TOTAL PROCESSING

The PSD2 SCA Trifecta

An introductory merchant's guide to the new SCA Regulatory Technical Standards

2019

About Total Processing

Founded in 2015, Total Processing answered the call for people-focused, bespoke and interactive payment solutions. We took on the guidance and experience from multiple banks nationwide, alongside the experience from our own histories within the industry; to establish a network of relationships with acquirers focused on helping businesses.

Our lack of sole acquirer established a network for us to operate and offer customisable and borderless payment processing solutions, within a consolidated framework for ease-of-access for all.

Our Merchants enter into partnerships free from human error, underscored with human interaction.

With USPs that only serve to help businesses globally, Total Processing is a leading provider in bespoke innovation and flexibility.

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The PSD2 SCA Trifecta -the new security directive set to Benefit Merchants, Banks and Consumers.

Abstract

This paper outlines the details of the long-awaited transition to and adoption of, PSD2's new regulatory technical standards (RTS) regarding SCA.

To maximise visible security in electronic payments and prevent fraud online, the implementation of SCA and subsequently 3D Secure 2, are for the majority, necessary protocols.

These protocols were to be met by merchants within the EU and European Economic Area by September 14th, 2019. However, on August 13th following the recommendation of the EBA (European Banking Authority) the UK's FCA – Financial Conduct Authority – agreed to an 18-month phased implementation of SCA elements.

Despite the deadline now being firmly set in law, SCA has become the subject of much ambiguity and discussion.

Resulting in this later active enforcement date of March 2021, the roll out of information regarding the RTS has been defined as inconsistent.

Director General of the Emerging Payments Association; Tony Craddock, concludes that the information suggests that SCA compliant merchants are poised to be at a disadvantage without carefully navigating the complex minefield of information before them thus far.

Andrew Cregan of the British Retail Consortium further said, *"The technical solutions weren't going to be ready on time, nor the guidance to go with them,"* continuing that it was far too easy for authentication elements to increase abandoned sales if they were improperly aligned with customer contact information at the time of integration.

In an effort to clarify and inform merchants of this mandatory directive (otherwise known as RTS), this paper will overview the changes of PSD1 to PSD2, and the new addition of SCA.

It will also cover the change of 3D Secure 1 to its second version; 3D Secure 2, and the necessary measures needed for merchants to become compliant in all the above.

The paper will also cover the changes to open banking, as well as provide an overview of the benefits and negative restrictions on customers and merchants within the EEA and out-of-scope areas. This discussion will cover the customer/merchant relationship within e-commerce, as well as outline any exemptions to this directive.

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Introduction

The main incentive of PSD2 beyond the enhancement of fraud prevention methods and authentication online, is to expand the scope of protection to include payments in all currencies with its one leg in, one leg out policy. This differs from PSD1.

PSD2 covers worldwide transactions as long as one end of the transaction is based within the EEA. Otherwise, its main parameters remain the same; barring the addition of SCA.

PSD2 originally came into force in 2016 and EU member states had until January 2018 to implement it into national law.

However, the UK was required to meet the new SCA directive by September 14th this year.

Whilst the implementation of SCA compliance hinges on the collaboration of banks and merchants, a 2018 survey by Mastercard showed that 75% of merchants were unaware of the legislation. As only 2 in 5 businesses were estimated to be prepared by the initial September deadline, this paper will investigate SCA and how to implement it using 3D Secure 2.

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What is PSD2?

The Second Payment Services Directive

The original version of PSD2 (the second payment services directive) - aimed to enhance consumer protection - included the very 'Strong Customer Authentication' that SCA brings to the table. With the promise of technological innovation and security within payment processing, this included the advancement of the aforementioned one leg in, one leg out (OLO) scope of protection over transactions in any currency.

In the original iteration of SCA, PSPs (payment service providers) had to ensure authentication with every access of a payment account by the payer; and at the initiation of electronic payments.

PSD2 also established the opportunity for all payment service providers to compete with banking services. SCA only builds upon this further by offering integrated, increased security to third party providers.

**Under PSD1 OLO transactions fell out of the scope of SCA compliance.*

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SCA and 3D Secure

Merchants based within the EU and European Economic Area (EEA) are to start conforming and even bring into national law, the SCA directive by September 2019. In doing so, their payment processing services must be SCA compliant.

Merchants operating in this area, are located within:

Austria, Belgium, Bulgaria, Croatia, Republic of Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden and the UK.

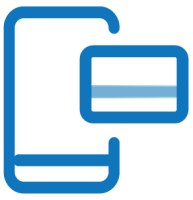
Many European denominations have already complied with the PSD2 SCA requirements however, the UK had yet to do so.

