**virtusa**

**Engineering First**

# Modernize your applications seamlessly with AWS Cloud-Native PaaS Services

## Modernize, revitalize, and accelerate

In today's rapidly changing business environment, accelerating application modernization on the cloud is imperative to keep pace with the dynamic needs of enterprises. Neglecting legacy systems leads to increased operational costs and hinders innovation. According to a recent Forrester Research survey, application modernization ranks high on the priority list for decision-makers. However, success can be elusive. Can application modernization be accomplished with minimized risks? With our architecture-led approach and solution mindset, we transform modernization into true business change, fostering a cloud-native mindset and reducing execution risks. Virtusa can help:

- Minimize business risk with a frictionless legacy modernization
- Modernize applications with future-ready tech
- Eliminate tech debt
- Implement cost-efficient solutions with built-in automation to drive efficiencies

**Our systematic approach has helped us address some of the leading and key challenges faced during application modernization:**

- Application complexity
- Performance optimization
- Downtime and service continuity
- Security and compliance
- Legacy systems integration
- Scalability

- Version control and DevOps
- Cost management
- Data migration
- Monitoring and management
- Testing and quality assurance
- Vendor lock-in

Effectively addressing these challenges necessitates meticulous planning, a well-structured strategy, and the right tools and expertise. Let's explore how our approach tackles these complexities and paves the way for successful application modernization.

# How do we modernize the applications?

We follow a systematic architecture pattern-based approach to modernize applications depending on the current technology stack, business requirements, and goals. Here are some of the common architecture patterns adopted by us to modernize your applications:

**Make the data accessible:** Serve all interested parties through versioned APIs, allowing fast evolution. Data is replicated and fed, allowing reliable operations.

**Enhance legacy with event-driven design:** Events at the core of the decoupled architecture enable real-time data interactions.

**Strangle the monolith:** Create atomic units by adopting macro/micro-services to strangle portions of the monolith.

**Automate legacy refactoring:** Use of automated refactoring mechanisms to translate and port the legacy into a modern language and ecosystem.

**Well-architected solutions:** Virtusa's migration and modernization approach and solutions are well-architected, minimizing risks and delivering scalability, reliability, security, efficiency, cost-effectiveness, and high performance.

**Implement modern UI technologies:** Use modern technologies to create newer user experiences (e.g., push notifications).

# Why Virtusa?

At Virtusa, we redefine modernization by embodying an "Engineering First" DNA. Our commitment is reflected in the expertise of our 3500+ certified cloud professionals and a remarkable 90% NPS score consistently. Understanding why clients choose Virtusa involves recognizing the core principles that drive our approach and the results we consistently deliver:

**Application modernization expertise:** With over 300+ application cloud transformation projects, we are well-versed in legacy challenges, providing unwavering support. We have successfully modernized and optimized over 5 billion lines of code for our clients, ensuring seamless transitions.

