



## Case Study



### To make a long story short:

#### Who are they?

Sentara Healthcare is a not-for-profit healthcare organization serving Virginia and North Carolina.

#### What did they need?

Faster performance on Azure for their EHR workloads while staying within budget, as well as the ability to scale Azure adoption efficiently to support broader cloud and innovation initiatives.

#### How did Silk help?

Silk enabled the lift and shift of Sentara's most complex workloads, including EHR, to Azure without refactoring, while delivering unmatched performance, capacity optimization, and cloud cost savings.

#### What were the results?

- 3x faster performance for EHR workloads with over 69% lower cloud storage costs through data reduction and infrastructure optimization.
- Over 185 TiB of capacity saved, including 54% reduction in physical capacity and 20% lower costs via 2:1 data compression.
- Accelerated Azure adoption 4x faster with a 9x data growth in just two years.
- Up to 76% of cloud compute spend freed up
- The combined \$10M+ in annual savings enabled reinvestment in Azure to drive innovation, AI initiatives, and expanding cloud use.

# Sentara EHR Workloads in Azure Achieve 3x Faster Performance & 69% Lower Cloud Spend with Silk

## Sentara Overview

Sentara Healthcare is a not-for-profit healthcare organization serving Virginia and northeastern North Carolina. It offers services in 12 acute care hospitals with 3,739 beds, 10 nursing centers, and 3 assisted living facilities. In addition, Sentara operates its own managed-care plan which covers 450,000 subscribers in the region.

## Business Challenges

Sentara faced performance limitations using Azure NetApp Files (ANF) for its EHR workloads. With cloud costs projected to increase 10% YoY, they needed a solution to deliver the necessary level of performance without inflating their OPEX. Additionally, Sentara's EHR was experiencing prolonged data processing times with its nightly ETL process taking 10-14 hours. This was delaying critical data availability to providers and patients.

## Why Silk?

Silk quickly proved to be the ideal solution to overcome Sentara's cloud performance and cost challenges. Silk offered ultra-fast performance – up to 10x faster than native cloud – while delivering enterprise-grade data services like thin provisioning, zero-footprint snapshots, and inline deduplication. These capabilities significantly reduced the number of cloud resources Sentara needed, keeping their cloud spend under control. Most importantly, Silk provided the scalability and efficiency that enabled Sentara to confidently expand their Azure footprint, while supporting future innovation and AI-driven projects without performance trade-offs or escalating costs.

## The Results

With Silk, Sentara was able to right-size their host virtual machines by achieving higher performance using fewer vCPUs. This optimization resulted in cost reductions of up to 76% per VM. The organization also achieved a 69.2% lower initial cost per provisioned GB compared to Azure alone. Silk helped accelerate Sentara's Azure adoption, growing from 892 TB to 8,175 TB of data in just two years and enabling a 9x increase in data. This expansion was accompanied by an 89% increase in cloud-hosted environments and nearly 30% more virtual machines – all while keeping costs down, enabling reinvestment in cloud migration, innovation, and AI initiatives.

Most notably, Silk's zero-footprint snapshots enabled Sentara to transform its nightly service impacting ETL data processing window from 10-14 hours to just 15 minutes. This drastic reduction gave Sentara nearly 24/7 access to their data, allowing the healthcare provider to better serve patients and support clinical decision-making with timely insights.

### **Ready to get the powerful speeds your EHR workloads need?**

Visit <https://silk.us/solutions/healthcare/> for more information on what Silk can do for you.

**"The performance with Silk on Azure could not be met by any other cloud solution for our most intense workloads, including our EHR. Silk and Azure are a powerful combination for complex workloads on the cloud."**

– **Matt Douglas,**  
Chief Architect,  
Sentara

### **About Silk**

Silk fuels AI innovation by enabling real-time access to production data in the cloud. Seamlessly integrating high-performance cloud storage into AI workflows, Silk empowers organizations to enhance innovation while maintaining performance, reliability, and control over trusted enterprise data. Silk's agile data delivery eliminates the need to copy production data enhancing flexibility and enabling production data to be leveraged for Generative AI.

Backed by over 20 technology patents, Silk helps customers unlock the full potential of the public cloud with speed and ease. Silk is headquartered outside of Boston, MA.

To learn more, visit [www.silk.us](http://www.silk.us).