

The American Recovery and Reinvestment Act of 2009

EMC information infrastructure solutions for healthcare



Whether your organization is beginning to implement modules of the EHR or transforming electronic care processes across your enterprise, EMC and its partners offer solutions that provide the highest levels of performance, availability, security, and integration to meet end-user needs. IDNs, academic medical centers, community hospitals, ambulatory clinics, physician practices, Regional Health Information Organizations (RHIOs), and Health Information Exchanges (HIEs)—can all leverage the EMC® portfolio of solutions for healthcare.

With its multi-billion-dollar incentives and grants to accelerate the use of electronic care processes, the American Recovery and Reinvestment Act of 2009 (ARRA) will significantly transform healthcare IT. Specific ARRA provisions relating to health information technology, the “Health Information Technology for Economic and Clinical Health Act” (HITECH Act), incent hospitals and non-hospital-based clinicians to demonstrate “meaningful use” of certified electronic health record technologies to leverage Medicare and Medicaid incentives and reimbursements that begin in FY 2011.

At the same time, the Office of the National Coordinator for Health IT (ONC) is driving health IT funding to improve the reporting of quality measures and increase the exchange of administrative and clinical data via state or “qualified” state-designated non-profit, multi-stakeholder partnerships in RHIOs and HIEs. And grants are available for comparative effectiveness research to conduct and synthesize research comparing the benefits of different interventions to prevent, diagnose, treat, and monitor health conditions in “real-world” settings.

Solutions to improve the quality of care and patient satisfaction

EMC Solutions for the Electronic Health Record: As your organization deploys a comprehensive EHR, the supporting information infrastructure must provide the highest levels of availability, security, and automation required for 24x7 care delivery. EMC EHR solutions represent the integration of CPOE, HIS, Radiology, and Cardiology PACS applications from our healthcare strategic partners, combined with an EMC information infrastructure. These joint solutions deliver the performance required as EHR functionality is expanded.

EMC has long-standing partnerships with leading EHR, HIS, PACS, and Ambulatory Care ISVs that result in joint engineering development to integrate, test, and certify partner applications with EMC hardware, software, and services. Application Programming Interface (API) integration is also accomplished to automate archiving processes between our partners’ applications and EMC purpose-built archiving platforms. Customer support plans with formal problem-escalation policies are established, and partner delivery resources receive technical training and certification on EMC products.

EMC Open Systems Archive: Based on a services-oriented architecture (SOA), this offering aggregates content from clinical, operational, and financial applications. Leveraging IT and healthcare industry standards, the solution framework provides an open, flexible, and highly scalable information repository to supplement EHRs, HIEs, RHIOs, comparative effectiveness research, and other patient data created. Healthcare organizations can leverage an Information Service Bus which builds on SOA technologies to provide orchestrations that address industry-standard messaging types, while supporting the forward and backward mapping of formats like HL7v2 and HL7v3. The solution discovers and captures documents, patient records, prescriptions, invoices, and other unstructured content to be easily accessed from existing applications.

Master Data Management: Central to health information exchange, healthcare organizations can reconcile patient and caregiver identities across all systems with the Open Systems Archive Master Data Management module. Combining software with our EMC Consulting information exchange expertise, organizations gain complete, highly accurate, and realtime views of data spread across multiple systems or databases, even outside of the firewall.

Solutions to manage risk and enable regulatory compliance

As part of the ARRA HITECH Act, there are new privacy and security provisions aimed at increasing civil and criminal consequences for violating HIPAA, as well as increased enforcement activities governing breach disclosures. To help comply with enhanced HIPAA and FTC requirements, EMC offers solutions for business continuity, disaster recovery, privacy, and security to fully protect Protected Health Information (PHI) and Personally Identifiable Information (PII).

