Cloud Token Framework

Convert any connected device into a secure channel for digital commerce

Cloud Token Framework (CTF) allows the entire payment ecosystem to minimize risks associated with managing sensitive payment data. CTF enables card-not-present (CNP) tokens to unlock new opportunities in digital commerce and accelerate payment innovation. It does this by enhancing confidence in multi-device payments, reducing friction and minimizing account takeover fraud. Combining consumer identify and verification (ID&V) with device intelligence, CTF is designed to enhance security and increase approval rates for CNP transactions across multiple payment experiences and devices.

Potential benefits

Elevate payment security across devices
Use consumer ID&V and device intelligence to link the consumer, cardholder and their associated devices to better manage risk and help prevent account takeover fraud.

Trusted devices increase confidence
Enable a trusted device to minimize friction and improve authorization rates for CNP transactions, resulting in a superior consumer experience.

Futureproof payments
Expand digital commerce use cases with an end-to-end, secure and scalable token solution that provides a holistic approach to consumer authentication.
How it works

Device binding and purchase on a trusted device

The merchant or other token requestor’s site or app enables the cardholder to select a connected device and mark it as trusted. This allows the cardholder to skip the verification process when they next make a payment. As an example, the below illustrates how this works when making a booking with a rideshare service.

1. The cardholder reviews the items in their booking and proceeds to checkout
2. The cardholder enters their card details and contact information
3. The app prompts the cardholder with a verification request to designate the device as trusted for future purchases
4. The merchant or other token requestor displays a list of consumer ID&V methods available from the issuer and the cardholder selects their preferred ID&V method
5. The cardholder completes verification via the ID&V method
6. Once confirmed, the cardholder receives a message to confirm that their device is trusted for subsequent transactions
7. On the trusted device, the cardholder is prompted to verify and confirm their booking
8. Once confirmed, the cardholder’s transaction is complete. The issuer receives the required device information to perform further checks

Features

Issuer step-up capabilities
Use consumer ID&V to establish a clear link between the token requestor’s customer and the issuer’s cardholder.

Unique and verifiable data
Validate the consumer’s trusted device for transactions and include verified data for issuers.

Multiple trusted devices and reduced friction
Allow consumers to access their tokenized account from multiple trusted devices with minimal friction, using their trusted device as an authentication factor.

Device binding
Connect the token with multiple trusted devices via issuer ID&V and step-up authentication.

Consumer authentication
Capture and send multiple authentication factors and cardholder verification methods from multiple devices.

Token requestor-initiated cardholder verification
Request ID&V on a payment credential from an issuer whenever it’s needed.
How it works

CNP tokenization with Cloud Token Framework
Cloud tokens enable a single experience across devices within an operating system

- Device Binding allows an eCommerce or card-on-file token provisioned to the consumer’s account, to be bound to multiple trusted devices
- Issuers will have the opportunity to perform risk-based verification of the cardholder and optionally challenge the cardholder for step-up authentication to confirm the binding of the cardholder and token to that specific device
- Subsequent card-not-present transactions from trusted devices will have device data elements and multi-factor authentication data, enabling issuers to perform strong cardholder verification, improve authorization approvals, mitigate fraud, and improve their overall token management specific

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