



MAKRO SCAN CZ: FROM SELF-SCANNING TO SELF-CHECKOUT

22 January 2020

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CONTENT

- 01 Current Process
- 02 Improvement
- 03 Next Steps

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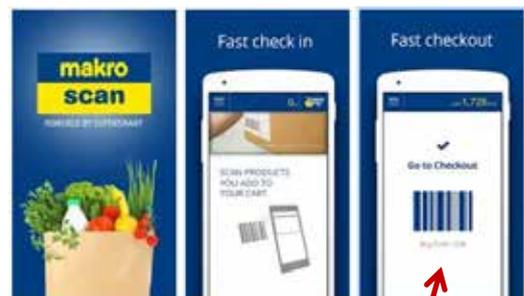


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MAKRO SCAN

- Makro CZ conducts a self-scanning project in all stores
- Customers can scan their articles with their smartphone (and an App called "Makro Scan" developed by Supersmart)
- Customers scan items while they shop
- When finished there are two steps:
 - Customers have to stop at a "validation station" with their goods (the shopping cart is automatically checked with scales and image recognition for un-scanned items)
 - So far: at the end the customer has to stop at a checkout line and pay the cashier or at a pay station (machine/kiosk system) to pay for the shopping basket
- Similar self-scanning solutions are operated in other Metro/Makro countries and planned for more countries.



To be improved
(by in-App
payment)

makro scan HOW DOES IT WORK? 5 STEPS TO SUCCESS PURCHASE

1 Scan Makro card

2 Scan cart code

3 Scan items barcode

4 Validate purchase

5 Choice payment

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VALIDATION STATION: TWO VARIANTS



For regular trolleys



For larger trolleys

VALIDATION STATION: LAST STEP BEFORE PAYMENT



1. The app scans the barcode to identify the validation station
2. Scales and cameras match the scanned items with all items in the trolley



3. After positive validation the app shows a barcode
4. Not on the photos: This barcode is presented at the checkout desk or pay station

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PAYMENT AT CHECKOUT DESK = ADDITIONAL STOP



- Equipment as at a regular checkout line
- Same Payment as for normal shopping (i.e. shopping without self-scanning)

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PAYMENT AT PAY-STATION



- Pay-station is a kiosk system
- Customer scans barcode from his smartphone
- Customer then pays cashless at the terminal of the pay-station.
- Finally an invoice is printed for the customer.

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MAKRO SCAN: INTENDED IMPROVEMENT

Simplify and speedup the payment process step for the customer, avoid an additional stop and media breaks!

Enable the customer

- with an app component
- to pay directly with their smartphone (kind of in-app payment) and without interaction to a pay-station (no interaction with payment terminal)
- Even better... is if the customer could enrol his payment card (not only the card data, but with interaction of the issuer; similar to ApplePay or GooglePay and other wallets for proximity payments)



MAKRO SCAN → MAKRO SCAN&PAY

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MAKRO SCAN&PAY: OBJECTIVES

Objectives of Metro AG:

The payment method fulfills the following requirements:

- modern, according to newest standards
- works with SCA according to PSD2
- of course: secure – no critical data at Metro/Makro
- international – not country-specific
- a remote payment method, which is ...
 - Easy to use
 - Low risk (like Card Present - i.e. the smartphone can act similar to a payment terminal, by providing encryption keys/cryptograms, device fingerprint, biometric authentication factors or similar)
- Allows no/minimal merchant liability



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MAKRO SCAN&PAY: PARTNERS

- Makro CZ – is the owner of the project
- CSOB acts as acquirer
- Netcetera provides the app payment component and payment APIs
- MasterCard to offer a country-independent solution (“token on file”)
- Metronom and Metro Systems Romania as internal IT provider
- Supersmart is the provider of the self-scanning app
- Metro AG – supervising payment activities from a holding perspective and setting direction to modern, secure, and country-independent payment methods

COMMON OBJECTIVE

- We have a common objective with all partners to do a “real-life field test” for modern, secure, convenient payment technology
- For some partners the payment method and payment technology is in focus, for others the customer experience and acceptance is most important
- Over all: every partner benefits from the experience of this “real-life field test”

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SOLVE OPEN ITEMS

Extending the app "Makro scan":

- **Payment module** for enrolling a card and initiating a payment transaction (and receiving the transaction result)

In-store process after in-app payment is finished:

- **Security**
How to distinguish customers who paid and customers just walking out of the store without paying? Maybe new/additional measures needed?
Possible are barriers which open if the customer shows a barcode which proves payment – but such measures complicate the process and need additional technology!
- **Invoice**
Providing a printed invoice (if legally really needed in CZ)
Preference is to provide a PDF invoice by eMail or with the app
Such PDF invoices are used in other Metro/Makro countries – not yet in CZ

THANK YOU!



