



# John Muir Health Cuts Costs, Keeps Data Secure, Sheds Legacy Systems

John Muir Health and MediQuant collaborated to move multiple terabytes of clinical, financial and ERP data into a single user-accessible, secure archive with one common framework across the entire enterprise, using DataArk® software and MediQuant's data stewardship program.



## Profile

A nationally recognized, not-for-profit organization, John Muir Health is a leading health system in the San Francisco Bay Area. With a network of more than 1,000 primary and specialty physicians and nearly 6,000 employees, the system serves Contra Costa, eastern Alameda and southern Solano counties. Facilities include medical centers in Walnut Creek, a 554-licensed bed medical center that serves as Contra Costa County's only designated trauma center, and Concord, a 245-licensed bed hospital that serves Contra Costa and southern Solano counties, as well as the 73-bed Behavioral Health Center also located in Concord. John Muir Health is widely recognized for expertise in neurosciences, orthopedics, cancer care, cardiovascular care, trauma, emergency, pediatrics and high-risk obstetrics.



Serving San  
Francisco Bay Area



Primary and  
Specialist  
Physicians

1000+

3



Medical Centers



6000+  
Team Members

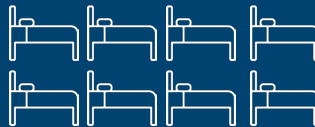
Physician Network  
Locations



24

872

Licensed Beds



Specialties

Neurosciences  
Orthopedics  
Cancer Care  
Cardiovascular

Trauma  
Pediatrics  
High-risk Obstetrics

## The Challenge

Like many health systems nationwide, John Muir Health made the decision to retire its legacy systems and transition to a new health information system. While moving to this electronic health record (EHR) system ultimately creates substantial cost and operating efficiencies, maintaining the legacy systems can be immensely challenging in terms of vendor support costs, internal maintenance resources and data center expenses. However, decommissioning the legacy systems raises the issues of compliance, retaining critical access to the legacy data, defending audits, billing accounts, performing Release of Information (ROI) functions and maintaining clinician access. Factor in financial and enterprise resource planning (ERP) records, and John Muir Health was facing a complex engagement involving simultaneous multi-system, multi-project and multi-terabyte data management and archiving.



The most pressing factor for John Muir Health was the sheer volume of data that needed to be extracted, validated and migrated. For clinical applications alone, the health system needed to migrate seven terabytes of data. It was crucial that during the entirety of the process, physicians retained 24/7 access to historical data to protect the integrity of patient care, preferably without the time-consuming and clunky need to switch between the new system and the archiving solution. As with any clinical data, security and compliance with stringent HIPAA regulations were top concerns.



Volume of Data



Uninterrupted  
Physician Access



Security &  
Compliance



Accessed by  
1,000s of Users



Historical Data

Further complicating the effort, John Muir Health includes three separate medical centers, as well as the John Muir Physician Network, which operates 24 locations along the California coast. Not only was data widespread and accessed by thousands of users, it also dated back to the 1980s.

For the clinical data, physicians still required access to the legacy patient records and wanted to access the records in real time while in the new EHR. Health Information Management (HIM) staff would need to access records and respond completely and in a timely manner to ROI requests. A typical archive wouldn't do; an active archive with the requisite business functions would be needed to properly replace the legacy applications.

## The Solution

After evaluating the key project specifications, MediQuant recommended DataArk® active-archiving software for John Muir Health's archiving needs. Scalable and data source agnostic, DataArk is an enterprise software with the bandwidth to handle both the health system's immediate clinical and ongoing financial and ERP data needs. In terms of clinical data, DataArk provided a secure, patient-centric, longitudinal view of data. Additionally, it offered MediQuant's unique auto-invoke feature. This seamless feature allowed John Muir Health physicians across the network to access current and historical patient data from the legacy system with one simple click from within their new EHR system – eliminating the need to switch between programs to view patient records. Because such a large number of users was involved, 1,000 of whom were physicians, DataArk was ideal with its user-friendly screens, familiar data types and minimal training requirements.



# DataArk®



### Comprehensive AR and Other Functionality

Release of Information (ROI), true billing & A/R management, interfaces and reporting so that you may continue vital workflow required for the legacy data.



### Access and Interoperability

Access records within the new EMR ("auto-invoke") and interface revenue cycle data with agencies, billing and financial systems.

## One patient, one record.

Dump tired old systems and put legacy data, actively archived, secure and available at your finger tips...

Patient Accounting

EMR

ERP

Ancillary

Ambulatory

# 100s

# of apps covered, and counting

## Technology Footprint

On Prem

Off Prem

vmware enabled



SQL Database



.NET Architecture



Web App

“

*We were confident DataArk had the power and scalability John Muir Health needed to archive more than 14 terabytes of data, not to mention the intuitive interfaces that saved time in quick physician adoption of DataArk.*

”

MediQuant President Tony Paparella

For financial and additional data types, DataArk allowed users real-time access to view data and run reports, while they continued to fully post, bill and update balances on existing receivables. Its single platform created efficiency and flexibility. What's more, DataArk enhanced HIM at John Muir Health by offering an ROI feature to speed legal, insurance and individual record requests. This feature enabled users to hone in on a specific patient, visit or series of visits, date range within a visit (if needed), categories of documentation, and even individual records – in both the current and historic data – and then quickly access the desired document.



### Why Active Archive with DataArk?

1. Active archiving grants users the necessary functionality of a legacy system without the expense and risks. Data is kept active for quickly retrieving files, easily updating old records and continuing to bill accounts.
2. To reduce risk of lost or misplaced data, and to meet transfer deadlines, data is migrated instead of converted.
3. DataArk serves as a single access point where many different legacy applications can be consolidated to simplify the IT landscape.

