Microsoft

Microsoft SCA Update

A merchant perspective on 3DS performance in Europe

September 2022

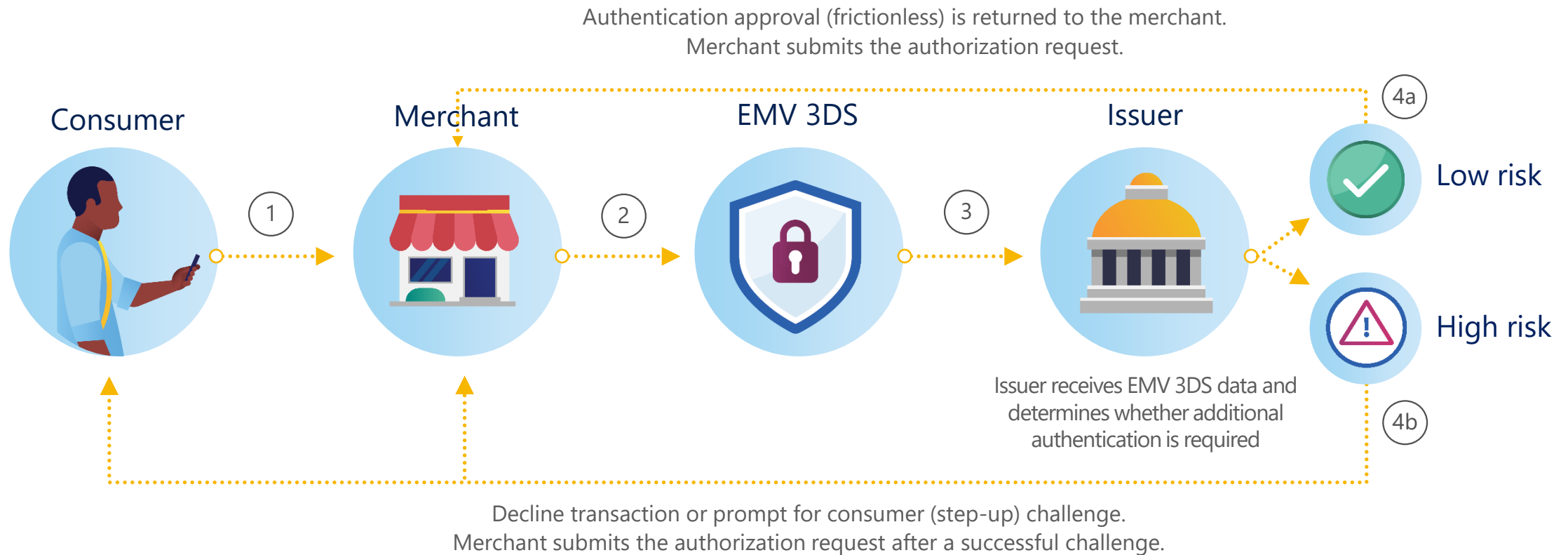# Microsoft as a Merchant

Tens of millions of monthly transactions for billions ($) in sales	241 countries 70+ currencies 18 payment types	B2B + B2C / 1-time + recurring subs / digital + physical / fixed fee + usage based	**EMV 3DS Enablement (EU)** • 3DS v2.1 only • No exemption flagging • No soft decline support • Authorization SafetyNet*

What is Strong Customer Authentication?

1. SCA means a customer is authenticated (by their bank) prior to a payment transaction (authorization).
2. SCA is a compliance requirement in Europe (PSD2) and optional elsewhere (encouraged by card schemes).
3. EMV 3DS is the protocol through which SCA is implemented in the payments industry worldwide.
4. EMV 3DS supports a frictionless experience (through enhanced data exchange) and a step-up challenge experience.
5. In Europe, SCA impact is net negative because SCA performance is poor. Challenge rates are high, authentication success rates are low.
6. EU rules offer flexibility - you can avoid SCA altogether, reduce friction and improve the customer experience.

Microsoft

How Does EMV 3DS Work?

Authentication approval (frictionless) is returned to the merchant.
Merchant submits the authorization request.

