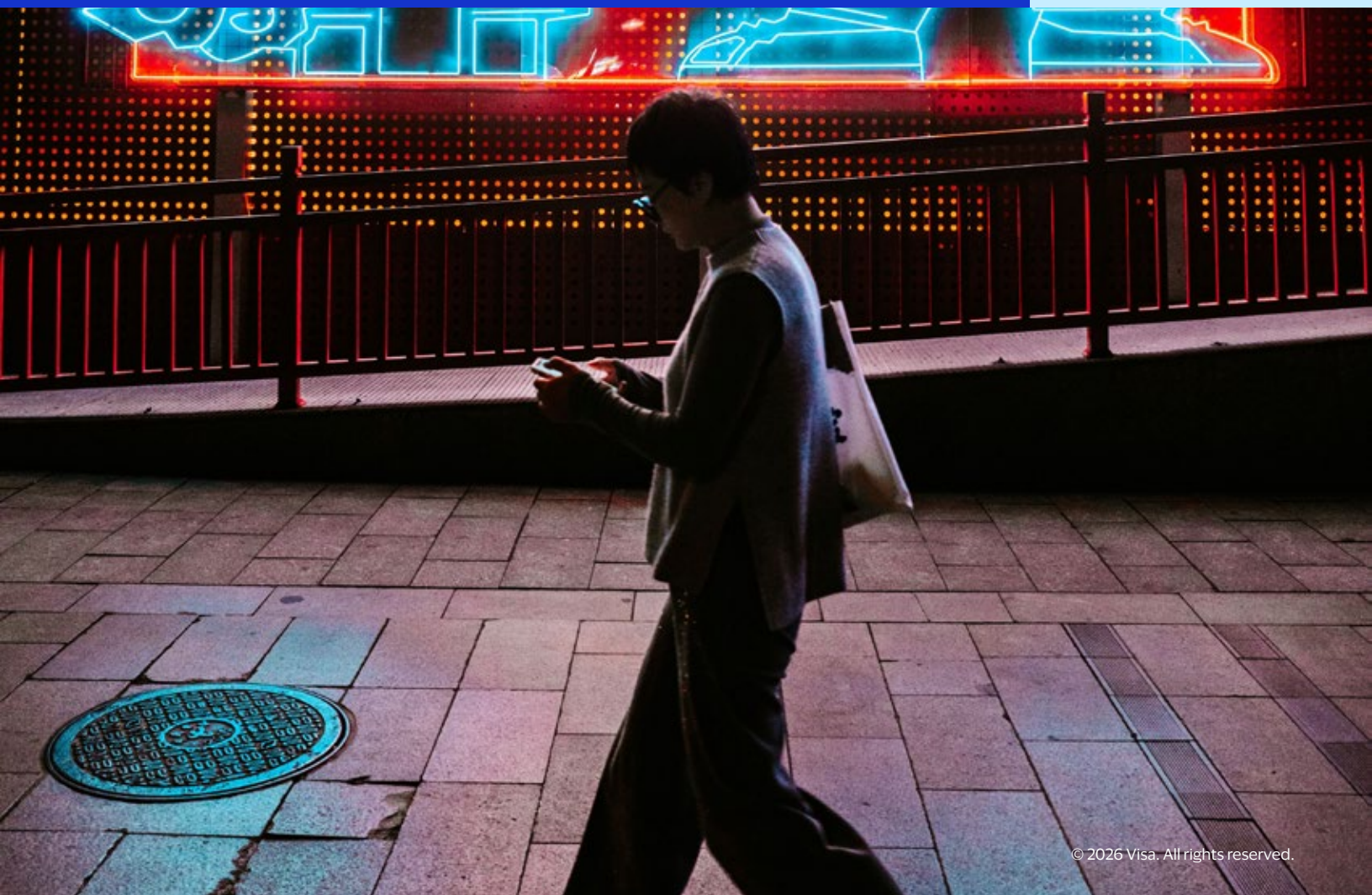
The rise of Agentic Commerce

Part 2 | Making it real



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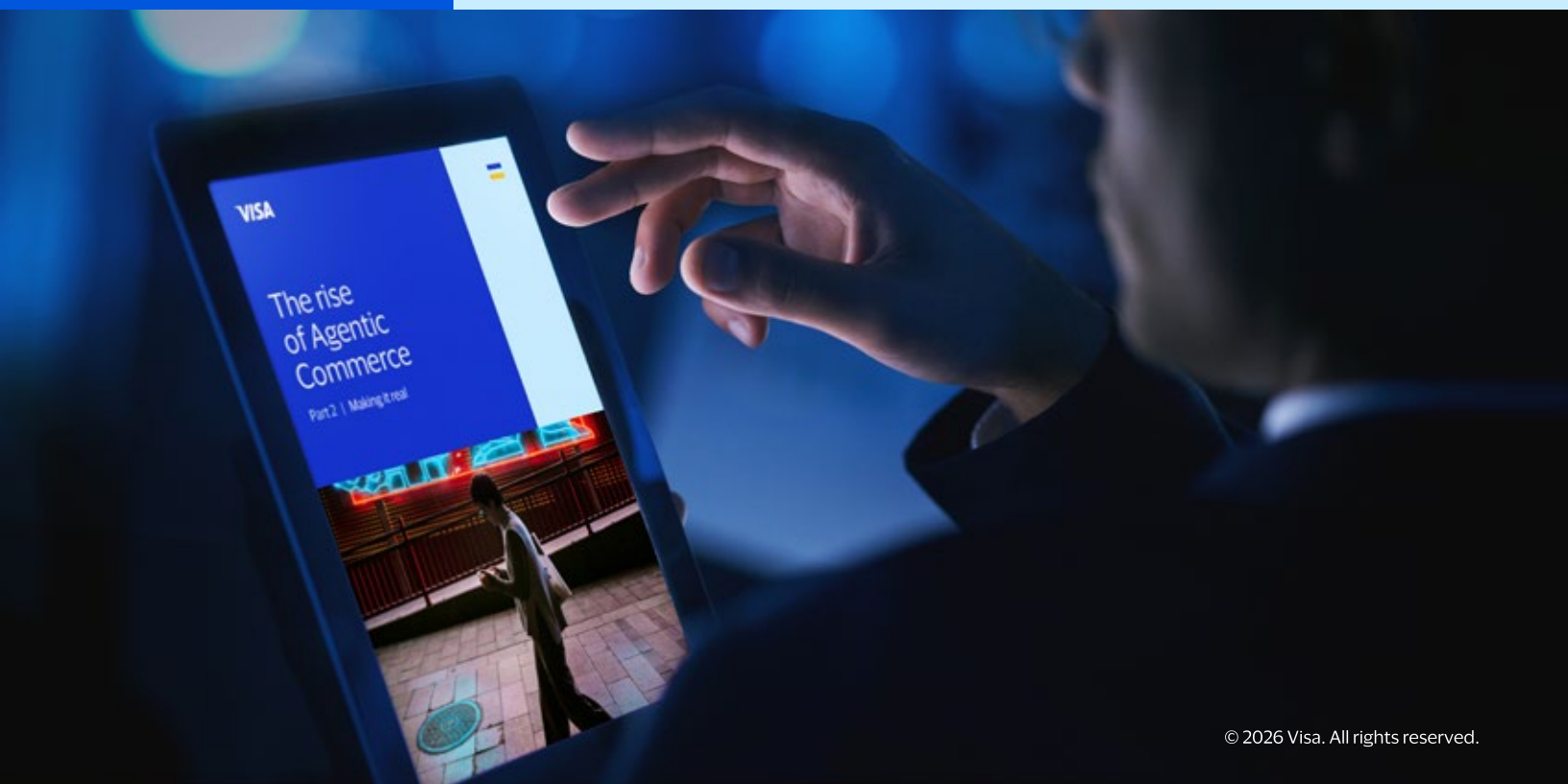
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Executive Summary