### Implementation

The MediQuant team began with a consultative approach that included enterprise pre-planning and prioritization. “Setting goals and building a clear strategy together with John Muir Health was essential,” said Paparella.

During pre-planning, John Muir Health emphasized that migrating clinical records was the priority, with data security and integrity being critical during all stages. Because of the substantial cost of maintaining and upgrading retired applications, the preference was to get additional archiving projects in motion once plans for the clinical record migration were finalized.



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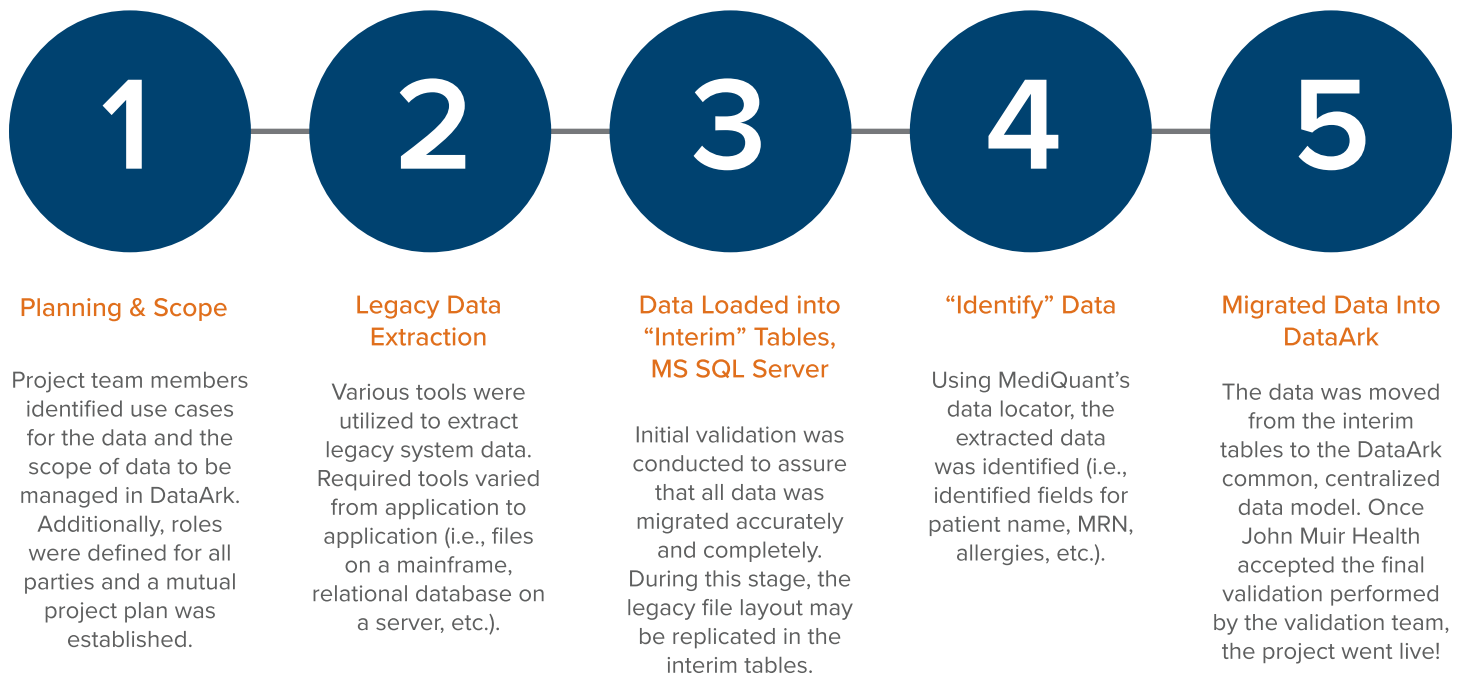
*There's a very specific recipe you need to follow to make this type of migration happen. The MediQuant team worked closely with us to develop a robust strategy that met our unique needs – then helped us execute it every step of the way.*

”

Jon Russell, John Muir Health Chief Information Officer



The MediQuant team was seasoned at developing a Data Retention Roadmap® and migrating data into DataArk from disparate systems. To manage this type of multi-stage, multi-project engagement, the process needed to be clear and easy to follow. The team created a simplified process flow to keep all of the moving parts on track:



Though MediQuant put this framework in place, Paparella was quick to point out that "John Muir Health gathered the right resources and engaged in the right way. They formed a dedicated project team with representation from the business owner to the project sponsor, from subject matter experts for each application to IT experts, network folk and physicians." This type of involvement and communication was largely responsible for the engagement's success.



## The Results

Long-term and multi-faceted, the John Muir Health engagement is ongoing. To date, the health system has seen the following results:

- Successfully migrated more than 14 terabytes of data into DataArk
- Empowered physicians to deliver better and more efficient patient care with minimal disruption to daily routines
- Optimize workflow with intuitive screens, real-time access and familiar data types
- Eliminated the costly necessity of maintaining support for the old decommissioned legacy systems
- Eliminated the need to physically search for old records, saving time and labor costs
- Achieved a seamless transition which allowed full billing capability and real-time access to records throughout the process



*“ Our physician users found the transition to DataArk to be seamless due to the ease of use of DataArk and the auto-invoke feature. The HIM staff members are able to easily fulfill ROI requests for records that came from disparate systems and our billing staff didn't miss a beat after the cut-over to DataArk. ”*

Jon Russell, John Muir Health Chief Information Officer



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