



## **EXPLICIT SELECTION**      **Product Brief**

# **Tap to Everything**

Visa Tap  
Mastercard Tap to More

28-Jul-2025

# Tap to Everything

LIVE  
NEWS

## Visa Tap

**Visa Reinvents the Card, Unveils New Products for Digital Age**

5/15/2024

**Visa Introduces Tap to Add Card for Faster Digital Wallet Setup**

The technology eliminates the need for manual card entry, a process that often leads to errors and poses security risks.

**Visa expands 'Tap to Add Card' feature in 3 markets**

**Visa records spike in Tap to Phone uptake**

Tap to Phone, Visa's technology that turns smart phones into payment terminals, has experienced a 200% increase in usage globally over the past year and a 300% surge among small business owners in the UK.

# What is the industry doing?

## Mastercard Tap to More

**Mastercard pilots Tap to Pay for ecommerce and in-app payments**

INNOVATION

Tapping into the future of payments

Tap to More enables consumers to **effortlessly add cards** to their wallet, **verify a transaction**, **send money** to friends and family and more

Partners



**Tap to Add**  
Apple Pay Google Pay

**Tap to Verify**  
stripe tabapay stripe

**Tap to Activate**  
No press releases yet

**Tap to Pay**  
stripe tabapay ingresse veripay

**Tap to P2P**  
SAMSUNG

... and counting

# Tap to Everything

## How does it work?



### How is it used?

Tap to Everything is used by cardholders to **perform a range of convenient actions**, extending beyond traditional contactless payments. Enabled via a network-provided **Tap SDK** integrated into issuer or wallet apps, this allows secure data exchange when a card is tapped to a cardholder's smartphone. Through this interaction, with a single tap, cardholders can:

### Use case examples

- **add** their card to a digital wallet or app by tapping it on their phone
- **activate** a new card by tapping it on their phone
- **verify** for A2A or e-commerce transactions by tapping their card on their phone
- perform an **in-app checkout** by tapping their card on their phone to read the card details
- **send and receive** money (push-payments) by tapping the receiver card or phone on their phone

### How is it implemented?

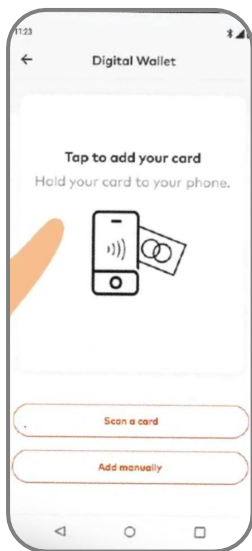
Tap to Everything is implemented by embedding the network's Tap SDK in a merchant, wallet or issuer mobile application. **The SDK converts any NFC-enabled phone into a level-1/level-2 contactless reader**. When the card is tapped, the app's reader logic pulls chip data and generates an EMV cryptogram. Certain tap use cases (like Tap to Add) require the Issuer to enable the applicable account ranges for the service.

### What is being validated?

During a Tap to Everything transaction, **the merchant, wallet, or issuer validates that the cardholder is in possession of the (physical) card**. When the card is tapped, the cardholder's own mobile device extracts key card data such as the PAN and expiry date, which are then compared against the account on file. At the same time, the chip generates an ARQC cryptogram (or other dynamic cryptogram like dCVC3), which is validated either by the payment network on-behalf-of or directly by the issuer. Successful validation of both the card data and the cryptogram confirms the authenticity and the presence of the card, allowing the initial action (add, verify, activate, pay, or P2P) to be completed.

# Tap to Everything

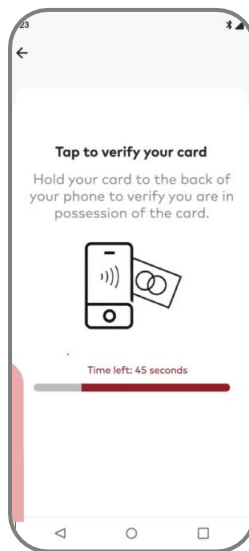
## What are the use cases?



### Tap to Add

Allows consumers to add their contactless card into a device wallet, and potentially merchant app or e-commerce wallet.

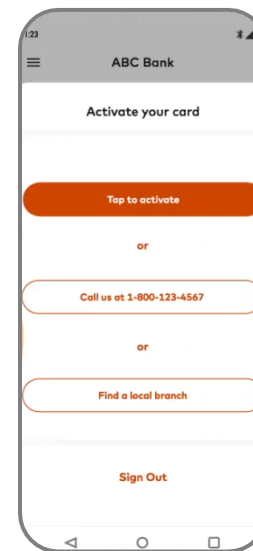
*"My card on my phone"*



### Tap to Verify

Allows consumers to use a physical card as a possession authentication factor in e-commerce transactions.

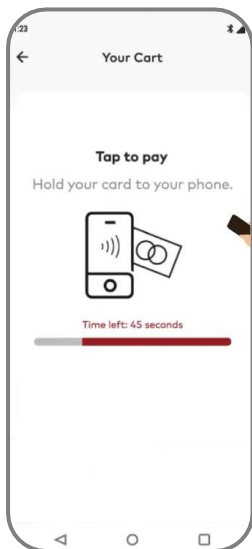
*"My card on my phone"*



### Tap to Activate

Allows consumers to activate their card via their digital banking app.

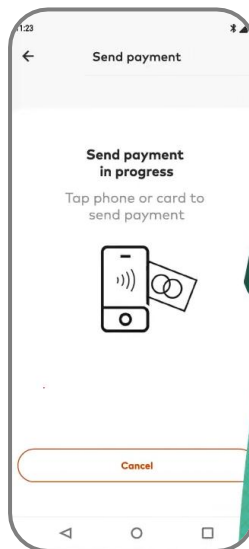
*"My card on my phone"*



### Tap to Pay

Allows consumers to make e-commerce payments by tapping their contactless card on their phone.

*"My card on my phone"*



### Tap to P2P

Allows consumers to tap their card or mobile phone against another person's phone to send or receive money.

