SECURE PAYMENT CONFIRMATION (SPC)

EXPLORING USE-CASES

2022-11-10

PROGRESS THUS FAR

- SPC has received a lot of interest and traction.
- Most adoption/interest is for 3D Secure Card payments (included in EMV 2.3.1 spec)
- SPC designed for Open banking (PISP) too, but not aware of any experiments
  - SPC today does not cover all Open Banking use cases (e.g. Consent/Future Dated)
- 3D Secure also has a number of 'other'/similar transaction types
  - Recurring transaction, ID&V (proving customer consent)

EXISTING SPC CAPABILITY

Current set of fields

- Amount & Currency
- Merchant Name (and domain)
- Source-of-Funds Description and Logo (could be card or account)

Existing use-case/transaction type

- Person to Merchant Payment
- Supports Card Pull Payment and potentially Open Banking Payment (Merchant card pull, Account push to merchant)

Authentication mechanism

- Full 2FA Authentication (possession + knowledge/inherence)
- Platform Authenticators only (due to technical limitation)

TODAY'S TOPIC IS…

What's next for Secure Payment Confirmation?

POSSIBLE AREAS OF EXTENSION

- Additional fields 
- New Use-cases/Transactions 
- Other forms of Authentication 

EMV 3DS Design: https://3ds-ux-guidelines.emvco.com/
Open Banking API: Customer Experience Guidelines v1-1

OPEN TICKETS *(6 / 16)*

https://github.com/w3c/secure-payment-confirmation/issues

Additional fields

- #197: Additional fields: Issuer & payment network logos
- #187 Understanding of who is authenticating for whom *("psp.com, on behalf of bank.com")*

New Use-cases/Transactions

- #185: SPC for Recurring payments
- #186: SPC for non-payment use cases
  - Authenticating the End User for the purpose of granting access to account information for a Third-Party Provider (TPP)

