



MasterCard Payments Processing Platform

Formulated in 1995, MasterCard's vision to deliver advanced technology benefits to financial institutions around the world has culminated in the industry's first and only fully integrated global payments processing platform. A \$160 million initiative, the platform provides enhanced functionality for three primary customer applications: authorization, clearing and settlement. It also delivers universal standards for service reliability, quality, and security, while allowing customers to customize processing services to meet their individual business needs.

MasterCard's vision and corresponding technology investment has paid off in real-world benefits for financial institutions ... opportunities to operate more efficiently, to deploy new products and services, to improve customer service, and enhance profitability. Following are some of the platform's key capabilities:

- **Global, Open Standards:** The platform is based on open ISO standards to maximize flexibility and allow for fast adoption of emerging payment products and services.
- **Highly Specialized, Local Customization:** The platform gives financial institutions the power and flexibility to customize payments processing services, including schedules up to six times daily for clearing processing, or automatically sharing transaction information with local or global partners for affinity programs. For example, an issuer may choose to bill cardholders in multiple currencies, using local currency for domestic purchases and in U.S. dollars, Euros, or other world currencies for cross-border transactions.
- **Messaging Format:** The platform supports the transition to an industry standard-based format, which provides customers with more flexibility in data transmission. The Integrated Product Message format enables financial institutions to eliminate batch processing and simplifies the addition of new data elements to meet new business needs.
- **Online Support, Customer Service:** Financial institutions are supported by an online customer service resource – MasterCard OnLine – where they can instantly tap into a wide array of services, including online billing reports, transaction information, and fraud prevention and risk management tools.
- **Virtual Private Network:** The foundation of MasterCard's payments platform is Banknet, the industry's only globally integrated virtual private network, which provides more speed and flexibility than the previous X.25 network. This innovative VPN ensures that MasterCard can deliver consistent services on a global basis. For customers, the VPN also means more cost-effective IP connections, compared with the more expensive dedicated lines required for the previous network.

Milestones

- 1995-97 – Replaced more than 600 interface processors world-wide
- 1996 – Replaced Series I infrastructure
- 1996 – Developed Regional Service Center architecture
- 1996 – Launched MasterCard Online extranet Web site to better serve customers –
- 1996-97 – Enhanced the stand-in system, which processes for issuers when they are not available
- 1997 – Kicked off initiative to enhance payments processing platform
- 1996-98 – Deployed VPN, the first of its kind to be designed for consistent global coverage and service standards, as well as fully scalable bandwidth to meet future demands
- 1999 – Rolled out new Settlement Account Management System
- 2000 (1Q) – Introduced MasterCard eService, the industry’s first suite of online support research tools, to customer financial institutions
- 2001 – Began integration of European payments processing into MasterCard platform
- 2001 (May) – Cut over to new, state-of-the-art, \$135 million central data center facility near St. Louis
- 2002 (January) – Deployed massive new clearing system and migrated customers to new payments processing platform, establishing foundation for next-generation processing
- 2002 (3Q)—Re-launched MasterCard Online as a portal, serving as one-stop destination and delivery channel for customer products and services
- 2002 – MasterCard Online surpassed 25,000 users
- 2002 – InfoWorld magazine names MasterCard’s new platform No. 12 in its “Top 100” information technology projects in the United States

Fast Facts

- On average, Banknet, the VPN platform, completes transaction authorization requests in 120 milliseconds – compared to 650 milliseconds for MasterCard’s previous network – and so far saved some 1,000 years in cumulative processing time since deployment began.
- MasterCard’s payments platform maximizes connectivity and control for customers – more than 99.95 percent of transactions are delivered to issuers to make authorization decision.
- MasterCard maintains an 80-terabyte data warehouse, which can be utilized by customers to more fully research and predict customer needs.
- The clearing system comprises more than one million lines of computer program code and tested with 30 million transactions before going “live.”
- MasterCard’s primary data center has the mainframe capacity to process 4.1 billion instructions per second.

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