*"Their card/phone on my phone"*

# Tap to Add

*What does it look like?*



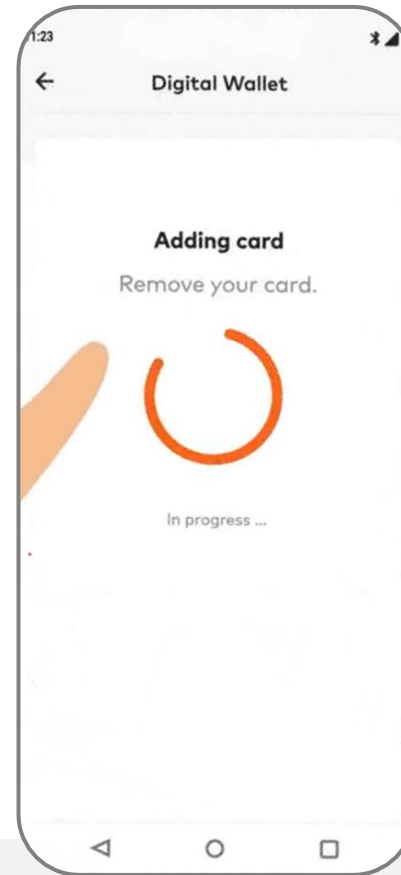
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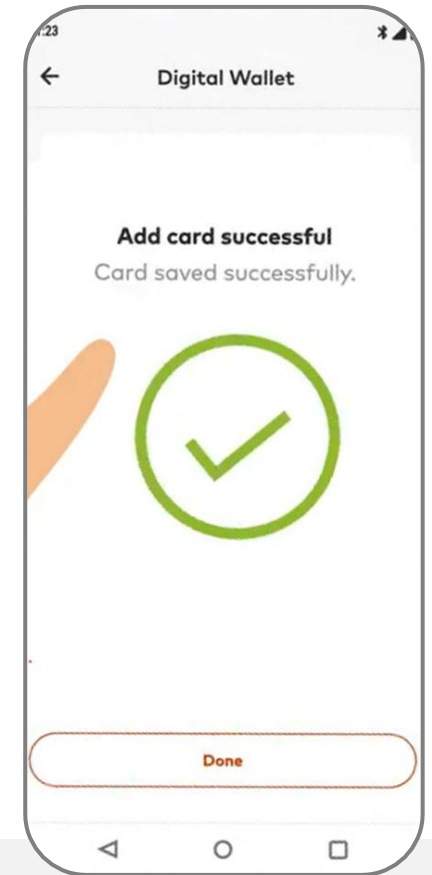
*"My card on my phone"*



Tap to Add



Adding card

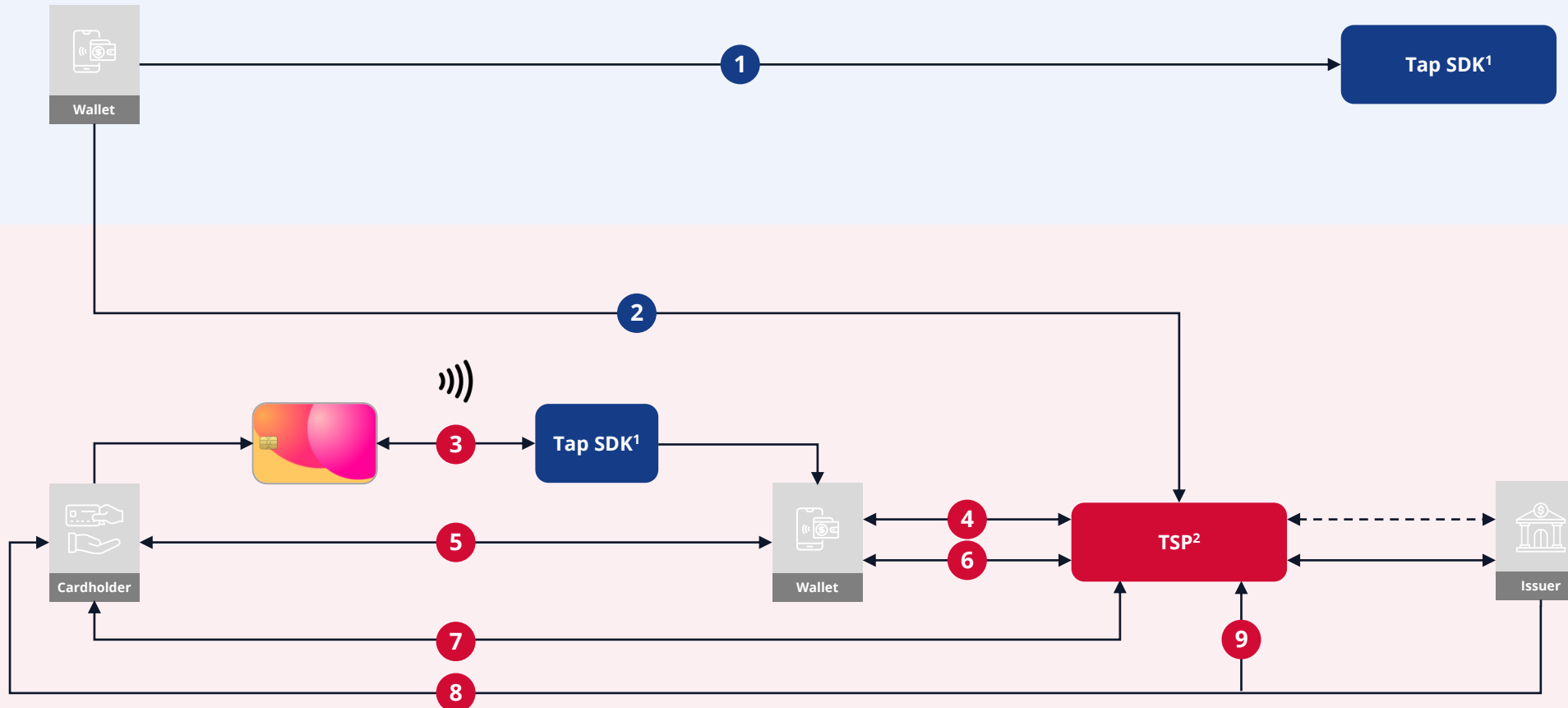


Completion



# Tap to Add

## What is inside?



## Functional steps

- 1 Enabling tap functionality**  
Wallet embeds the network's Tap SDK in their app to enable tap functionality.
- 2 TSP integration**  
Wallet must be integrated with the TSP.
- 3 Tap to add )))**  
Cardholder requests digitization by tapping card on a wallet. Phone receives PAN, expiry date, and ARQC.
- 4 Card availability**  
TSP checks if card is within allowed account ranges and (or Issuer) validates card data. Issuer performs optional account status check.
- 5 T&C and (optional) CVC2**  
Cardholder accepts T&C and may be prompted to enter CVC2 (optional).
- 6 Card eligibility**  
TSP or Issuer determines eligibility decision. TSP provisions token.
- 7 (optional) Activation methods**  
If required, TSP determines activation methods for Cardholder. Optionally, TSP generates activation code.
- 8 (optional) Activation code**  
Issuer delivers activation code to cardholder.
- 9 (optional) Code validation**  
TSP will validate cardholder-entered activation code. On success, token is activated.

