Apple Pay - Documentation

About

Apple Pay is a mobile payment and digital wallet service provided by Apple Inc. used to make secure payments in store, apps and web using our Apple devices.

Ways of integration

In IKEA FRIENDS app, Apple pay can be integrated into two ways,

1. **As a payment option in the current checkout flow**. Apple pay is tightly integrated with the Wallet app in the user's iOS device and allows the user to select the saved cards from his/her Wallet app to make payment.
2. **As a fast checkout solution.** As soon as user taps on buy with Apple pay button, IKEA FRIENDS app will open a page sheet in the app, wherein the user can conveniently select all the checkout related details like shipping/billing address, shipping methods saved cards from a single page and make a purchase.

Apple pay requirements

1. Works on Apple devices with iPhone SE, iPhone 6, iPad Air 2 and above.
2. For web, works on Safari browser, running on aforementioned devices or on MacBooks with Mac OS Sierra or above in conjugation with iPhones or Apple watch with watchOS 3 or later.
3. The user needs to have cards in their Apple wallet.
4. Apple doesn't make payment. It only tokenises the payment. Actual payment is made by third-party payment service provider.
5. Integration with Payment Service provider - Third party agency to process actual payment.
6. Need to have Apple developer account ($99) for development and testing on real devices using Apple Pay Sandbox.
7. Creation of Merchant ID, a certificate for processing payment, registering website domain, client TLS certificate for the web app on apple developer portal.
8. Web app/server must run on HTTPS and TLS 1.2 and should comply to Apple Pay on the web acceptable use guidelines.

Apple Pay High-level flow
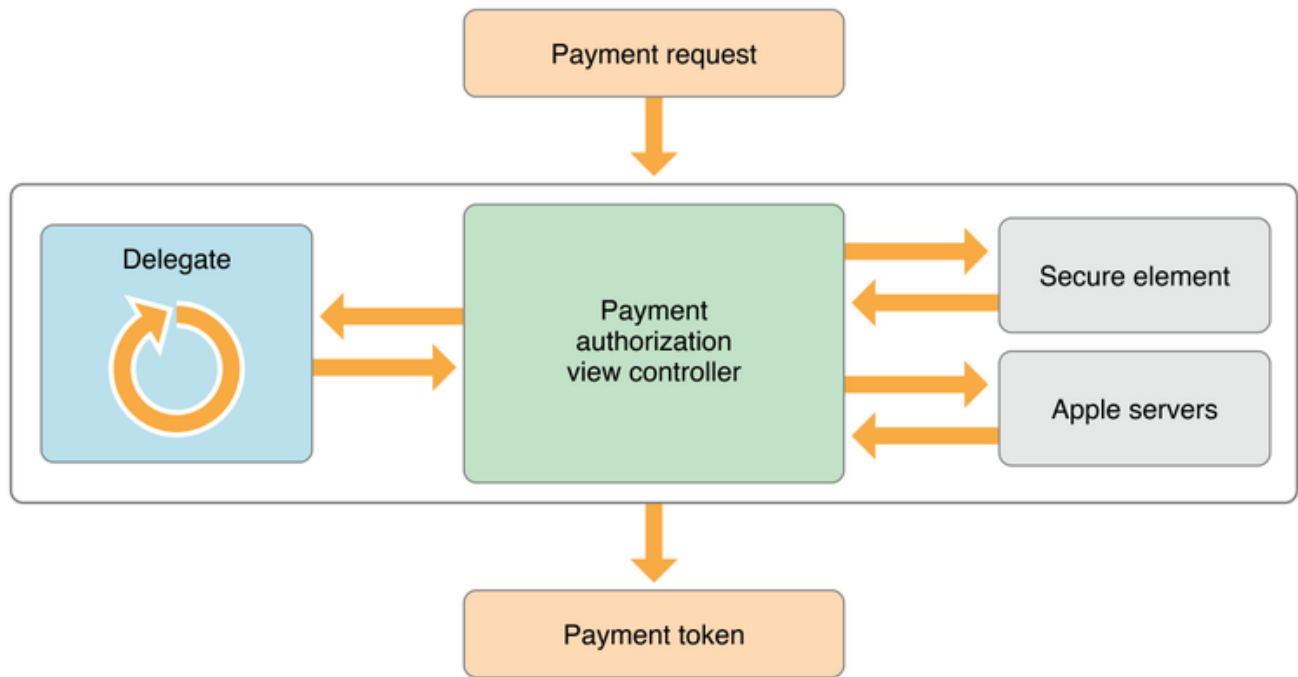
Apple Pay integration high-level steps