Consumer

Merchant

EMV 3DS

Issuer

4a

Low risk

1

2

3

High risk

Issuer receives EMV 3DS data and
determines whether additional
authentication is required

4b

Decline transaction or prompt for consumer (step-up) challenge.
Merchant submits the authorization request after a successful challenge.

Microsoft

Authentication success is too low

	mobile + console	web
EU ex UK	67% (85%)	75% (89%)
UK	90% (96%)	89% (95%)

SCA is negatively impacting consumers and businesses.
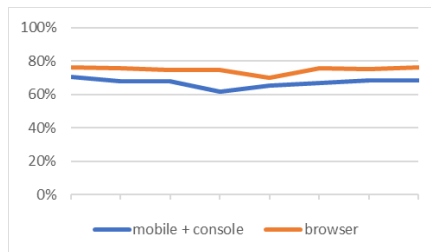
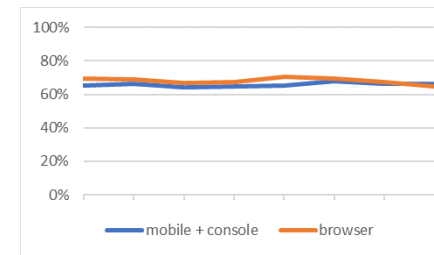

Abandonment is too high

	mobile + console	web
EU ex UK	17%	12%
UK	2%	3%

The SCA experience can be improved.
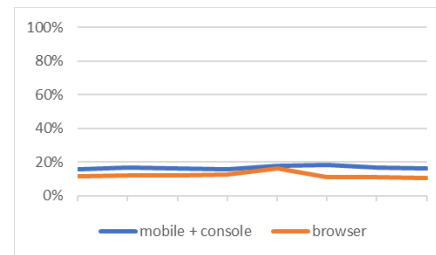
Challenge rates are too high

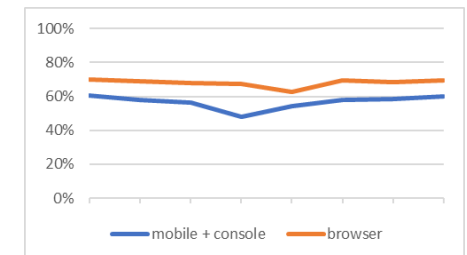|	mobile + console	web
EU ex UK	66%	68%
UK	16%	28%

Customers are subjected to unnecessary friction. Banks have not fully optimized risk-based decisioning.

Challenge success is too low

	mobile + console	web
EU ex UK	57%	68%
UK	67%	72%

Mobile + console performance remains poor relative to web.

