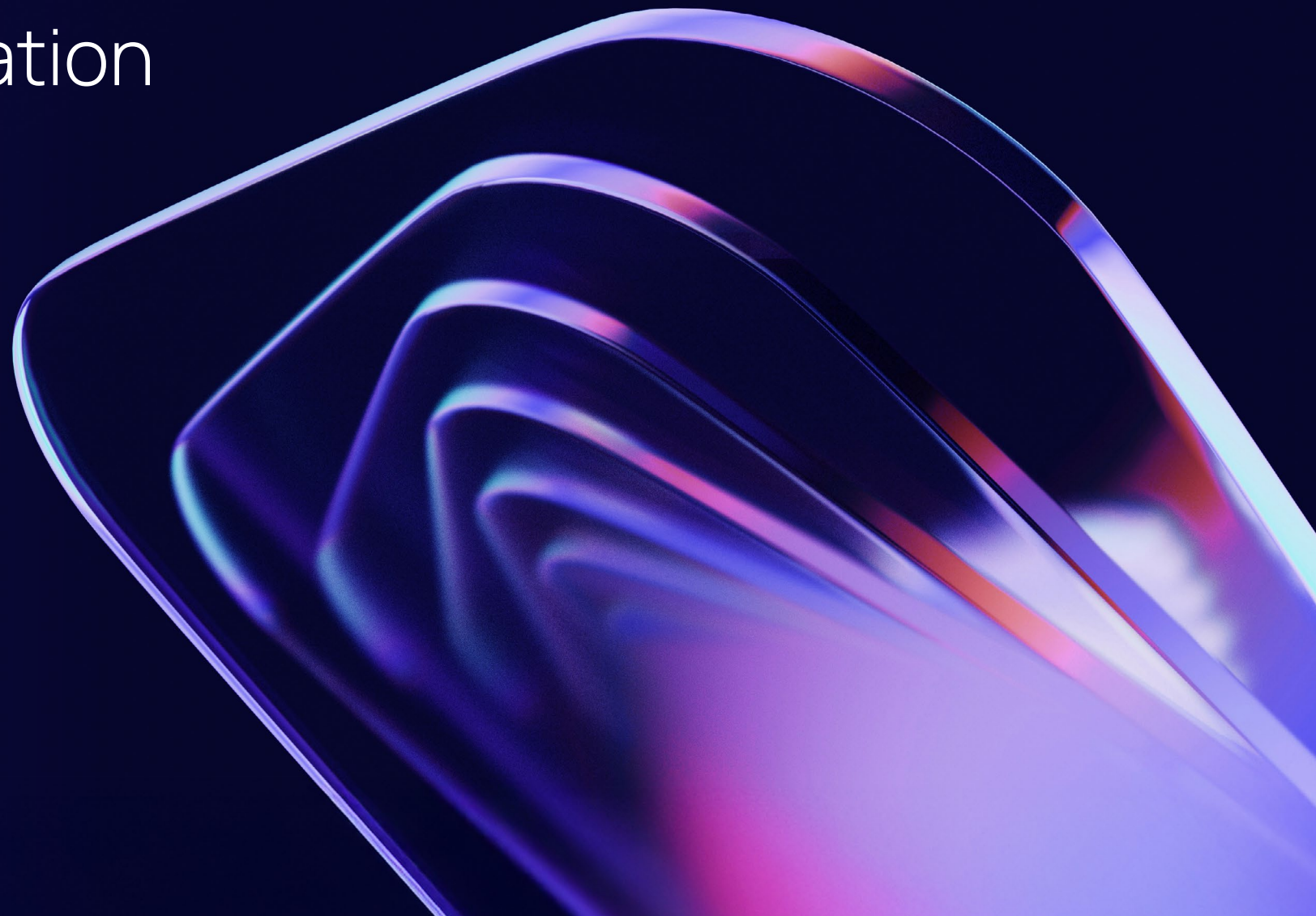


HEXWARE

Credit Card Authorization Application Modernization with Google Cloud

Modern Architecture for Reliable
Transactions

Case study



Client

| Client

Challenge

Solution

Benefits

Summary

Driving Reliability for the Automotive Aftermarket

Our client is a top retailer and distributor of automotive parts and accessories. They help individuals and businesses keep their vehicles running safely and reliably. Focusing on innovation and excellent service, they have earned a strong reputation for providing dependable solutions and outstanding customer support.



Challenge

Client

| **Challenge**

Solution

Benefits

Summary

Modernizing a Payment Ecosystem

Our client, a leading automotive parts retailer, is known for delivering reliable service and helping customers keep their vehicles running safely. Their credit card authorization (CCA) system handled real-time transactions across the US and Mexico, but it operated on an aging on-premises environment that could no longer keep up with growing business needs.

