Health First uses Azure Synapse Analytics to create a data management solution, improving refresh speeds by 75 percent

May 22, 2023

Customer

Health First

Products and Services

Azure
Azure Synapse Analytics
Power BI

Industry

Health Provider

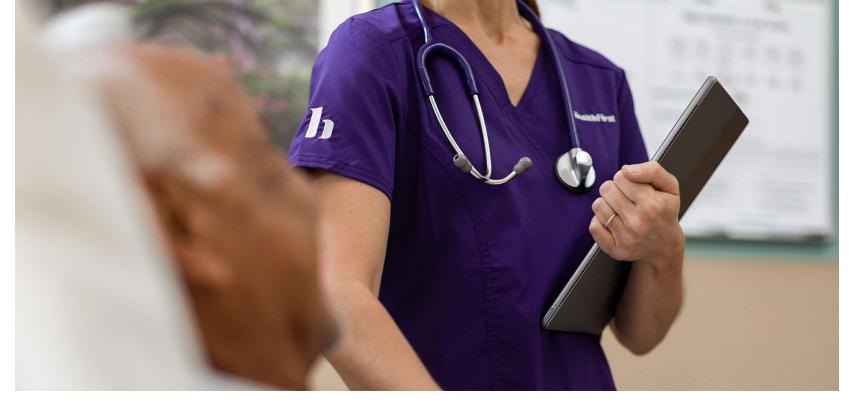**Organization Size**

Large (1,000 - 9,999 employees)

Country

United States

Health First, a fully integrated delivery network in Florida, created a data management solution by joining its existing data warehouse architecture with Azure Synapse Analytics. While collecting information from more than 60 applications, Health First faced challenges in scaling its on-premises data warehouse. Additionally, the health network wanted to explore AI, predictive analytics, and other innovative technologies while maintaining a high level of security for patient data. It deployed Azure Synapse Analytics to scale up its data integration and storage capabilities in a secure cloud system. By creating this system, Health First lowered costs, improved workload processing times, and offered better data access for providers.

Health First operates as an integrated delivery network with four hospitals, a physician group, and a health plan. It faced challenges in its collection and deployment of data while managing complex systems on both the patient care and payment disbursement sides. The IT team at Health First was also devoting significant time to managing a complicated on-premises

data warehouse, which reduced its opportunities to apply its collected data and create better outcomes for employees and patients.

Realizing the need to scale up its data storage and usage capabilities, Health First began exploring opportunities to reduce its data management overhead. In Azure Synapse Analytics (https://azure.microsoft.com/en-us/products/synapse-analytics/), Health First found a data management and analytics system that empowered its employees to spend less time managing data and more time using it to develop solutions.

Seeking scalable data storage for more efficient solutions

Founded in 1995, Health First is a not-for-profit healthcare network on a mission to deliver a seamless and integrated care experience to its members. It prioritizes providing high-quality healthcare in multiple locations while also managing payments and patient security. "One of the challenges with our previous enterprise data warehouse was that it couldn't scale to our needs because all these systems are generating more data all the time," says Kent Burckhart, Data Engineer at Health First.

Health First wanted to develop its capacity in predictive analytics to gain insight into operational costs and staffing needs. Under its previous system, it didn't have the scalability to manage the data necessary for performing advanced use-case studies while reducing overhead and increasing revenue.

Although Health First needed to move toward using a cloud service for its data warehousing, it also wanted to maintain the templates previously developed with WhereScape, an automation software that it had already deployed. The network decided to migrate to a cloud-based infrastructure where it could incorporate products it was familiar with, as well as use its existing data vault implementation.

Ultimately, Health First believed that it could improve services for internal clients who needed actionable and timely insights. Its first data warehouse was focused on aggregating multiple sources rather than dedicating time to delivering data products to its customers. It sought a new service that was affordable, scalable, and could be used for advanced analytics.

Deploying Azure Synapse Analytics in six months to streamline data management

In early 2022, Health First began to evaluate [Microsoft Azure (https://azure.microsoft.com/en-us/)](https://azure.microsoft.com/en-us/) as a potential offering that would provide efficient, cloud-based infrastructure. Because the network was already transferring business insights into [Microsoft Power BI (https://powerbi.microsoft.com/en-us/)](https://powerbi.microsoft.com/en-us/) to create clearer data visualizations, it made sense to continue using Microsoft technology. "We went through the pros and cons, and after a thoughtful analysis, we decided that Azure made sense for Health First from a technology, user perspective, and financial perspective,'" says Michael Carr, Chief Technology Officer and Chief Information Security Officer at Health First. "Azure and Azure Synapse Analytics really aligned with our overall technology strategy."

Health First found that Azure Synapse Analytics was more affordable than similar cloud systems and could work with existing WhereScape products. Using Azure Synapse Analytics would also facilitate future growth without requiring costly add-ons, as well as provide the security necessary to protect patient data and fulfill compliance requirements.

Whereas costs for competing cloud systems were unclear, Microsoft provided pricing options that showed Health First exactly what it would be spending. "We're confident in the fact that Microsoft has a broad range of products that we can tap into when we're ready, but we're not paying for them before it makes sense," says Burckhart. Microsoft also indicated where Health First could grow its system by adding more services in the future. "We didn't need all the bells and whistles, and our teams already had skill sets in many Microsoft products," says Burckhart. "For us, transitioning to Azure Synapse Analytics was the natural choice."

In March 2022, Health First began the process of setting up its already-functioning data vault and WhereScape tools with Azure Synapse Analytics. The network found that the Microsoft team was more than willing to provide support, making the process incredibly smooth. "Microsoft was invested in our success, which felt pretty unique. It's not a quality I've consistently found as we've tried big projects with other vendors and partners," says Carr. The project was successfully implemented in September 2022.

Improving data refresh speeds by 75 percent

Health First was one of the first healthcare providers to deploy WhereScape with Azure Synapse Analytics. Implementing both familiar and new products helped the network to accelerate its operations. And with faster turnaround times, Health First employees could focus on using data to improve patient care and operational decisions.

Health First saw big results almost immediately. "We experienced more than a 90 percent improvement in workload processing times," says Rick Rogers, Engineering Manager at Health First. "With Azure Synapse Analytics and Power BI, our daily data refresh was probably about 75 percent faster, down to 3 hours from a 12-hour overall run time, which improves our capability to provide actionable insights for both clinical and operational decisions."

Solving data management challenges for the future

Moving forward, Health First is eager to use streamlined data services and analytics to support its mission of providing convenient, accessible, and exceptional healthcare. The network is confident in its ability to meet any challenge that comes its way. It can now pursue modern healthcare technologies like AI services and machine learning to improve operations and patient experiences.

Health First is excited that Azure Synapse Analytics will support any use case and new functions that it wants to implement. "I feel like we're barely scratching the surface right now," says Rogers. "We don't know what use cases are coming, but I'm excited to see them come, knowing that we have the ability to support more real-time visibility into analytics. I'm really looking forward to that."

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