Agentic Commerce, where AI agents assist, initiate, and ultimately execute purchases on behalf of consumers, is moving from concept to early reality. This paper examines the enabling conditions required to support that transition and identifies what must evolve across three dimensions: consumer readiness, merchant strategy, and payments infrastructure.



Consumers

Consumer signals are encouraging. Research indicates that over 40% of shoppers globally express readiness for AI-driven purchasing, and early deployments such as Amazon's AI shopping assistant, are already demonstrating higher conversion rates in AI-assisted sessions.

Merchants

For **merchants**, the shift introduces a dual optimization challenge: maintaining human-centric experiences while simultaneously making their catalogues, pricing, and T&Cs accessible to AI agents. In this paper, we outline four strategic response models, ranging from closed proprietary approaches to open-protocol participation.

Payments Infrastructure

The most significant complexity lies in the **payments infrastructure.** We believe embedding deterministic payment flows within probabilistic AI systems requires changes across six foundational layers: intent capture, cart construction and merchant validation, agent identity verification, credential access, transaction authentication, and fraud and liability management. However, much of this can be built on existing card infrastructure primitives – tokenization, passkeys, and network-level trust frameworks – rather than requiring entirely new rails.

Protocols, trust frameworks, and credential models are being defined at pace. For ecosystem participants – issuers, acquirers, and merchants – early positioning decisions could compound as AI agents become an additional interface to commerce. This paper maps where the infrastructure stands today and where adaptation is required.

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Introduction

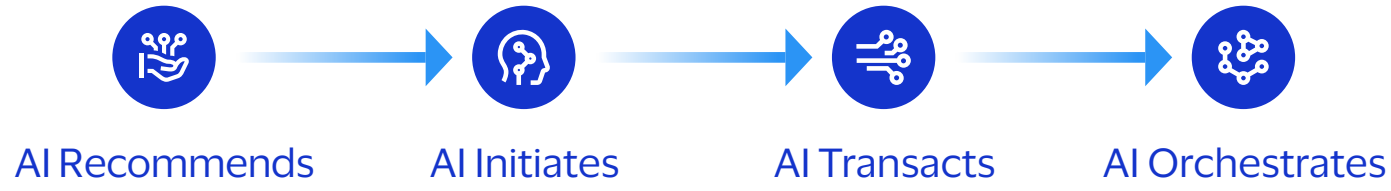
Agentic Commerce is beginning to reshape how digital transactions are initiated and executed.

What began as conversational search and product discovery is now evolving into something more powerful: AI systems that can assist consumers throughout the purchasing journey – from identifying needs to initiating transactions.

This shift signals the early emergence of Agentic Commerce, where intelligent agents help consumers navigate increasingly complex digital marketplaces.

Visa Consulting & Analytics (VCA) is exploring this shift in a three-part series on the rise of Agentic Commerce. In Part 1 – New payment journeys and nascent paradigms – we introduced a maturity model describing how AI's role in commerce is likely to develop over time:

Rather than browsing websites or marketplaces directly, consumers may rely on AI assistants to recommend products, compare options and initiate purchases on their behalf.



This paper – **Part 2 of the series** – focuses on the enabling conditions required to support the transition from early AI-assisted shopping experiences toward more advanced forms of agent mediated transactions.

Early signals of this evolution are already visible. Consumers are beginning to experiment with AI assistants to research products and support shopping decisions, while merchants are starting to adapt discovery and checkout experiences for AI-initiated interactions.

But the transition toward fully autonomous, agent-driven transactions will take some time. While AI-assisted commerce is emerging today, the later stages of the model – where AI agents transact and orchestrate purchases independently – may depend on a set of enabling conditions across the commerce ecosystem.

In particular, three conditions can influence how quickly Agentic Commerce evolves:

1. Stronger consumer demand signals for AI-assisted shopping
2. New merchant distribution strategies designed for agentic discovery
3. The continued evolution of the payments and trust infrastructure required to support secure agent-driven transactions

Understanding how these elements develop – and how ecosystem players can begin preparing for them – will be critical for catalyzing the next generation of digital commerce experiences.

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Consumer demand for AI-assisted shopping

GenAI is emerging as a **new discovery and shopping gateway**. This development represents the start of a new distribution channel for merchants – one that's managed by AI agents rather than search engines and marketplaces.

Research suggests that consumers feel ready for AI to help them with their everyday spending. Consider, for example:

44% of shoppers in the UK say they would be comfortable letting AI manage the entire shopping journey, including completing the purchase[1].

40% of consumers globally say they are ready for AI-driven shopping[2].

This is particularly the case in markets like China, where nearly two thirds of consumers are willing to let AI search and purchase on their behalf. However, many consumers worldwide still express hesitation, with top concerns including identity theft, incorrect purchases, and unauthorized transactions[2].

Consumers are increasingly using GenAI platforms to help them filter, analyze, compare, and narrow choices.

Rather than browsing large product catalogs themselves, they rely on AI tools to compare options, surface relevant products, and guide decisions.

In this way, GenAI is beginning to act as a new discovery layer between consumers and merchants – especially for niche, highly tailored, or less well-known products and services.



Traffic from GenAI searches also tends to be **stickier** than the norm. Because users arrive prefiltered and well-informed, abandonment is materially lower than with conventional search traffic – with a:

27%
Reduction in bounce rates[3]

~4.4x
Increase in conversion rates[4]

Of course, these statistics are proxies, not real demand for autonomous buying. They measure traffic flows and assisted behavior, not agentic transactions. Even so, they are indicative of strong interest and readiness.

More users are coming to e-commerce sites **directly from GenAI** platforms.

And those users are **more likely to stay** and **more likely to convert**.

