

Innovative ways radiology practices improve workflow

Inside this book

Automated Health Consulting	2
Jefferson Radiology	4
Radiology Diagram	6
Diversified Radiology	8
Central Illinois Radiological Associations (CIRA)	10
North State Radiology	12

Radiology

Radiology, by its technological nature, exemplifies cutting edge in healthcare technology. Multi-million dollar technology allows caregivers to digitally map the organs, bones, and vascular system of patients from outside of his or her body. Radiology IT departments, traditionally, have been a few steps ahead of the rest of healthcare in terms of applications and innovation.

However, over the past five years, the rest of the industry has caught up and now demands much more from their radiology partners. The demands for integrated health data is growing at an unprecedented rate, which has provided tremendous opportunities for growth for innovative radiology practices.

Because health data is the cornerstone of value-based care, it's no surprise that data interoperability is in high demand. And, because radiology has a longer history incorporating modern technology in its daily activities, Corepoint Health customers are leading the way in providing innovative solutions to better connect with their business partners.

The following pages illustrate a few of the innovative approaches Corepoint Health radiology customers have developed using Corepoint Integration Engine.

Automated Health Consulting

Manage operations using a real-time workflow dashboard

Dennis Loucks, CEO of Automated Health Management Services in Houston, a radiology management firm that coordinates well over 100 radiologists, compares Corepoint Integration Engine to the popular Waze highway traffic-monitoring smart phone app that alerts drivers to real-time traffic hazards such as congestion, construction, wrecks, and even police speed traps.

Using Corepoint Integration Engine to facilitate interoperable health data flow, Automated Health Management Services employs a business intelligence analytics dashboard that serves their workflow similar to a helicopter flying over a city traffic grid, with each interface acting as an intersection with the potential to stall radiologists' workflow.

Dennis had plans to implement a real-time monitoring system where he could observe data flow and gain a better picture of radiologists' work load. He wanted to know in real time what was going on with radiologists in different locations.

Unfortunately, there wasn't anything other than orders and results floating around between PACS systems.

According to Dennis:

"The cool thing about using Corepoint Integration Engine is that I didn't have to rely on PACS to gain control of the data. I'm sitting on the middle of a data freeway, picking up information that is able to tell me exactly what's going on at each of our locations.

We started using the integration engine to populate SQL databases that in turn feeds dashboards, which gives us real-time analytics for radiologist workload projections, and much more. It's extremely beneficial when managing over 100 radiologists in different locations.

To get really good analytics, you've got to have a good foundation, and a good foundation for analytics is based upon a consistent flow of information. Your analytics are going to be more accurate and tell a more complete story as a result. With Corepoint feeding the data, I know without a doubt that the data will be normalized, regardless of the standard."

DENNIS LOUCKS | CEO

Automated Health Management Services

Jefferson Radiology

Utilize a master patient index to reduce errors

While radiology owes its existence to cutting-edge healthcare technology, radiology departments often are told to “do more with less” personnel and resources in regard to IT infrastructure and integrating and exchanging health data.

Doing more with less is exactly what Brian Whittle, interface analyst at Jefferson Radiology has achieved. Located in East Hartford, Connecticut, with several imaging centers and hospital partners throughout the region, Jefferson’s IT team has gone the extra mile to improve their patients’ quality of care by connecting to an enterprise master patient index (EMPI) using the Web Services feature in Corepoint Integration Engine.

An EMPI is a database that is used across a healthcare organization to maintain consistent, accurate and current demographic and essential medical data on the patients seen and managed within its various departments. By correctly matching patient records from disparate systems, a complete view of a patient may be obtained that improves care and service.