<sup>2</sup>Network or third-party TSP

# Tap to Verify

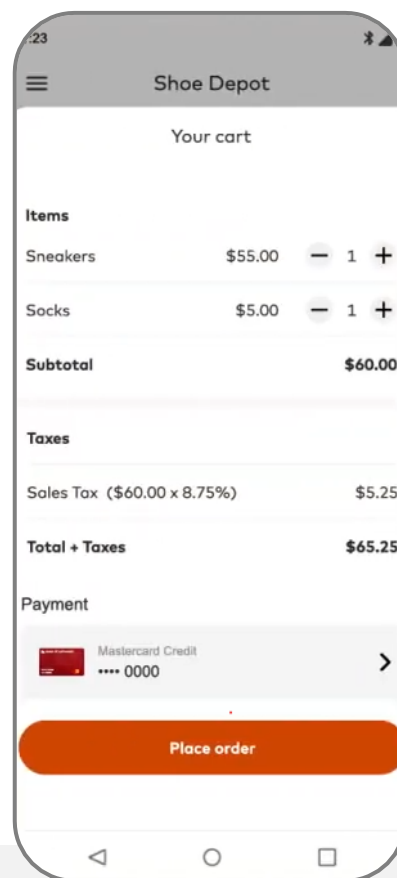
*What does it look like?*



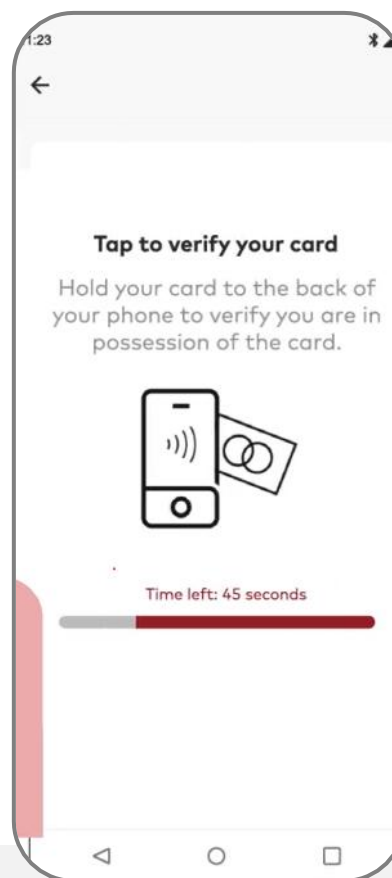
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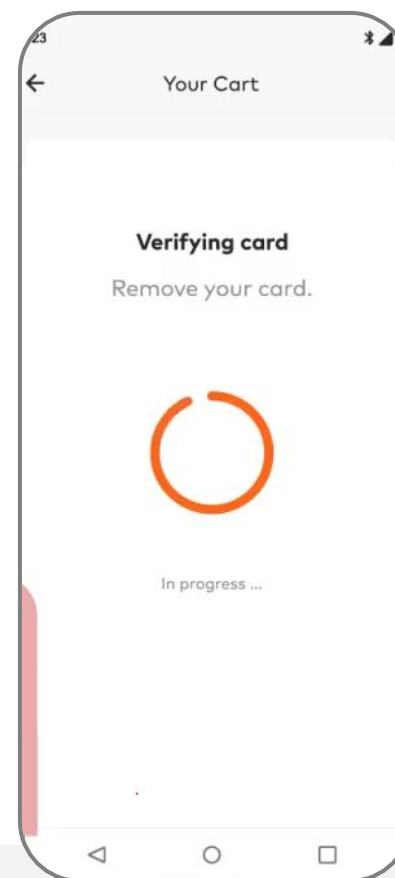
*"My card on my phone"*



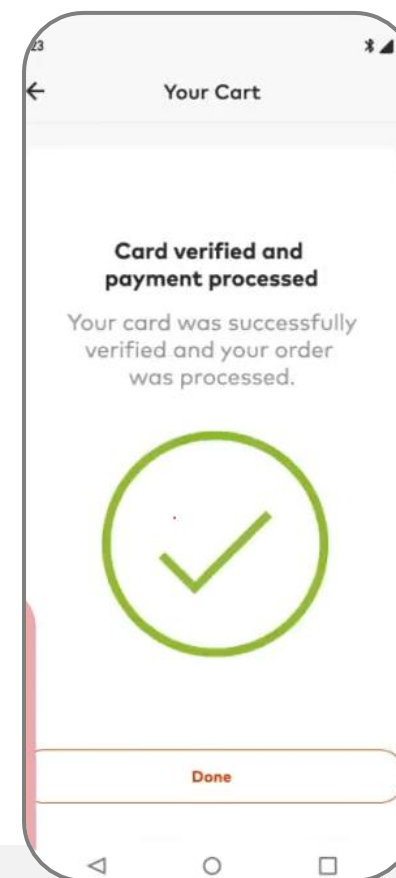
Place order



Tap to Verify

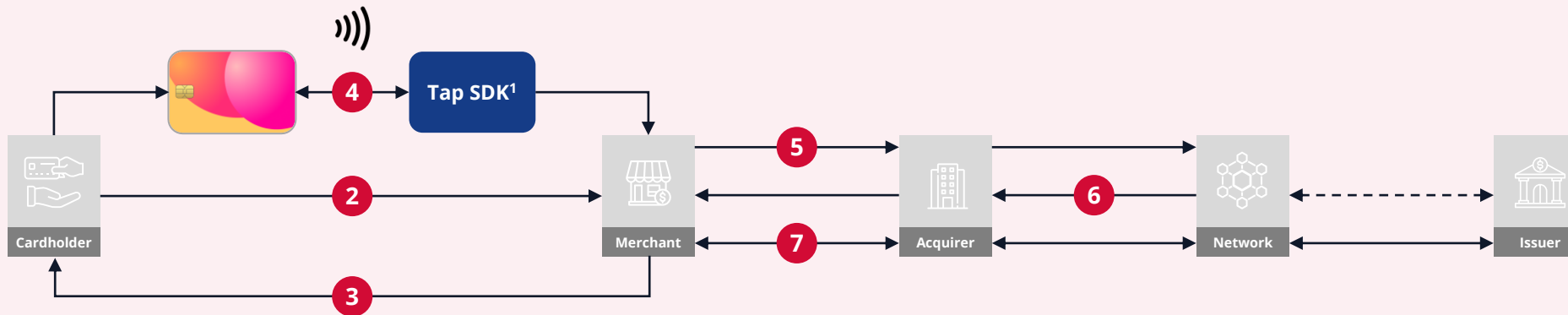
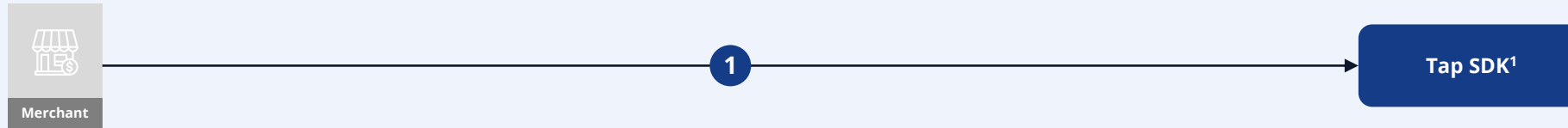