1. Creating a payment request.
    a. Decide whether the user can make payments.
    b. Prepare and provide payment summary items.
    c. Indicate what shipping or billing information is needed.
    d. Indicate your supported payment processing mechanism i.e. supported network and cards.
    e. Prepare and provide shipping methods.
2. Authorise the payment request.
    a. Update the shipping methods in delegates based on user-selected billing/shipping contacts.
    b. When the user authorises the payment, secure payment data is created by Secure element and sent to Apple Pay server.
    c. Receive the payment token in delegate methods and send it your server (MW in this case).
3. Processing the payment request.
    a. Sending the payment information to your server, along with other information needed to process the order.
    b. Verifying the hashes and signature of the payment data.
    c. Decrypting the encrypted payment data.
    d. Submitting payment data to the payment processing network.
    e. Submitting the order to your order-tracking system (NAV in this case).
    f. Receive final payment response from your server (MW) and notify Apple Pay about final payment status through a delegate.
    g. Dismiss Apple pay sheet and present summary screen.
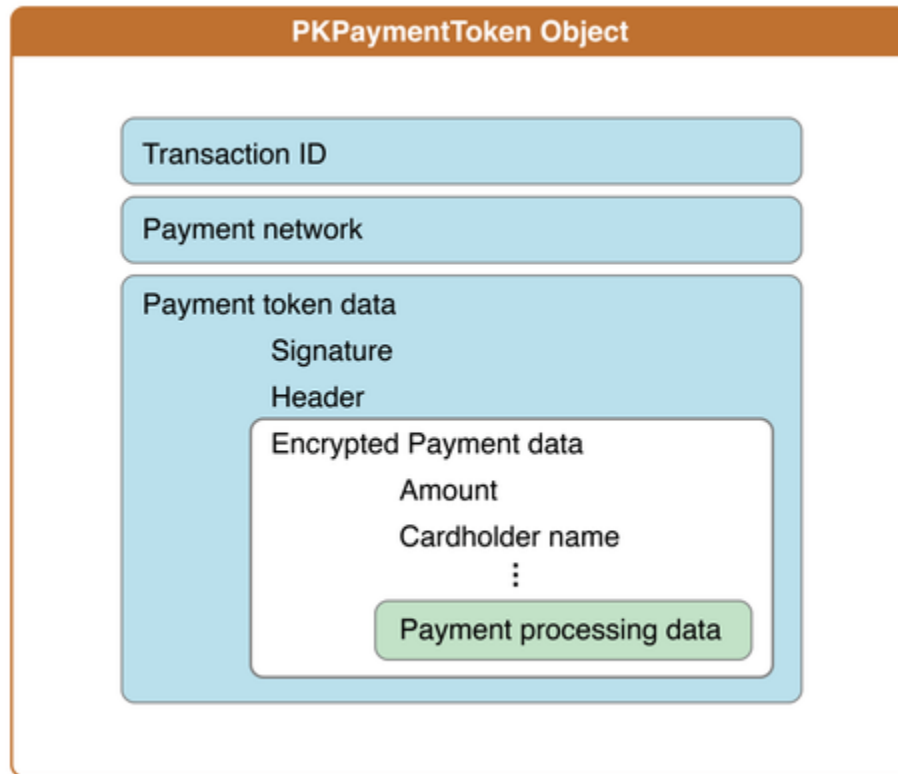
Apple Pay flow

Mobile Application flow

In-App Payment Flow.pdf

Web application flow

Apple Pay on the Web Flow.pdf

Payment token structure

A sample of billing and shipping contact information provided by Apple pay-sheet

Shipping Contact

```
{
"locality": "Cupertino",
"country": "United States",
"postalCode": "95014",
"administrativeArea": "CA",
"emailAddress": "ravipatel@example.com",
"familyName": "Patel",
"addressLines": [
"1 Infinite Loop"
],
"givenName": "Ravi",
"countryCode": "US",
"phoneNumber": "(408) 555-5555"
}
```

Billing Contact

```
{
"locality": "Cupertino",
"country": "United States",
"postalCode": "95014",
"administrativeArea": "CA",
"emailAddress": "ravipatel@example.com",
"familyName": "Patel",
"addressLines": [
"1 Infinite Loop"
],
"givenName": "Ravi",
"countryCode": "US",
"phoneNumber": "(408) 555-5555"
}
```

Implementation resources

https://developer.apple.com/apple-pay/implementation/

https://apple.ent.box.com/s/va01nfm1ycjxl74pd53nx91qcw34bgtt/file/163876576293

https://apple.ent.box.com/s/va01nfm1ycjxl74pd53nx91qcw34bgtt/file/163876504313

https://apple.ent.box.com/s/va01nfm1ycjxl74pd53nx91qcw34bgtt/file/163876468381

https://developer.apple.com/library/archive/documentation/PassKit/Reference/PaymentTokenJSON/PaymentTokenJSON.html#//apple_ref/doc/uid/TP40014929-CH8