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BACK UP

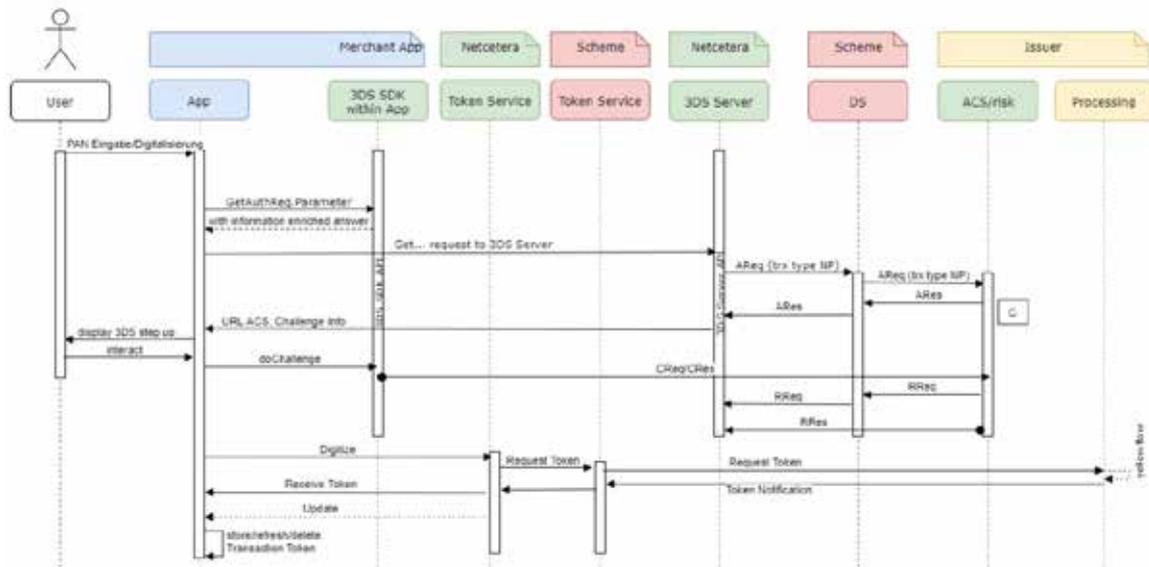
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MAKRO SCAN&PAY: PAYMENT CARD REGISTRATION

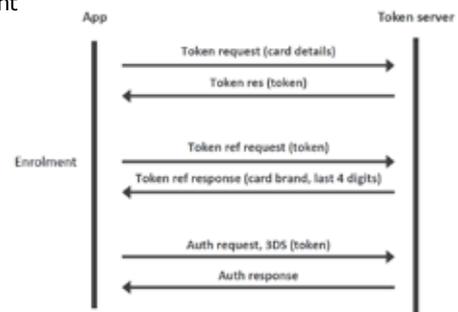
Use Case Name	“PAN Tokenization” = Digitize = Enroll card
Preconditions	User has payment card with PAN and is owner of this card (he can authenticate with 3DS if needed) User has Metro App installed and has identified himself as Metro customer Makro has a Token Requestor ID (TRID) known by the schemes
Postconditions	User has within his App a token that he can use for later payment. Note: Technically the app stores a so called TUR (Token Unique Reference) User has successfully verified that he is legitimate owner of his card by the 3DS Authentication process