Verifying card



Completion

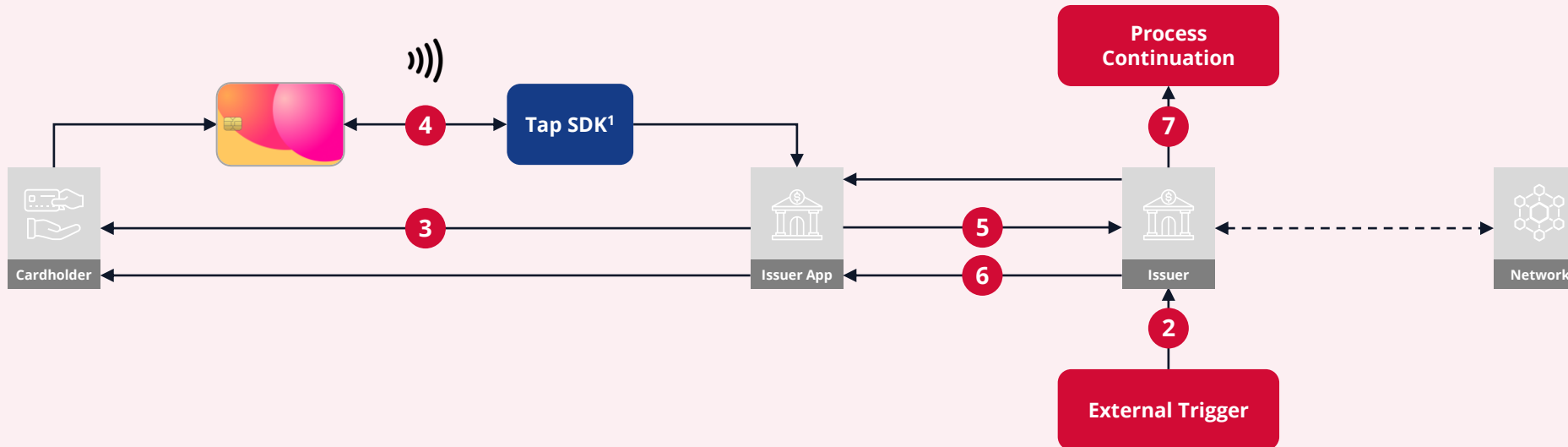




## Functional steps

- 1 Enabling tap functionality**  
Merchant (or their PSP) embeds the network's Tap SDK in the merchant app to enable tap functionality.
- 2 Checkout**  
The cardholder opens the merchant app, selects items, and proceeds to checkout.
- 3 Risk trigger & prompt**  
During checkout, (under yet unclear circumstances), the app may prompt the cardholder to tap their physical payment card on their own device.
- 4 Tap to Verify »)**  
Cardholder taps to verify. Phone reads PAN, expiry date and generates ARQC or dCVC3 cryptogram.
- 5 Forward data**  
The merchant packages the cryptogram and transaction data, then forwards it to the payment network for validation.
- 6 Data validation**  
The payment network on-behalf-of or the issuer directly, validates the cryptogram.
- 7 Process continuation**  
If validation is successful, the merchant proceeds with the transaction or steps-up/declines if validation fails.

<sup>1</sup> SDK implements contactless reader functionality, including EMV L1 and L2 (scheme's or common) contactless kernel



## Functional steps

- 1 Enabling tap functionality**  
Issuer embeds the network's Tap SDK in their app to enable tap functionality.
- 2 Risk trigger**  
An issuer's risk policy (e.g., high-value wire transfer, or app configuration change, or EMV 3DS OOB) flags the session as requiring a possession check.
- 3 Prompt cardholder**  
The issuer app prompts the cardholder to tap their physical payment card on their own device.
- 4 Tap to Verify )))**  
Cardholder taps to verify. Phone reads PAN, expiry, generates ARQC cryptogram.
- 5 Forward data**  
The app securely sends the retrieved card data and cryptogram to the issuer backend.
- 6 Data validation**  
The issuer (or the network on their behalf) validates the dynamic cryptogram to confirm genuine card possession.
- 7 Process continuation**  
If validation is successful, the issuer proceeds with the original process (e.g., approve high-value wire transfer).

<sup>1</sup> SDK implements contactless reader functionality, including EMV L1 and L2 (scheme's or common) contactless kernel

# Tap to Activate

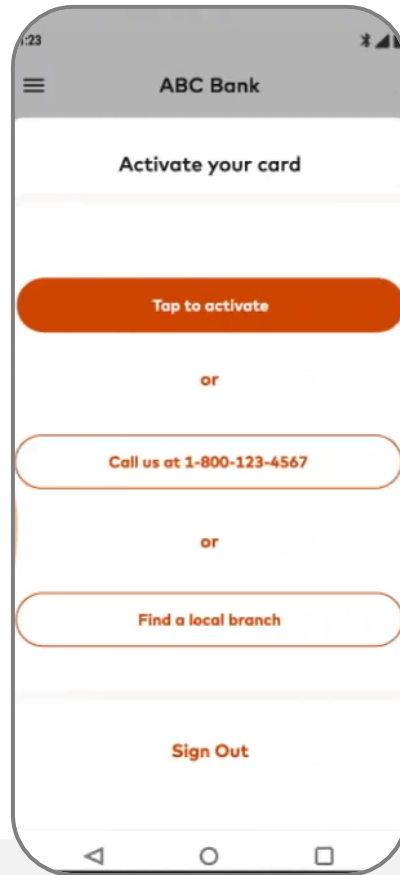
*What does it look like?*



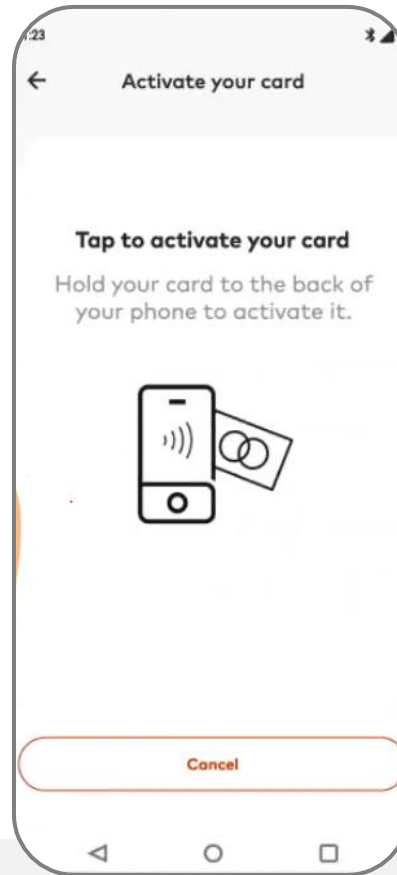
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Allows consumers to activate their card via their digital banking app.

