



ACCELERATING COLLABORATIVE HEALTHCARE WITH EMC ANALYTICS SOLUTIONS

Healthcare Reform. ARRA HITECH. Patient Protection and Affordable Care Act. Cost Measurement and Containment. Today's healthcare organizations are investing in new solutions and technologies to move toward "meaningful use" of the electronic health record, and to engage in accountable care and "pay for performance" initiatives. At the same time, clinicians require a complete view of a patient's information for safer, collaborative care decisions. Healthcare providers are embarking on a transformational journey to further improve patient care outcomes, reduce costs, and better manage populations of patients. Many need to redesign their business strategy to turn data into actionable insight – this is no simple task.

At the core of these growing healthcare provider requirements is the use of "big data." Gaining an enterprise-wide view of healthcare data helps organizations provide fact-based answers to questions ranging from which therapeutic approaches work best, which patients are at highest risk for readmission or infection, to physician performance in relation to quality and cost.

To date, most healthcare providers have made IT investments to establish the foundation for collaborative care--the digitization and sharing of healthcare data across caregivers involved in a patient care episode. They've deployed transactional systems including EMRs, operational, revenue cycle management, and financial systems. Yet, the vast majority of the growing amounts of medical data is coming from unstructured and semi-structured data found in PACS and medical imaging, clinical research, doctors' notes, pathology reports, and more.

Now, more than ever, healthcare providers require solutions that analyze data from many sources across the continuum of care and provide actionable insights to meet the clinical and business demands of the ever-changing healthcare industry.

TRANSFORM HEALTHCARE DELIVERY WITH THE EMC HEALTHCARE ANALYTICS APPLIANCE

EMC can help you on your transformational journey with the analytics capabilities needed to aggregate, analyze, and visualize your data to make informed patient care and operational decisions. In addition, we understand that healthcare providers have varying information needs, and today's requirements may differ from what is required in the future. The EMC Healthcare Analytics Appliance (HAA) allows you to start your analytics journey today and seamlessly scale your solution over time.

The EMC Healthcare Analytics Appliance provides a purpose-built analytics solution that combines the industry-leading speed and scalability of the EMC Greenplum analytics platform integrated with a robust ecosystem of application partners. The appliance provides a complete solution in one device and the flexibility to integrate with your existing tools. Whether your organization is just beginning to strengthen business intelligence capabilities or is implementing accountable care business models that require broad analytics, EMC with our partners can help you build the supporting IT infrastructure on-premise or hosted as an ITaaS with the highest levels of performance, availability, virtualization, security, and integration.

Our portfolio of analytics offerings use best-in-class hardware, software, and services enabling you to gain greater insight and value from your data. We work with industry-leading partners to integrate, test, and certify partner applications with our healthcare analytics appliance. And we will build support plans with formal escalation policies to meet your service-level requirements.

The solution leverages the EMC Greenplum™ Unified Analytics Platform (UAP), combining co-processing of structured and unstructured data with a productivity engine and social network that enables collaboration among data scientists. The EMC Greenplum UAP fuses three Greenplum products into a unified offering to support healthcare provider analytics use cases with the EMC Greenplum database for structured data; the enterprise Hadoop offering EMC Greenplum HD, for analysis and processing of unstructured data; and EMC Greenplum Chorus™, which acts as a productivity engine and social network for data science teams.

The EMC® Greenplum® Data Computing Appliance (DCA) offers the power of a massively parallel processing (MPP) architecture, while delivering the fastest data-loading—without the complexity and constraints of proprietary hardware. It is a unified Big Data analytics appliance—a modular solution for structured data, unstructured data, and Greenplum partner applications such as business intelligence (BI), and extract, transform and load (ETL).

SCALE YOUR ANALYTICS SOLUTION AS YOUR REQUIREMENTS EVOLVE

Healthcare organizations can grow their DCAs as their demand for processing capacity grows or as their analytics requirement evolves. It is easy to start with a single, primary rack, which includes a Greenplum Database Module (Standard or High-Capacity), and expand the appliance in quarter-rack increments using Greenplum Database Standard Module, Greenplum Database High Capacity Module, Greenplum HD (Hadoop) Module, or Greenplum Data Integration Accelerator Module in any order and amount, up to 12 racks total. All modules are linked via a high-speed, high-performance, low-latency interconnect.