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Amazon's AI shopping assistant shows the early impact of AI-assisted commerce

In closed systems, where agent-driven flows can be tracked more directly, the early impact is clearly visible. Amazon has reported that its AI shopping assistant – initially launched as Rufus and now integrated into the broader Alexa intelligence – is delivering impressive results:

300M

Reached more than 300 million shoppers in 2025[5].

~38%

During peak periods Rufus was active in ~38% of shopping sessions[6]

>60%

(AI) users are up to 60% more likely to complete a purchase[7].

Sessions involving AI assistance continue to convert at significantly higher rates.

Amazon reported that Rufus generated nearly $12 billion in incremental annualized sales in 2025[5].

These AI-assisted sessions are producing above-the-baseline conversion rates, indicating the broader pattern in open GenAI-assisted shopping.



While these are early signals, for Agentic Commerce to reach its true potential, **consumers will need to feel safe delegating actions, not just research**. As discussed in our previous paper, that trust will depend on safeguards such as:

- **Explicit boundaries** – what the AI agent can and cannot do
- **User-controlled permissions** – limits on categories, spending, and frequency
- **Human checkpoints** – the ability to confirm or intervene when needed
- **Revocability** – the ability to stop, override, or withdraw permission at any time
- **Transparency and accountability** – clear visibility into the AI agent's decisions and actions

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How merchants may compete for AI-driven demand

For autonomous, agent-driven shopping to become a reality, AI agents will need to locate and retrieve product and service data at scale – such as stock-keeping units (SKUs), pricing, shipping details, and availability.

In practice, merchants could face a sequence of challenges: first ensuring that product data exists and is centrally accessible; then structuring that information according to machine-readable schemas that agents can query reliably; and finally optimizing how products surface within agent decision flows. This last stage represents a new optimization discipline with no established playbook – broadly analogous to search engine optimization but governed by fundamentally different ranking logic[8].

This creates a strategic **tension** for merchants. On the upside, they can expect incremental demand. On the downside, they stand to lose some control over product placement, context and branding.

Faced with this shift, merchants have a range of strategic choices. At one end of the spectrum, they can open their catalogs and capture incremental traffic from GenAI-driven discovery. At the other, they can prioritize control by restricting or blocking AI-driven access. Some might fall somewhere between these two extremes.

The new paradigm brought about by Agentic Commerce means merchants must transition from having humans as customers to having both humans and AI agents as customers.

For more than a decade, digital merchants have invested time and capital to optimize checkout experiences, clicks, search positioning and purchase funnels with a human as the driver. This means that merchants may face a **dual optimization** challenge:

Challenge #1

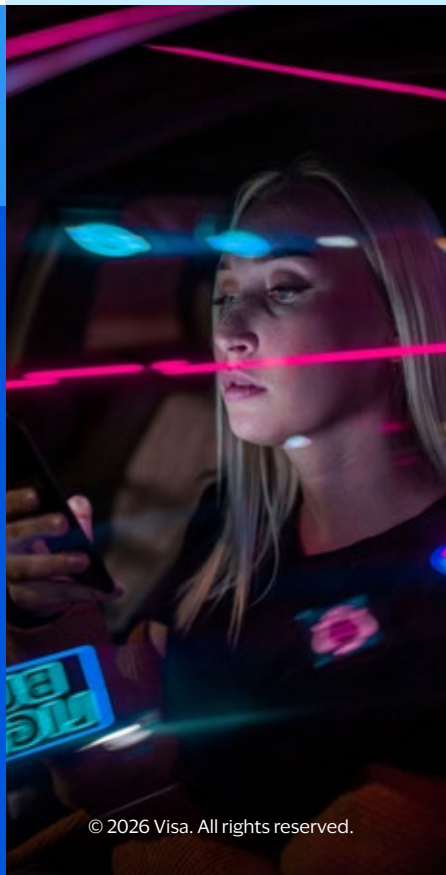
Optimization for human consumers

Human-centric experiences will remain essential. Merchants participating in Agentic Commerce will therefore need to continue optimizing their websites and checkout journeys for human shoppers, even as new AI-driven discovery channels emerge.

Challenge #2

Optimization for AI agents

At the same time, merchants will need to ensure their products and services can be discovered, ingested and selected by AI agents. This means optimizing how product data, pricing and availability appear in agent-driven discovery and ranking systems.



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For micro-merchants and niche players, this shift may help level the playing field by opening new paths to discovery and customer acquisition. This raises an important strategic question for any merchant: **"If agent-driven commerce becomes a new distribution channel, how should they participate?"**

We see four potential merchant responses to the paradigm shift:

Model #1
Closed
Proprietary AI agent or in-app

The merchant keeps their catalog closed to external AI agents – even going so far as to actively block bots and agents.

They retain full control, being able to control user experience (UX) or brand consistency, and can even build their own proprietary agent.

Merchant persona: a global marketplace or shopping platform that builds a proprietary agent (e.g. Amazon)

Model #2
Catalog discovery
No integration

The merchant does not integrate with a specific Agentic Commerce protocol, but ensures their product data is structured, up-to-date, and machine-readable.

They expose basic pricing, stock, attributes and metadata for AI agents to find and interpret correctly. Enablers include:

- **Model context protocols (MCPs) of product discoverability** – enabling large language models (LLMs) to fetch real-time data from merchant systems.
- **API** – custom catalog, pricing or availability APIs that AI agents can call through controlled integrations.
- **LLM.txt** – a lightweight file for exposing structured product or policy information to LLM crawlers.
- **Crawling-enabled pages** – Schema.org, GS1 or bot-readable product pages that AI agents can parse.

This is a low-effort, low-risk approach that improves agentic discovery without changing internal systems, but doesn't integrate native transactional flows.

Merchant persona: a brand-led merchant that takes a passive approach, optimizing visibility but avoiding active integration or payment enablement

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Model #3

AI platform integration

Individual integrator with proprietary protocols

The merchant integrates directly with specific AI platforms or agent APIs, creating point-to-point connections with a specific partner (e.g. Perplexity's Instant Buy, Walmart's dedicated in-ChatGPT app, etc.)

This enables the partial automation of some commercial processes:

- Agents can retrieve real-time pricing, stock, SKU details or merchant specific terms such as shipping and taxation
- Merchants can update catalog, pricing or availability dynamically through the integrated endpoint
- Carts can be built or validated programmatically within the scope of the single integration

Depending on the integration, payment flows will vary. Integration is one-to-one, not open, and every connection must be configured individually – which allows for reliability and precision but does not scale in the way open protocols do.

Merchant persona: a merchant that uses a PSP to integrate its product catalog with an AI platform

Model #4

Fully open

Open protocol participation

The merchant participates fully in Agentic Commerce and designs their systems for open access.

