



Customer Case Study

Transforming Data Analytics with Azure Synapse



Kreg Tool



Kreg Tool produces tools for woodworking projects and provides tools to help woodworking professionals and novices achieve well-crafted building projects. Kreg Tool is synonymous with pocket joinery and is a leading name in woodworking.

For over 30 years Kreg Tool has supported its customers throughout the entire process of their building projects.

Challenges

Optimize data processes

The client faced significant challenges with their existing Databricks setup on AWS, which prompted them to seek a more tailored solution to enhance their data handling capabilities. This necessity to change came from a desire to optimize their data processes and improve overall performance by adopting a Microsoft-based ecosystem, which promised better integration with their existing systems.

The client's limited internal expertise with Azure compounded the challenge—they expressed a strong desire for guidance and validation throughout the migration process. This guidance was crucial for successfully implementing the new systems and empowering their team to leverage these technologies effectively.

With these considerations, US Signal became the clear choice as a partner, having supported Kreg Tool for many IT solutions. US Signal's extensive experience with Microsoft and Azure projects gave Kreg Tool the confidence that this migration would be done correctly and within budget.

Highlights

Challenges

- Inefficient Databricks setup on AWS.
- Limited Azure expertise.
- Complex AWS-to-Azure data migration.
- Syntax and security adaptation hurdles.



Solution

Solution

- Migrated to Azure Synapse with medallion architecture.
- Used Azure Data Factory for seamless data transfer.
- Adjusted code for compatibility and ensured security.
- Delivered a unified Microsoft ecosystem in 3-4 months.

US Signal was willing to help in all aspects of this project. If they didn't know the answer, they would research it and quickly get back to us with a response. It was expressed many times that we could reach out at any time with questions. Their transparency, communication, and technical expertise make them an ideal partner..”

Mike Bynum

Senior Developer/Data Engineer Kreg Tool

Azure Synapse was introduced as a powerful alternative to the existing setup. Intrigued by its capabilities, Kreg Tool decided not just to migrate but to reinvent their data management approach by leveraging Azure Synapse, supported by a medallion architecture.

The migration process was facilitated by using Azure Data Factory to seamlessly transfer data from AWS to Azure through a built-in connector. However, the project faced challenges. One hurdle was the adaptation required for the Databricks notebooks, which used a syntax different from those in Synapse. This necessitated a cautious approach to validating data and adjusting code to ensure compatibility and accuracy. Configuring security permissions to enable proper communication between ADF and Synapse presented another layer of complexity.

Despite these challenges, the project transitioned to a fully operational state within 3-4 months. The new system, which consolidated under an all-Microsoft technology stack, including DevOps, Data Factory, and Synapse, led to significant operational cost reductions and streamlined development processes. Kreg Tool expressed high satisfaction with the outcome, highlighting substantial improvements in data management and analytics capabilities essential for their business operations.





Digital Infrastructure Solutions Built for Your Business



US Signal, established in 2001, is a premier national digital infrastructure company that operates a fully owned fiber network to deliver a wide range of advanced digital solutions. Our offerings include robust cloud services, secure colocation facilities, high-performance connectivity, comprehensive hardware resale, and managed IT services, empowering businesses to enhance their operational efficiency through tailored network, data center, data protection, and cybersecurity solutions.