

COMPRESSUS

The MEDxConnect Solution

**Meeting the Challenges of
Healthcare Virtualization**

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An innovative healthcare IT platform developed through a collaboration of Compressus and IBM provides physician information access regardless of location or multiple vendor status

No other profession or trade in the U.S. faces the unprecedented challenges as those being experienced in healthcare. Strict demands by overseers to improve the quality of care while accepting lower reimbursements and increased oversight, have changed a once stable profession into one that is under siege. Too, there is the little discussed but important evolution of today's patient who, due to increased out-of-pocket health care expenses, is demanding more and better service across the healthcare continuum.

Some challenges have been brought about by external forces, such as the introduction of the Deficit Reduction Act and the Patient Protection and Affordable Care Act. Other sources are organic, or internal, such as the increasing trend that sees physicians choosing to become hospital employees, and the relatively new dynamic of competition in the market.

One significant shift in the physician mindset during this period of change is the rise in the attention to profitability. Today's healthcare professionals are more cognizant of their own business mortality and are responding to the challenges with myriad solutions derived from improved acumen. Unlike other professions or trades, healthcare is turning crisis into opportunity.

Chief among healthcare's responses is the desire to increase efficiency; to re-examine every step in the patient care process to uncover duplication of effort, ineffective communication and IT hurdles that prevent physicians and staff from maximizing the

value of their time. These challenges are resolved through effective IT solutions.

With improved IT, healthcare enterprises take a major step in ensuring their viability for years to come. Yet, the IT answers are still not resonating in some facilities. In those, tactical patch-work solutions are used to resolve issues that would be far more effectively addressed with a larger, long-term strategy. The work-around answers still embraced by many are an expense, while the long-term, strategic approach is an investment that will reap dividends such as increased efficiency, improved profitability and higher professional satisfaction.

These results from the implementation of the correct Information Technology solution end the challenges associated with multiple workflows, standardize patient care and enable software products from multiple vendors to communicate seamlessly, regardless of their physical location. Without the IT alignment solution, healthcare organizations remain unable to share information and collaborate to help improve efficiency and thus, profitability.

One proven solution to these challenges has been developed by IBM and Compressus, which provide a "vendor-neutral" IT platform that addresses interoperability and workflow simultaneously, thus eliminating the cumbersome hurdles to physician access to information with unprecedented efficiency and ease of use.

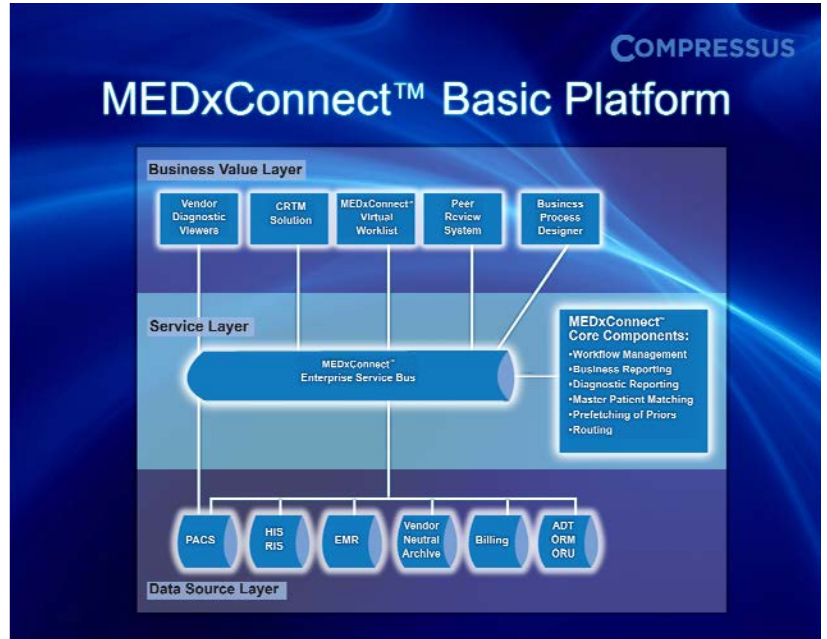
Solution Overview

The IT platform is MEDxConnect4, which combines proprietary software from Compressus with analytic and business additions from IBM, which results in a vastly improved ease of access for every staff member in every department. Using MEDxConnect4, all patient information such as medical records (including priors), images, video, lab results, medications and others are accessed through a single worklist from any location. Communication between multiple vendors is seamless and workflow is optimized for maximum efficiency.

In short, MEDxConnect4 serves as an information portal that facilitates the access and exchange of patient information between each data acquisition point within the facility.

Highlights:

- Enables complete connectivity among enterprise-wide clinical systems
- Boosts flexibility, making it easier to add applications, reduce costs and improve compliance
- Provides extensive scalability to expedite both organic and strategic growth
- Increases physician productivity, resulting in improvements in patient care
- Establishes a robust platform for clinical and business decisions and advanced analytics
- Optimizes workload balancing to reduce costs and improve quality



Solution Brief

The core of the MEDxConnect4 program is the goal of speedier, more flexible interoperability without the need for additional systems.

MEDxConnect4 adapts to any PACS, HIS, RIS and EMR from any vendor, and to multiple vendors within a facility. Image consolidation and indexed information is presented in seconds in a consistent, seamless format for any user.

MEDxConnect4's wide range of adaptability supports protocols including DICOM, HL7, XML, SSL, TLS, HTML5 and many others. By using the specific communications protocols and semantics of each information system to optimize the flow of images, reports, messages, and other key information, there is improved potential for accurate diagnosis and treatment planning.