In being a customer-end mandate, PSD2 and its SCA RTS facilitates its one leg in, one-leg out scope, and extends its compliance beyond Europe.

SCA or Strong Customer Authentication is just one of the requirements mandated by PSD2. This is a directive forming part of PSD2, aimed at reducing the £310m of UK annual card-not-present payment fraud; in order to secure online transactions. To accept payments when this is fully effective, a customer needs 2 of 3 potential authauthentication elements:

Knowledge

Something they know i.e. their password or PIN



Possesion

Something the customer has i.e. phone, card or other hardware.

Inherence

Something they are i.e. biometric access.

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Recently, the European Banking Authority (EBA) approved typing biometrics as a valid form of biometric identity; giving it the same authority as fingerprint and voice biometrics. Typing biometrics is defined as 'something you do' and are a pattern of identifying the behaviour of an individual based on their keystrokes. In this context, typing biometrics is most likely to apply to a signature on the cardholder's account.

Banks will decline payments unless two of these elements are met.

Payment methods such as Google and Apple Pay already have built-in biometric authentication via Face ID or Touch ID, or even via PIN upon the transaction in some cases. This payment method proves increasingpopular and frictionless in comparison to other methods.

69%

abandoned purchases are set to surpass their current rate of 69%.

NFC METHODS ARE TYPICALLY ALREADY SCA COMPLIANT

27%

of abandoned purchases were described as too long or complicated in the checkout process.

Whilst SCA requires additional steps in authentication, the utilisation of API integration aims for an apparent streamlined checkout flow to lessen the friction. Friction with these additions can add to the already 69% of abandoned purchases this year - 27% of which were described as too long or complicated in the checkout process.

As 75% of merchants* already offer 99.99% uptime in electronic authorisation, there is the fear that the predicted constraints of SCA will compromise the checkout process if it is nointegrated efficiently. Authentication requests are set to rise from 2% up to 50% with SCA and card payment declines from 3% up to 30%.

Most card payments and bank transfers require SCA if the customer-end payment is initiated from within Europe.

To continue to open the market up to Payment Service Providers, SCA applies where customers make payments online, initiate electronic payments,or carry out an action through a remote channel that carries the risk of fraud.

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Integration of 3D Secure 2 will perform a risk analysis on the cardholder's information using the following data points:

RISK ANALYSIS

- Value of the Transaction
- New vs Returning Customer
- Transactional History
- Behavioural History
- Device Information

This flow will either be frictionless, or it will require additional verification from the customer.

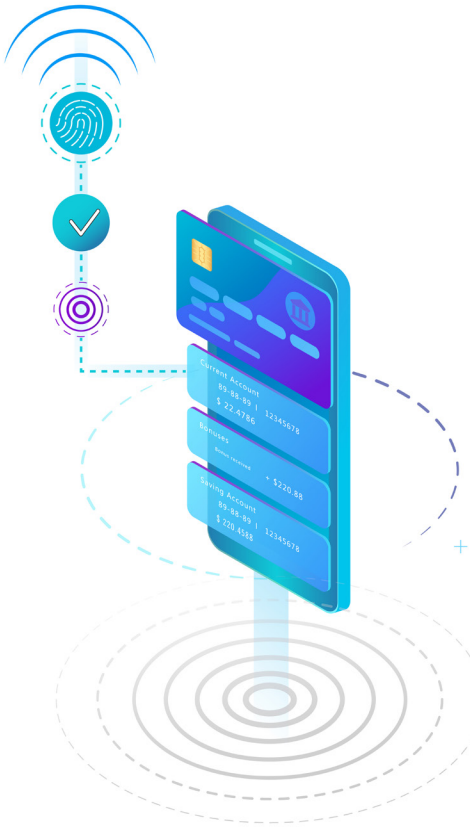
3D Secure is the current and most common way of authenticating payments in the e-commerce space. 3D Secure 2 satisfies all of the legal parameters required by the SCA directive and is considered the most efficient way of becoming compliant by 2021.

PSD2 compliance regarding SCA requires the merchant to perform a transaction risk analysis at the point of transaction. This is why there is a pressure on merchants to upgrade to 3D Secure 2's SCA compliant capabilities.

3D secure 2 is set to streamline the SCA compliance process with an onus on the front-end interface. Given the emphasis on the technological integration that comes with the directive, Payment Service Providers must implement authentication elements established by SCA RTS into an API for customers to easily use.

According to Experian (2018), 76% of merchants want advanced security measures that don't impact the digital process, and 66% of consumers valued advanced security protocols online that made them feel protected. Another study revealed that 83% of UK customers preferred security over convenience.

