QR code Processing

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Order summary:
The Tipping Point: How Little Things Can Make a Big Difference
by Malcolm Gladwell

Please check your phone
Authorize the transaction

Thank you

Payment Confirmation
Click-to-Pay
To: Books.com

AMOUNT DUE: $9.99

Secured by Entersekt

To: Books.com

Shipping
FREE

Total:
$9.99
Salt & Sea
Restaurant

Salt & Sea (PTY) LTD
VAT No: 405833909/17
Shop 10, Whitehouse Place

Thu 16/1

Eat in

2 Salt & Sea Platters.......................... R58.00
1 Sauce & Corn Blini......................... R15.00
1 Crepe Golde................................ R14.60
2 Cappuccino................................ R8.90

Total Due.................................... R595.00

To: Salt & Sea Restaurant

R595.00
R77.35
R672.35

----- *** 8765 5432

Subtotal:                      R595.00
Tip: (13%)                     R77.35
Amount Due:                    R672.35

Secured by Entersek
QR Recap

- Typically closed loop (single brand)
  - Dedicated Consumer App used to scan a QR from that Provider
  - (E.g. use a Starbucks App to scan a Starbucks Code)

- Merchants choose which QR-brand they support
  - Merchants forced to support multiple formats if they want wider coverage
  - Merchant must be ‘hooked-in’ to the payment rails behind the QR code

- Consumer also sets up a QR-brand-App
  - Every app requires installation, registration and loading of payment details
  - Dependent on customer being comfortable with the QR brand (Trust)
  - Typically customer ends up with multiple apps to get coverage
It’s not about the QR!

The QR serves as a way to link two parties (e.g. merchant & consumer) with a mutual transaction.

This could be done in various other ways (BLE, Web link, etc.)

The benefit is *convenience* and *lower friction* for the consumer with *increased trust*. 
QR Interoperability

- Ecosystem problem (especially for global merchants)
  - Global proliferation of QR formats supported by merchants
  - How do you get wider interoperability between merchant and consumer

- EMVCo QR tries to at least consolidate QR
  - Still multiple ‘providers’ baked into one format

- It’s ideal for the consumer to use the ‘Account Provider App’ (e.g. Banking App/Banking website)
  - No separate installation, registration and loading of Account details
  - Access is already setup as part of digital banking
Focusing on eCommerce
(*merchant website originated payments*)

Two important concepts...

Merchant presented QR  ← vs →  Consumer presented QR

Send money from Account to Merchant (push payment)

Vs

Request money from Merchant (card pull)
Merchant QR with Push Payment (QR Code contains sufficient info)

- **Gather information**
  - Get customer details
  - Get account details
  - Get card details
  - Get authorization details

**Merchant QR with Push Payment**

- **Payment confirmation**
- **QR code provisioned**
- **QR code scanned**
- **Consent given**

**Transaction information**

- Get customer details
- Get account details
- Get card details
- Get authorization details

**Conclusion**
Merchant QR with Push Payment
(with lookup)

ACQUIRER

QR code provisioned

Payment confirmation

MERCHAND QR CODE PROVIDER

API

The ESP

PAYMENT GATEWAY
(Card, EFT, Bill Pay...)

BANK

• Get customer details
• Get account details
• Get card details
• Get authorization details

Gather information

• Get customer details
• Get account details
• Get card details
• Get authorization details

MERCHAND

QR code scanned

QR query

Consent given

The ESP

TSG

Transaction submitted
Merchant QR with Card Pull

ACQUIRER

Transaction Request

Payment confirmation

QR code provisioned

MERCHANT

QR code scanned

MERCHAND CODE PROVIDER

Submit

QR Query

API

The ESP

BANK

Gather information

• Get customer details
• Get account details
• Get card details
• Get authorization details

TSG

Request Authentication

Consent given

Payment confirmation

The ESP

 • Get customer details
 • Get account details
 • Get card details
 • Get authorization details
The ‘Single Device’ problem

What if the merchant site is on the same device as the trusted app?

In this case QR cannot be scanned...
- We could use Payment Handler to hand-off

Could we make it seamless to the merchant?
- Always kick-off Payment handler
- Use consolidated QR if no full payment handler is available?
Problems we may want to solve

A. Consumer (or Account Provider) can **install a ‘QR format’** that they support
   - Multiple could be installed as the consumer navigates the web

B. Merchant is able to **generate a consolidated QR**
   - Includes Merchant set
   - Includes Consumer set (only those payment rails supported by Merchant)

C. **Seamless interoperability** between QR and on-device account provider (via Payment Handler)
   - Unless we also want to solve handover to ‘Third Party PWA”

D. Include **provider integrity check**
   - Provide validating that Merchant and transaction details are accurate

E. Include **Consent (SPC?)**
   - Provide a pre-consented QR
Thank you!

Any questions or comments welcome

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The power of trust.