

Visa Intelligent Commerce Mastercard Agent Pay

28-Jul-2025



Visa Intelligent Commerce

Visa Gives AI Shopping Agents 'Intelligent Commerce' Superpowers

Visa and VGS Expand Partnership, Strengthening AI Commerce Infrastructure

Ainvest · Wednesday, Jul 9, 2025 12:52 am ET

Visa Asia Pacific announces new era of Aldriven commerce

June 05, 2025 | 10:31

VISA

(2min read

Anthropic, IBM, Microsoft, Mistral AI, OpenAI, Perplexity, Stripe, Samsung — and counting

Partners

Token Service Provider (TSP):

• VeryGoodSecurity (VGS) — early participant

Pilots:

Al Platforms:

Ant International (China), Grab (Singapore), Tencent (China) —
 more expected

What is the industry doing?

Mastercard Agent Pay

Mastercard unveils Agent Pay, pioneering agentic payments technology to power commerce in the age of Al

APRIL 29, 2025

Mastercard Incorporated to Host Information Session on Agentic Commerce and Stablecoin

Al Platforms:

• IBM, Microsoft — and counting

Checkout Enabler:

• Braintree, Checkout.com — early participants

Pilots:

• N/A — indicates Mastercard solution is in development

How does it work?

How is it used?

Agentic Commerce **enables AI Agents to autonomously shop on behalf of cardholders** by connecting / leveraging a payment networks infrastructure and services. Cardholders issue a payment instruction after asking the agent to find or book a product or service. If consent is given, the agent may use the cardholder's transaction history to offer personalized results. The cardholder authenticates the payment instruction (e.g., via passkeys). Before the checkout process, the agent requests activation of its agent token. The network validates that the token request matches the payment instruction. After activation, the agent completes a (click to pay) guest checkout and notifies both the network and the cardholder.

Use case examples

A consumer tells their AI Agent, "Book a five-night, all-inclusive Chicago trip for under €2.5k". The AI Agent presents (personalized) options. The consumer (may) select one and authenticates the payment with a passkey. Using the activated agent token, the agent books the airline and hotel, booking the holiday in seconds instead of minutes.

What are agent tokens?

To manage risk, the payment networks **introduced a new type of token, the agent token**, which is provisioned in an inactive state to the AI Agent and activated (for limited use) only after the network validates that the product or service identified by the AI Agent matches the cardholder-authorized payment instruction.

What are payment instructions?

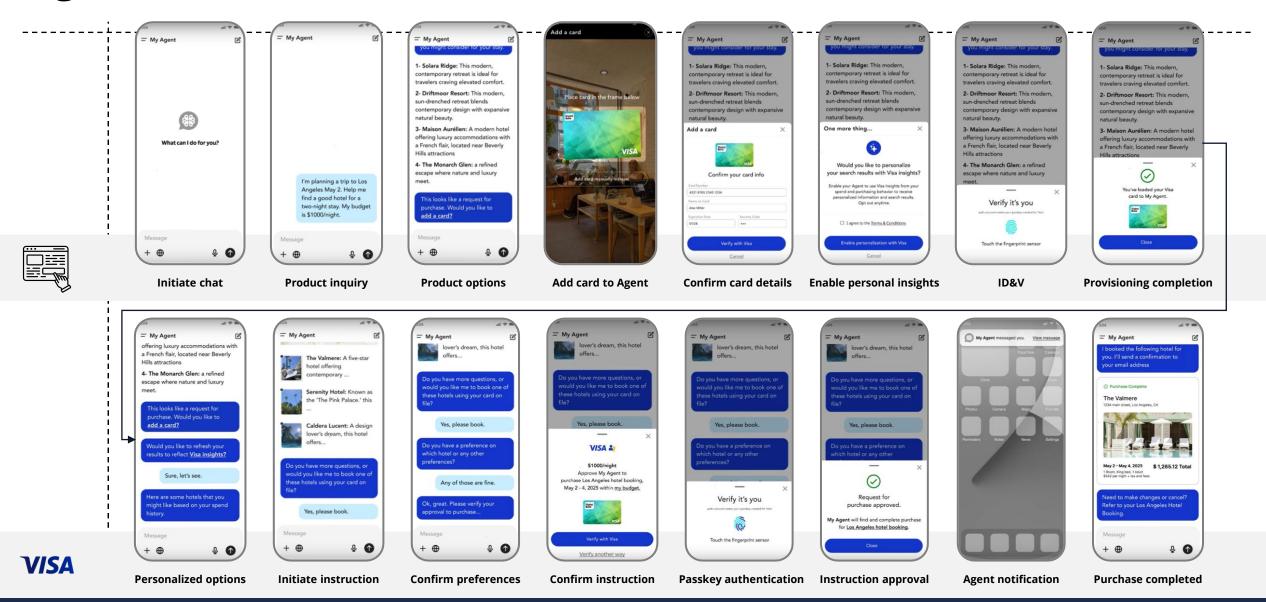
Payment instructions are **digitally signed objects that record a cardholder's explicit consent** for an AI Agent to complete a specific purchase. These payment instructions, among others, securely bind the agent's identity, merchant, product details, amount, and the agent token ensuring the following future transaction reflects what the user approved.

