

Mindgate Boosts Transaction Capacity and Payment Experience on AWS



Benefits

50%

Higher transaction processing capacity

3x

Traffic spikes supported with on-demand scalability

60%

Lower transaction latency

Overview

Mindgate Solutions (Mindgate) provides digital payment technologies for banks, governments, merchants, and enterprises around the world. As demand for digital transactions surged across India, the company needed to support significantly higher volumes while introducing new features faster. Its existing infrastructure made it increasingly difficult to keep up with these demands and deliver the agility required in a fast-moving payments landscape.

To overcome these limitations, Mindgate chose Amazon Web Services (AWS) to modernize its digital payments platform. By running on AWS, the company increased transaction capacity by 50 percent, reduced latency by up to 60 percent, and accelerated customer onboarding—all while gaining the flexibility to scale seamlessly during peak periods.

Opportunity

Addressing Infrastructure Complexity While Scaling Rapidly

Mindgate, based in Mumbai, India, specializes in digital payments for banks, government institutions, merchants, and enterprises. The company plays a pivotal role in India's Unified Payments Interface (UPI), powering more than half of the system's volume through its partner banks—plus one in five real-time payment (RTP) transactions worldwide. Mindgate-supported transactions number over nine billion each month, with a total annual value exceeding \$1 trillion annually.

As the world continues to embrace digital payments, Mindgate wanted to ensure it could support this growth efficiently. **Nikhil Mahawar**, Vice President of product and innovation at Mindgate Solutions, explains, “The banks we work with process 50 million transactions a day, and that number is growing. The National Payments Corporation of India [NPCI], which is the central infrastructure behind these payments, is moving toward processing one billion transactions per day. To support those volumes, we needed to offer a highly scalable platform.”

Speed to market is essential for Mindgate, which regularly introduces new features to keep pace with the dynamic payments landscape. In India, this includes UPI, Immediate Payment Service, Bharat Bill Payment System, and the Digital Rupee. “We previously used a monolithic architecture that made it difficult to roll out frequent updates,” says Mahawar. Over the past two years, the team also sought to simplify operations by finding an alternative to its on-premises environment.

Managing servers and data centers at scale while operating continuously to meet customer demands was a challenge. To achieve our goals, we needed to offer a cloud-based UPI solution.

-Nikhil Mahawar, Vice President of product and innovation at Mindgate Solutions

Solution

Modernizing Payments with a Microservices-Based Cloud Architecture

Mindgate evaluated several cloud providers before deciding to build its new platform on AWS. *“We found AWS to be more aligned with our scalability and reliability requirements,” explains Mahawar.* “With AWS Regions in Mumbai and Hyderabad, we can also meet the regional compliance needs of the banks we support.”

The platform follows a microservices architecture, using Amazon Elastic Kubernetes Service (Amazon EKS) and Amazon Elastic Compute Cloud (Amazon EC2). It connects on-premises networks to Amazon Virtual Private Cloud (Amazon VPC) through AWS Direct Connect and AWS Transit Gateway. To monitor the environment end to end, Mindgate uses AWS CloudTrail and Amazon CloudWatch. The company also worked with AWS Partner Applied Cloud Computing, which provides managed services to support issue resolution and the rollout of new AWS services.



Outcome

Improving Customer Experience with Greater Speed and Flexibility

With its cloud-native platform in place, Mindgate rapidly scaled operations and improved performance across the board. The company has increased digital payment platform transaction capacity by 50 percent, helping more banks across India adopt its platform and positioning *Mindgate to reach its goal of processing one billion transactions per day*. “With AWS, we can automatically scale to meet two to three times normal traffic during sporting events, festive seasons, or large online sales,” says Mahawar. “Instead of spending time on manual intervention and preparation, we can scale up or down whenever needed.”

In addition to scaling on demand, Mindgate has improved transaction latency by 50 to 60 percent on AWS, resulting in faster payments, collections, balance inquiries, and status checks. “The lower latency on AWS gives our banking customers an enhanced experience. Plus, the scalability we’re seeing is leading to higher transaction volumes, which translates to higher revenue for banks,” says Rohit Sarwate, alliance lead at Mindgate. What’s more, the platform’s improved performance and flexible architecture have helped Mindgate onboard new customers one day faster than before. “With a microservices model, we can roll out new features independently without impacting the live transaction system,” adds Mahawar.



Mindgate continues to work with AWS to expand its platform's capabilities. Mahawar explains, "We're planning a multi-region deployment and have initiated a proof of concept to determine the best approach on AWS." The team is using AWS AI and ML capabilities to integrate into Mindgate's payment infrastructure. "This will help us create more intelligent, adaptive solutions," says Sarwate. "Our work with AWS has delivered strong results over the years, and we're confident that the momentum will continue."

The lower latency on AWS gives our banking customers an enhanced experience. Plus, the scalability we're seeing is leading to higher transaction volumes, which translates to higher revenue for banks.

-Rohit Sarwate, Alliance Lead at Mindgate

