Improving Patient Care with Flash-Accelerated Analytics

For industry pioneer Mercy Technology Services (MTS), delivering the best patient care possible means changing explosive data growth from a burden into an opportunity for innovation. MTS uses flash-accelerated analytics to improve health services and to build lasting relationships with patients throughout their healthcare journey.
“With this solution, NetApp All Flash FAS gives us the performance we need from a vendor we trust.”

Gil Hoffman
Senior Vice President and Chief Information Officer, Mercy

LEADING DIGITAL TRANSFORMATION
As the technology backbone of Mercy, the fifth-largest Catholic health system in the United States, MTS supports a network of more than 3,500 physicians and 65,000 healthcare technology users nationwide. Its pioneering Epic EHR (electronic health record) software-as-a-service (SaaS) offering is used by hospitals throughout the country.

Today, MTS is again at the forefront of digital transformation in healthcare. Rapid growth in EHRs and in other clinical data offers exciting new possibilities for improving diagnostics, treatment, and illness prevention. But critical medical decisions are often made in an instant. For data to be transformative, it must be immediate.

“We had increasing demand for real-time information,” explains MTS Senior Vice President and Chief Information Officer Gil Hoffman. “Healthcare has been sitting on a mountain of data for decades, and we really haven’t used it to its fullest until lately. Mercy now has ways to get that data to physicians and nurses instantaneously to make decisions that can save lives.”

FUELING INNOVATION WITH FLASH
Working with IT service provider World Wide Technology (WWT), MTS deployed NetApp All Flash FAS to accelerate analytics for its critical business data.

“Our Epic EHR service offering is built on FlexPod and NetApp ONTAP, so our partnership with NetApp goes back a long way,” explains Hoffman. “With this solution, NetApp All Flash FAS gives us the performance we need and a high comfort rating regarding the performance of our Epic EHR service from a vendor we trust.”

With instantaneous data delivery that is enabled by NetApp All Flash FAS, MTS is transforming all aspects of its organization—from improving diagnostics, treatment, and prevention to reaching patients beyond the hospital walls.

USING REAL-TIME ANALYTICS TO IMPROVE PATIENT CARE
Flash fuels the analytics that help physicians identify trends

BUSINESS BENEFITS
• Ability standardize treatment through advanced data analytics
• Turnaround time of queries and reports reduced from 6 hours to 1 hour
• Significant increase in early sepsis identification
Applications such as Mercy’s Daily Visit Planner gather clinical data from various sources, including EHR, insurance, Social Security, and pharmacy data, to suggest services in real time.

“Our TeleSepsis program, for example, uses algorithms to predict if a patient with infection is trending toward a more serious condition known as sepsis or severe sepsis,” explains Scott Richert, vice president of Enterprise Services. “The program has increased early sepsis identification by 30%. It’s astounding. We can analyze data so quickly that we’re able to get ahead of the condition, stop further deterioration, and save lives.”

Overnight queries and reports that used to run well into the morning can now be in physicians’ hands hours sooner, as they arrive for their shifts. And healthcare providers can leverage big data analytics to identify best practices and to eliminate inefficiencies.

“When we use data to standardize treatment, patients consistently get the very best care,” explains Hoffman. “Rather than rely solely on their own experience, physicians are now able to draw on the experience of thousands of physicians to standardize on data-proven care.”

“We are part of a fast-moving organization that is dependent on us to enable innovation. We are motivated by the knowledge that if we do it right, we’re saving lives. We’re making our community better.”

Scott Richert
Vice President, Enterprise Services, Mercy

“REACHING PATIENTS WITH VIRTUAL CARE SERVICES

MTS also uses flash to power Mercy Virtual, its virtual care services line, which enables Mercy to extend care to underserved communities and to
patients in their homes or at other facilities. Patients can video-conference with their physicians by using hospital-provided tablets. They can also review medical records and laboratory results and schedule appointments online. And physicians can monitor patients in their homes for warning signs of illness, dramatically reducing readmission rates.

“Mercy Virtual is redefining our business model by breaking down barriers to care,” adds Hoffman. “We are creating a competitive advantage by engaging patients in new contexts with more of a ‘retail’ experience. In the future, I envision partnering with other hospitals to provide hubs of virtual care across the United States and into other countries.”

EMBRACING THE DIGITAL ERA OF HEALTHCARE

As virtual care spreads and the focus of healthcare shifts to prevention, data will become only more valuable. Hoffman and his team are up for the challenge.

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