

Case Study

A State Department of Criminal Justice



About the client

Company: A state department of criminal justice

Industry: State and Local Government

Use Cases: Replatforming, Azure migration, COBOL modernization, Db2 to Microsoft SQL

Result: Opened the way for technology innovation; reduced expenses

Overview

When a state agency responsible for overseeing the largest population of criminal offenders in the US needed to move off of its legacy mainframe system, they called upon Amdocs to help pave the way for a large-scale ERP modernization.

This state agency is responsible for managing a system of prisons, jails, private correctional facilities, as well as for overseeing offenders released from prison on parole or mandatory supervision. The organization uses its mainframe applications to manage everything from offender release dates to inmate healthcare, real-time warrant checks, and day-to-day prison operations.

The agency planned to deploy a modern, cloud-based ERP system from Microsoft, but incompatibilities with their existing mainframe technology created a substantial barrier to progress. By replatforming their [z/OS applications](#) to [Microsoft Azure](#), this state agency has paved the way for modern systems that will substantially increase efficiencies, while also reducing operating costs to make efficient use of taxpayer dollars.

The department engaged Microsoft and Amdocs to complete the project, modernizing the organization's database technology, streamlining applications, and making a myriad of cloud-native services available to the agency.

Challenge

When this state department of corrections set out to modernize its IT environment, leaders in the organization selected Microsoft Dynamics as its new ERP system. Their new system would be heavily integrated with existing legacy applications, but their mainframe technology was poorly suited for rapid, flexible integration.

Their z/OS systems were based on an EBCDIC character set, and the limitations of their existing mainframe database made integration with modern cloud-based systems difficult. To smooth the way for their modern technology rollout, leaders at the department of corrections set out to modernize their legacy systems by replatforming their mainframe applications to Microsoft Azure.

The department's legacy systems perform a wide range of mission-critical functions, many of which have the potential to impact public safety. Prison officials rely on these systems, for example, to oversee the incarceration of criminal offenders and supervision of parolees. State and local police, likewise, need accurate information from the system when checking for warrants during routine traffic stops. As such, the leaders who operate the department of corrections were adamant that there could be no room for error.

Solution

Leaders at the state agency engaged Microsoft to help them with the transition. Having worked on successful mainframe-to-cloud migration projects with Amdocs in the past, experts at Microsoft chose Amdocs to drive the mainframe modernization effort.

The replatforming involved moving the agency's Z-series COBOL applications to Azure, and migrating their existing Db2 database to Microsoft SQL Server. As with many legacy modernization projects, much of the agency's code was written years ago, often by people who are no longer employed by the state. Coding practices were sometimes out of line with best practices, and the quality and thoroughness of documentation varied greatly.

As part of the effort, Amdocs modernized the agency's COBOL code, standardizing the code to conform to best practices, beefing up documentation, and aligning it with accepted industry standards.

[Read more about COBOL migrations >](#)

Amdocs also worked with the state agency to develop test cases to ensure that the replatformed system would perform well.

Results

Together, Amdocs and Microsoft successfully delivered the project, moving the state agency to a flexible, scalable cloud environment. Stakeholders throughout the department of corrections, law enforcement, and state government enjoy the same level of service reliability they have always expected from the department's legacy systems.

At the same time, the department has paved the way for a modern ERP system by enabling faster, easier integration between legacy applications and the agency's newer technology investments. That will save the state money as it continues its broader modernization efforts, and will enable their IT teams to deliver results faster. The state will also save millions of dollars in operating costs in the coming years, delivering better value to their taxpayers.

"Our goal is to deliver functional equivalence," said John Keefauver, Amdocs' Practice Leader.

"We also expect the new system to run as fast or faster than the legacy system, so exhaustive testing is a critical part of every project."

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