How is the transaction processed?

The payment network manages the transaction process across several key steps:

- **1. Capturing and validation of the payment instruction:** The payment network verifies that any payment credential activation request (activation of agent token) made by the Al Agent matches the payment instruction previously authorized by the cardholder, including parameters such as the intended merchant, authorized amount, and contextual data.
- **2. Authorization:** The authorization request is processed as normal, with additional controls or value-added services applied to ensure alignment with the original payment instruction.
- 3. Clearing & Settlement: These steps are completed following standard processing flows.
- **4. Post-purchase signaling:** The Al Agent shares the outcome of the transaction with the payment network. These signals, combined with the original payment instruction, may be used to support dispute resolution.

What does it look like?



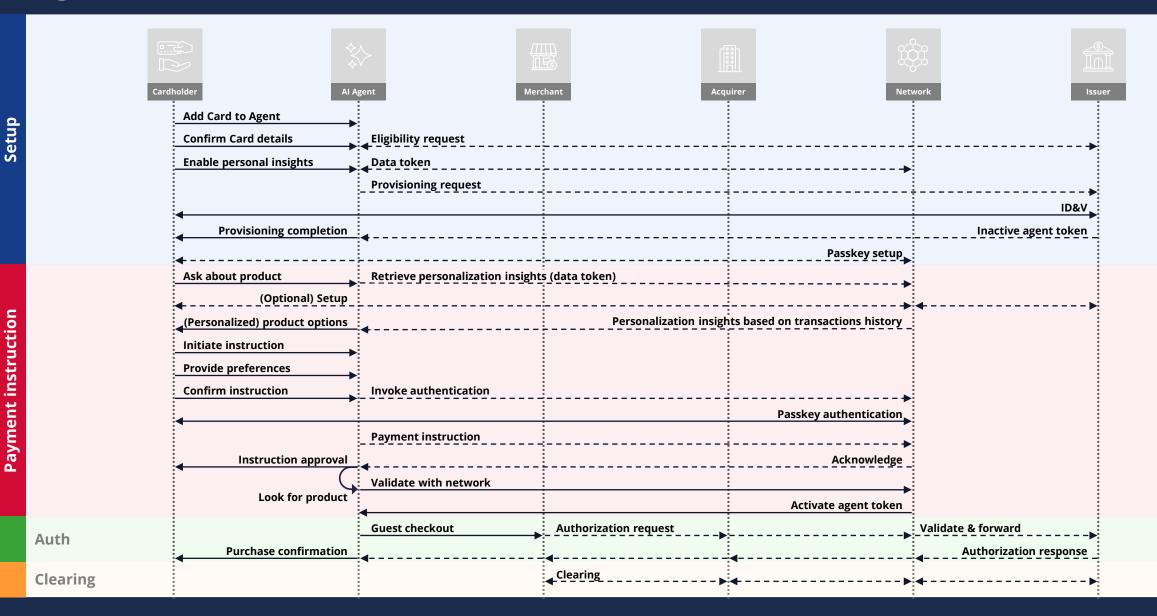
¹Al Agent completes purchase via (click to pay) guest checkout at merchant. Authorization and clearing are processed as normal

