

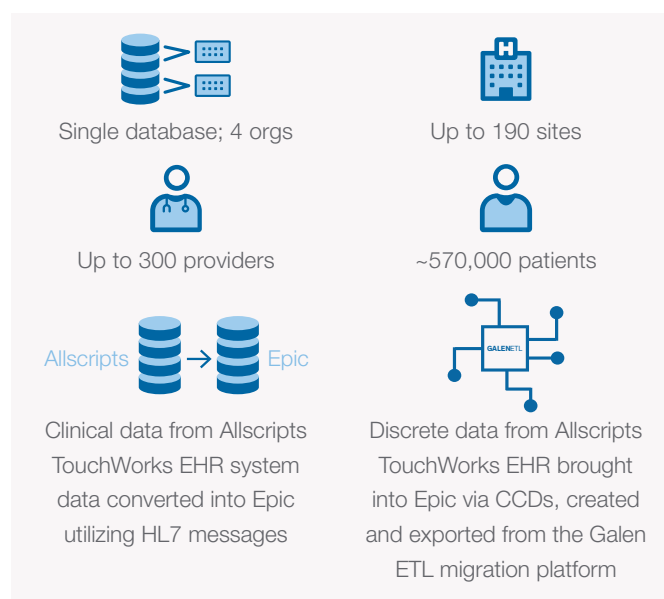
A Large-Scale Data Migration:

A Hospital System Transitions from Allscripts TouchWorks to Epic

A Conversion Connection

The transfer of valuable clinical data from one source system to another isn't an easy task, especially for a large organization covering a very large geographic area. That's why, when a large health system in the southeast chose Epic as its go-forward EHR, it selected Galen Healthcare Solutions to be its partner.

Project Scope



The Problem

To achieve Meaningful Use targets at its seven hospitals, the health system committed to initiatives that would improve physician engagement and add functionalities to existing EHRs. After commissioning a review from an outside consulting group, the system administrators realized they needed a unified system. They chose Epic.

The size of the organization made this a serious challenge. It covered the breadth of their entire state, including 2,100 acute care beds and hundreds of multi-specialty providers. It would be an understatement to suggest that there was a lot of variability in the data. A high volume of clinical elements were mapped and validated in the migration.

Why Galen Healthcare Solutions

The data migration had to support 190 sites, 300 providers, and approximately 570,000 patients. The plan was to bring a portion of the data found in the existing Allscripts TouchWorks EHR (TouchWorks) system into Epic via a data migration using HL7 messages. Another portion of the discrete data was transferred via Continuity of Care Documents (CCDs).

Galen Healthcare Solutions (Galen) was chosen to partner with the Kentucky hospitals because of its decade-plus years of experience successfully completing more than 200 migration projects supporting the TouchWorks community. Galen's automated ETL Platform, which supports multiple standards, nomenclatures, and technology, was the ideal device with which to export the CCDs.

Project Overview

The client was determined to migrate three and a half years of data for more than half a million patients. This migration would be especially complex because TouchWorks is a multi-org system and only one source system was involved in the transition to Epic. The organization decided against a big-bang go-live because the sites involved in the data migration were all spread out; a single go-live would be logistically and geographically impractical. Its administrators decided instead, to split the go-live by region to get the physician practices up and running. Two ambulatory primary care practices would be in the earliest wave so that the Epic record could be created and populated. This would allow the primary care physicians to build up the medication and problem lists so that when the hospital went live there would already be a record for a large percentage of their patients.


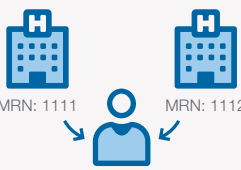

The go-live schedule kicked off in October of 2015 and then had reoccurring go-lives each month through July of 2016. For the initial go-live, Galen migrated all data for the entire organization, (not just for the site that was going live) because it would be difficult to identify which patients and their data should be migrated since patients can be seen in multiple regions. Then for each subsequent go-live, Galen migrated all new and modified data, not just clinical data, for the entire organization.

The strategy was designed to meet the client's business requirements, which were (and continue to be) to preserve continuity of care standards during the transition. It was vitally important to maintain strict requirements of data integrity and cosmetics so that all migrated data integrated seamlessly into Epic. This is the inviolable bedrock feature of Galen's data migration methodology and is adopted for all work, regardless of target or source system.

The greatest challenges in working with a single database, multi-org system, are the various issues pertaining to patient matching. Most of these challenges stem from discrepancies existing within the Master Patient Index (MPI) that functions as a source-of-truth identification standard within a healthcare organization.