They choose and adopt emerging Agentic Commerce protocols:

- Some leading players (e.g. Visa, Google, etc.) are now defining their own versions of protocols – emerging frameworks that will allow AI agents to access catalog data, verify conditions, construct carts, authenticate identities, and initiate payments.

Beyond protocols, some merchants may also pursue custom, strategic integrations with specific partners or platforms, as some one-to-one integrations may complement open protocols.

Merchant persona: an early mover that wants to innovate with the industry and adopts an open protocol (e.g. Visa Intelligent Commerce) to enable acceptance of agentic payments.

As AI agents take on a greater role in discovery, comparison, and even purchase execution, **merchants will need to re-think more than distribution**. Loyalty, rewards and incentives may also need to evolve as AI agents increasingly shape how consumers choose and buy.

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Implications for brand loyalty

Brand loyalty may become harder to guarantee in agent-mediated commerce. Instead of entering purchasing journeys through branded storefronts, consumers may increasingly rely on AI agents to filter and rank options.

As a result, loyalty shifts earlier in the decision-making process, shaping how AI agents evaluate and recommend products, rather than simply influencing repeat purchases after transaction.

In this environment, merchants effectively serve two audiences: the consumer and the AI agent acting on their behalf – and need to optimize for how both make decisions.

Loyalty therefore becomes embedded in the personalization logic that AI agents use to decide what to recommend, informed by a user's historical behavior, preferences and outcomes. And this means that benefits, eligibility criteria and value propositions need to be restated in structured, agent-readable formats so that AI systems can interpret, compare and apply them during ranking and decisioning.

Implications for rewards and discounts

If merchants were to provide data about incentives to AI agents, these would be weighed up alongside price, product attributes and user preferences. And this, in turn, would change incentives into optimization inputs rather than standalone offers[9].

This new paradigm requires AI agents to be able to communicate who the user is and merchants to expose loyalty data back to the agent (points, tiers, personalized offers, etc.).

Reward objects and offer structures will need to become machine-readable, enabling AI systems to automatically evaluate value, applicability and likelihood of non-redemption. A good example is the way Voucherify is working toward machine-readable loyalty via Google's Universal Commerce Protocol (UCP), making incentives API driven instead of static UI elements such as banners.[10]

We can therefore envisage loyalty shifting from a merchant-defined, one-sided construct to a model of agent-to-agent negotiation. Incentives begin to function as tokens or programmable contracts that AI agents can interpret, compare, and even trade on the consumer's behalf. As a result, contextual earn mechanics and goal-completion rewards become the norm – triggered dynamically as AI agents interpret user intent and track progress toward defined outcomes.

Similarly, **incentives**, which have traditionally been one of the core levers of loyalty programs, also need to evolve for agent-mediated commerce.

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How Visa enables trusted consumer recognition in agent-driven commerce

Visa Intelligent Commerce (VIC), Visa's Agentic Commerce protocol, aims to lay the foundation to facilitate Agentic Commerce anywhere Visa cards are accepted. In essence, it is a suite of integrated APIs and a partner program built to support AI commerce and deliver ideal customer experience in a secure, transparent manner.

It is designed to ensure that consumers can be recognized consistently across AI agents and merchant channels, so experiences remain continuous and personalized even when an AI agent – rather than the consumer – is driving the journey.

A core component of VIC is the **Visa Trusted Agent Protocol (TAP)**, which allows AI agents to pass trusted user and payment identifiers to merchants in a secure, consent-based way. Where consumers have provided permission, AI agents may share information such as loyalty identifiers, email addresses, or phone numbers, enabling merchants to recognize the customer and streamline the checkout experience.



In practice, this allows merchants to use information contained within an Agentic Consumer Recognition Object to improve relevance and continuity.

For example, merchants can check whether the consumer behind the AI agent already has an existing account, and – depending on their ability to verify the identifiers provided – either offer a logged-in experience to the AI agent, apply existing customer benefits to the transaction, or simply associate a loyalty identifier with the order. Merchants can also determine the consumer's location, enabling them to tailor content, pricing, or inventory surfaced to the AI agent – for instance, by only displaying products that can be shipped to the consumer's address.

Additionally, another core structural obstacle to broad adoption is the coexistence of agent commerce protocols that are not interoperable.

Each major agent platform operates under distinct schemas for initiating commerce sessions, verifying merchant capabilities, and managing authorization. This means merchants end up managing separate integrations for each protocol, with overlapping logic and no shared versioning[8].

To address this, Visa also launched Intelligent Commerce Connect (ICC) in April 2026.

A single-integration approach through the Visa Acceptance Platform that enables merchants, agent builders and payment enablers to participate in Agentic Commerce. Designed to be network and protocol agnostic, it supports payments initiated via all major agent protocols – including TAP, MPP, Open AI ACP and UCP – and accepts both Visa and non-Visa cards.

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How Agentic Commerce can change merchant economics

In the near term, the emergence of Agentic Commerce may require merchants to adapt existing ecommerce models. Over time, however, entirely **new commerce models and revenue streams** may emerge that are native to agent-mediated interactions.

On the merchant side, for example, some merchants may develop their own AI agents to share their catalogs, negotiate with consumer agents, or manage ongoing customer interactions. Companies with multi-brand portfolios may go further, deploying unified, multi-brand agents capable of making recommendations across their entire range.

In parallel, aggregator agents may emerge that query multiple merchant agents simultaneously, consolidating options, comparing quality, and routing demand – effectively functioning as agent native marketplaces or vertical category intermediaries.

Other foundational aspects of commerce may also evolve:

Pricing

Pricing, for example, could shift from largely static models to more dynamic approaches, with AI agents adjusting recommendations in real time based on inventory constraints, demand signals, or inferred sensitivity.

Traditional advertising

Traditional advertising may also lose effectiveness in agent-mediated environments, as AI agents do not respond to banners or impressions. This is likely to push promotional activity toward agent-facing inputs and signals, as discussed earlier.

It remains unclear whether GenAI platforms will introduce agent-native advertising formats – such as sponsored recommendations – but, if they do, this could significantly reshape how merchants influence visibility in agent-driven journeys.

Monetization

New monetization models are likely to emerge.

- **Agent platforms** could, for example, charge for priority placement within recommendation logic, or offer tiered visibility to premium or high-intent users.
- **Networks or industry players** can create value by enabling verifiable delegation, agent authentication, or trust frameworks.
- **Merchants** could also monetize fulfilment guarantees or data quality certifications, improving the competitiveness of their catalogs within agent ranking systems. e.g., Early signals of this transition are already visible, with search engine optimization (SEO) providers beginning to generate revenue from services that optimize content specifically for agent readability rather than human browsing.

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The payments infrastructure behind Agentic Commerce



Embedding deterministic payment flows within technologies that are inherently probabilistic presents a distinct set of challenges for the payments and commerce ecosystem.