Approval rates improve when a challenge succeeds

But purchase conversion is net negative with SCA

Visa/Mastercard / Jan-Aug 2022

Microsoft

Issuer Country	Enabled	ASR-APP	ASR-BRW	AAR-APP	AAR-BRW	CR-APP	CR-BRW	CSR-APP	CSR-BRW	SIR-APP	SIR-BRW
	1	2	3	4	5	6	7	8	11	12	13
		Authentication Performance									
		>	>	<	<	<	<	>	>	<	<
Target		90%	90%	5%	5%	20%	20%	80%	80%	2%	2%
AUT	96.6%	-	-	-	-	-	-	-	-	-	-
BEL	79.5%	49.4%	69.5%	35.4%	6.5%	83.2%	82.8%	42.8%	66.2%	3.1%	5.0%
BGR	84.7%	52.0%	69.1%	15.2%	13.9%	55.5%	53.2%	23.6%	45.9%	11.2%	7.2%
CYP	90.3%	85.2%	92.4%	10.4%	6.7%	44.1%	29.4%	68.4%	75.3%	5.2%	6.2%
CZE	96.8%	71.3%	78.1%	11.7%	12.7%	66.1%	71.8%	57.4%	70.2%	1.4%	1.4%
DEU	95.8%	74.7%	74.7%	9.7%	9.0%	28.4%	39.4%	39.6%	59.4%	1.3%	3.1%
DNK	96.3%	30.0%	78.3%	19.6%	10.4%	82.3%	90.0%	27.8%	76.5%	0.3%	0.3%
ESP	95.9%	76.5%	76.4%	15.5%	15.2%	44.7%	54.0%	55.7%	59.6%	1.6%	0.7%
EST	88.7%	61.8%	65.8%	29.4%	26.2%	76.6%	90.1%	53.2%	63.0%	2.5%	1.5%
FIN	93.7%	71.3%	73.1%	17.5%	9.0%	63.3%	74.5%	57.9%	65.3%	1.2%	1.3%
FRA	96.0%	62.8%	71.6%	18.1%	7.3%	79.4%	81.7%	60.7%	71.2%	1.3%	1.9%
GBR	83.3%	90.2%	89.0%	2.1%	2.9%	16.3%	28.4%	66.7%	72.1%	0.8%	1.4%
GRC	96.5%	63.1%	78.1%	11.7%	15.5%	48.2%	50.2%	36.9%	57.4%	6.2%	0.5%
HRV	88.5%	71.4%	68.4%	16.8%	19.9%	59.1%	73.9%	59.2%	59.9%	3.6%	1.8%
HUN	96.0%	64.4%	71.9%	17.0%	22.0%	74.0%	81.7%	53.7%	67.3%	2.8%	2.0%
IRL	93.4%	81.1%	78.5%	2.9%	2.6%	35.0%	52.5%	48.2%	60.5%	0.5%	1.1%
ISL	85.0%	84.1%	92.8%	9.7%	5.5%	51.9%	30.7%	69.6%	77.1%	1.3%	0.7%
ITA	96.7%	65.9%	70.3%	21.4%	20.1%	57.3%	70.7%	48.9%	62.4%	2.0%	1.3%
LIE	65.7%	44.2%	49.2%	13.5%	8.2%	50.9%	67.0%	68.7%	57.6%	0.6%	0.2%
LTU	77.9%	71.7%	78.1%	18.7%	16.7%	71.7%	76.3%	62.9%	73.8%	2.4%	0.9%
LUX	92.3%	40.9%	70.9%	16.2%	6.4%	78.1%	84.9%	39.2%	75.1%	0.9%	1.0%
LVA	77.2%	64.5%	83.1%	24.2%	12.5%	85.0%	63.6%	63.5%	76.0%	1.9%	1.3%
MLT	85.6%	45.9%	70.7%	10.3%	13.8%	76.0%	81.3%	30.1%	64.7%	1.9%	1.7%
NLD	94.6%	80.5%	80.3%	11.2%	9.6%	45.4%	60.7%	58.3%	70.4%	1.5%	1.4%
NOR	96.2%	55.6%	78.1%	36.0%	10.3%	74.7%	80.4%	44.3%	75.6%	3.2%	2.3%
POL	96.9%	75.4%	75.8%	13.0%	16.4%	59.5%	71.5%	62.6%	69.1%	3.0%	2.6%
PRT	91.0%	65.8%	68.4%	11.9%	23.8%	44.2%	43.7%	38.2%	43.0%	14.0%	8.5%
ROU	83.0%	58.9%	68.9%	21.0%	18.8%	74.4%	71.0%	47.3%	58.6%	1.3%	1.2%
SVK	95.8%	52.6%	76.1%	16.1%	18.1%	89.0%	86.8%	49.2%	74.9%	3.4%	2.8%
SVN	79.7%	78.7%	80.5%	11.8%	8.9%	53.7%	52.5%	61.4%	64.2%	17.3%	7.9%
SWE	96.0%	72.1%	79.1%	14.7%	9.3%	85.8%	81.2%	72.6%	77.1%	0.7%	0.7%

Visa/Mastercard / Jan-Aug / 2022

Microsoft

Strategies to Mitigate PSD2 Impact

Avoid authentication

- Correctly classify out-of-scope txns (MIT, MOTO, etc.)
- Authorization first with exemption flagging
  - Industry best practice
- Alternate payment methods
  - E.g., wallets like PayPal, VIPPS (Norway)

Avoid the challenge

- Share additional data during authentication
- Exemption flagging on authentication
- Trusted listing
  - Customer opts out of future challenges