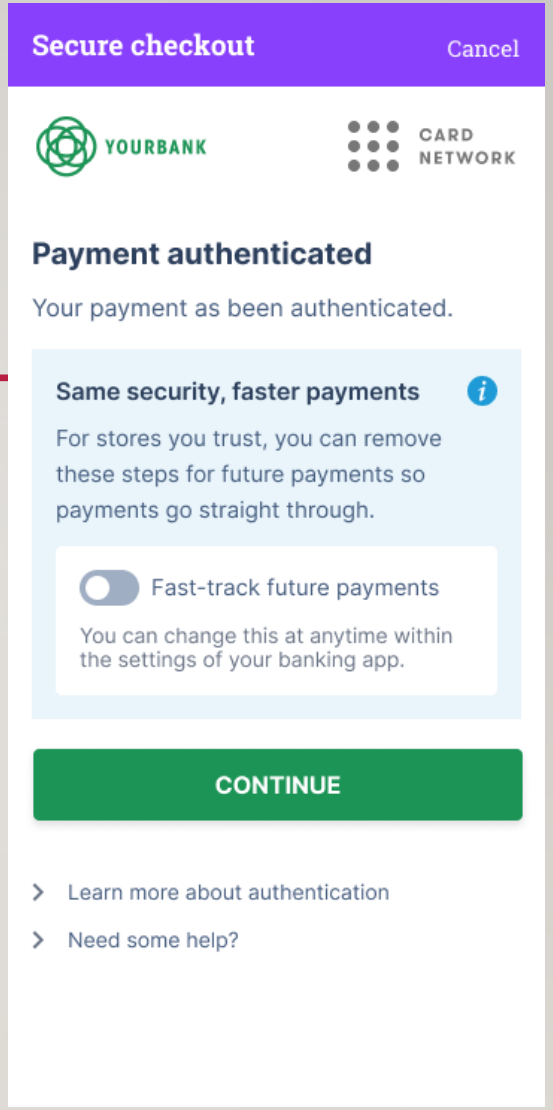
Other forms of Authentication

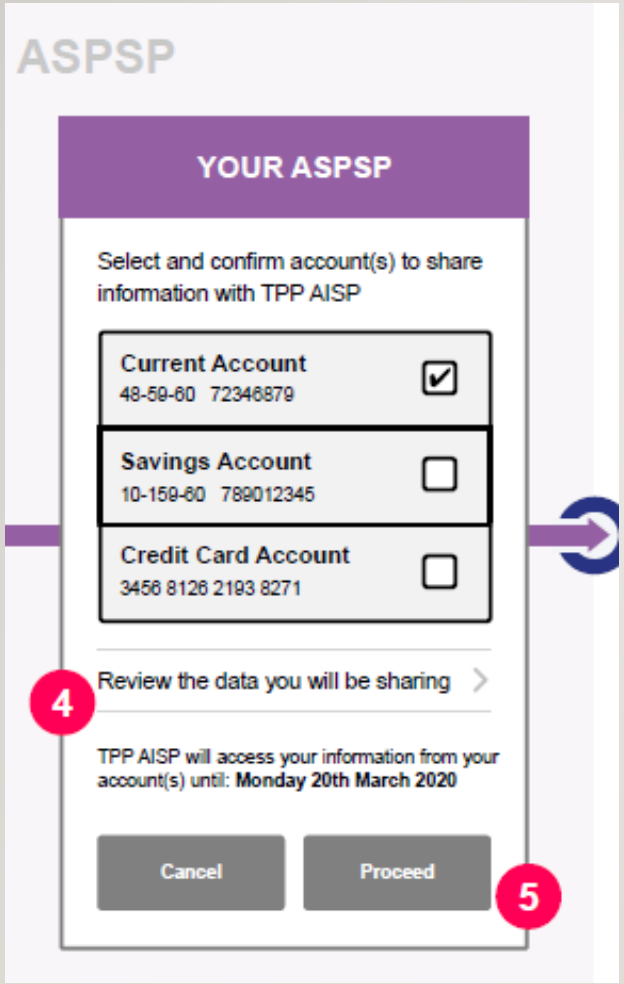
- #12: Support roaming authenticators.
- #34: Suggestion to enable Frictionless Flow

Additional fields

- Trust this merchant *(required by EMV 3DS 2.2)*
- Trust this device
- Additional network/association logos & merchant context
- *Potentially 'redirect back' ability (first party use-case)*

- *(also List of Accounts/ selected Account on next page)*





ACCOUNT SELECTION (ASPSP)

New Use-cases/Transactions

- Consent to store/issue a payment token to a merchant (ID&V Tokenization)
  - E.g. Card loaded into a wearable / Card stored at Merchant
  - Large focus on Tokenization. Including for Delegated Authentication.
- Recurring purchases (including subscription services)
  - E.g. sign up for streaming services on a monthly amount
  - Some support various limitations/consents
- Future dated payments
- Consent to Standing-orders/
- Person to Person payments