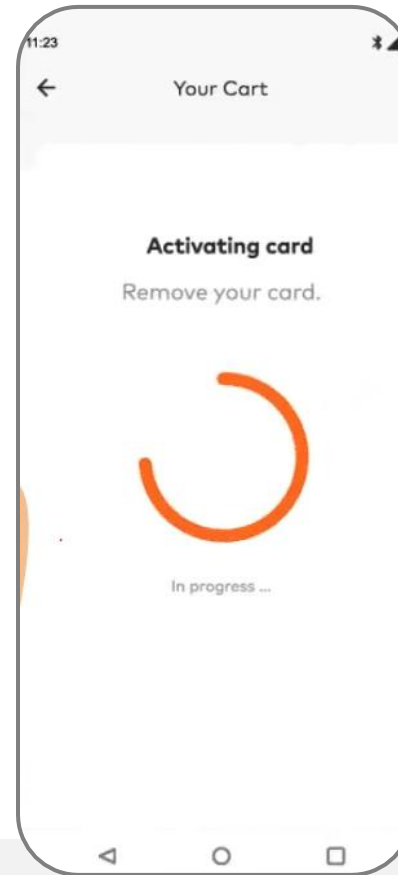
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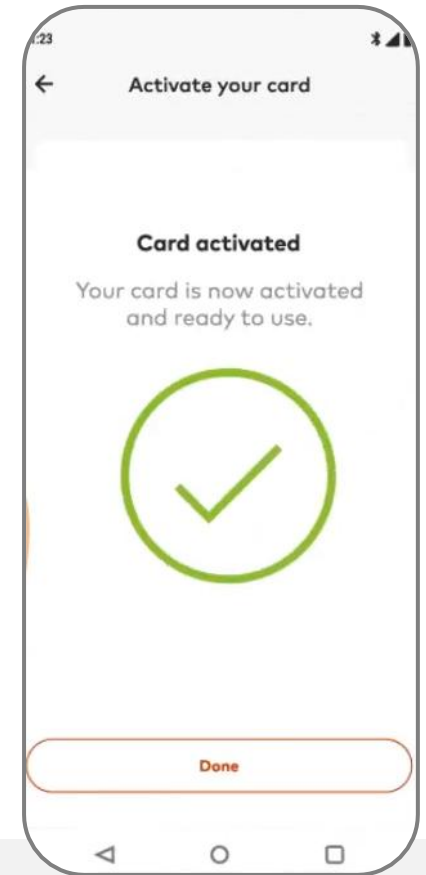
Activate card



Tap to Activate

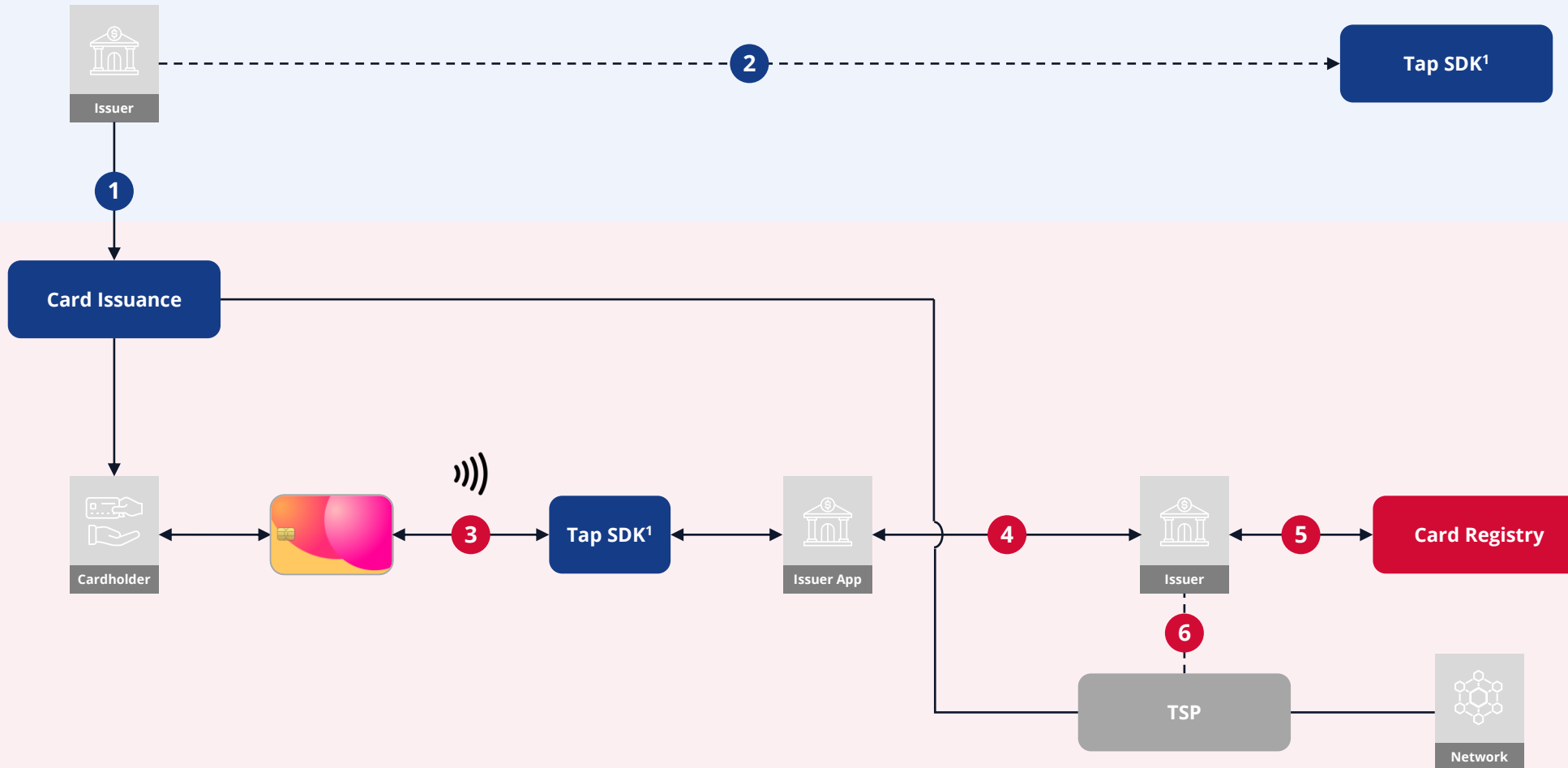


Activating card



Completion





<sup>1</sup> SDK implements contactless reader functionality, including EMV L1 and L2 (scheme's or common) contactless kernel

