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In-App authentication

Fabrice.Kordon@lip6.fr

LIP6

As an introduction…

Authentication mechanisms in iOS

- Numeric (long, short) or alphanumeric code
- Biometrics
  - ▸ **TouchID, FaceID, maybe some more later**

In-App usage?

- Validate some critical transaction
  - ▸ **Payment, access to secure data, etc…**

Associated Framework

- LocalAuthentication

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In-App us

- Validate som
  - ▸ **Payment, acc**

Associated Framework

- LocalAuthentication

Really safe?

Strong confinement of encoded fingerprints, face data & code

LAContext

Handling authentication

- LAPolicy
  - **deviceOwnerAuthentication, deviceOwnerAuthenticationWithBiometrics**
- LAError
  - **For authentication errors**

Useful attributes

- Property biometryType
  - **none, touchID, faceID**
- Property localizedReason

Some methods

```
func canEvaluatePolicy(_ policy: LAPolicy,
                       error: NSErrorPointer) -> Bool

func evaluatePolicy(_ policy: LAPolicy,
                    localizedReason: String,
                    reply: @escaping (Bool, Error?) -> Void)
```

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LAContext

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Handling authentication

- LAPolicy
  - ▸ **deviceOwnerAuthentication, deviceOwnerAuthenticationWithBiometrics**
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Useful att

- Property bi
  - ▸ **none, touch**
- Property localizedReason

Does not work on the simulator

But does not crash;-)

Some methods

```swift
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                       error: NSErrorPointer) -> Bool

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                    localizedReason: String,
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```

Privacy concerns

Since iOS11

- Something to put in the .plist
  - ▸ **Deals with the use of Face ID**
- **NSFaceIDUsageDescription**
  - ▸ **Do not forget a usage description**

  - ▸ **Otherwise, it does not activate (revert to code)**

Voulez-vous autoriser
« MySafe » à utiliser
Face ID ?
We need to access faceId for
authentication

Refuser | OK

11:27

‹ Réglages   MySafe

MYSAFE PEUT ACCÉDER À :

Face ID

Siri et recherche
Rech., suggestions et raccourcis

As a conclusion…

Useful to prevent «critical actions»

- Grant the device's owner is there
- The application must run in foreground
- Authentication must be operated in the main thread
- Nice alternative to Keychain is many cases

An alternative to ApplePay in your Apps?

- No, ApplePay is also available in a framework
- Involved classes

  ▸ **PKPayment, PKPaymentAuthorizationController, PKPaymentAuthorizationViewController, PKPaymentButton, PKPaymentRequest, PKPaymentAuthorizationResult**

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