Information Risk Management for PHI and PII: EMC takes an information-centric approach to security that empowers your organization to meet patient, physician, contractor, and other healthcare staff needs while enabling compliance with HIPAA requirements with solutions from RSA®, The Security Division of EMC. Information Security Services from EMC Consulting can enhance your information risk management strategy by assessing risk, designing processes and programs, and helping to define policies. You can prevent data leakage through enforceable policies to control and manage data usage. Receive reports and audit logs on selected applications. Ensure only legitimate users access resources. Monitor and authenticate users of clinical applications based on risk, policies, and user identities. Encrypt PHI and appropriately manage the keys to the data. Ensure authorized users are only able to access the information relevant to them and execute authorized transactions; and automate the continuous discovery of applications and server infrastructure with alerts for HIPAA and other compliance violations.

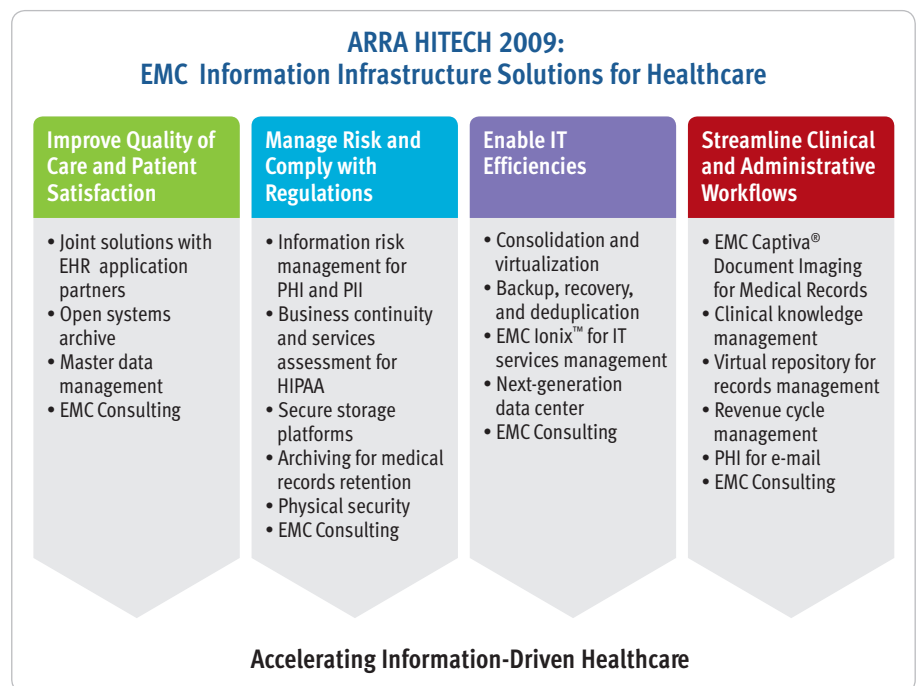
Business Continuity and Services Assessment for HIPAA: Meet demanding clinical service-level requirements for recovery time and data loss with our disaster recovery solutions. Rapidly restart applications upon failure and affordably replicate information at remote locations with technology that minimizes network costs and bandwidth. Deploy tiered storage platforms, software, and services to ensure high availability and robust data protection—and fit your budgetary and technology constraints. To help meet HIPAA disaster recovery contingency planning requirements, the EMC Business Continuity Services Assessment for HIPAA assesses how well your current business continuity capabilities align with the needs of your organization, identifies and examines threats that impact critical IT operations or could result in a business interruption, and then recommends appropriate steps toward mitigating those threats.

Physical Security: EMC helps you bring network security, information management and storage, video surveillance, and analysis to your healthcare organization. Manage, archive, protect, authenticate, and scale your security systems and video surveillance information more effectively to increase your capacity to detect, deter, and analyze security events in real time.

Secure Storage Platforms: Choose from our complete family of tiered networked storage platforms including NAS, SAN, CAS, and COS; and software and services that provide flexible, scalable, and compatible technologies to meet your specific requirements. Optimize your EHR, HIE, and comparative effectiveness research information infrastructure with our expert capabilities in application consulting, infrastructure consulting, and business consulting.