MEDxConnect4 creates a virtual integrated information system through mapping data elements, connecting isolated strands of data, and creating fluid interoperability among disparate applications. MEDxConnect4 complies to the IHE technical framework and also provides application, system and network layer information handling, including business rule-based routing, routing based on QoS, pre-fetching and caching of associated information and managing distribution and notification of work efforts.

These features, combined with the catalyst of an IBM infrastructure, enable MEDxConnect4 to provide a complete, virtualized healthcare information environment.

Through login from any location, users are provided with simplified and optimized workflow to help gain immediate access to all pertinent patient information in a given specialty or subspecialty through a user-specific worklist. MEDxConnect4 also provides the enterprise-wide option of selecting from a general worklist

to capture new data and documents.

In medical imaging, for example, radiologists can continue to use their native programs, even if images were originally stored in a different PACS or a vendor neutral archive. The resulting worklist shows and sorts according to priority, modality and other definable search criteria, enabling users to customize workflow and improve efficiency. MEDxConnect4 can be modulated to include all relevant patient and order information, such as electronic notes and scanned documents, as well as priors and reports.

Much of this information is acquired according to the user's preferences, with primary medical images presented at the start of the read. MEDxConnect4 also enhances workload balancing by allocating studies among available physicians according to user-defined rules, such as subspecialty or modality.

Modification of existing workflows is facilitated through the combination of the MEDxConnect4 Medical Message Mediator with IBM Business Process Manager. Using simple drag-and-drop tools, a radiologist, for example, can determine which relevant priors should be pulled to the worklist prior to the primary image, instead of simultaneously. This simple process delivers significant gains in productivity and allows individual departments and physicians to create the most efficient way to work.

Flexible deployment options are another key feature of the IBM-Compressus product. In today's healthcare environment, where

flexibility and scalability are of increasing importance, organizations are managing the rapid changes of mergers and acquisitions through solutions such as MEDxConnect4. Again using the medical imaging model, the solution enables radiologists and other specialists from two distinct provider groups to maintain their current viewers and workflows without requiring one group to switch to another's native technologies. With MEDxConnect4, native systems are not displaced or converted.

MEDxConnect4 also fully supports onsite software as a service (SaaS) and private/public cloud-based deployments. This is particularly beneficial to C-level executives who now have new tools to manage capital expenditures, reallocate operational staff and optimize system-wide performance. Moreover, the solution can easily adapt to future developments occurring in regulatory compliance, peer review or critical results tracking.

When market dynamics are changing very quickly, the solution establishes an ideal healthcare IT platform to help provide the speed and agility that are critical competitive differentiators. Plus, additional growth opportunities stem from the ease of adding applications from other vendors or the healthcare enterprise itself. Finally, the entire solution works via the trusted IBM Health Integration Framework, a software platform based on industry standards and the high quality goals of Compressus and IBM.

Solution Benefits

- **Higher productivity.** The solution from IBM and Compressus enables physicians to maximize time spent reviewing diagnostic information and minimize time formerly spent searching for prior reports and images, logging into different systems and adjusting different user interfaces. Workload-balancing optimizes the use of available resources, so organizations can deal with spikes in activity without the need to outsource overflow to a third party.

- **Organizational agility.** Establishing a reliable way to access content from any existing imaging or information system and deliver it to users quickly gives healthcare organizations a significant advantage. This vendor-neutral approach creates the flexibility required to bring in a new radiology group, integrate data from a new hospital or plug in new applications for regulatory compliance. Any technology will work, and any workflow will fit.

- **Better quality of care.** This solution gives physicians the confidence that they are seeing all of the pertinent patient information they need to make an accurate diagnosis. Over time, this improves quality of care and helps optimize

- **MEDxConnect Medical Message Broker.** This lightweight, advanced enterprise service bus (ESB) enables the integration of data sources from a wide range of platforms across both service-oriented architecture (SOA) and non-SOA environments.

- **MEDxConnect Clinic Business Monitor.** Cross-process, cross-system business activity monitoring software provides real-time visibility and insight into operational processes, transactions and events.

- **Database Stability and Scalability** The database is optimized to deliver industry leading performance across multiple workloads while reducing the cost of administration, storage, development and servers.

Compressus

Established in 2000, Compressus Inc. is a medical software company offering proven interoperability solutions to the rapidly growing healthcare IT market. Its products are designed to dramatically improve physician efficiency, reduce enterprise costs and increase patient safety. Compressus is particularly concerned with solving problems associated with integrating healthcare enterprises plagued by a lack of connectivity and interoperability among disparate islands of healthcare IT solutions, including clinical (EMR, HIS, RIS, PACS) and business (billing, registration, patient tracking), among others.

To learn more about Compressus, please visit:
www.compressus.com

IBM

IBM works with healthcare organizations around the world, enabling them to deploy solutions using existing health IT investments and current environments at lower costs, without compromising flexibility and choice. IBM offers a comprehensive portfolio of software, services, and hardware for building, maintaining and extending IT-driven solutions in healthcare. Through the Health Integration Framework, IBM gains extensive experience providing healthcare-specific reference architectures. This framework also provides tools, transformation engines and application adapters built on acknowledged health industry standards to help cut development time and reduce costs.

To learn more about IBM in healthcare, contact your IBM sales rep or visit: www.ibm.com/healthcare

*Turn Your Everyday Operations into
Opportunities
with Compressus' MEDxConnect Solution*
