First health services corporation

Business

First Health Services Corporation is the leading provider of integrated clinical management services for public sector healthcare clients in the United States.

Supporting Medicaid and other public sector programs in 25 states and the District of Columbia, First Health Services provides a wide variety of healthcare management services, including Pharmacy Benefit Administration, Healthcare Management and Fiscal Agent Services. Headquartered in Richmond, VA, the company managed nearly 40 million claims for its largest fiscal agent client in 2004. Challenges:-Ensure rapid transaction throughput for MMIS clients -Meet contractual obligations to public sector clients that require archiving capabilities-Minimize mainframe outsourcing costs-Demonstrate reliable, end-user access to archived MMIS dataPrinceton Softech Solution: Archive™ for DB2Success:-Stabilized the database growth trend by archiving historical claims data -Provided necessary archive capabilities to meet MMIS client requirements-Controlled mainframe outsourcing costs to meet monthly CPU consumption goals-Validated capabilities to view, browse and restore archived data as neededDATA GROWTH IMPEDES PERFORMANCEFirst Health Services Corporation is regarded as a pioneer in the Medicaid and public sector healthcare industry. The company developed some of the first computerized Medicaid Management Information Systems (MMIS), which process all information relevant to claims and Medicaid Communications. Now, First Health Services customizes its MMIS operational methods and technology to fulfill the distinctive program requirements of different states.

First Health Services handles more than 50 million claims per year for its two major fiscal agent clients, including both medical and pharmacy transactions. " Our technical challenge was twofold," said Carl Powers, technical director of Data Resource Management at First Health Services Corporation. " First, we had to find a solution for managing the increasing growth in transactions stored in our application databases. Medicaid recipients submit claims for medical services and prescriptions 365 days a year, and transactional data accumulates quickly. Continuing to add claims without a plan to purge historical data from the transaction database would have severe consequences on our ability to meet service delivery requirements.

Second, some of the contracts were referencing or speaking to archiving in their own way, which motivated us to find an archiving solution." PRINCETON SOFTECH CONSIDERED TOP CANDIDATEFirst Health Services had already implemented Princeton Softech's Relational Tools™ to help increase efficiency and accuracy of its application development and testing processes. So, when the time came to evaluate a database archiving solution, Princeton Softech's Active Archive™ Solutions were the leading alternative. " We understood Princeton Softech's underlying technology and were comfortable with the company's service and support," said Powers. " Database archiving technology was just a logical extension.

With the company's exceptional professional support, we have yet to encounter a problem that was not resolved." Powers and other First Health data professionals teamed up with the application developers to evaluate the archiving technology in their environment. " Since the first challenge was to alleviate database growth for performance purposes, the database archiving

solution had to have the capabilities to apply business rules, identify the data to archive and safely remove it from the production environment," said Powers. " We also needed the capabilities to search archived data and restore claims for additional processing many years after the original adjudication."" Ultimately, we made the decision to purchase Archive for DB2, based on our priority to meet contractual obligations and on the technology's ability to meet all of our business criteria," said Michael Holdren, First Health Service's CIO. USER INVOLVEMENT KEY TO SUCCESSPowers began the preparations for archive processing and collected input from the users to specify the business rules for archiving historical data.

Different archive business rules were defined for each type of claim. For example, business rules for pharmacy claims were based on the claim date of service, and in the first project, the limit was set at three years. Medical claims and associated data would require more complex business rules and further consideration. Archive for DB2 has the flexibility for defining both simple and complex archive criteria." The high-level concept of database archiving is an easy sell," said Powers. " We helped the users understand that implementing a database archiving strategy would flatten mainframe outsourcing costs and reduce database size to improve transaction processing performance.

But they also asked, ' How am I going to get my data back?,' and the explanations had to be very precise." Powers was able to demonstrate the archiving software capabilities to provide easy access to archived data on demand. Users could view, browse and access the archived data as needed.

In addition, Powers was able to validate the capabilities to selectively restore specific archived transaction information for further processing, reporting or compliance inquiries. ARCHIVE PROCESSING REMOVES THREE YEARS OF DATASoon after receiving approval from MMIS users, Powers began the initial or " catch-up" archive phase. The goal was to reduce the amount of claims data in the production database by about 15 percent – from six years of pharmacy claims data to just three years.

As part of the " catch-up" phase, First Health planned to begin archiving pharmacy claims data in eight-hour increments. Later, the pharmacy claims archive process would be automated and scheduled to run every month. During the initial phase, Archive for DB2 allowed First Health Services to archive and remove the three years of historical data from the production database. On average, it took an estimated six hours to archive and remove three million rows. " Over a three- to four-week time frame, we monitored and logged about 60 jobs," Powers said. " We were even able to effectively resume one job that stopped in the middle of processing, using the Archive for DB2 Restart capability.

Eventually, we archived and purged 17 million pharmacy claims, which translated to over 142 million rows of data across several claims tables." MEDICAL CLAIMS PLANNED FOR NEXT PHASEAs part of the next phase of archive processing, First Health plans to tackle medical claims, archiving on a monthly basis. As Powers mentioned, the business rules for archiving medical claims would be much more complicated than pharmacy claims. " It will take another round of collaboration with the users to analyze and define the business rules for the medical claims," said Powers. " We need to be sure

that the claim adjudication rules are not compromised; for example, we have to avoid archiving any medical claim that references a ' lifetime' procedure." First Health can adapt the business rules used for archiving pharmacy claims to the appropriate processing parameters for medical claims.

The reusable Access Definitions within Archive for DB2 can even be modified easily to support other applications. " We've been experiencing an increase in transaction processing for applications that support our other business lines, which could potentially overload the supporting databases and degrade performance levels," said Powers. " We are building a strategy to implement database archiving for these other enterprise database applications as necessary." ARCHIVING SURPASSES COST SAVING PROJECTIONSPrior to implementation, Powers projected that First Health Services could easily archive 100, 000 claims per day, which equates to hundreds of DASD cylinders. First Health Services would be able to lower outsourcing costs by reducing the amount of DASD required to house the application databases. Ultimately, all cost savings are traced back to the appropriate line of business.

" Our goal was to measure and arrive at a more controlled database growth pattern, resulting in better response time for transaction and batch processing," said Powers. " We have to control our CPU usage to stay within our required budget. Archiving data helps us to control the CPU consumed by other activities, such as database backups and reorganization processes. So far, we have flattened our CPU costs and consider database archiving an important factor in these observations. However, it looks like archiving may even help us reduce our costs.

"" In the beginning, we took a conservative approach to archiving historical data, archiving only the data that was not required for retention compliance. As a result, we've validated the browse, access and restore capabilities that are so important to our users and, because we worked with our business users from the beginning, we created a storage strategy that accurately reflects their needs. In fact, since implementation, we have yet to receive a request to retrieve any of the archived data. Now, we are prepared to expand upon our storage strategy and implement a more aggressive routine archive process."