While AI agents can reason, infer, and adapt, payment systems require precision, certainty, and clearly defined outcomes – which creates a tension the industry is keen to resolve.

Today's payment and commerce infrastructure was primarily designed with human users in mind. As a result, several layers require adaptation to support agent-initiated purchases. Fortunately, much of the existing card payments infrastructure is already built on primitives that can be extended to support this shift, including mechanisms such as tokenization and passkey-based authentication.

To understand where adaptation is required, the agentic payments infrastructure can be broken down into **six foundational layers**:

1. Understanding customer's intent
Structuring what the user wants an AI agent to do, including constraints, priorities and boundaries.

2. Building the shopping cart
And validating the merchant – determining what is being purchased, from whom, and under what terms.

3. Verifying the identity of the AI agent
Confirming that the AI agent is legitimate and authorized to act on the user's behalf.

4. Accessing the customer's payment credentials
Enabling secure, controlled access to the payment credentials needed to complete the purchase.

5. Authenticating and authorizing the transaction
Confirming consent and approving the transaction.

6. Managing fraud risk and allocating liability
Determining how risk and accountability are shared across the parties involved.

So, let's consider these layers in turn, highlighting where existing capabilities can be extended and where new approaches may be required.

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Understanding customers' intent

For agentic payments to work, AI agents must be able to extract user intent from natural-language prompts. These prompts often bundle together preferences, constraints, priorities, and trade-offs – many of which are implied rather than explicitly stated.

Because intent defines what an AI agent is allowed to do, capturing it accurately is the first step that must be enforced deterministically.

If intent is unclear or misinterpreted, every downstream step – from cart creation to credential use and authorization – can be compromised.

Who owns intent extraction?

As the ecosystem evolves, responsibility for intent extraction may sit with different actors:

Agent platforms as intent extractors

AI platforms are typically responsible for interpreting user prompts and inferring purchase intent. In practice, most keep the user in the loop by asking them to review or confirm the AI agent's understanding before anything is executed.

Example: An agent platform (e.g. OpenAI, Gemini, etc.) may extract shopping intent from a user query, but before completing a purchase, the user is asked to verify details and explicitly confirm payment – meaning the flow is not yet fully autonomous.

Protocols or shared standards for intent capture

Over time, intent extraction is also likely to move into shared protocols or independent validation layers, creating a more consistent and verifiable representation of what the user has authorized an AI agent to do.

Example: Visa Intelligent Commerce provides a framework in which consumer intent is captured using a common data model of permissions and controls – ensuring that any AI agent operating within the network is constrained by what the transaction controls the consumer has explicitly approved.

How intent travels through the transaction

Once intent has been extracted, it could be carried through the transaction and used at later stages:

Linking intent to user and agent context

While structured intent does not always bind cryptographically to payment credentials, it should be associated with the authenticated session and the AI agent acting on the user's behalf. In models such as Visa Intelligent Commerce, intent is translated into structured payment instructions – defining who can be paid, under what conditions, and in what context.

Using intent as an input to payment authorization and risk decisions

Structured intent may be evaluated alongside traditional transaction data as part of authorization and risk decisions, enabling issuers and acquirers to verify that an AI agent's actions align with the user's original approval and detect anomalies.

Products such as Visa's ICC provides a structured framework for intent capture, translating consumer permissions into a common data model of controls: spending limits, category constraints, merchant scope, or frequency parameters. This helps ensure that AI agents are bound by what the consumer has explicitly authorized.

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Building the shopping cart and validating the merchant

So far, some AI agents have relied on browser automation to add to cart, effectively mimicking the steps a human would take during checkout.

While this approach works to some extent, it does not scale well and retains many of the limitations that are inherent in human-oriented interfaces, such as a lack of regulatory compliance and/or compliance of terms and conditions.

A more robust model would allow AI agents to move beyond browser-style automation and, instead, interact directly with merchants through signed, machine-readable cart systems

Under this approach, AI agents could retrieve real-time pricing and availability, understand delivery options, terms, and return policies, and assemble this information into a verified cart before initiating payment.

For this approach to work, merchant validation becomes essential. Merchants need to be able to confirm that the cart an AI agent has assembled accurately reflects their current inventory, pricing, and policies. This validation step helps ensure that AI agents are not misinterpreting catalog data or constructing invalid product or delivery combinations.

Signature and validation flows are therefore key enablers of a trustworthy Agentic Commerce ecosystem.

The concept of a "signed cart" is beginning to emerge through early protocols and agent-ready APIs, with several major players actively experimenting in this space. One example is Google's Agent Payments Protocol (AP2), Verifiable Credentials (VDCs) - standardized, cryptographically signed data structures designed to be tamper-evident. Within Google AP2, a cart mandate captures the user's authorization for a purchase when a human is present at the point of commitment. The merchant generates this mandate, and the user signs it, binding the user's identity and approval to the proposed transaction.

The cart mandate can include:

- The identities of the user, merchant, and credential providers
- Final transaction details, including products, destination, amount, and currency
- A tokenized representation of the selected payment method
- Risk-related signals required by merchants, payment service providers, and issuers
- Details of refund or return conditions

Ultimately, this layer ensures that AI agents can construct accurate, policy-compliant carts – and that merchants can trust the carts that are submitted for payment.

Despite the multiple protocols that have been emerging, Visa's take is via a single integration with ICC, reducing the need for point-to-point connections with each protocol individually, while ensuring that cart data meets network-level standards for accuracy and completeness.

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Layer 3

Verifying the identity of the AI agent

Bot detection systems developed over the past decade treat automated behaviour as inherently suspicious.

That premise doesn't hold in Agentic Commerce, as automated behaviour is the intended flow. In other words, signals that were historically flagged as suspicious (e.g., high interaction velocity, absence of human behavioural patterns, non-standard access, etc) are now the characteristics of a legitimate agent[8].

As AI agents begin to act as buyers, new approaches to identity verification become essential. Before accepting a payment token presented by an AI agent, merchants need to be confident that the agent is legitimate and operating with explicit user authorization – not an unknown or malicious bot.

This marks a shift from simply proving that a user is human to proving that an AI agent is acting on behalf of an authenticated human, within clearly defined permissions.

In practice, this is likely to lead merchants to introduce Know Your Agent (KYA) controls alongside traditional KYC, allowing them to distinguish trusted, registered AI agents from unverified or opaque automation.

> Network-level protocols are expected to play a key role in enabling this shift. The Visa approach here is through our Trusted Agent Protocol (TAP). It supports standardized agent onboarding and attestation, providing merchants with a consistent way to verify an agent's registry status, the freshness and provenance of the request, and the specific authorization or permissions bound to that interaction.

At the same time, AI agents can transmit relevant consumer-related data elements – within agreed privacy and consent boundaries – enabling merchants to link an AI agent's activity to existing customer accounts, past interactions, and applicable loyalty programs[11].