**Ready to deploy infrastructure strategies with a security-first posture:** This is designed to secure and accelerate Amazon Web Services (AWS) modernization programs, enabling a smooth transition to a cloud-native environment.
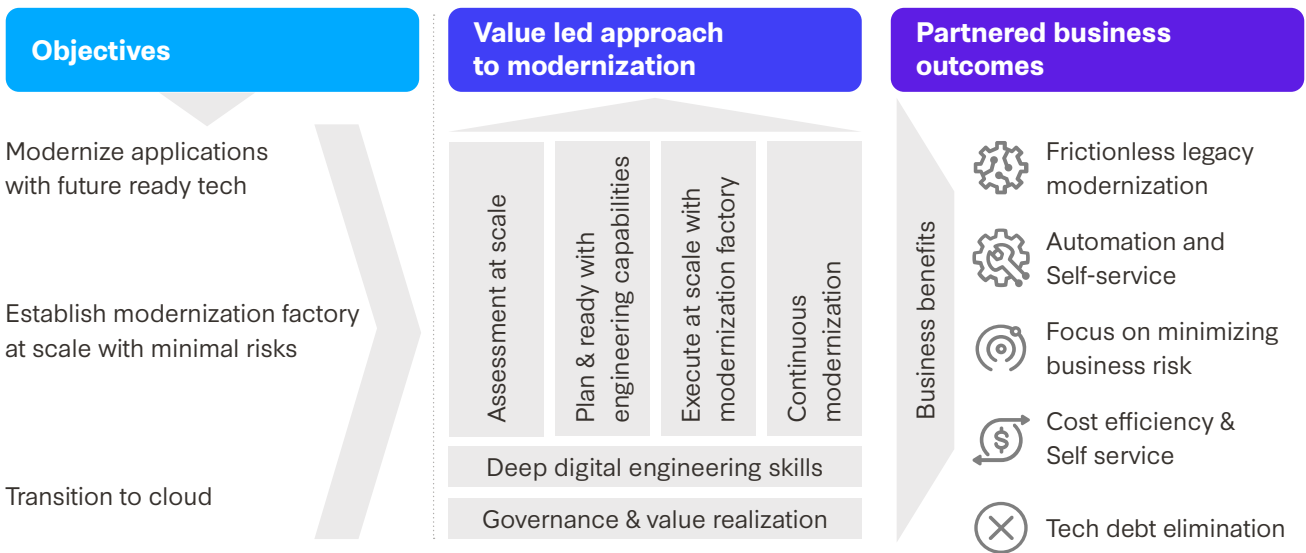
**Established decoupling architectural patterns:** Decouple legacy applications by using microservices, API and interfaces, containerization and orchestration, and message queues and event-driven architectures. These decoupled architectures leverage the AWS ecosystem, enabling a repeatable and streamlined modernization.

**AWS Partnership and Credentials:** Virtusa's reputation is built on delivery and our engineering workforce. Our collaborations with AWS underline our expertise as a Premier Partner, Strategic Collaboration Agreement 2.0, DB Freedom Partner, Co-Branded assets with AWS, and Professional Services Organization (PSO) Partner, with over 2200+ AWS certifications and 8 AWS competencies.

**HIVE Solutions Factory - your modernization arsenal:** This features 40+ battle-tested accelerators and integrations with 15+ partner tools that amplify the efficiency and effectiveness of your modernization journey. HIVE helps you to fast-track timelines and mitigate risk by amplifying the efficiency and effectiveness of your modernization journey.

# A value-led modernization approach

Virtusa's value-led application modernization approach to the cloud prioritizes business objectives and accelerates delivery with a risk-mitigated and pattern-based scalable factory model.



**Assessment at scale:** Automated and detailed assessment designed to discover dependencies, determine pathfinder applications for a minimum viable product (MVP), reduce risk, and accelerate modernization in the right path.

**Plan & Ready with pathfinder applications:** We build the platform engineering foundation with proven decoupling architectural patterns (wrapping the monolith, data decoupling, enriching legacy with event-driven designs, strangling the monolith, automated refactoring, reactive UI), security principles, DevSecOps pipelines, best practices for the application modernization to follow an evolutionary journey that reduces the business risk.

**Execute at scale, leveraging the pathfinder application patterns and the platform engineering foundation:** Adopting fast lanes for established practices accelerates modernization and the adoption of main lanes for unique patterns.

**Continuous modernization:** Adopting site reliability engineering (SRE) principles ensures enterprises are on the path of continuous improvements, bringing in a higher order of efficiencies and enabling them to adopt modernization as a continuous journey and not a one-time activity.

With this value-led approach to modernization enabled through this scalable framework, we are ready to embark with you on your application modernization journey on AWS by following our systematic approach and mitigating potential risks by leveraging our experience of successful application modernization backed by Virtusa's HIVE solutions factory.

# Success stories

40% increase in availability for an eCommerce application by refactoring and modernizing the application for a large US pet retailer

30% overall operating cost reduction by modernizing the application to use AWS EKS Fargate instead of using dedicated AWS EC2 instances for a large media company in the US

A leading European Bank reduced its Payment Service Provider (PSP) application's time-to-market by 5 months using a cloud-based microservices containerized platform

To learn more contact us today at **marketing@virtusa.com**

## vírtusa
**Engineering First**

Virtusa.com