IQVIA

Enrich Your Data Ecosystem to Create Operational Efficiency and Save Millions Annually

For a regional healthcare system, a data archiving solution with Natural Language Processing search capabilities solved a host of challenges

Situation

As healthcare systems grow and acquire medical practices, managing software applications storing patient data become increasingly complex and costly. They must save both the software applications that aren't being used anymore, and the private patient data stored within them.

Between licensing and support, it costs money to maintain a large number of applications, and by using them, exposes organizations to risk — servers may stop working and employees may not know how to maintain old technology. IQVIA helps healthcare organizations archive these outdated applications into a centralized, easy-to-use database and increases the value of this data.

One customer, a regional healthcare system serving over 700,000 patients and across a five-state area, needed to archive a large amount of data with three primary goals:

Reduce IT operational costs related to outdated systems.

Enable their Health Information Management (HIM) team to more efficiently service all Release of Information requests with one single tool that accesses the data archives.

Adhere to data compliance regulations.

Challenge

The HIM team needed to be able to print full patient records to fulfill Release of Information requests. Locating and printing those records was a manual, slow process before IQVIA's solution.

Over the course of getting to know the HIM team and the requests they get, we created a "John Doe" example: a common situation for a Release of Information request. Usually, John Doe is a lawyer doing discovery in a legal malpractice issue. The HIM team has multiple ways of searching within the data for what he needs: procedure codes, billing codes, date range, doctor, and more. But looking through those notes to see if they're applicable is a time-intensive process — and the legal request has a due date. Our team realized it would be useful to search specific keywords using Natural Language Processing (NLP).

In addition, data archiving is not a one-and-done process; as the health system acquires new healthcare practices, they come with legacy applications and data that must be retained for return on investment and legal purposes. The magnitude of the need depends on how fast the health system is growing.

In IQVIA's archive database, the legacy applications are stored behind the scenes, but the HIM team accesses one application and gets a common set of reports, no matter which system they pull data from. Data archiving is part of holistic data integration and an organization's efforts to make access to data more efficient and easier — yet secure and protected, with the right access guardrails.

Solutions

IQVIA offers three primary services through our Data Archive Managed Service practice:

1. Archive Factory

2. Healthcare Archive Accelerators

3. Managing the archive environment on an ongoing basis

Our services are modular, flexing to meet our customers' needs. This customer employed our Archive Factory services and our Healthcare Archive Accelerators. Using our Rapid Archive Deployment methodology, we leveraged our pre-built extraction and report accelerators to perform the archiving, apply data retention policies, and configure the patient archive reports.

What makes IQVIA different

Situation:

The HIM team needs to search clinical notes for specific keywords in the body of the note for a legal records request. They must search for a specific procedure, on a specific body part, for a specific physician, in a specific date range.

Solution:

IQVIA implemented NLP search capabilities using Informatica's data search engine, configured NLP rules to process common, repeatable searches, deployed NLP query logic across multiple archive sources, and tuned NLP searches to optimize search performance across multiple platforms.

IQVIA's differentiators

- **Deep expertise in healthcare data archiving**

  IQVIA's Data Archive Managed Service team has deep expertise in healthcare archiving with proven experience archiving petabytes of data across hundreds of healthcare-related applications, using a proven repeatable implementation methodology.

  The managed service includes Rapid Archive Deployment, pre-built extraction accelerators for hundreds of electronic health records (EHRs) and other business applications, the IQVIA Healthcare Data Model, pre-built healthcare reports and dashboards, and seamless integration of legacy data with active EHRs and business applications.

  By incorporating advanced technologies like AI-powered analytics and NLP technology with our expertise in archived data, the Data Archive Managed Service team enables users to quickly meet legal discovery requirements against legacy data and easily access this data through a secure, centralized repository.

- **Integrating advanced technologies**

  Legacy data has a place in an organization's data strategy, whether through inclusion or exclusion to the data ecosystem. With IQVIA Connected Intelligence™, we help you accelerate digital innovation, at scale, through AI-powered analytics and advanced technology solutions that leverage our unparalleled expertise in healthcare information management, world-class data library, and deep, integrated archiving expertise.

  The IQVIA Data Archiving Solution can be combined with additional services, such as IQVIA Healthcare-grade AI™, IQVIA NLP Data Factory, Operational Data Hub, and API Management Platform, which incorporate archived data seamlessly into the enterprise data ecosystem, making it easily accessible and securely shareable.

- **Flexibility**

  IQVIA's Data Archive Managed Service practice is archive tool agnostic; we can use the tool of the customer's choice, or our own tool. Our archive expertise expands beyond healthcare applications to financial, payroll, CRM, inventory, and ERP business applications. Our archive capabilities are not limited to specific archive technologies and stretch beyond specific databases, data types, and data platforms.

  Archive solutions are purpose-built to meet your organization's data needs. We help organizations deploy data archiving to achieve operational efficiency through decommission of legacy infrastructure, centralization of archive data, and seamless data access, while managing risk and data compliance.

This leads to enrichment of your data ecosystem. Integrating the archived data with IQVIA's advanced technologies like Healthcare-grade AI™ and NLP Data Factory you can discover actionable intelligence from historical data through data mining, machine learning, and natural language processing

- **Govern data holistically and improve data quality**
IQVIA's Data Archive Managed Service team incorporates archived data as part of your data governance strategy to improve data lineage by preserving historical context, enhance data quality through effective organization of active and inactive data, and achieve data compliance and security requirements through a centralized data management platform.

The Data Archive Managed Service enriches your organization's data ecosystem and AI/ML models by enforcing security and compliance rules against archived data, thereby allowing you to optimize and accelerate patient data as a strategic business asset. IQVIA's Healthcare Data Model and domain expertise improves the quality of archived data, reduces manual effort, and expedites data quality processing through pre-built tools and accelerators to extract, analyze and report seamlessly against active and inactive data.

Results

As a result of the data archiving project, delivery time for fulfilling patient data requests was reduced from days to minutes. Prior to archiving, HIM team members were dependent on non-HIM resources who were users of the legacy applications. This extended the fulfillment time, as these resources were nurses or admin staff busy with their core responsibilities.

Furthermore, providing a centralized archive repository freed up IT resources and infrastructure to be dedicated to more strategic initiatives.

Healthcare data is more complex than ever. Enterprises are inundated with vast amounts of data. Efficient data management is crucial for effective strategic decision making.

IQVIA's Data Archive Managed Service provides organizations with an enterprise data management strategy that yields improved analytics performance, better decision -making, and cost savings.

- Adopting our service manages growing data volumes more effectively, modernizes infrastructure, reduces costs, improves system performance, and ensures regulatory compliance.

- The foundation of the Archive Factory is built on our deep archive expertise and expansive healthcare domain knowledge. IQVIA's Rapid Archive Deployment methodology leverages our Healthcare Archive Accelerators to extract and easily report on archived healthcare data.

- IQVIA's Data Archive Managed Service enriches the data landscape by improving the quality of data, analytics and AI/ML and NLP models through the intelligent inclusion and exclusion of historical data.

- With IQVIA Connected Intelligence™ we bring together the right data, expertise, AI, analytics, and technology to address your unique needs, and help you discover new possibilities for success.

Fulfilling patient data requests reduced from days to minutes

15 applications archived

$1.75 million in annual savings

IQVIA