Improve challenge outcomes

- Delegated authentication
  - Merchant takes control of the authentication experience
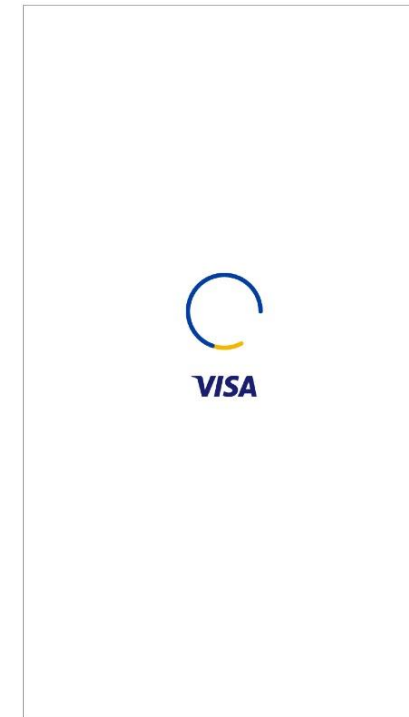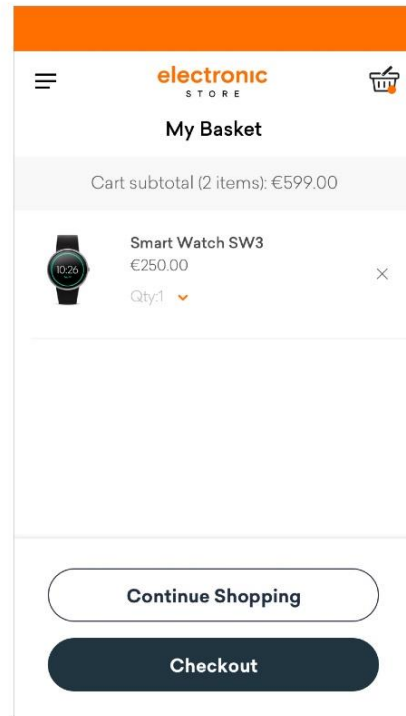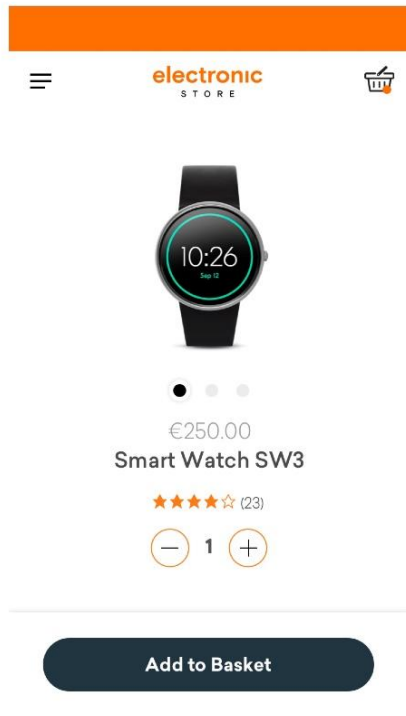
Authorize anyway

- SafetyNet
  - Attempt authorization even when authentication fails

Microsoft

Scorecard Definition

Indicator	Name	Description	Definition - EMV 3DS
Enabled	Authentication Enablement	The percentage of transaction volume that was submitted for EMV 3DS authentication.	
ASR-APP ASR-BRW	Authentication Success Rate	The rate at which authentication requests are approved. This is an all-up measurement of authentication performance and includes both frictionless and step-up challenge approvals.	N: # ARes.transStatus = [Y,A] + # RReq.transStatus = [Y,A] D: Total AReq
AAR-APP AAR-BRW	Authentication Abandon Rate	The rate at which customers abandon authentication.	N: # RReq.transStatus = [N,U,R] and RReq.challengeCancel = [01] D: Total AReq
CR-APP CR-BRW	Challenge Rate	The rate at which the issuer steps-up authentication requests to challenge the customer.	N: # ARes.transStatus = [C] D: Total AReq
CSR-APP CSR-BRW	Challenge Success Rate	The rate at which the issuer approves challenge requests.	N: # RReq.transStatus = [Y,A] D: Total RReq
SIR-APP SIR-BRW	Stand-in Rate	The rate at which the Directory Server (DS) stands-in for the Access Control Server (ACS) and approves authentication requests as Attempts.	N: # ARes.transStatus = [A] D: Total AReq

Microsoft

EMV 3DS: Frictionless Flow

EMV 3DS: Challenge Flow