## Functional steps

- 1 Card issuance**  
Cardholder gets issued an inactive Card. Some Issuers may (optionally) set the PAN status to suspended in the TSP so no tokens can be issued for the inactive card.
- 2 Enabling tap functionality**  
Issuer may embed the network's Tap SDK in their Issuer app to enable tap activation functionality or rely on other activation channels.
- 3 Tap to Activate »)**  
Cardholder navigates in the Issuer App to the card activation section (explicitly or implicitly verifying to the Issuer), selects Tap to Activate, and taps their new card against the mobile device.
- 4 Read card data**  
Issuer app reads the card data (PAN, expiry date, ATC, etc.) via NFC, may request an ARQC, and shares the data with the Issuer (backend) via API.
- 5 Issuer validation & activation**  
Issuer validates that the PAN is "pending-activation" and validates dCVC3 / ARQC. If OK, the Issuer sets the card status to active in its card registry.
- 6 Token activation / provisioning**  
If the inactive card has been registered in the TSP, the issuer activates it there. This may also trigger a provisioning request with the TSP (e.g., to Issuer HCE wallet).

# Tap to Pay

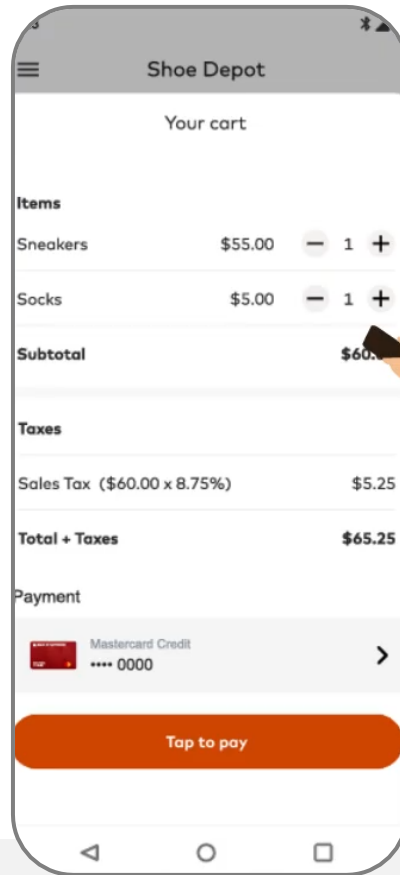
*What does it look like?*



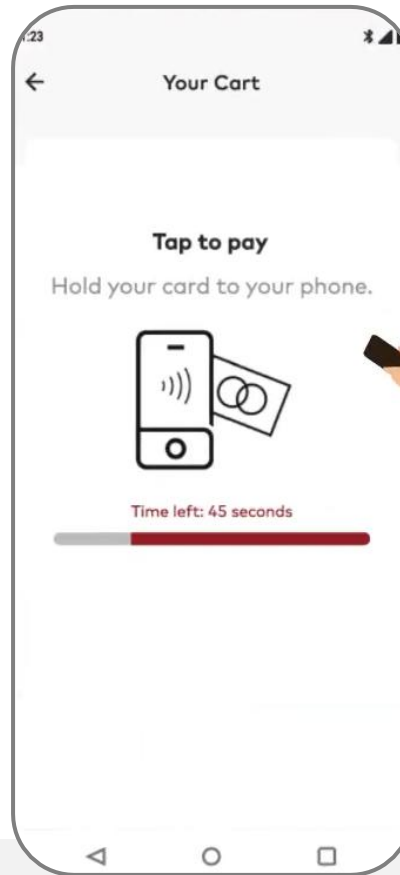
## Tap to Pay

Allows consumers to make e-commerce payments by tapping their contactless card on their phone.

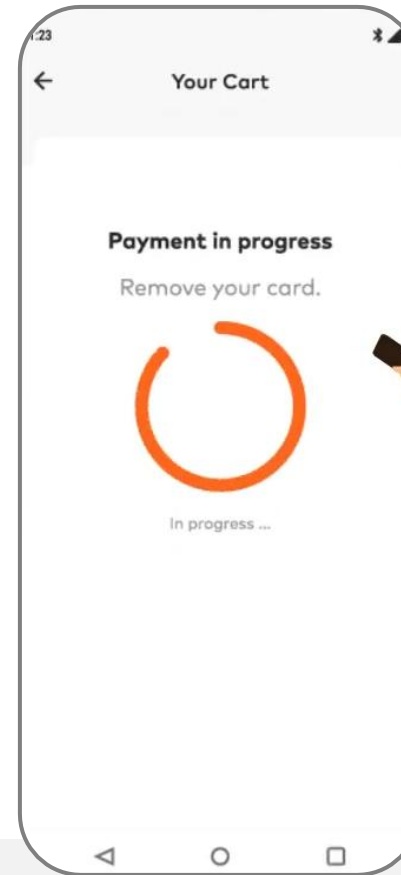
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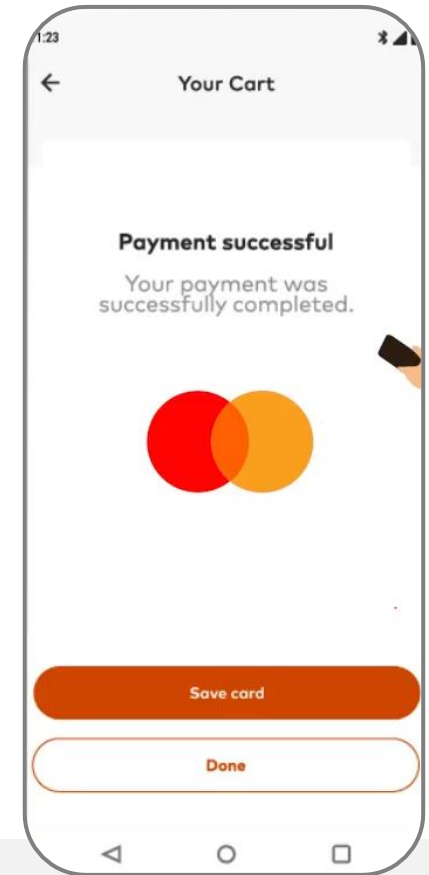
Place order



