



DATA SHEET

# AI-driven modernization on Google Cloud

**virtusa**

Technology backdrop is going through a major paradigm shift with the rapid proliferation of cloud technologies and Artificial Intelligence (AI). At the same time, with the tectonic shift happening in the markets with challenging customer expectations including seamless consumer experiences, faster time to product features, anywhere and anytime access to the services and lower costs, organizations need to leverage the combined power of cloud technologies and AI together.

Hence, to help the clients stay relevant with the rapidly changing technology and market landscapes, Virtusa created AI-Driven modernization on cloud leveraging the versatility of Google Cloud and the power of AI. Virtusa's AI-Driven modernization on Google cloud covers all the facets of IT modernization as a continuum of transformation.

Virtusa's AI-Led Modernization on Google Cloud offering is divided into three sub-offerings.

## AI-led infra modernization

This offering helps the clients to modernize their IT infrastructure by migrating to Google Cloud. This is the quickest and easiest way to adopt cloud. This offering helps to mitigate impact due to DC Exits, tech refresh, obsolete infrastructure etc., It includes the activities such as AI-powered discovery and migration planning, creation of foundation and landing zone, lift and shift migrations with light re-platform, enabling disaster recovery and business continuity through Google Cloud, database migration, end of support cases like Windows, Linux, etc.

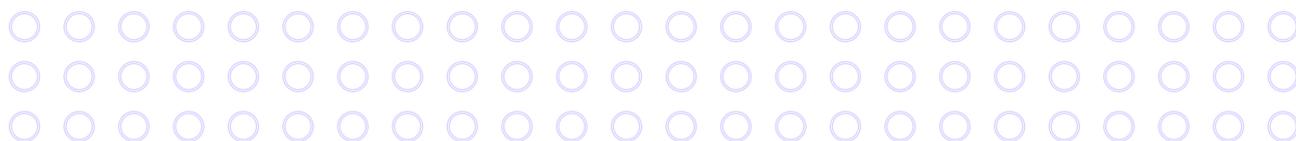
Virtusa uses several cloud native, proprietary and hand-picked 3rd party tools to infuse the power of AI during the migration process. Examples including using AI-powered CloudGenie to create the target state, Gemini based Database Migration Service (DMS) for heterogeneous database migration etc.

## AI-led app modernization

App Modernization on cloud helps to modernize the application development and deployment on Google Cloud. App modernization activities include Modernization Advisory, Re-platforming the application / database / middleware with cloud native services, breaking down monolithic applications into microservices architectures, leveraging Cloud Native services, container platforms and Serverless, establishing DevSecOps and Immutable Architectures and Data, ML and AI Modernization services.

Virtusa leverages CloudAssist extensively to reduce the development timelines and improve the code quality. Leveraging several LLMs offered by Vertex AI with Gemini, Virtusa infuses genAI enabled capabilities including building chatbots and robots with Vertex AI Agent Builder, intent-based and LLM powered contact center platforms so on.

Virtusa extensively uses Helio, its flagship offering consisting of AI-first set of solutions as part of the app modernization offering for our customers to optimize productivity, enhance automation, and stay competitive and innovative in a changing industry landscape.



# AI-led legacy modernization

Moving away from legacy and reducing the technical debt is the top priority for the organizations. Virtusa uses the power of AI to create innovating solutions to modernize the legacy. Depending on the legacy application in question, Virtusa's approach is classified into two categories.

## Code-Context-Code

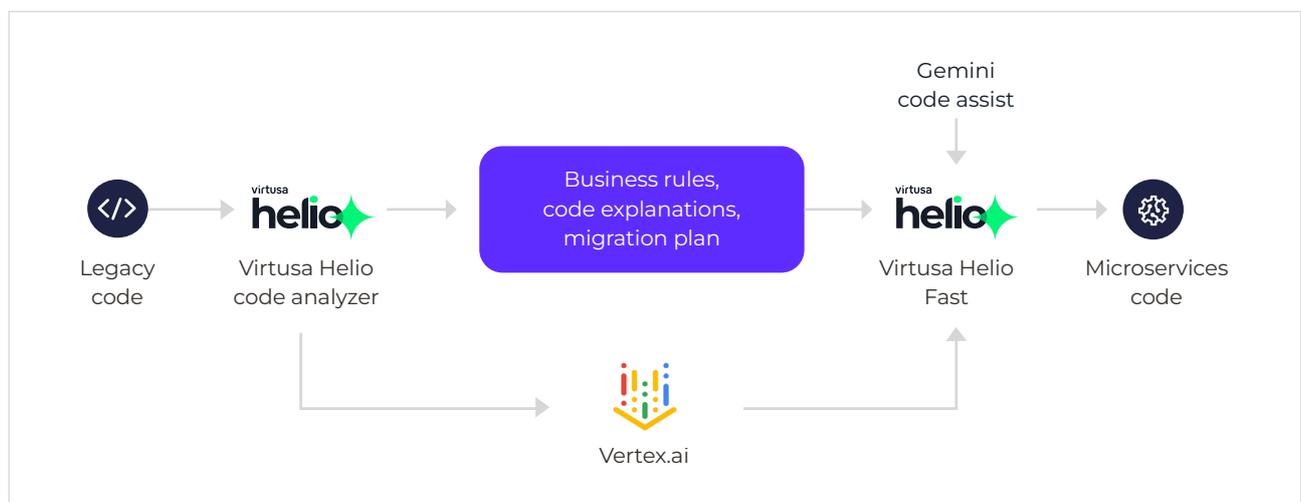
Using AI to reverse engineer the legacy code into human understandable artifacts such as design documents, business flows, code explanations etc., using these artifacts, modern code is generated leveraging Gemini Code Assist. In addition, legacy code may be analyzed through Mainframe Assessment Tool (MAT).

## Code-to-Code

Upgrade the legacy versions of the code to the latest by leveraging Google native tools, Virtusa's genAI-based Helio framework with custom LLMs and other third party tools.

## Assets and accelerators used

Google Cloud	Virtusa	3 <sup>rd</sup> Party
Migration Center	Cloudgenie	Matilda Cloud
Migrate to Virtual Machines	vPaaS	Cloud Hedge
Database Migration Service	Terraform Studio	RiverMeadow
Transfer Appliance	Ansible Studio	-
-	Helio	-



# Reduced cost by 60% by reverse engineering mainframe applications for a leading US bank

Inflexibility to accommodate newer functionality along with high cost of ownership led a leading global trading services group to turn to Virtusa to modernize their legacy system.

Virtusa helped reverse engineer and document the entire legacy code. We analyzed and understood the interfaces among the inflexible 25 mission critical applications and built functional blocks.

The solution ensured 100% accuracy in extraction of business rules, rapid transformation, and 250-man-month effort (~2 years) saving.



To learn more, contact us today at [marketing@virtusa.com](mailto:marketing@virtusa.com)

## virtusa

Virtusa is a global product and platform engineering services company that makes experiences better with technology. We help organizations grow faster, more profitably, and more sustainably by reimagining enterprises through domain-driven solutions. We combine strategy, design, and engineering, backed by unmatched expertise at the intersection of industry, business, and technology to generate real-world business impact for clients.

Headquartered in Massachusetts with global delivery centers, Virtusa provides a broad range of services, solutions, and assets, including strategy and design, AI advisory and services, digital engineering, data and analytics, digital assurance, cloud and security, and managed services across industries such as financial services, healthcare, communications, media, entertainment, travel, manufacturing, and technology.

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