Together, these capabilities allow agent-mediated transactions to be both trusted and linked to an ongoing customer relationship, even when the customer in question is not directly involved.



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Layer 4

Accessing the customer's payment credentials

A foundational design decision in any Agentic Commerce architecture is what type of payment credential the agent holds and operates against.

These **payment credentials can be either card, account or stablecoin-based**, each with different issuer relationships, settlement rails, and implications for agent authorization.

Card-based payment credentials

Cards remain the dominant payment credential in Agentic Commerce, driven by the global reach of card network rails and the maturity of existing tokenization infrastructures (which map naturally to agent delegation and control models).

Several distinct approaches have emerged to enable AI agents to access card payment credentials, and these models are complementary rather than mutually exclusive:

Model 1: Merchant-side credential vaulting

Here, the consumer stores their payment credential with a specific merchant, which then issues a vault token to the AI agent. The agent never accesses the raw card number. Instead, it operates using a merchant-scoped token that is valid only within that merchant's ecosystem.

Payment service providers such as Checkout.com and Gr4vy already offer PCI-compliant credential-vaulting infrastructure that can support agentic use cases[12].

However, because credentials are siloed at the merchant level, this approach is suboptimal for agents operating across multiple retailers, as it requires them to manage multiple vault tokens and introduces additional orchestration complexity

Model 2: Agent-scoped token (delegated credential model)

This model introduces a purpose-built credential layer specifically designed for agentic use. A new token is derived and scoped to a specific agent, mandate and intent.

The consumer defines a spending mandate, after which a payment credential is generated and cryptographically bound to that mandate, preventing the agent from transacting outside the authorized parameters.

With this approach, the mandate and payment credential are tokenized together, creating a machine-verifiable record of delegated authorization.

Key implementations of this model include Visa's Intelligent Commerce and Trusted Agent Protocol (TAP), Google's "Payment Mandate" within its Agents Payment Protocol (AP2)[13], and OpenAI's Agentic Commerce Protocol (ACP), which provides a Delegate Payment API that tokenizes credentials with explicit allowance constraints[14].

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Layer 4

Model 3:
Wallet-based delegation

With this approach, the consumer's existing digital wallet acts as the trust anchor and delegates access to the agent.

The wallet issues a session-scoped authorization to the agent. The agent transacts using the wallet's tokenized credential, inheriting its fraud protections and authentication assurances.

PayPal, for example, has partnered with OpenAI to integrate its wallet directly into ChatGPT, issuing a one-time-use delegated payment token[15].

Model 4:
Virtual card issuance

Instead of delegating access to an existing credential, a new single-use virtual card is issued on demand for a specific agent, transaction or merchant relationship.

It requires no modification of existing checkout infrastructure as the virtual card looks like any other card to the merchant. This is approach most prominent in B2B Agentic Commerce.

For instance, Crossmint has introduced "Agent Virtual Cards" with scoped permissions and predefined guardrails, issued via the Visa Intelligent Platform. These virtual cards allow users to fund AI agents using existing debit or credit cards, enabling agentic transactions at any merchant without exposing raw card credentials.

Crossmint supports Visa Intelligent Commerce, enabling AI agents to initiate and complete payments over Visa's card network[16].

The Visa approach

Visa supports a suite of APIs covering network tokenization, agent identity, authentication, risk signals and consumer preferences that agent builders can use to construct end-to-end agentic checkout experiences.

> At the core of Visa Intelligent Commerce is the issuance of **Agent-Merchant-Task** tokens, credentials that are not generic network tokens, but purpose-built, scoped tokens bound to a specific agent, a specific mandate and a specific transaction context (model 2).

Through Visa's Trusted Agent Protocol (TAP), agent providers – such as OpenAI and Google – pre-register with Visa and cryptographically sign each transaction, allowing merchants to verify that a payment was initiated by a certified and authorized agent.

Additionally, a user-agent delegation token issued by the cardholder's bank attests that an explicitly identified consumer has authorized a specific agent to act on their behalf.

Spending constraints encoded within the mandate are enforced at the network authorization layer, such that transactions falling outside the authorized scope are declined prior to settlement.

Early production adopters of this approach include Adyen, Nuvei, and Stripe[17].

Visa operates as a network-level trust anchor in Agentic Commerce. It acts as an infrastructure layer which other credential-access models such as merchant vaulting, wallet delegation, or virtual cards can plug into. For example, TAP signatures can be validated by merchants independently of the underlying vault or wallet from which the payment credential is provisioned.

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Layer 4

Stablecoin-based payment credentials

Stablecoin credentials represent an architecturally distinct model where the agent holds, or is granted access to, a stablecoin wallet and transacts on-chain.

This enables programmable, near-instant, crossborder payments with smart-contract-enforced authorization logic, without any card network or bank intermediary.

> In this model, an AI agent is provisioned with its own stablecoin wallet and authorized to spend stablecoins up to a pre-defined limit. Authorization is enforced via smart contracts that act as the functional equivalent of a spending mandate. Allowances, expiration dates, counterparty whitelists, and revocation controls are all directly encoded at the protocol layer.

For example, Crossmint also operates in the stablecoin space, providing smart wallet infrastructure explicitly designed for agentic payment orchestration. These non-custodial stablecoin wallets come with auditable transaction logs and programmatic guardrails, enabling the agent to transact autonomously within the defined boundaries.

The most recent development in this space is the **integration of stablecoin payments directly into MCPs**.

Coinbase launched an MCP server that enables AI Agents to send stablecoins natively within an agentic workflow. Coinbase's Payment MCP is built on the x402 protocol, which revives the HTTP "402 Payment Required" status code to create a web-native payment request/response pattern.

> This means an agent can complete a purchase by calling the Coinbase MCP tool, authenticating via a wallet credential, and settling on-chain in seconds. This model is still nascent in terms of merchant acceptance but is advancing in B2B and API-economy contexts where both parties are crypto-native.

x402

Crossmint also supports Coinbase's x402 protocol, allowing agents to pay for API resource and services per-request on-chain, and wraps this into an Model Context Protocol (MCP) client extension, so that AI Agents can handle payments automatically without bespoke payment code[18].



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Layer 4

Account-based payment credentials

Account-based payments route funds directly between bank accounts or account-based digital wallets via Open Banking APIs or instant payment schemes (e.g., SEPA Instant, PIX, FedNow).

For Agentic Commerce, this introduces a fundamentally different credential model: rather than a card token, the agent would hold or invoke an authorization object – a delegated right to pull or push funds from a consumer's account. This credential would either be an OAuth 2.0[19] Access Token or a Variable Recurring Payment Consent for ongoing agentic mandates.