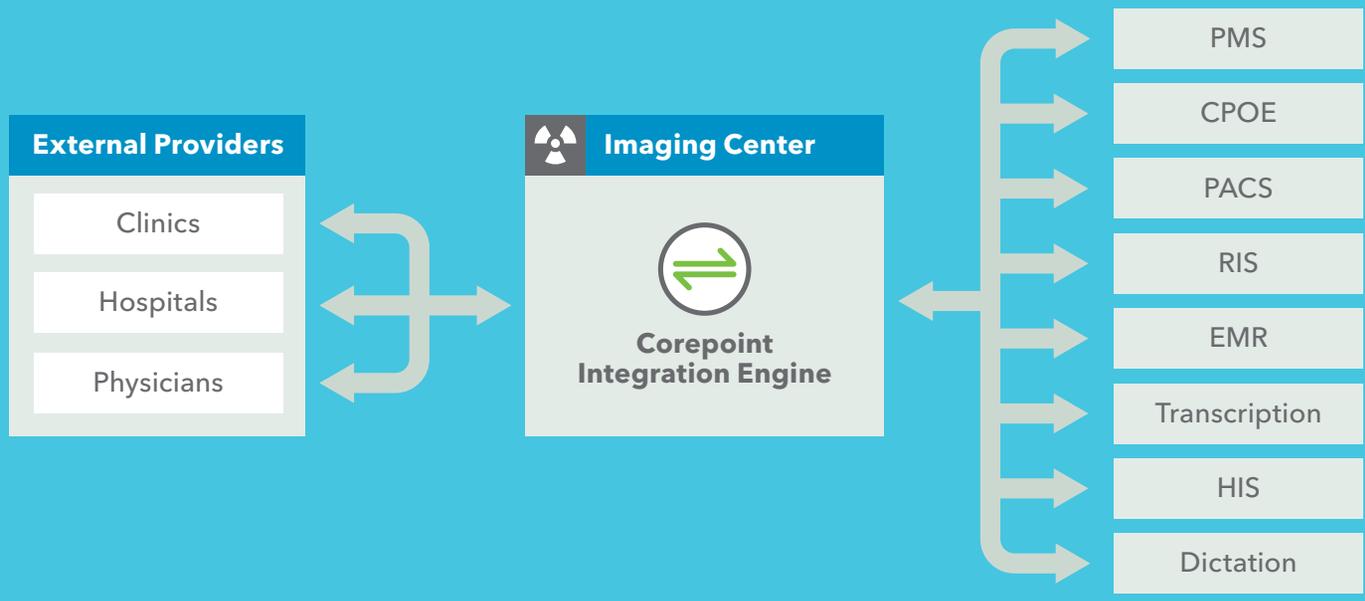
According to Brian:

“The interesting part of this was that, prior to implementation, we did a lot of testing, we made sure everything worked, and we did everything we possibly could do to break it. I believe that in IT you’ll generally know after a few days or a week whether or not a project or implementation has been successful, and we’ve had no issue to date.

I’m not a programmer, so trying to figure out somebody else’s C-code, compile it, go through the debugging process, deploy into a package, and then deploy that into a bunch of different servers is exceptionally complicated.

I have a degree in electronics engineering with no programming experience other than assembly language. I’m surprised how easy it has been for me to successfully learn and use Corepoint Integration Engine. I don’t think you have to have a degree, you just need to have an understanding of how things work and you have to be logically oriented.”

BRIAN WHITTLE | INTERFACE ANALYST
Jefferson Radiology



Diversified Radiology

Create a unique teleradiology network

Diversified Radiology offers 24/7/365 services that include diagnostic radiology, body imaging, nuclear medicine, telemammography, neuro, nuclear, interventional, musculoskeletal, and pediatric. What makes Diversified Radiology unique is that they are the only group in the state of Colorado that offers so many services during overnight hours.

To help further their mission, Diversified created Strategic Radiology, a business network of large radiology practices that provide premium services by sharing patient data and clinical expertise, and also save costs by consolidating various expenses.

To make Strategic Radiology a reality, many business and technology barriers had to be broken down. The Diversified Radiology team worked to find solutions to business challenges such as licensing and credentialing; however, the most frustrating roadblock was interface implementation between the various providers in the Strategic network. That's when they turned to Corepoint Health.

According to David:

“When we purchased Corepoint, we minimized time associated with project management and eliminated the need to deal with vendors and vendor connections. With Corepoint, we finally gained control of our own interfaces. If something changes down the road, a RIS system in the hospital for example, we can make changes on the fly, so there's minimal downtime and turnaround time is extremely fast.