With physical data centers set for shutdown, the legacy system created risks around scalability, performance, PCI compliance, and operational reliability. Slow response times, rising transaction volumes, and outdated technology made it difficult to support both store and eCommerce experiences.

To modernize, our client needed to overcome tight timelines, skill gaps in GCP and microservices, mandatory PCI requirements, and the need to rewrite applications on a modern Java-based stack—setting the stage for a critical cloud transformation.



Solution

- Client
- Challenge
- Solution**
- Benefits
- Summary

A Modern, Cloud-Ready Payment Platform on Google Cloud

To ensure their credit card authorization (CCA) system could keep pace with expanding retail operations and rising transaction demands, our client needed a modern, cloud-ready foundation.

Hexaware supported them in transitioning this mission-critical platform to Google Cloud, helping them build a more secure, elastic, and future-ready payment ecosystem.

Backed by our expertise in cloud modernization services, we moved key components with a comprehensive migration to Google Cloud—including CCAuth, CreditDebit, ZeStore, and the PCI database—into Google Cloud. This provided our client with a resilient, scalable, and PCI-aligned foundation that better supported their operational needs.

Modernizing the Application for Cloud Performance

With Application Modernization Services, the legacy application stack was upgraded to JDK 17 and Spring Boot 3, and restructured into microservices. This improved performance, maintainability, and the speed at which new updates could be delivered.

Achieving Elasticity with GKE

Hexaware’s Containerization & Kubernetes Enablement Services enabled the deployment of modernized components on Google Kubernetes Engine (GKE), giving our client automatic scaling, faster releases, and strong multi-region resilience.

Strengthening Security and Connectivity

Through API & Security Services, the solution integrated Apigee Gateway and PingID to establish secure API communication and stronger authentication, ensuring safe interactions with Worldpay, BBVA, mainframes, and digital channels.

Addressing Constraints with Precision

Despite aggressive timelines and the need for specialized modernization skills—microservices, Java upgrades, Kubernetes, and secure API design—our team executed a comprehensive migration and modernization strategy without disrupting business operations.