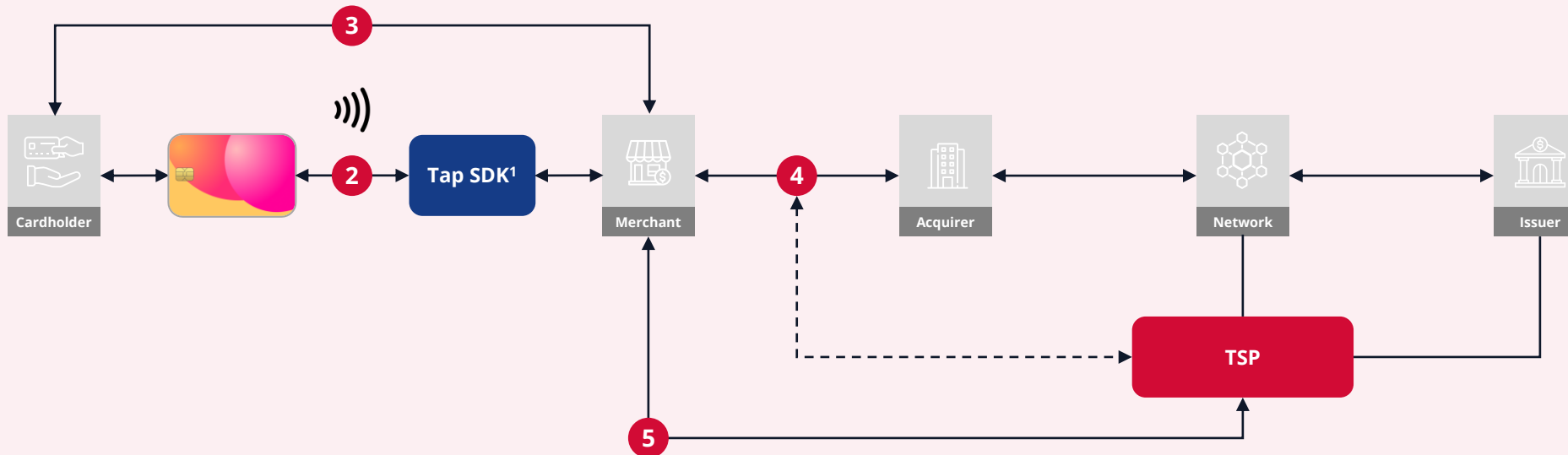
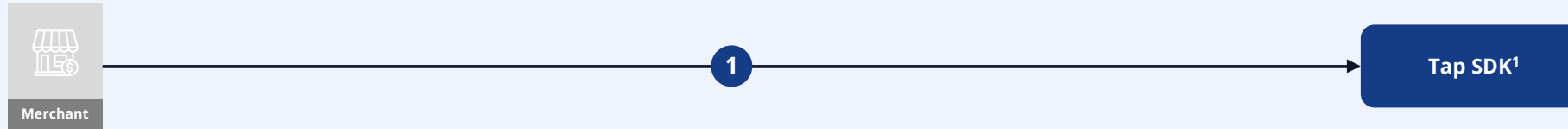
Tap to Pay



Processing payment



Completion



<sup>1</sup> SDK implements contactless reader functionality, including EMV L1 and L2 (scheme's or common) contactless kernel

## Functional steps

- 1 Enabling tap functionality**  
Merchant (or their PSP) embeds the network's Tap SDK in their app to enable tap functionality.
- 2 Tap to Pay )))**  
Cardholder opens the merchant application on their device, selects items to purchase, opts for guest checkout, clicks on payment method and selects "Tap your physical card to pay." Consumer taps their physical card on their device.
- 3 Online PIN**  
Cardholder gets prompted to enter Online PIN (or CDCVM) to complete the transaction. Security certification requirements have not been established yet, and the solution is subject to network's approval.
- 4 Authorization processing**  
The merchant submits an authorization request with the card credentials obtained from the tap. The transaction is processed normally. Alternatively, based on merchant configuration, and network rules, the merchant may tokenize the card before submitting for authorization.
- 5 (optional) Card on File**  
After the transaction is completed, the merchant may, with cardholder's consent, tokenize the card and store the token for subsequent transactions.

# Tap to P2P

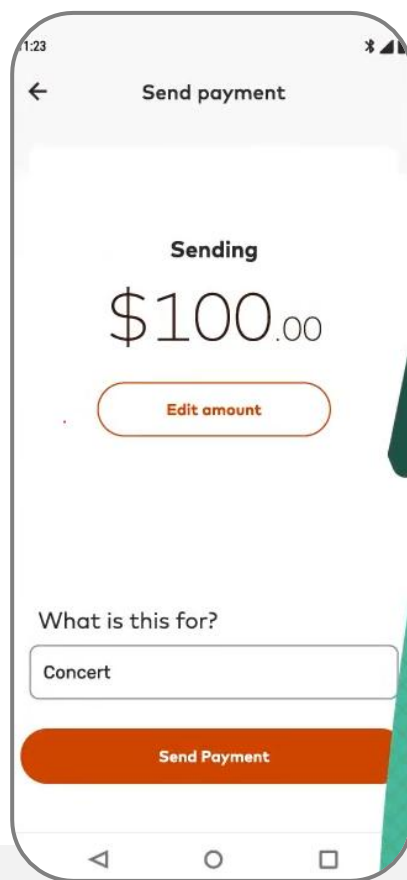
*What does it look like?*



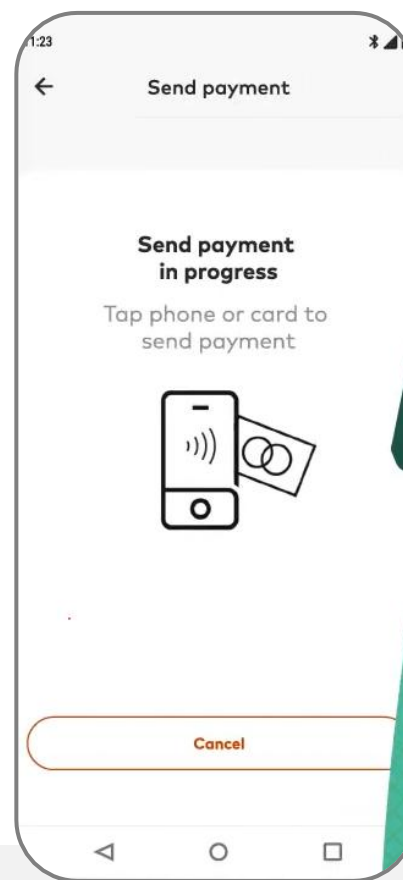
## Tap to P2P

Allows consumers to tap their card or mobile phone against another person's phone to send or receive money.