Functional steps

- 1 Add Card Cardholder adds card to Al Agent.
- 2 Token Provisioning
 Al Agent requests provisioning; issuer returns inactive agent token after
- 3 Personalization Consent
 Al Agent obtains consent token for personalization data use.
- 4 Passkey Setup
 Network initiates passkey setup after
 token ID&V.
- Product Inquiry
 Cardholder asks Al Agent about a product; Al Agent responds using personalization data.
- 6 Payment Instruction
 Cardholder confirms payment
 instruction and product preferences.
- Passkey Authentication Network authenticates cardholder via passkey.
- 8 Forward Instruction
 Al Agent sends payment instruction to network (store and acknowledge).
- 9 Product checkout Al Agent starts checkout if selected product matches payment instruction.
- Network Validation
 Al Agent requests token activation;
 network validates payment instruction

and activates token.

What is inside (in detail)?



What are the key points to consider?

Points

Partnerships with AI platforms

As traffic moves from search engines to AI Agents, these platforms are becoming the new gateway to commerce. To stay relevant, payment networks should support AI-initiated transactions by partnering with platforms like OpenAI, Anthropic, Microsoft, Mistral, and Perplexity. There is an option to collaborate with enablers like Stripe to integrate into this ecosystem. Core enabling capabilities would include COF tokenization, passkeys, and, debatable but likely, Click to Pay.

Token controls

Controls around agent tokens can be implemented in various ways. Consider the payment networks risk standpoint or preference of using an "active/inactive" switch model vs. "session tokens" (e.g., derived from main token) for each transactions.

Personalized insights

Unless the network takes a privacy-focused stand, it can give AI Agents access to personalized behavioral insights derived from the cardholder's historical transaction patterns. These insights, delivered via a network API and linked to a consent-bound data token, may include preferences such as dining price points (e.g., mid-tier "\$\$"), brand or merchant affinity, shopping frequency, channel usage (online vs. in-store), and travel patterns (e.g., recurring visits to Chicago). These deterministic and AI-inferred signals (referred to as "consumer DNA") enable the agent to personalize recommendations and commerce experiences in a privacy-aware, user-controlled manner.

Payment instruction data

The payment instruction is a signed JSON object authenticated using the cardholder's passkey. The structure below has been reverse-engineered based on available information and may differ from actual implementation:

- **Header:** Includes fields such as instructionId, agentId, and instructionExpiry, along with version or timestamp metadata.
- Authentication Proof: Contains passkeyAssertion and authTs (timestamp), linking the instruction to the user's consent.
- **Controls:** Defines parameters such as maxAmount, currency, perTxnLimit, totalTxnLimit, validFrom, and validTo.
- Merchant Filters: Includes allowedMIDs and allowedMCCs, with optional fields like blockedMCCs and countryCodes.

Completion signals

Integration of the original payment instruction and corresponding AI Agent completion signals into the dispute workflow allows to establish a verifiable link between consumer intent and transaction fulfillment. These completion signals may include the agent's confirmation of item receipt, merchant match, amount match, and transaction outcome.

Business Considerations

Market Signals

- Visa and Mastercard have introduced their Agentic Commerce solutions.
- Over 1 billion¹ people (according to Visa) have engaged with large language model (LLM) Al since its commercial debut just over three years ago, indicating rapid, global adoption of generative (or conversational) Al.
- 92%¹ of consumers express strong interest in Al-powered shopping experiences, citing convenience, personalization, and ease of discovery as key benefits.
- Al Agents resulted in a 1,200%¹ increase in retail website traffic, demonstrating a shift in how consumers discover and interact with products online.

Threats

Opportunities

EXPLICIT SELECTION

"We are here to fill in the blanks together"

¹Presentation: Visa Product Drop 2025 (14:40).

About us

EXPLICIT SELECTION

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ES supports large financial institutions and payment networks in the US and Europe with the definition and implementation of their digital payment strategy and go-to-market activities.



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