



Data modernization with lakehouse architecture: Empowering data-centric decision-making

Engineering a modern data enterprise on AWS

Modernizing legacy database technologies is critical for organizations to keep pace with growth and make faster decisions. Lakehouse architecture blends data lakes and warehouses into a unified platform, enabling advanced analytics and real-time processing. AI and ML drive insights, automate decisions, and optimize operations, while Generative AI creates new solutions and content, unlocking innovation. Virtusa's expertise in cloud-scale architecture, open-source databases, and robust security ensures performance, compliance, and global trust. Modernized databases enable data-driven organizations to achieve growth and cost efficiency with consumption-based pricing, enhanced security, and improved data quality. By adopting agile DevOps and microservices, enterprises manage complex data patterns, gain real-time insights, and accelerate transformative change.

Why clients are choosing Virtusa

Virtusa's domain experience, 2,200+ certified AWS professionals with diverse skill sets, and accelerated development capabilities are why clients are choosing to partner with us in their data modernization journeys.



Our modern data architecture experience enables us to implement data lake and data warehouse integrated lakehouse architectures to provide real-time analytics and support for advanced AI/ML applications.



Our HIVE solutions factory houses 40+ battle-tested accelerators and integrations with 15+ partner tools, reducing data ingestion efforts by up to 50% and orchestration by up to 60%.



Our domain-led AWS Strategic Collaboration Agreement (SCA) established the generative AI & Data Lab, accelerating AI/ML modernization and providing a platform for rapid innovation.



Our Open Innovation Platform (OIP) on AWS is designed to accelerate digital transformation for financial institutions by enabling rapid ideation, testing, and deployment of new products and services.



Our AWS data platform advanced features leverage AWS tools like SageMaker, Bedrock, and Glue to modernize infrastructure, optimize costs, and drive digital transformation for clients, ensuring innovation and agility in a dynamic tech landscape.



We leverage lakehouse architecture tools such as Apache Iceberg with Amazon S3 and EMR to deliver ACID-compliant, high-performance data lakes to enable scalable, consistent data operations and advanced analytics.



Our innovative machine learning approach integrates AWS tools like SageMaker and Bedrock to streamline AI/ML workflows, enhance data insights, and enable automation through generative AI capabilities.



We consolidate for cost optimization and manageability by employing AWS services like Glue Catalog, DynamoDB, and Lambda to ensure unified governance, reducing infrastructure costs and streamlining API and data management.

Solution approach

Plan, prioritize, & architect

Strategy: A finely tuned, business outcome-driven approach and roadmap.

Design patterns: Automate routine tasks, which is essential for complex patterns that emerge.

Data security: Robust security to ensure global trust.

Modernization execution

Blueprint: A unified platform for all data types

Comprehensive solution using classical AI and genAI

Delivered business outcome

Virtusa has migrated 10,000+ databases to the cloud, delivering reliable and robust solutions.

Virtusa's modernization drives 40% cost savings and 50% better application performance for clients.

Accelerators

- Virtusa's HIVE Solutions Factory offers 40+ accelerators and tool integrations to streamline data ingestion and orchestration.
- Virtusa's Business ROI Framework drives cloud value through cost optimization, efficiency, and innovation.
- Virtusa's Synthetic Data Generator produces realistic synthetic data across image, tabular, and video formats.
- Virtusa's vAI-DQ automates data quality issue detection using ML-driven controls for critical data elements.

Partnership with AWS

Virtusa's Strategic Collaboration Agreement with AWS includes a Generative AI & Data Lab to accelerate data and AI modernization, leveraging AWS tools like SageMaker, Bedrock, and Glue for tailored cloud solutions.

Virtusa's Open Innovation Platform on AWS enables financial institutions to innovate faster by connecting with FinTechs for rapid ideation, testing, and deployment of new services.



Supporting case studies














Provide tangible (measurable) business outcomes realized by the client. Use this section to highlight a success story if available. Bullets/numbering also work well here. Mark N/A if none available. Maximum 165 words, 1,100 characters.

Virtusa's domain expertise, layered solution approach, and strategic accelerators have helped our clients achieve measurable business outcomes.

- Virtusa modernizes an American financial services company's IT platform with 80% serverless infrastructure.
- Virtusa helped a global pharmaceutical company fast-track clinical trials by 25% by implementing an enterprise data hub using AWS data lake.
- A leading US life insurance company improved efficiency by 40% with Virtusa's implementation of a modern data platform strategy leveraging AWS cloud capabilities.
- Virtusa helped a leading Australian Bank save \$1.2 million annually by moving its legacy monolith Pega platform to AWS.

Partnership highlights

This unique partnership brings together the extensive AWS technology landscape with Virtusa's depth of experience, talent and tools to accelerate adoption of cloud and deliver business transformation at speed and scale.

				<ul style="list-style-type: none"> 8 AWS competencies 7 AWS service validation 5 Partner programs 200+ AWS Customer launches 	 Increased AWS revenue by 20X in the last 4 years
 <p>AWS Premier Consulting Partner</p>	 <p>Strategic Collaborative Agreement 2.0</p>	 <p>DB Freedom Partner</p>	 Strategic partnership with Proserv		
 <p>AWS Managed Service Provider</p>	 <p>2,600+ AWS certifications; delivered nearly 300 cloud transformation projects</p>	 <p>Part of MAP partner program. Joint funding for POC's/Pilots</p>	 Dedicated training & certifications drive across the globe		
			 300+ projects delivered across 85+ clients worldwide		
			 Developing target industry- specific solutions		