With the Greenplum DCA, your organization can embrace Big Data analytics quickly and easily. You can get results faster by using an integrated appliance that offers optimized performance, ease of deployment, increased system monitoring and manageability, and a reduced footprint. The Greenplum DCA modules greatly simplify the expansion of capacity and performance of the Greenplum Database (analytic database) and Greenplum HD (Apache Hadoop) portions of the systems. This data management appliance delivers maximum flexibility and scalability for organizations that are tackling terabyte to petabyte-scale data opportunities.

LEVERAGE OUR GROWING PARTNER ECOSYSTEM

EMC is teaming with an expanding ecosystem of analytics software partners to provide a comprehensive analytics solution powered by the EMC Healthcare Analytics Appliance. These partners provide data integration with your source systems, applications for data validation and analysis, and intuitive and self-service views of the information for your end-users.

With our partners, we provide you with configurable, easy-to-use tools to link data across your organization aligned with role-based access to the appropriate clinical datasets, standards, and guidelines. Combining statistical and quantitative analysis along with predictive modeling, you gain new views and insights of aggregated data coming from multiple data sources across the health system. We can help you with use cases for clinical research, business intelligence and analytics, performance management, enterprise master patient data, readmissions management, chronic disease detection, and at-risk population detection, to name just a few examples.

SCALE-OUT STORAGE FOR BIG DATA: EMC ISILON

EMC Isilon provides simple, efficient scale-out NAS storage. It combines the three layers of traditional storage architectures—the file system, volume manager, and RAID—into one unified software layer, creating a single intelligent distributed file system that runs on an Isilon storage cluster. OneFS intelligently stripes data and metadata across all nodes in a cluster to create a single, shared pool of storage.

BIG DATA CLOUD STORAGE: EMC ATMOS

For content and services providers, as well as global enterprises that require distributed Big Data in a private or hybrid cloud, EMC Atmos offers multi-petabyte storage, drives data lifecycle with automated policies, eases provisioning with secure multi-tenancy, and provides any device self-service access, enabling Big Data management at a global scale.

NEXT-GENERATION DATA PROTECTION: EMC BACKUP AND RECOVERY SOLUTIONS

EMC Data Domain offers a purpose-built backup appliance to provide a highly efficient and scalable solution to protect analytical data. Through the use of deduplication, EMC Data Domain can drastically store more backup data, longer to disk. EMC Greenplum can also leverage EMC Data Domain's Boost capability to distribute deduplication to the source and backup directly to the Data Domain appliance.

DRIVE YOUR ANALYTICS AND BIG DATA STRATEGY: EMC CONSULTING

Accelerate time-to-value and reduce risk by leveraging EMC Consulting's Big Data and Analytics expertise. EMC Consultants can help you: Identify and source KPIs to support management decision-making based on industry best practices and alignment with business goals; Create architectures and presentation formats such as scorecards and dashboards to support cross-functional, decision-focused analysis; Develop remediation roadmaps for existing business analytics architectures to improve data quality, timeliness, and reliability; Create analytic platforms that source, transform, and deliver key data to support operational and financial decision-making.

JUMP START YOUR ANALYTICS PROJECTS: EMC GREENPLUM ANALYTICS LAB

The EMC Greenplum Analytics Lab brings Greenplum Data Scientists to your site to help develop an analytics roadmap and quickly drive results through data studies, analysis, and model development. During the engagement, your analytics stakeholders and data platform leadership work in partnership with Greenplum's team of statisticians and modelers to solve real business problems using big data advanced analytics. Analytics Labs are collaborative projects that can include: Studies to build analytical insight regarding key business problems; Development of analytics roadmaps; Data asset study and validation; and Scoping and initial development of analytics application and algorithms.

CONTACT US

To learn more about how EMC products, services, and solutions can help solve your business and IT challenges, [contact](#) your local representative or authorized reseller—or visit us at www.EMC.com.

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