Featured journeys

4.1.1 Single Domestic Payments - a/c selection @ PISP

4.1.2 Single Domestic Payments - a/c selection @ PISP (Supplementary info)

4.1.2.1 Single Domestic Payments - BACS and CHAPS

4.1.3 Single Domestic Payments - a/c selection @ ASPSP

4.1.4 Single Domestic Scheduled Payments (Future Dated)

4.1.5 Standing Orders

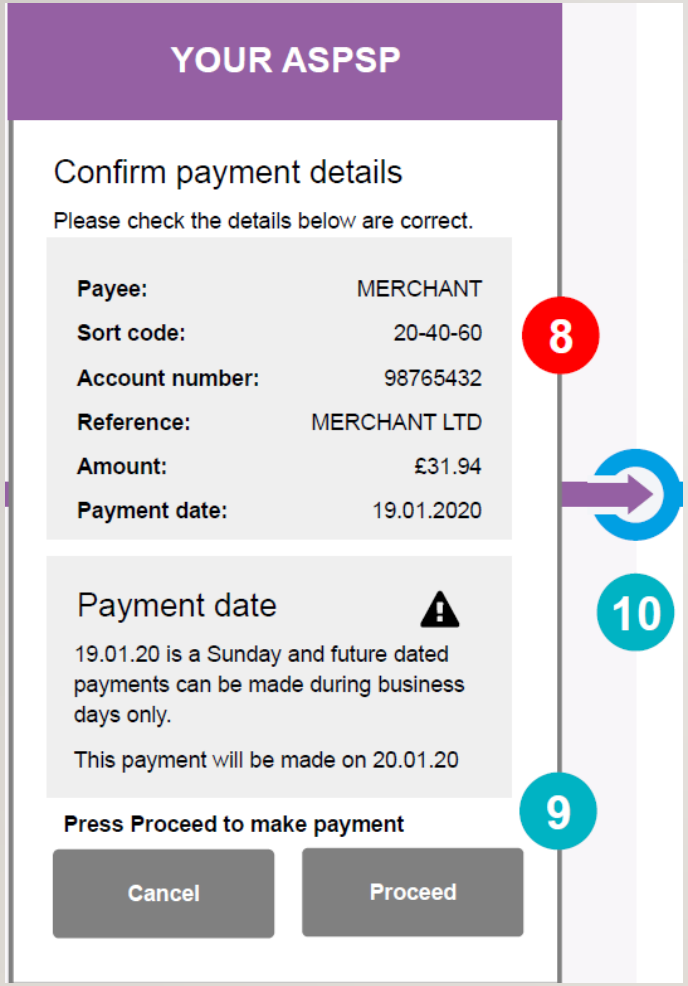
4.1.6 International Payments

4.1.7 Bulk/Batch Payments

4.1.8. Multi-authorisation Payments

4.1.9. Confirmation of Funds for PISP - Y/N Response

New Use-cases/Transactions



FUTURE DATED PAYMENTS

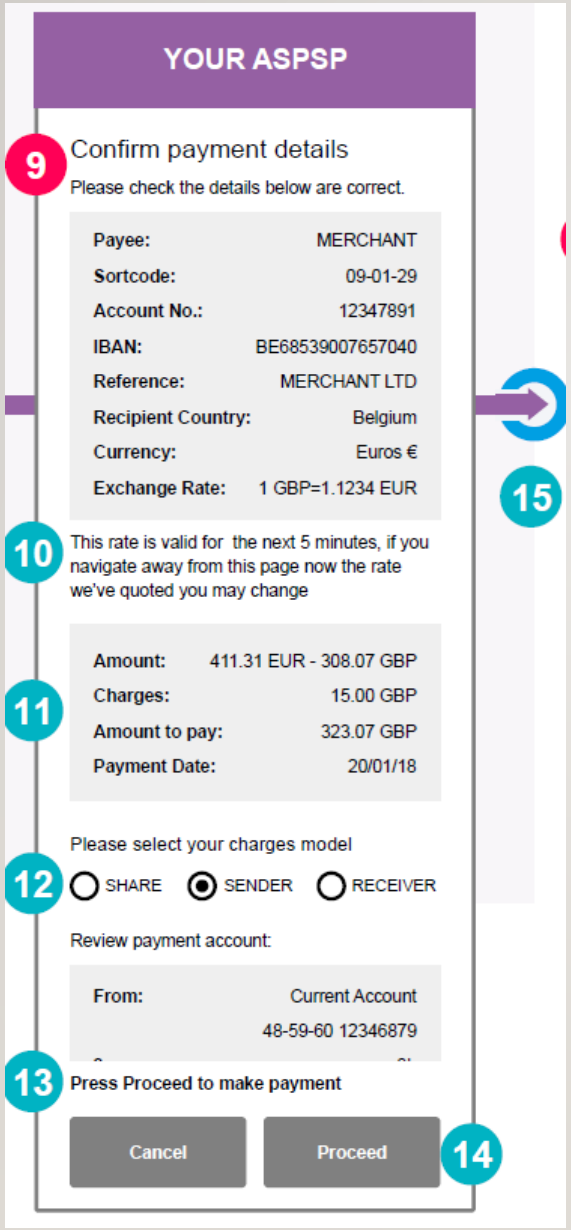
RECURRING PAYMENTS

EMV 3D Secure

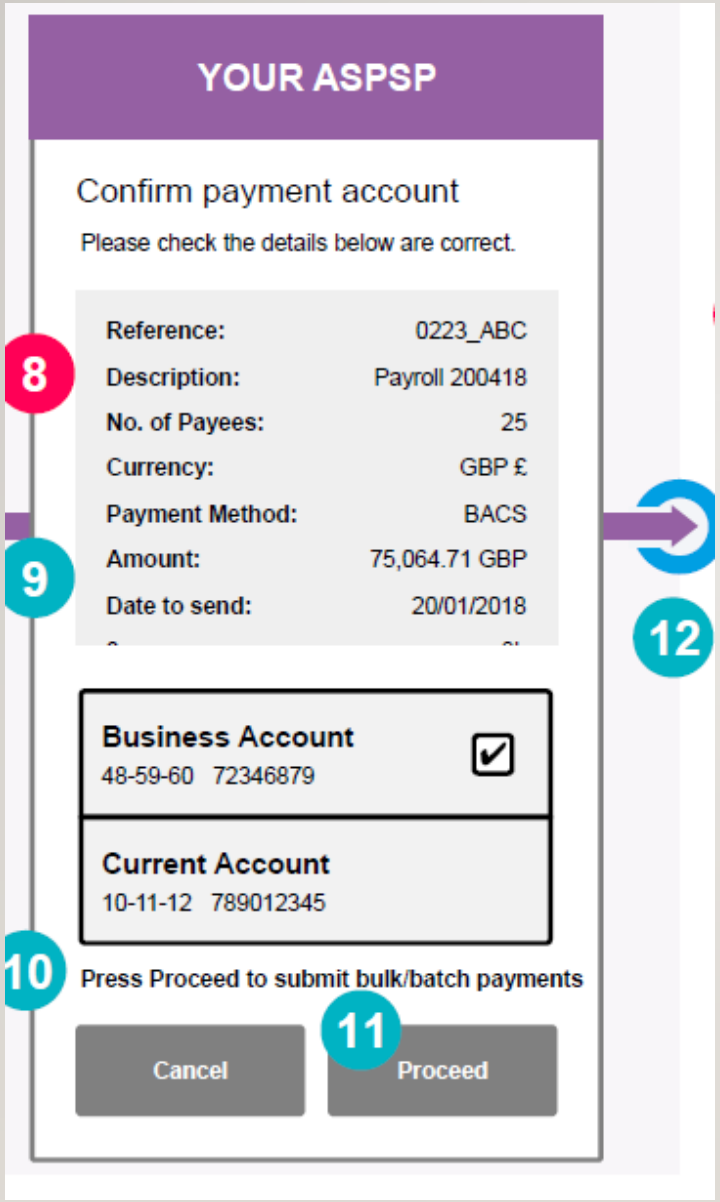
Field	Format/Size	Description
recurringAmount	Numeric max 48 chars	Recurring amount in minor units of currency with all punctuation removed.
recurringDate	Numeric 8 chars Format: YYYYMMDD	Effective date of new authorised amount following first/promotional payment in recurring transaction.
recurringExpiry	Numeric 8 chars Format: YYYYMMDD	Date after which no further authorisations are performed.
recurringFrequency	Numeric max 4 chars	Indicates the minimum number of days between authorisations.
recurringInd.amountInd	•01 = Fixed Purchase Amount •02 = Variable Purchase Amount	Indicates whether the recurring or instalment payment has a fixed or variable amount.
recurringInd.frequencyInd	•01 = Fixed Frequency •02 = Variable Frequency	Indicates whether the recurring or instalment payment has a fixed or variable frequency.