In what could present hurdles for PSPs or financial merchants even after the implementation of SCA, 54% did not trust financial institutions other than banks with their information.



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ONE-TIME PASSWORDS

One-time passwords are considered one of the top 3 authentication approaches within the new SCA directive. Using the delivery of passwords via SMS to consumers, this two-party factor authentication system will be delivered after the user has entered their details online. One-time passwords are considered part of the step-up authorisation requests that are expected to make up an estimated one-half of all online transactions. OTP is not mandated 2FA however; with the phone element of this transaction making up for the possession element of the SCA authentication equation.

Common use cases within one-time passwords are in mobile banking, where the consumer is often asked to enter their password within the app or verbally supply it.

In both of its versions, 3D Secure authenticates transactions by prompting the customer's bank to request information at the time of transaction.

This then prompts a two-factor authentication action from their issuing bank i.e. OTP code via SMS, a phone call from the bank to the customer, or the request for biometric authorisation.

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EXEMPTIONS

Exemptions to SCA requirements can be requested via the PSP in specific cases. At the time of the transaction, a request will be made via the PSP to the bank in cases of:

-Low-risk payments

-Low-risk transactions

To accept these exemptions the PSP must qualify under a transaction risk analysis.

The only way a transaction is considered for exemption in these instances is whether the transaction falls below €500; and the acquirer must have fraud rates (within a 3-month window) that meet the following criteria:

Transaction value to fraud rate ratio:	
<€100	0.13%
€100-€250	0.06%
€250-€500	0.01%

Other exemptions include:

•Contactless payments at POS under £30 or €50

•Recurring Direct Debits

•Whitelisted Beneficiaries (as named by the customer and agreed to by the Issuer)

•Phone Sales

•Corporate cards (no named user)

•Prepaid cards (no named user)

•Merchant initiated payments (barring initial payments)

INDUSTRY DISPARITIES

PSD2 seeks to benefit merchants but has its downsides depending on the varying payment flows of different industries.

For instance, in e-commerce platforms, the card information is typically not saved in case of a second purchase. In crowdfunding scenarios, the payment is taken days after authentication; meaning a customer might need to re-authenticate.

The onus is on merchants to assess their payment flows when implementing SCA and 3D Secure 2.

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MERCHANT BENEFITS

Merchants and other PSPs will be able to build atop of bank data and infrastructure to make payments through social media via P2P transfers. There will be an increased amount of security and capability to make payments through social platforms.

Banks now must compete with social networks and financial institutions to offer their services in a streamlined interface.

Merchants also seek to benefit from the changes to the Interchange Fee Cap. In 2015 the EU voted to cap interchange fees. These are the fees that the merchant was obligated to pay to the card issuer's bank, whenever their customers made a transaction. Covering fraud costs and handling charges, the ban of IFRs (Interchange Fee Regulations) entirely under PSD2 SCA in some territories, is an act to protect the customer from being charged an additional marked up fee on products to cover these fees.

As chargebacks have increased at 3x the rate of retail growth within 24 months; the PSD2 SCA directive also seeks to reduce

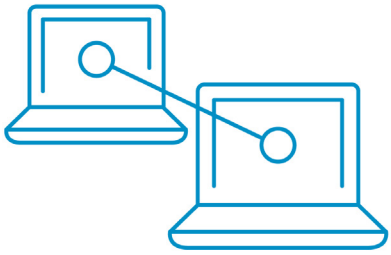
chargeback claims in its reduction of fraud.

In the case of B2C transactions, the ban applies where the customer's bank and merchant's payment provider are both based in the EEA (European Economic Area) or the customer makes a transaction via a debit/credit card.

In cases of B2B transactions, the ban applies to payments made within the EEA by customers making a direct debit or credit transfer. Payments via corporate cards are exempt. The ban also applies when both parties are located within the EEA.

AISP AND PISP

AISPS and PISPS, as managed by the Financial Conduct Authority since PSD2 came into effect in 2006, are terms given to third parties or PSPs seeking to look at customer data.



Following the implementation of PSD2, these financial authorities have had the opportunity to challenge banks for their custom and service of customer data.

AISPs (Account Information Service Provider) were implemented to allow financial firms to help customers access account data from banks via a single portal i.e. for cases of investment management.

PSD2 allows banks and AISPs the opportunity to get an API and be open banking ready to future proof themselves against a technological age.

A compliant API should have a security layer that addresses access, threat detection, prevention and confidentiality.

Ultimately, the API should protect both the merchant and customer.