OAuth 2.0 access tokens, unlike card network tokens, would be issued by a bank, scoped to a specific payment intent, time-limited, and revocable by the consumer at any time. They would also be bound to the specific third-party (the agent platform) that requested it, using certificate-based identification. The access token functions as a reference to a pre-authorized payment consent object that lives on the bank's server.

However, in Agentic Commerce, AI agents would likely need to execute payments repeatedly over time. A single, one-time OAuth payment consent would therefore be insufficient.

The most consumer-visible form of account-based agentic payments would come from **digital wallets and super-apps that operate against bank accounts** rather than cards.

The relevant credential for this use case would be variable recurring payment (VRP) consent (i.e., an authorization object that defines a standing mandate with parameters such as maximum amount per transaction, cumulative spend limit, time window and merchant scope).

Once granted, the agent could initiate multiple payments within the mandate's bounds without re-authenticating the consumer for each transaction.

Some **open banking players** such as Prometeo, are developing account-to-account, agentic payment infrastructure to support autonomous agents across Latin America's instant payment schemes, including PIX in Brazil or SPEI in Mexico. Prometeo is piloting "Agent Accounts" – nominative bank accounts linked to an agent's owner, with dedicated balances that enable autonomous transaction execution[20].

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Layer 4

In October 2025, PayPal partnered with **OpenAI** to integrate its wallet directly into **ChatGPT**, enabling users to purchase via their PayPal account (card-linked, bank linked or balance) without leaving the conversation.

Technically, PayPal implemented OpenAI's Agentic Commerce Protocol (ACP) and issues a one-time-use delegated payment token. This token is a single-use credential generated by PayPal's servers that the AI agent passes to the merchant's checkout, so the agent never holds the underlying account details[21].

Key challenges include consumer consent UX, regulatory clarity on agent-as-PISP[23] authorization, and geographic fragmentation.

> In card networks such as Visa, the mandate token is network-enforced globally.

By contrast, account-to-account payments are highly localized: each country operates its own A2A scheme, with little cross-border interoperability. As a result, scaling account-based Agentic Commerce solutions remains highly constrained.

Additionally, protocols such as **Google's Agent Payments Protocol (AP2)** have been designed as payment method agnostic[22].

However, at the time of writing, **no major account-to-account player** had enabled fully operational agent-initiated payments at consumer scale.



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Layer 5

Authenticating and authorizing the transaction

Before an AI agent can transact on a user's behalf, an initial authentication step is required to bind the payment credential to the AI agent using it.

This establishes the trust relationship that allows the agent to initiate payments within defined boundaries. This creates a strong foundation for subsequent transactions without requiring the AI agent to ever hold sensitive credentials.

Our approach to achieve this is through frameworks such as Visa Intelligent Commerce, which use mechanisms like passkeys to bind the payment method, the user's device, and the authorized AI agent together.

Early-stage flows: human in the loop

In the early phases of Agentic Commerce, users are likely to remain directly involved in the authentication and approval of each transaction – at least until confidence and predictability increase. **In practice, this means**:

- **The user** completes a two-factor authentication challenge before the issuer authorizes the payment
- Although the **AI agent** originates the transaction, the authentication and authorization still occur in real time between the customer and the issuer
- **Issuers** can rely on strong binding signals established during initial setup (such as passkeys), while still re-challenging the customer to confirm intent on a transaction-by-transaction basis.

From the issuer's perspective, this represents a low-impact evolution of existing authentication models rather than a fundamental change.

Longer-term evolution: delegated execution

Over time – particularly in scenarios where the human is not present – authentication and authorization may shift toward more autonomous agent behavior. This is only viable if intent capture becomes sufficiently consistent and deterministic. **In these models:**

- Customers continue to define clear delegation boundaries and controls
- Ongoing approval can move toward delegated, rule-based execution rather than per-transaction confirmation

To support these flows, issuers may need to accommodate new requirements, including the ability to:

- Receive additional agent- or merchant-provided data with the transaction, such as intent signals, item-level details, or delegated controls
- Decide whether and how to incorporate these signals into approval logic, risk models, or downstream processes such as dispute handling

In this layer, issuers occupy a critical position as the parties that ultimately approve or decline transactions and, in delegation models, attest that a consumer has authorized a specific agent to act on their behalf.

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Layer 6

Managing fraud risk and allocating liability

Implicit across every layer discussed so far is the need for clear and enforceable liability standards.

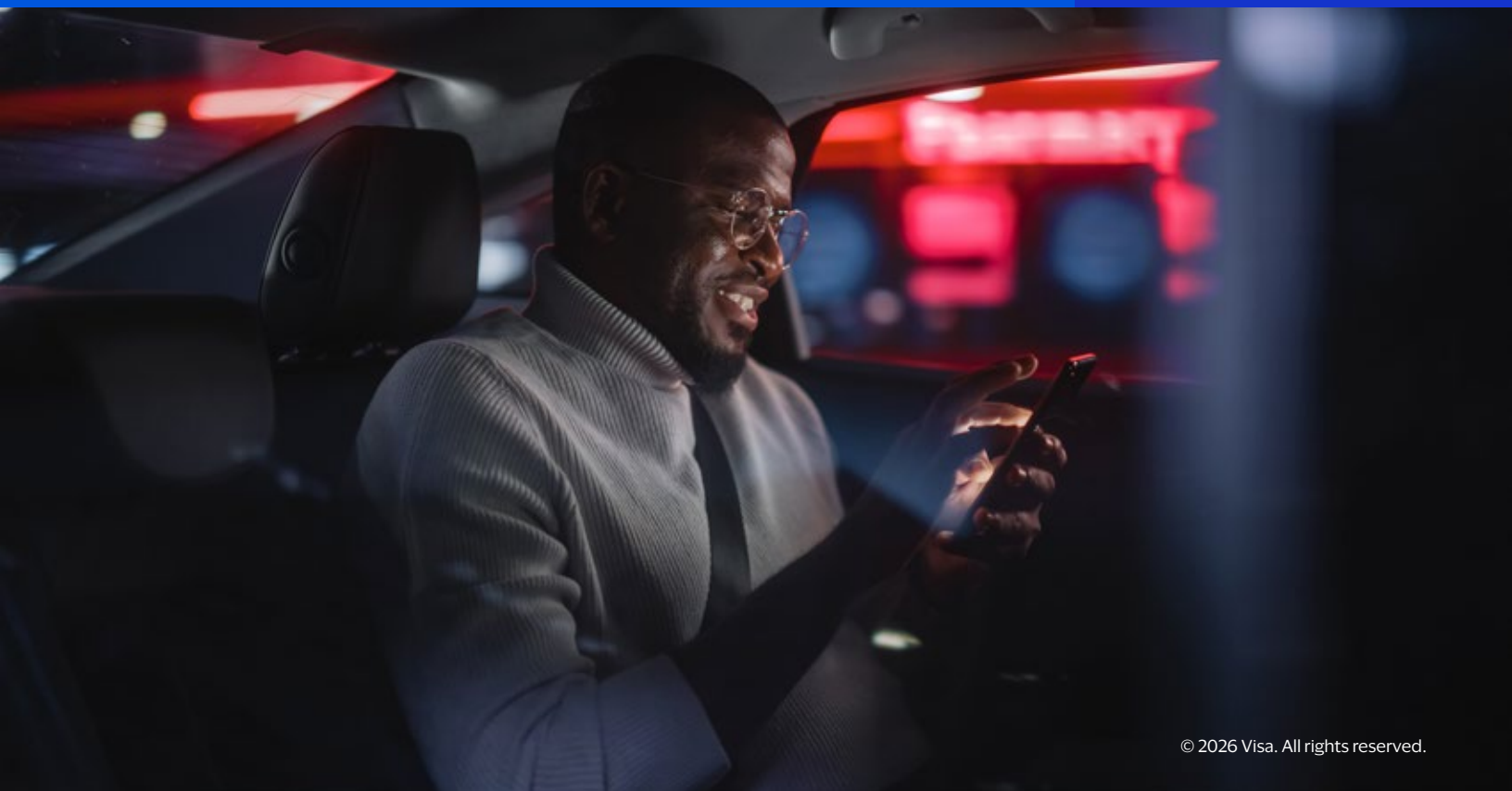
To support this, each layer in the transaction flow – from intent capture and cart creation through identity, authentication, authorization, and credential management – must generate verifiable signals.