DETAIL: PAN TOKENIZATION INCLUDING 3DS STEP UP



PAYMENT DETAIL: CARD ENROLMENT

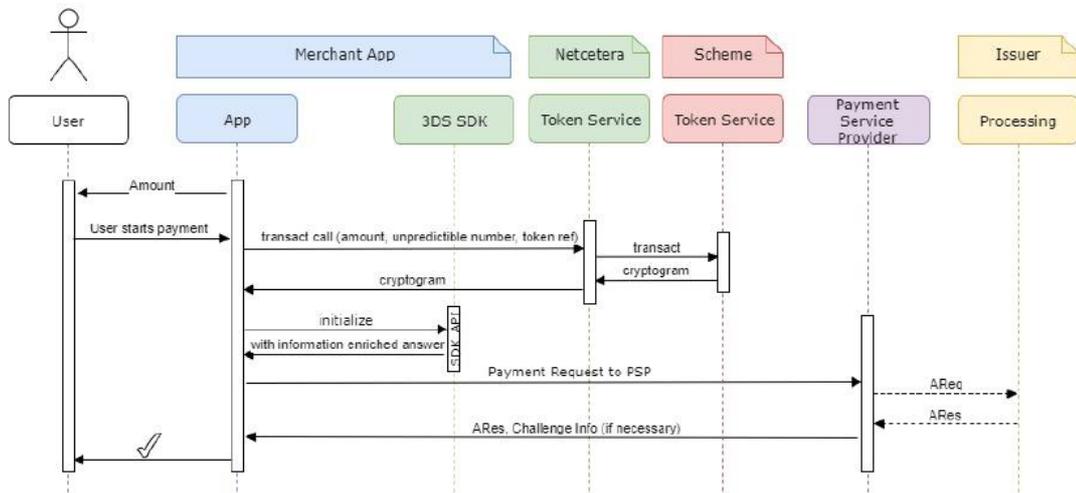
- Customer has to add the card
 - **before** first use/at home/outside of a payment action, from the app’s menu
 - proposal to customer to add a card **after** this card is used to pay
- As part of the enrolment flow, the app will need to trigger a **3DS authentication** (SCA); one SCA might be used for the enrolment in combination with a first payment
- Only a tokenised, digital card is used/processed by the app



DETAIL: CARD "ART"

User Case Name	"Token Retrieval" = Get Card Art
Preconditions	User has an App with an previously registered card: Note: Technically he has a TUR
Postconditions	User get last 4 digits of funding PAN and card art shown Note: Technically he gets back the masked PAN, expiry date, artwork and the token PAN

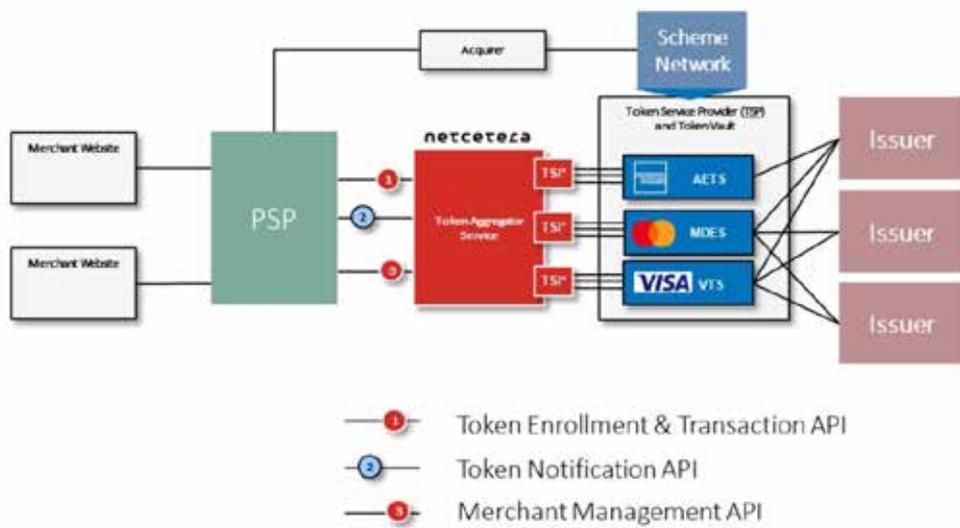
DETAIL: PAYMENT USING TOKEN



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DETAIL: NETCETERA TOKEN AGGREGATION SERVICE



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