Essentially, and in practice, each patient in the system should have a unique identifier. But, we constantly discover MPI data errors such as:

The Solution

MPI DATA ERRORS	
<p>Duplicate Records</p>  <p>MRN: 1111 MRN: 1112</p>	<p>Patient has two or more assigned MRNs</p>
<p>Overlap Records</p>  <p>MRN: 1111 MRN: 1112</p>	<p>Patient has different MRNs in separate organizations that are linked to one MPI</p>
<p>Overlay Records</p>  <p>MRN: 1111</p>	<p>One MRN contains information on two individuals</p>

In the early stages of the project, the teams from the hospital system and Galen decided a hybrid approach would best meet the continuity of care needs required. It is essential that data be migrated so that it is consistent with how it will look and act in the target system. For example, clinical elements such as medications are assessed every visit – some get renewed, others get discontinued; therefore, this data had to be migrated so these actions could continue in Epic. However, unlike medications, notes and other clinical documents are displayed in the chart for clinical reference. HL7 messages and CCDs were the preferred vehicles with which the given clinical data elements had to be captured.

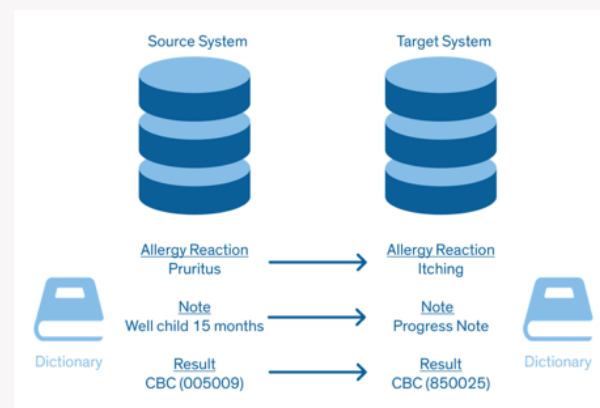


Figure 1.1. To be successful, engagements such as this depend upon fluid cooperation among the project team that consists of Technical and Clinical Migration Analysts. The Technical Analysts were responsible for extracting discrete data from TouchWorks, including Encounters, Transcriptions, Active Medications, Problems, Vital Signs, and Allergies. The Galen ETL Platform was used to deliver patient-level data through CCDs, as well as encounter-level data through HL7 messages. The Clinical Migration Analysts were responsible for keeping the migration project on track, maintaining scope, and managing key deliverables. They were also responsible for clinical data mapping, configuration, validation and testing, and end-user training recommendations.



Encounters

All historical encounters starting from January 2013 to present



Transcription

Structured and unstructured notes



Vital Signs

All clinical observations



Allergies



Medications



Problems

Another important aspect to any migration project involves the mapping of legacy data to the appropriate dictionary values in the target system (Shown in Figure 1.1). For this engagement the goal was to map legacy TouchWorks data to comparable elements that were going to be used moving forward in Epic, while anticipating and planning around any potential disparities. It was especially important to differentiate situations requiring the use of existing elements from those requiring the building of net-new items.

The Outcome



Physician Productivity:

Galen delivered CCDs two weeks prior to each end-user go-live. The client had a group of abstractors that reconciled active problems, medications, and allergy information. This allowed providers to have access to accurate clinical data in a timely manner without having to perform the manual abstraction while focusing on patient care.



Lower Licensing Costs:

At the completion of the engagement, with all the appropriate clinical data migrated to Epic, the client switched all users to read-only in TouchWorks. This transition reduced licensing costs by approximately \$900/provider/month, and brought the client one step closer to decommissioning Touch Works entirely.



Successful Parsing of Medication Frequencies:

Mid-project, Galen recognized an opportunity to improve end-user experience drastically with newly released Epic functionality, which allowed medication frequency to parse discretely from a CCD. Before this additional functionality, medication frequency came over as a free-text comment and did not save in Epic discretely. End-users would have to manually select the appropriate medication frequency before e-prescribing any medications. That little change and added effort on the front-end of the project likely saved hundreds of hours of end-users' time when reconciling medications.

Galen was able to adjust as client needs evolved, timelines changed, and new functionality was available. In doing so, Galen was able to stay in budget and increase client efficiency thereby ensuring overall satisfaction. Most importantly, the quality of the data produced in the migration allowed each element to migrate into Epic in a timely manner, giving providers care continuity thus increasing their productivity and familiarity while transiting to the new EHR.