer patient care diagnosis, clinicians must have access to the most up-to-date patient information, images, and tests to make informed decisions. Protected Health Information (PHI) and Personally Identifiable Information (PII) requirements must be met. Prior IT investments must be maximized—with an eye to the future—when all providers in the care continuum simply come to expect instant access to a secure, protected, single instance of the patient record.

Protection, security, and privacy of patient images and related information are critical organizational priorities when moving toward the EHR. Particularly important are data integrity, audit capabilities, and alerts to data breaches. For built-in security—at the most granular patient record level—leverage EMC’s RSA® security products and services. RSA Data Loss Protection prevents unauthorized outflow of highly sensitive data from your network and end-points. RSA enVision®, along with RSA’s Encryption Suite, and governance and compliance capabilities from Archer software, can add additional levels of protection across your provider network.
EMC offers a portfolio of information protection, business continuance, and disaster recovery software and service-based solutions, including the EMC Business Continuity Assessment Service for Healthcare Environments and EMC Information Risk Management Services. Our industry experts can help you analyze current protection strategies, capabilities, processes, staffing, and testing programs, and recommend improvements based on their knowledge of industry best practices. In addition, EMC offers an integrated set of backup, recovery, archive, and storage management solutions, including EMC Disk Library, EMC Centera®, EMC Atmos™, EMC Avamar®, EMC Data Domain®, and EMC NetWorker®. Combinations of these offerings help you ensure that patient data is quickly and accurately restored.

ENABLE IT EFFICIENCIES

A successful EHR implementation relies on a flexible information infrastructure that enables your healthcare organization to store all patient information—from a physician’s note to a billing statement—in a virtual pool that can be accessed by all authorized care givers, and patients themselves, from wherever they reside (Figure 1). Start with EMC’s SAN, NAS, content-addressable storage (CAS), and cloud-optimized storage (COS) offerings, then consolidate, virtualize, and safely share information across your infrastructure using VMware® and EMC VPLEX™ to name just a few of EMC’s industry-leading, cloud-enabled solutions.

Ask about EMC Enterprise Flash Drives (EFDs) for high-performance, and Fully Automated Storage Tiering (FAST) technology for automatic placement of information on the tiered infrastructure for maximum return on investment. Manage the EHR environment with the policy-based EMC Ionix™ resource management suite of software. With Ionix, you can manage IT resources in physical and virtualized environments.

In addition, with the EMC Virtual Desktop Infrastructure Solution for Healthcare you can provide clinicians with quick access to patient information across multiple applications and desktop clients, as they move from one hospital room or desktop device to another.

Figure 1. EMC EHR Infrastructure Solution Suite Framework
STREAMLINE CLINICAL AND ADMINISTRATIVE WORKFLOWS

Managing EHR content across your healthcare system, regardless of where it resides physically, enables your healthcare organization to deliver the right information at the right time to clinical decision makers. Enterprise Content Management Solutions from EMC help you achieve immediate and long-range objectives by providing the tools that improve access to critical patient information when needed. These solutions optimize patient care by providing immediate access to all patient information, and they reduce costs by eliminating manual chart filing, retrieval, deficiency review, and archiving. They improve productivity with streamlined workflows of critical clinical and financial information for review or processing, and improve regulatory compliance and patient information security with tools that support HIPAA.

For document capture, the EMC Captiva® family of healthcare products can help transform data from paper, fax, and electronic sources into content that your EHR applications can readily process. In addition, to gain a comprehensive patient view that leverages your EHR applications, your organization can combine document imaging for medical records with the EMC Virtual Patient Repository for Patient Information Solution to hold pertinent patient information—drawing on the case management capabilities of the EMC Documentum® xCelerated Composition Platform (xCP). Patient documents and content files can be aggregated to incorporate all data, rules, policies, and discussions relevant to a specific case instance.

MOVE TOWARD THE PRIVATE CLOUD FOR HEALTHCARE

EMC is leading the journey to private cloud computing with technologies to help healthcare provider organizations simplify deployment, reduce costs, and improve availability and performance of all applications, including the EHR. Private cloud is EMC’s framework for tomorrow’s computing environment. It starts with virtualizing non-mission-critical application deployments. With the significant cost savings achieved from this first phase, you’ll then want to move to virtualizing critical patient information. Rest assured that EMC has the security, scalability, performance, and availability features built in. The last and final phase enables your healthcare organization to offer EHR capabilities as an IT service, charging users based on service-level agreements and critical care need.

Private cloud gives caregivers in your network access to computing resources “on demand”—when they are needed. IT focus can now be shifted to the organization’s mission, and less on where data resides. Private cloud also enables you to automate to free up IT resources to better support the business and clinical services. IT agility is yours to better support the business.

EMC CONSULTING FOR HEALTHCARE

EMC Healthcare Consulting can help you determine the optimal architecture for your EHR buying decisions, assisting your organization in building an IT foundation to support current and future requirements. EMC consultants can also help with planning your backup and information risk management strategies, and virtual healthcare infrastructure—including the desktop, and unified networked storage platforms environment. Ask to speak to our Consulting Team for Healthcare today.