Our storage platforms offer built-in security features and five-nines availability, meeting a stringent set of more than 80 security requirements. Enterprise Flash drives have been rigorously tested and qualified on EMC Symmetrix®, Celerra®, and CLARiiON® storage platforms to deliver single-millisecond response times—accelerating response times by up to a factor of 10. And EMC energy efficiency solutions offer the advanced products, tools, and services you need to optimize the energy efficiency of your information infrastructure.

Archiving for Medical Records Retention: You can achieve and maintain compliance with HIPAA and state records-retention requirements using EMC’s simple, secure, active archiving solution with WORM technology. This solution can be customized by clinical protocols to meet defined service levels for records retention, enabling caregivers to gain fast, easy access to archived patient information to safely develop treatment plans. EMC virtual tape offerings can help move and keep information online for quicker patient care collaboration by replacing physical tape libraries with a disk-based solution for cost savings and higher performance and reliability.



Solutions to enable IT efficiencies

Consolidation and Virtualization: Increase your storage and server utilization rates while reducing space, human resources, and energy costs for the data center by deploying virtualization technologies integrated with EMC tiered storage platforms. Improve storage utilization rates by deploying multiple storage tiers within a single storage system. EMC provides simple, easy-to-deploy solutions that integrate with and extend all VMware® advanced functions and manage across server, network, and storage domains.

Backup and Recovery: Strengthen your data protection, streamline backup and recovery, and meet a wide range of service levels while enabling regulatory compliance—even for the largest data volumes.

Deduplication: Shrink the amount of data to be backed up and archived with both source- and target-based deduplication software, while reducing the time, cost, storage capacity, and human resources required to perform backups.

IT Service Management: Monitor and manage service delivery through automated solutions that optimize processes related to incident, problem, configuration, change, and compliance management. Isolate the root cause and business impact of faults and performance issues across your physical and virtual infrastructure and provide a consolidated view of the service levels for all essential applications. Protect PHI by monitoring for compliance with regulatory requirements or configuration and security best practices.

Next-Generation Data Center: Optimize and virtualize your infrastructure by deploying the next-generation, virtualized data center based on Cisco Unified Computing Systems with EMC infrastructure technologies and integrated offerings from VMware.

Solutions to streamline clinical and administrative workflows

Document Imaging for Medical Records: Transform patient medical records from paper to indexed electronic data records and deliver them directly to your HIS system for faster clinical-care decision-making.

Clinical Knowledge Management: Incorporate collaboration with governance and a multi-disciplinary approach. Improve business process management, clinical program management, patient care, and quality outcomes.

Virtual Repository for Patient Records: Optimize workflow and leverage unstructured data to supplement an existing EHR to provide centralized viewing and exchange of patient information, like scanned paper documents, digital photos, video, e-mail, and other electronic content.

Revenue Cycle Management: Streamline the claims process from start to finish, improving the accuracy of collected information and submitted claims. Provide centralized patient financial information and a common repository including scanned documents such as drivers licenses and insurance cards and electronically captured data such as ADT information and EOBs from registration, clinical care treatment and diagnosis, claims submission, and denial management.

PHI for E-mail: Provide a secure messaging solution for protecting PHI—shared internally and with external business associates—with a suite of information governance and integrated content archiving products to meet the demands of high-volume e-mail environments. Enable proactive electronic discovery, e-mail retention, and cost-efficient tiered storage critical for a PHI regulated environment and automatically protect outgoing e-mail, documents, and files.

EMC Consulting for Healthcare: EMC provides a broad portfolio of consulting offerings to help organizations develop information-driven healthcare systems to meet Electronic Health Record, HIE, and comparative effectiveness research objectives. Using EMC solutions, you can improve patient care; streamline and eliminate costs from healthcare delivery operations; address master information management in support of EHR, HIE, and comparative effectiveness deployments; meet new industry interoperability and compliance standards; optimize revenue cycle management—reducing costs and risks and ensuring an agile, resilient, and optimized technology infrastructure.



EMC Corporation
Hopkinton
Massachusetts
01748-9103
1-508-435-1000
In North America 1-866-464-7381
www.EMC.com

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