Sometimes Strategic Radiology customers will change systems or do upgrades to their RIS systems without telling us until the next day when reports start failing. But changes are extremely fast with the level of control Corepoint offers. We can make changes as needed, even on the fly if necessary.

The really cool thing about our partnership with Corepoint is learning how the engine can improve our workflows and the overall business. We're taking advantage of features that make things so much easier. I'm always thinking, 'What we can do now? What can we do better? How can we improve that process?'"

DAVID VAZQUEZ | SOFTWARE ENGINEER

Diversified Radiology

Central Illinois Radiological Associations (CIRA)

Create web-based order entry system using Corepoint Integration Engine Web Services to enable interoperability for customers

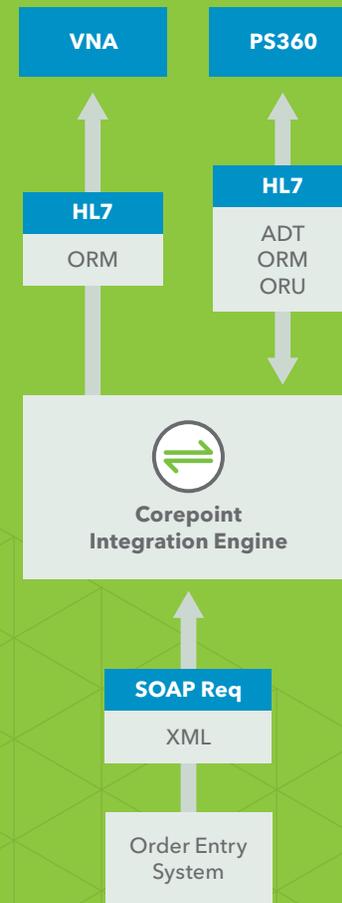
Some facilities don't have the resources or the ability to send HL7 order messages or digital DICOM messages because they do not use an EMR or a RIS and utilize plain film. CIRA developed a solution using the Web Services capabilities of Corepoint Integration Engine to enable a web-based order entry system through which an HL7 order message can be generated.

This order-entry system provides a simple mechanism for customers to access a password-protected website where they can enter order information in pre-determined web fields. Data entered in those fields are used to create an HL7 message that is automatically entered into CIRA's normal workflow.

This solution not only is convenient for CIRA's business partners, it also reduces the number of support calls from physicians working in disparate reading environments and provides a common worklist solution for others who would not have access to their services.

SPECIFICS

- 1 A web server is deployed that utilizes PHP to generate a SOAP request.
- 2 Corepoint Integration Engine receives the SOAP request and maps out all the fields for use in an action list.
- 3 Corepoint Integration Engine accepts the SOAP and parses it into an order message and sends the data to a variety of systems (PS360, PACS, etc.) to accomplish the centralized worklist.



North State Radiology

Integrate DICOM SR data

Scott Adair at North State Radiology knew there was a better and faster way to get information to radiologists in PowerScribe 360 than manual order entry using data from a DICOM image. He knew where the data existed, he just needed to develop a way to extract it and send it where it was needed.

After some exploration, Scott developed logic in Corepoint Integration Engine to parse DICOM SR data and create an HL7 message that is sent to PowerScribe 360. This unique and effective solution reduces data-entry errors and streamlines reporting workflows for dictation applications.

Using this innovative approach, Scott used Corepoint Integration Engine to extract the structured measurement data from DICOM SR and feed PowerScribe 360 with an HL7 v2 order message to automate the population of these measurements in a dictated report.

Not only does this process reduce errors, it provides data straight from the modality, just like the radiologists like to see it.

According to Scott:

“Structured reporting and data-driven workflows—especially in RIS/HIS systems—are clearly the future of healthcare. Unfortunately, most vendors have to be dragged into it kicking and screaming. Corepoint empowers us by making us less reliant on those vendors.

That data is already floating around your network in some protocol—be it TCP/IP, HL7, DICOM, Web Services, etc.—you’ve got to grab it and use it to drive your workflow and use it to drive your patient care. At the same time, you can cut your costs, you can cut your time, and really give yourself a better patient focus with better data in and better data out.”

SCOTT ADAIR

North State Radiology

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NO 1 RATED
INTEGRATION ENGINE
7 YEARS IN A ROW