Furthermore, studies show that B2B communications utilise API more than ever in customer-facing areas. Currently, it is considered more difficult to integrate OTPs and 3D Secure into UX/API environments than other authentication methods. Whereas, biometrics are likely to be easier to integrate, they hold less support in the court of public opinion for providing security.

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PISPs (Payment Information Service Providers) however, can initiate payment transactions and can pull money from accounts. Like SEPA and debit card payments, a PISP operates similarly. However, a PISP can be offered outside of a banking institution. The option to offer PISP services also stands to be walletless.

Under SCA, the ASPSPs (Account Servicing Payment Service Provider) that publishes the API for AISPs and PISPs to use, must comply with SCA by having a fallback interface for AISPs and PISPs to use - should their interfaces become unavailable. This is relevant to the necessity to be able to read and write customer payment information in a secure and authenticated manner.

58% of Issuers* think that SCA imposes too much friction.

This necessity falls under the Open Banking initiative of PSD2 that aims to level the playing field between banks and PSPs. It's understandable that with the parameters of SCA and the Open Banking initiative, that 58% of Issuers* think that SCA imposes too much friction.

Although it stands to be a tough transition period for the trifecta of entities within the consumer industry, adoption is a foregone conclusion for technological improvement hereon.

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OPEN BANKING AND CONSUMER RELATIONSHIPS

Open banking is a directive established to utilise technology in banking by PSPs - to offer a competitive third-party option to consumers.

Consumers today are demanding not only efficiency and convenience, but visible security in their payment solutions. PSD2 SCA allows financial institutions, PSPs and social media platforms. to offer what banks may be technologically regulated against offering. With open banking, PSPs can offer consumers the ability to consolidate and make actions from multiple payment accounts, from one API.

With omnichannel functionality a default expectation according to GI insight, consumers expect payment processing to be a seamless integration as they begin and end a transaction at different points of sales.

PSD2 has been designed as a gateway to allow for more open, digital payments in Europe. These SCA additions are more recent than their 2016 starting point; introduced as an addition to meet gaps in the industry and help provide practical modes of implementation.

As GDPR and PSD2 can be viewed as a primer to SCA's authentication methods in requiring the consent of the customer to process and store their data, the response to SCA as a barrier to business by merchants is surprising:

A study illustrated significant worry over the neglect by SCA parameters, over the ability to offer refund functionality in transactions, and the ability for a merchant to pre-check customers.

The study also revealed that customers must currently reauthenticate online merchants every 90 days through their issuing banks.

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OPEN BANKING AND CONSUMER RELATIONSHIPS

More recently, a study commissioned by Stripe revealed that a loss of €57bn would accrue in the first year of SCA enforcement throughout European businesses due to friction and abandonment at the checkout point.

PISPs stand to gain the most from PSD2's SCA addition - alongside customers - with the increased security that aims to be streamlined on a front-facing interface.

To become PSD2 compliant, a merchant must implement the security measures into their payment flows and periodically test them.

> Stripe revealed that a loss of €57bn would accrue in the first year of SCA enforcement.

This begins with technical implementation, and API integrators should ensure that their conditions are set to accept SCA transactions (most practically through 3D Secure 2).

A merchant account provider can often handle the integration of your compliance. Alternatively, in installing dynamic 3D secure (an API specific protocol) you can configure on/off fraud parameters that trigger 3D secure 2 mechanisms.

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CONCLUSION

Merchants across a multitude of industries will have faced the frustrations afforded by SCA in knowing that compliance must be met online and face-to-face by 2021.

However, this delay is not only unrefined in its roll-out, but gives merchants the opportunity to become compliant and then opt out of their compliance, if their business and transaction volumes take a hit.

As the SCA deadline approaches, there appears to be no conclusion on the position of the merchant in securing the value of their businesses.

Nevertheless, the fundamental values of PSD2 and the addition of SCA, is to give banks increased security and open banking competitors the power of governed banking institutions with the implementation of these advanced security measures.

58%

of retail sales will be e-commerce sales by 2028.

With e-commerce sales expected to account for 58% of retail sales by 2028, SCA not only acts as a primer for existing banks for the coming technological advancements that threaten financial security; but the basis of SCA in 3D secure version 2 allows for enhanced multiple factor authentication to be visible and seamless. The customer is to access security measures as a means of convenience and not friction, at the point of sale.

There is also an emphasis on issuing banks and acquirers to ensure that any cards and point of sale terminals issued after the initial deadline are SCA compliant. Furthermore, any PSP or other financial institution in competition with banks are considered just as actionable being compliant with these authentication elements.

Make sure to check out our source material for more information on SCA and contact us today to know more on becoming compliant.

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