Open Banking UK

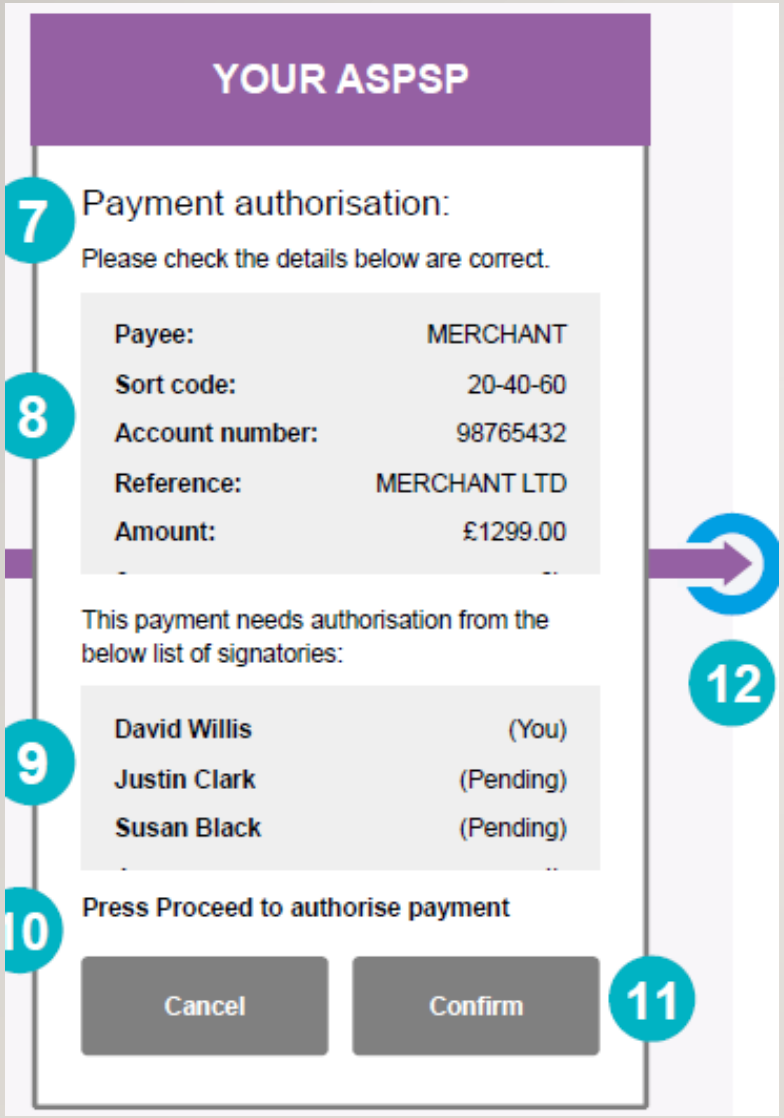
Field	Format/Size	Description
MaximumIndividualAmount.Amount	Numeric with decimal point	A number of monetary units specified in an active currency where the unit of currency is explicit and compliant with ISO 4217.
ValidFromDateTime	ISODateTime	Start date time for which the consent remains valid. The time element of the date should be disregarded in computing the date range and pro-rating.
ValidToDateTime	ISODateTime	End date time for which the consent remains valid. The time element of the date should be disregarded in computing the date range and pro-rating.
PeriodicLimits.Amount		Maximum amount that can be specified in all payment instructions in a given period under this VRP consent. If the PeriodAlignment is Calendar, the limit is pro-rated in the first period to the remaining number of days.
PeriodicLimits.PeriodType	Day, Week, Fortnight, Month, Half-year, Year	Period type for this period limit.
PeriodicLimits.PeriodAlignment	Consent, Calendar	Specifies whether the period starts on the date of consent creation or lines up with a calendar. As the ISO calendar does not support or provide any guidance on when a fortnight should start, hence for a PeriodType of Fortnight the PeriodAlignment must be Consent.
VRPType	UK.OBIE.VRPType.Sweeping UK.OBIE.VRPType.Other	The types of payments that can be made under this VRP consent. This can be used to indicate whether this includes sweeping payment or e-commerce payments. Currently in the UK sweeping is used within customer's accounts but there is a potential for third parties to use it for other payments use cases.
PSUInteractionTypes	OffSession InSession	Indicates interaction type, currently if customer is present or not present. If the PSU IP address is supplied, it is inferred that the PSU is present during the interaction.



INTERNATIONAL PAYMENTS



BULK/BATCH PAYMENTS



MULTI-AUTH PAYMENTS

ADDITIONAL FORMS OF AUTHENTICATION

- Possession Factor only (not European SCA)
  - WebAuthn based 'User Presence' only
  - Browser based keypair
- Frictionless based on Silent cryptogram (Risk based Auth)
- Browser based 'Trust this browser' logic (for possession based)

DISCUSSION

		Interest	Priority
Additional field	Trust this merchant		
Additional field	Trust this device		
Additional field	Additional network/association logos		
New Use-case	List of accounts		
New Use-case	ID&V: consent to 'issue payment credential'		
New Use-case	Future dated Payment		
New Use-case	Recurring payments		
Alt Auth	Only Possession (with OS backed)		
Alt Auth	Possession with Browser only		
Alt Auth	Silent Authentication		

Thank you…