

CASE STUDY:

Leading Teaching Hospital Implements a Cloud-First Strategy with IBM Netezza + IBM Cloud Pak for Data

This university teaching hospital has a biomedical research program among the top 10 in the nation. Their heavily used, high-profile data warehouse and analytics platform ingests ~60 terabytes of data and houses one of the largest DNA banks in the world. Attracted to the opportunity for a lower capital expenditure, portability, and flexibility, leadership introduced the initiative to transition the platform to Google Cloud Platform.

THE BUSINESS CHALLENGE

Due to a serious disruption in services in 2016 that called for a replacement of the hospital's legacy Netezza server, their lease term was shortened, forcing them to expedite a replacement. While leadership was eager to make a move to Google Cloud Platform, IT was concerned that this change would be time-intensive, costly, and would introduce risk. The entire code base would need to be rewritten, which was simply an impossibility given the timeline. Now working against a lease ending even earlier than anticipated, the IT team was challenged to find an achievable solution that would support leadership's strategy while limiting risk and disruption to time-and-mission-critical genomics and COVID-19 research during the migration. The hospital was in dire need of a partner that could help them buy a new system and, perhaps just as importantly, help them buy time.

"Moving to the cloud is time consuming, complex, and expensive—plus it poses security and data loss risks that could jeopardize the funding of the institution. We knew that a mere 'lift and shift' was unrealistic and we needed an implementation partner that could present a viable alternative that could also be implemented in a shockingly short timeframe. We turned to Mainline. Their familiarity with our systems and dedication to helping us get back up and running after our data center disruption in 2016 made them the obvious choice."

Manager, Application Development

THE SOLUTION

Mainline proposed replacing the hospital's legacy Netezza server, scheduled for end-of-life (EOL) support on June 30, 2020, with IBM Netezza Performance Server (NPS) coupled with the IBM Cloud Pak for Data System, a containerized architecture that enables cloud migration. NPS uses the same code base as the legacy Netezza server and Cloud Pak for Data natively integrates with NPS. This would give the hospital a cloud-first design that would support their cloud transition initiative down the road. In addition, Cloud Pak for Data's Watson Studio components would avail researchers of collaboration, open source, and artificial intelligence tools should they choose to adopt them in the future.

Upon approval of the new solution, Mainline moved quickly, working with IBM to extend the lease for the legacy Netezza system by three months, until EOL, and moving the new hardware in advance of a signed purchase order from the manufacturing facility in Mexico before the borders were closed due to COVID-19. After delivery of the hardware, Mainline worked with the hospital's IT team to get NPS up and running and migrate the data from the legacy Netezza server. NPS went live on June 4, 2020, with time to spare before the legacy box reached its end of lease and EOL.



Industry: Healthcare

Business Need:

A powerful analytics platform that can handle massive data sets and serve as a centralized data warehouse for biomedical research.

Business Value Provided:

IBM Netezza Performance Server + IBM Cloud Pak for Data gave researchers continued access to mission-critical analytics while providing leadership's desired path to the cloud.

THE BUSINESS CHALLENGE

- Involved mission-critical data
- Needed a solution that would satisfy the hospital's needs both immediately and in the future
- Facing a three-month gap between an expiring lease and EOL support
- Added time pressure due to pandemic border closures

THE SOLUTION

- IBM Netezza Performance Server
- IBM Cloud Pak for Data

THE RESULTS

- Implemented a solution that reduced the price tag from ~\$1M to \$30K
- Replaced the analytics platform with time to spare before hard end-of-lease and end-of-life deadlines
- Positioned the IT team to pursue leadership's cloud transition initiative
- Provided researchers with a platform that supports future collaboration
- Shortened the data processing window by 30%

“There were a lot of pieces at play to bring in a brand-new box and get it up and running fast—especially during the pandemic. Mainline suggested a solution where there was no conversion needed, set us up for a future move to the cloud, and delivered a seamless experience for the user. They also went to bat for us with IBM, extending the lease we had in place and negotiating a phenomenal price on the new Netezza server. Our whole department breathed a collective sigh of relief.”

Manager, Application Development

THE RESULTS

The migration to Google Cloud Platform was anticipated to cost about \$1 million. Mainline’s end-to-end, unified solution lowered the price tag to \$30,000 without the lengthy disruption to clinical research associated with a cloud transition. Now the IT team is able to strategically plan their migration to the cloud while delivering better service to their researchers. With the NPS + IBM Cloud Pak for Data solution, they have been able to collapse the data processing window from seven hours to five, giving researchers more immediate access to relevant data.

“The hospital’s IT organization has earned themselves a reputation for pulling off miracles, however moving a critical research analytics platform with a massive amount of data to the cloud in a matter of months is not something anyone could have pulled off. Our solution gave the hospital both a short- and long-term answer with hybrid data management design.”

Brad Miller

Practice Director, Information & Analytics

For more information, call your Mainline account representative or call Mainline directly at 866.490.MAIN(6246).

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