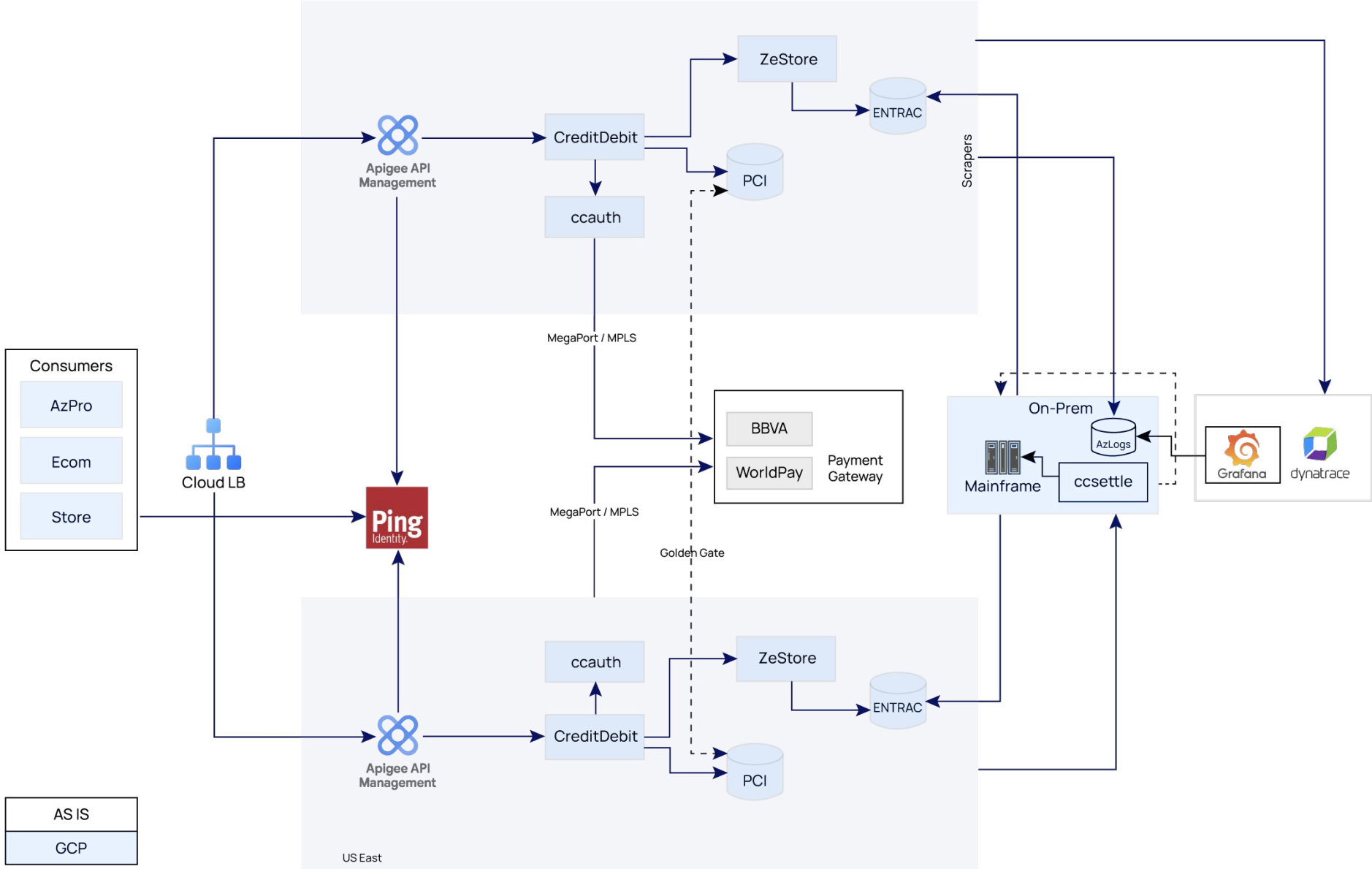
Solution Architecture Overview

The modernized CCA ecosystem is deployed across the Google Cloud US Central and US East regions, with secure integration to on-premises mainframes, payment gateways, and monitoring platforms.

The diagram shows how consumer-facing applications route through Apigee and PingID, how CreditDebit, ccAuth, ZeStore, and the PCI database operate in GCP, and how the system maintains secure, low-latency connectivity with BBVA, Worldpay, and legacy settlement systems.

Solution

- Client
- Challenge
- Solution**
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Modernized multi-region CCA architecture on Google Cloud

Benefits

- Client
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- Summary

A Unified Payments System Ready for Growth

Our client now operates a modern payment authorization system that is faster, more scalable, and built to support thousands of stores and digital experiences.

The new cloud-native environment positions them for continued growth while maintaining strong security, compliance, and operational efficiency.

99.99% Uptime Through Multi-Region Deployment

A dual-region GCP setup with automatic failover provides continuous payment processing because of modernization, even during regional disruptions, giving the client uninterrupted availability for all store and digital transactions.

6,708 Stores Supported with the App’s Scalability

The cloud-native architecture effortlessly handles real-time transaction loads from thousands of U.S. stores, maintaining stability and speed during peak retail hours and seasonal spikes.

30–40% Faster Processing Across the Platform

Modernized microservices, optimized GKE orchestration, and upgraded frameworks significantly improved response times, resulting in smoother checkouts and faster end-to-end transaction flow.

Zero PCI Deviations Ensured Through Stronger Security

With enhanced authentication, secure API gateways, and cloud-aligned governance, the environment meets every PCI requirement—protecting sensitive payment data with no compliance gaps.

Lower Total Cost of Ownership Through Optimized Utilization

Elastic scaling, efficient containerization, and right-sized cloud resources have reduced unnecessary consumption, giving the client better cost visibility and long-term operational savings with cloud cost optimization.

Future-Ready Architecture Accelerating Market Expansion

A flexible, cloud-native foundation now allows the business to scale into new regions and support higher transaction loads quickly, without additional hardware or major re-engineering.



Summary

- Client
- Challenge
- Solution
- Benefits

| **Summary**

A Scalable, Secure, and Future-Ready CCA Platform

Today, our client runs a fully modernized credit card authorization system on Google Cloud—highly available, secure, and aligned with enterprise cloud standards. All US store traffic now flows reliably through GCP, supported by microservices, Apigee Gateway, multi-region deployment, and automated failover.

Cloud modernization for its application has positioned our client for next-generation innovation, enabling:

- Faster go-to-market for new payment capabilities
- Greater resilience across retail and digital channels
- Ongoing compliance with PCI and corporate security standards
- Continued cost optimization and platform scalability

It not only solves immediate operational challenges but also set the foundation for long-term digital growth—ensuring our client delivers faster, reliable payment experiences for their customers.



Modernize, Secure, and Scale Your Core Payments

Transform legacy payment systems with cloud-native, secure, and scalable architecture. Connect with Hexaware to begin your modernization journey: marketing@hexaware.com

About Hexaware

Hexaware is a global technology and business process services company. Every day, Hexawarians wake up with a singular purpose: to create smiles through great people and technology. With this purpose gaining momentum, we are well on our way to realizing our vision of being the most loved digital transformation partner in the world. We also seek to protect the planet and build a better tomorrow for our customers, employees, partners, investors, and the communities in which we operate.

With offices across the world, we empower enterprises to realize digital transformation at scale and speed by partnering with them to build, transform, run, and optimize their technology and business processes.

Learn more about Hexaware at <https://www.hexaware.com>.

Get in touch