



GridGain powers instant, always-on payments

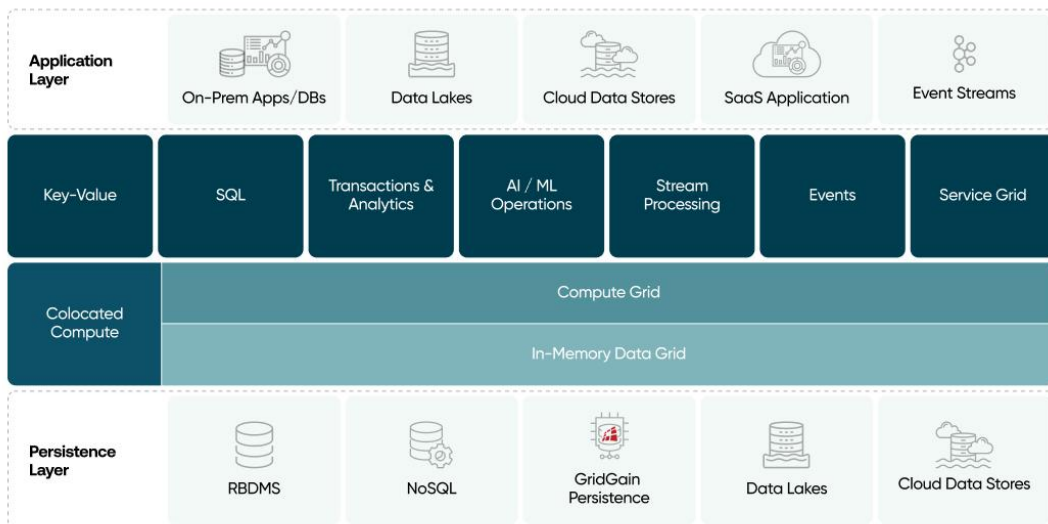
Deliver faster, more reliable, and more secure payment services

Why the Payments industry needs modernization

The payments industry is undergoing a major transformation, driven by the rise of PayTechs, real-time rails, open banking, and digital wallets. This growth is driven by cash displacement, increased cross-border transactions, and the proliferation of instant payment networks, including RTP, FedNow, UPI, and Pix.

Consumers and businesses expect instant, always-available, and secure payments. The result is increased pressure on banks and Payment Service providers (PSPs) to modernize legacy batch-based infrastructure to become real-time, unify siloed data, and meet 24/7 availability, security, and compliance requirements — all while controlling costs.

GridGain solves these challenges for banks, PSPs, FinTechs, card networks, and others with an architecturally superior data platform that unifies in-memory speed, persistent storage, and distributed compute in one integrated system. This simplicity enables you to handle massive data volumes, modernize SQL workloads, deliver real-time data across silos, and run complex processing - all without stitching together multiple point solutions or needing to rebuild legacy systems. The result: faster results with a leaner, more resilient architecture.



The GridGain unified real-time data platform

Why GridGain?

Memory-first and distributed

High-performance storage architecture minimizes disk I/O to provide ultra-low read/write latencies. All workload is distributed across a horizontally scalable cluster, providing high availability and massive scalability with options for persistence to disk.

Accelerated compute workloads

All computing is colocated and processed in the same memory space as the data, eliminating any overhead of data movement over the network and enabling real-time data processing and analytics at massive scale.

Data and transaction integrity

Distributed ACID transactions support large-scale online transaction processing (OLTP) applications. Fully ACID-compliant disk-based storage guarantees strict serializability of transactions and delivers durable and strong data consistency.

Non-intrusive integration

Easily connects to existing applications and data stores without rip-and-replace. Multi-model and multi-language support – including ANSI-2016 SQL and full ACID compliance – allows for data and application acceleration without impacting existing systems.

Benefits Our Customers Are Seeing

The SEPA instant payment gateway for one of Europe's largest banks now processes end-to-end payments in under 500 milliseconds — well below SEPA's current 5-second regulatory requirement.

One of the U.S.'s largest card issuers reduced the settlement times in its merchant payment system from 3 days to 3 hours

A top 4 U.S. bank reduced restart times for its FX settlement and collection system from 40 minutes to 40 seconds.

A leading European bank implemented a GridGain-based cache with native persistence, replicating 25TB of data from the mainframe. This offload reduced the load on the mainframe, cut mainframe MIPS costs, and dramatically lowered RTO.

Problems that the GridGain unified real-time data platform solves:

Account-to-Account (A2A) transfers

Instant A2A transfers are booming with RTP, FedNow, and SEPA Instant, but batch-era systems can't keep pace. Without a scalable, low-latency data layer, institutions face response-time compliance issues, higher compute costs, and weak customer experiences.

Real-time Payments (RTP)

Digital wallets and RTP define modern payments, yet most institutional systems weren't built for instant, always-on processing. Without a distributed, scalable, ultra-fast data layer, institutions risk compliance gaps, lost revenue, poor experiences, and falling behind.

Cross-border payments

Cross-border payments are surging as customers demand speed, lower costs, and transparency. Yet many banks and PSPs rely on legacy platforms that lack elasticity and real-time responsiveness, causing settlement delays, compliance issues, and poor visibility.

Direct debits

Direct Debits remain central to bill payments and subscriptions, yet the systems can't handle today's demand for uninterrupted, high-volume processing. The result is mandate management problems, elevated failure rates, and escalating costs.

Built upon Apache Ignite™

Brought to you by the original creators of Apache Ignite, the GridGain unified real-time data platform offers a fast distributed ACID-compliant multi-model database. It combines the execution of AI, analytical, and transactional workloads in real time, with unlimited horizontal scalability and high availability.



Key GridGain capabilities that help modernize payment systems:

- **In-memory grid** unifies and provides instant access to FX rates, payer/payee data, mandates, sanctions, fraud, etc.
- **Distributed in-memory processing** for real-time checks (balance, risk, KYC/AML, etc.) on large datasets.
- **Native persistence** ensures high availability and near-zero RTO for payment systems.
- **Horizontally scalable** and elastic to handle volume growth and surges without slowdown.
- **Multi-model** lets systems access **SQL**, key-value, streaming, and AI vector data on one platform in milliseconds.
- **Transactional consistency** for instant ledger updates with ANSI SQL.
- Connects easily to APIs, **Kafka**, CDC tools, core banking, and gateways across regions.
- Encryption, RBAC, and audit trails meet PCI DSS, PSD2, NACHA, ISO 20022 requirements.
- **Fault-tolerant, distributed** design ensures 24/7 uptime and SLA compliance

INDUSTRY RECOGNITION



COMMUNITY LEADERS

GridGain organizes the world's largest Apache Ignite community event, Ignite Summit, hosts webinars, delivers free training, and contributes extensively to the Ignite community.

INDUSTRY EXPERTS

GridGain and Apache Ignite experts provide a wide range of customer services including 24/7 support, consulting, training, and an expert-on-call offering.

GET STARTED

Download **GridGain Platform**, a complete enterprise-grade solution for data workloads in your on-prem and private cloud environments, or **GridGain Cloud**, a cloud-native SaaS version of the GridGain Platform.

Ready to see what GridGain can do for you?

Book a consultation



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