*"Their card/phone on my phone"*



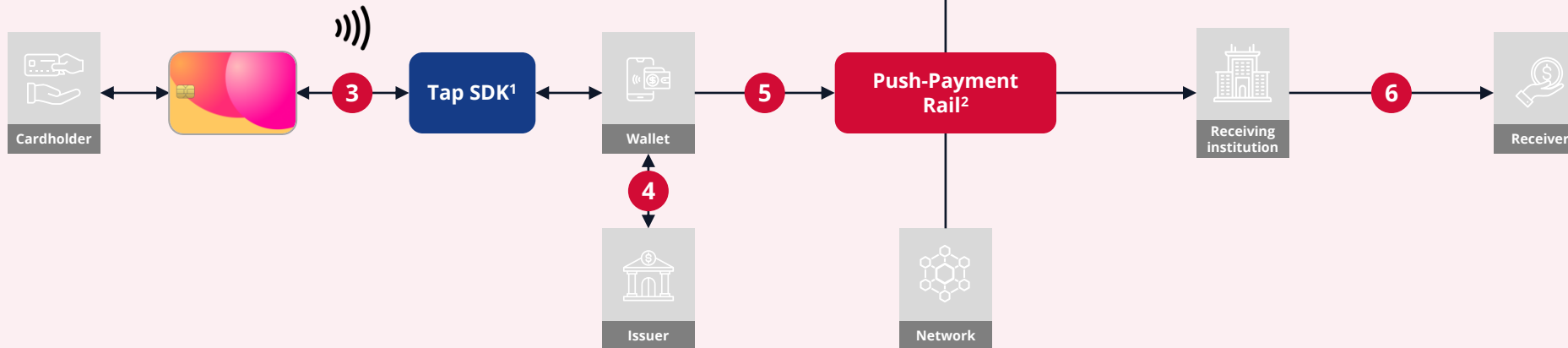
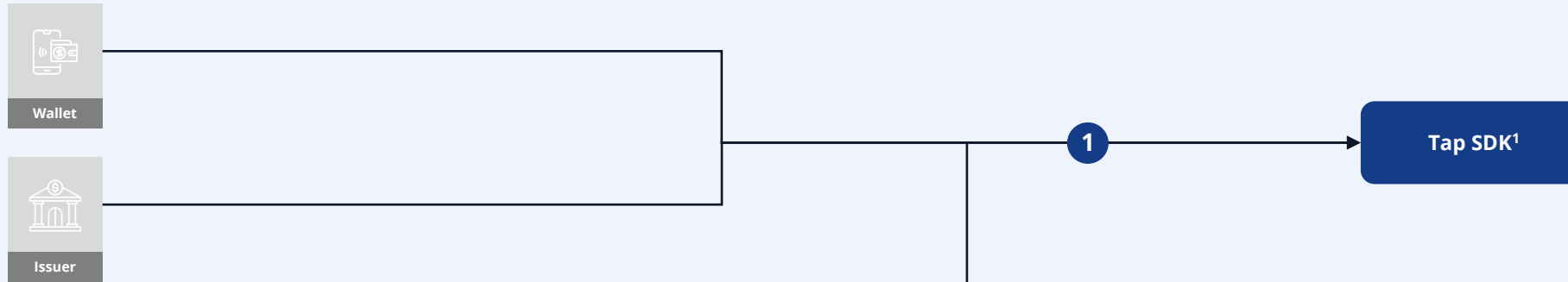
Send payment



Tap to P2P



Completion



## Functional steps

- 1 Enabling tap functionality**  
Wallet or Issuer embeds the network's Tap SDK in their app to enable tap functionality.
- 2 Money movement program integration**  
Wallet or Issuer must be integrated with the network push-payment rails / program.
- 3 Tap to P2P )))**  
Consumer (Sender) opens their bank application or wallet application on their device, selects the option to "Send via contactless tap," enters the amount to send, and presents their screen to the Recipient. The Recipient taps their own card or mobile phone on the Sender's device to receive the amount.
- 4 (optional) Funding**  
Wallet may use a funding transaction to collect the necessary funds from the Issuer.
- 5 Payment transaction**  
Wallet or Issuer initiates the transaction via push-payment rails to transfer the funds to the Receiving Institution (e.g., Recipient's bank).
- 6 Posting**  
Receiving Institution authorizes the transaction request and posts the funds to the Receiving Account within the timelines required by the applicable program.

<sup>1</sup> SDK implements contactless reader functionality, including EMV L1 and L2 (scheme's or common) contactless kernel  
<sup>2</sup> Push-Payment may be processed using real-time clearing



## **Prioritization of use cases**

Consider and prioritize the relevant use cases (e.g., Tap to Add, Tap to Activate look like low-hanging fruits).

## **Tap vs. QR**

Consider the consumer's habit in terms of physical interaction in the context of payments. What kind of interaction and interposition of objects are more natural for your market's user experience? Holding your own phone and your own card together is unconventional. For P2P scenario, physical proximity is not always convenient, etc.

## **Network protocols**

On the core network level, consider whether exposing an API to deliver card data and cryptogram is simpler and more efficient than implementing a zero-amount card account verification message via the authorization interface to validate the card data and dynamic cryptogram.

## **Specific terminal indicator**

Consider introducing a new terminal indicator e.g., "remote terminal" within the authorization interface (like Mastercard) to clearly distinguish Tap to Everything card account verification traffic from regular transactions.

## **Certification**

Obtain or align the Tap SDK with the EMVCo L1/L2 certification. Consider network's security requirements in the present lack of PCI guidelines for Tap to Everything use cases (especially on Online PIN for Tap to Pay).

## **Buy vs. build**

If a payment network decides to develop a (subset of) Tap to Everything products, assess the technical feasibility of the following options:

1. Building a proprietary network Tap SDK ("light" version of Tap on Mobile SDK) + integration with network TSP (for Tap to Add).
2. Partnering with a SoftPos vendor or a PSP to license their network-compatible Tap SDK + integration with network TSP.
3. Outsourcing by partnering with a SoftPos vendor as well as with a Third-Party TSP (e.g., IDEMIA).

### Market Signals

- Visa and Mastercard have introduced their Tap to Everything solutions with several of the use cases being live or pilot phase.
- Apple Pay was the first one adopting Tap to Add (while it is unusual for Apple to be the first); Google is piloting it.
- Digital wallets and other industries are training consumers that “tap = secure access” (e.g., car keys, hotel keys, transit, tickets). Payment networks can leverage this perception for e-commerce, onboarding, authentication and other use cases.

### Threats

- ..

## EXPLICIT SELECTION

*“We are here to fill in the blanks together”*

### Opportunities

# About us

## EXPLICIT SELECTION

Explicit Selection helps clients with their digital products to pay, borrow, or invest – while being compliant with the rules.

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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[info@explicitselection.com](mailto:info@explicitselection.com)  
+31 23 20 52 119

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## Trusted by

