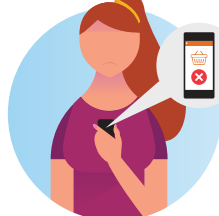


Strong Customer Authentication and Challenge Design



Strong Customer Authentication (SCA) is a new European regulatory requirement. Customers may be asked to authenticate themselves with two factors as part of the checkout flow



If the way customers are asked to authenticate themselves is not well designed, it could lead to unnecessary friction, or to the customer abandoning their purchase

It is vital for issuers to implement a low-friction challenge design to optimise the user experience and minimise abandonment rates

Best practice SCA challenge design is based around 4 core design principles:

1 | Design for your customers

How you ask customers to authenticate themselves will largely determine whether you're left with a happy customer, or a frustrated one. SCA requires that cardholders are authenticated using two of three factors:



Possession
Something they own
e.g. mobile phone, card reader



Inherence
Something they are
e.g. fingerprint, facial recognition, behavioural biometrics



Knowledge
Something they know
e.g. password, PIN

Your main, or default, solution should be chosen as one that is:

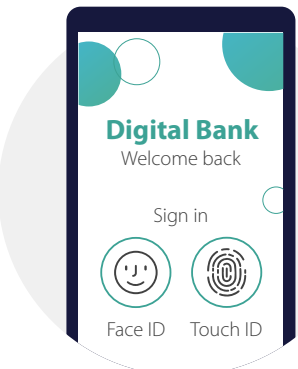
- ✓ As easy as possible to follow, with a minimal number of steps
- ✓ Readily available and accessible to the majority of your customers (based on their mobile banking usage and smartphone ownership)

For customers that may be vulnerable or don't have access to a mobile phone, we recommend having additional inclusive and tactical options e.g. card readers

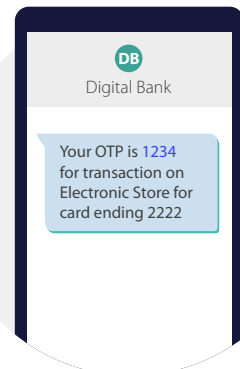
2 | Use biometrics wherever possible

Research has shown that customers increasingly consider biometrics to be secure and easy to use. By integrating biometric elements into their SCA challenge design, issuers can drive both customer confidence and trust

Visa recommends one of two options for the 'main' SCA solution, both involve the use of biometrics



Out of Band App (OOB) plus Biometrics
Offering a balance between security, customer familiarity, user experience and acceptance



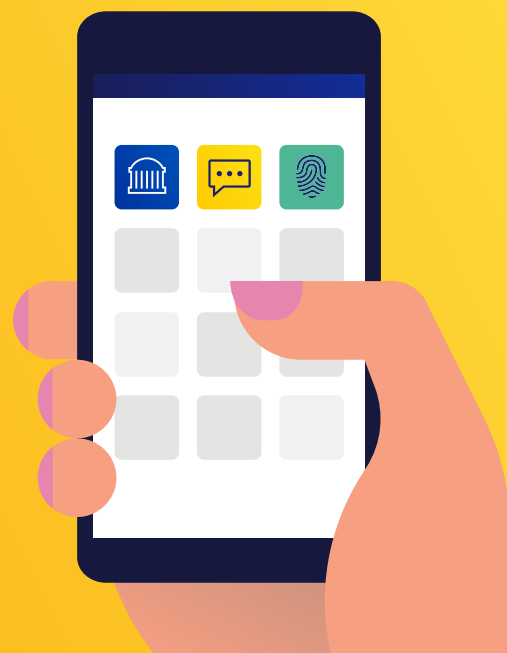
One-Time Passcode (OTP) plus Behavioural Biometrics
Behavioural profiles are gathered in the background, so customers won't have to do anything

3 | Make OOB easy for customers

If you choose to use an 'Out-of-Band' App (OOB) in your SCA challenge design, then Issuers will need to make it easy for customers to download this and set it up. There are two implementation options here:

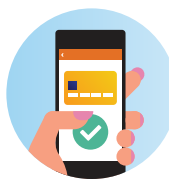
- 1 Use your existing banking app**
This avoids the need for customers to install and use a separate app
- 2 Consider a standalone authenticator app**
Especially useful if you are considering implementing a single solution across all channels and services

Visa offers a biometric authenticator app through VCAS (Visa's multi-scheme ACS solution) that supports a wide range of OOB use cases. Easy to implement, the authenticator app provides an optimal balance between security and customer experience



4 | Proactive communication

Even with the best challenge design, you may well encounter potential problems, especially in the early months of SCA implementation

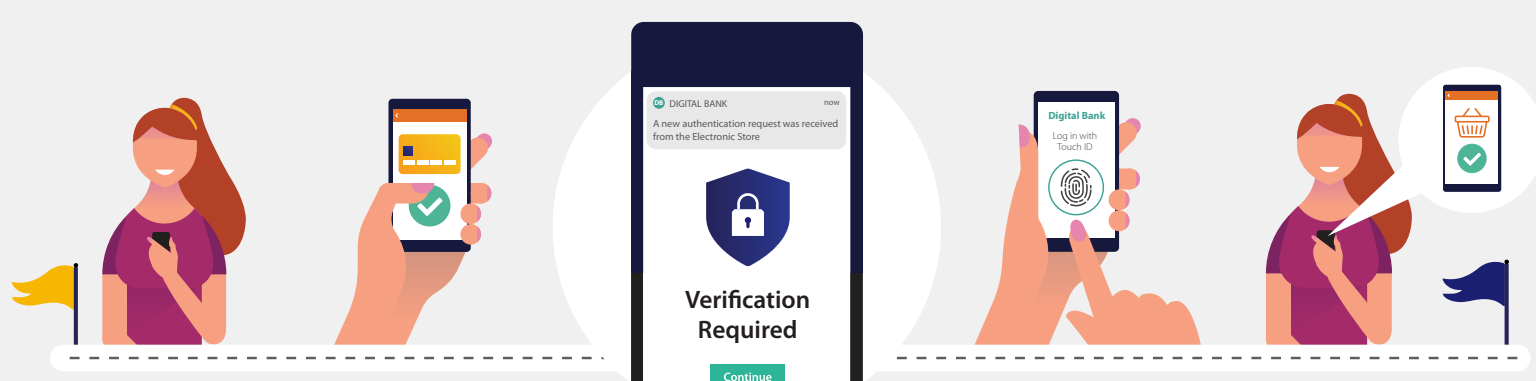


Testing
By conducting a trial run, you will be able to confirm what messages can be successfully sent to and received by your customers



Proactive customer communication
In the early days, customers won't be familiar with SCA challenge flows. By providing proactive communications and follow-up support, you'll be able to quickly and simply resolve any issue at hand

What best practice looks like



The customer has finished shopping and selects 'check-out'

They enter their payment details and hit 'Pay'

A challenge screen appears together with a push notification to the digital banking app

Clicking on the notification, the existing banking app opens, where she uses Touch ID to log in. Everything is clear and straightforward

She is immediately authenticated with minimal friction and her purchase is authorised

- ✓ An intuitive 'main' challenge flow – OOB plus Biometrics
- ✓ Good, clear communication
- ✓ Seamless customer experience
- ✓ Use of existing bank app - ease and familiarity
- ✓ Full SCA compliance
- ✓ No abandonment

To learn more about SCA Challenge Design and how Visa could support you implement a strategy that optimises the customer experience, **please contact your Visa Representative or refer to our PSD2 SCA Challenge Design Best Practice Guide.**