These signals may take the form of cryptographic proofs or protocol-level records, such as:

- Intent signatures
- Cart and condition signatures
- Agent identity attestations
- Authentication and authorization records

Together, these records form the evidence chain required to allocate liability if something goes wrong.

In agent-mediated commerce, liability can only be assigned if actions are traceable, verifiable, and clearly attributable to the correct party – whether that be the user, the AI agent, the merchant, or the issuer.



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Layer 6

Cross-layer consistency and accountability

Assigning liability in agentic payment flows depends not on any single signal, but on consistency across layers.

Key questions include:

- Did the user clearly express and authorize the intent?
- Did the AI agent act within the limits of its delegated authority?
- Did the merchant honour the terms and conditions it previously committed to?
- Did the issuer authenticate and authorize the transaction correctly?
- Was the payment credential properly bound to the user and device?

Disputes and the need for shared standards

Dispute resolution provides a clear illustration of why robust liability frameworks are essential. Resolving disputes in agent-mediated transactions requires determining who acted, under what mandate, and whether each participant fulfilled their obligations at each stage of the flow.

Liability standards for Agentic Commerce are still evolving, and many of these questions remain under active discussion across the industry. Establishing shared approaches to traceability, evidence, and accountability will be critical to scaling agent-mediated payments in a way that is both trusted and sustainable.

Taken together, the six layers described above represent a significant infrastructure buildout – of the type that has historically required point-to-point integrations with each protocol, network and AI platform individually.

Solutions such as **Visa's Intelligent Commerce Connect**, launched in April 2026, are designed to reduce that complexity into a single integration via the Visa Acceptance Platform.

This supports all major agentic protocols and multiple card networks simultaneously – including TAP, MPP, Open AI ACP and UCP. It represents one of the first practical aggregation solutions for the full agentic payments stack[24].



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How to move ahead: What needs to evolve to make Agentic Commerce work

The pace of innovation in Agentic Commerce is accelerating rapidly, and early signals of adoption are becoming clearer.

Consumers are demonstrating high interest, strong conversion rates, and growing trust in AI-mediated decisions. Merchants are beginning to respond, moving from observation to active experimentation – from instant checkout integrations at retailers such as Walmart and Target, to Amazon's integration of AI shopping capabilities into Alexa.

As ecosystem players move to address gaps in the current infrastructure, new protocols and capabilities are emerging across agent identity, cart creation, catalog access, and delegated payments.

Payment networks, AI platforms, and technology providers are iterating at unprecedented speed, releasing new APIs, verification frameworks, and early standards – from initiatives such as Visa Intelligent Commerce to experiments by players like Perplexity and PayPal.



Visa Consulting & Analytics works with issuers, acquirers, and merchants to navigate this transition from defining strategic positioning to building the capabilities required to compete as AI agents become an interface to commerce.

In practice, this means helping clients answer questions such as:

For merchants

Which of the four strategic models is right for my business? How do I optimize for agent discovery without sacrificing brand control? What protocol integrations should I prioritize?

For issuers

How should authorization and authentication models evolve to support delegated agent execution? What new data signals should inform approval logic and risk decisioning?

For acquirers and PSPs

How do I enable merchants to accept agent-initiated transactions? What infrastructure is required to support multiple agentic protocols through a single integration?

For all stakeholders, the strategic question is no longer whether Agentic Commerce will emerge, but what role to play within it.

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About Visa Consulting & Analytics

Visa Consulting & Analytics (VCA) helps institutions explore how AI may autonomously pay on behalf of users, and how financial services can evolve to enable, secure, and support this future.

How Visa can support your AI-native payments journey:

Learn

Build foundational understanding of how AI is reshaping commerce and payments – both from agents purchasing on behalf of humans, as well as AI agents integrated in financial institutions.

- Immersion bootcamps on AI, Agentic Commerce and emerging payment methods
- Landscape review of high-potential e-commerce, payments and agentic AI use cases
- Deep dives into agent architectures, orchestration models, trust, risk and control

Pilot

Design, prioritize, and implement high-value use cases that enable AI-driven commerce, agent enabled experiences, and embedded payments.

- Use case identification, prioritization, and opportunity sizing across Agentic Commerce and AI domains
- Prototype and pilot new capabilities, from AI agent optimizations to value creation
- Support solution selection, protocol assessment, and implementation planning to validate impact and feasibility
- Leverage Visa's ICC capabilities – including agent identification, delegated authentication, and protocol-agnostic acceptance – through a single integration to accelerate piloting and deployment

Strategize

Define your long-term role in a commerce ecosystem where AI systems not only support decisions but increasingly initiate and manage customer interactions and payment-related journeys.

- Design future-ready commerce, payments, and AI strategies aligned to business priorities
- Identify and prioritize use cases, target operating models, and integration pathways
- Assess regulatory, compliance, data, and customer experience implications to shape scalable roadmaps

Expand

Scale from experimentation to enterprise adoption by building the capabilities, governance, and infrastructure needed to support trusted AI-enabled commerce.

- Co-create AI offices, governance models, and delivery structures to scale AI initiatives effectively
- Industrialize successful pilots through operating model design, partner enablement, and implementation support
- Evolve capabilities, controls, and infrastructure as the commerce and agentic AI landscape matures

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Sources and Notes

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