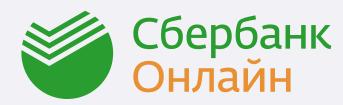
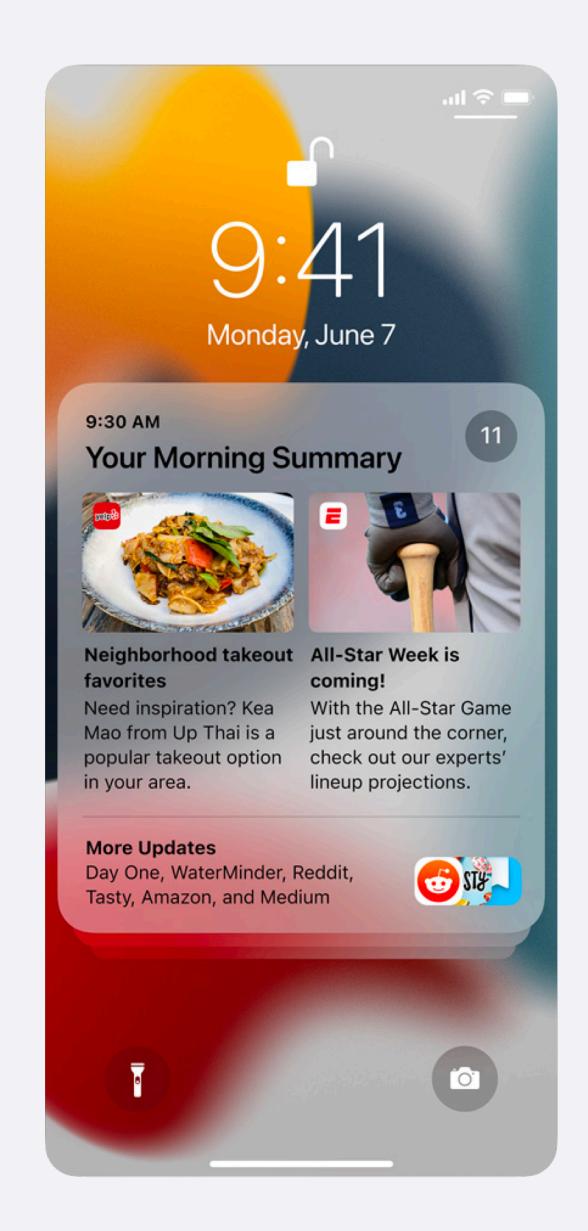
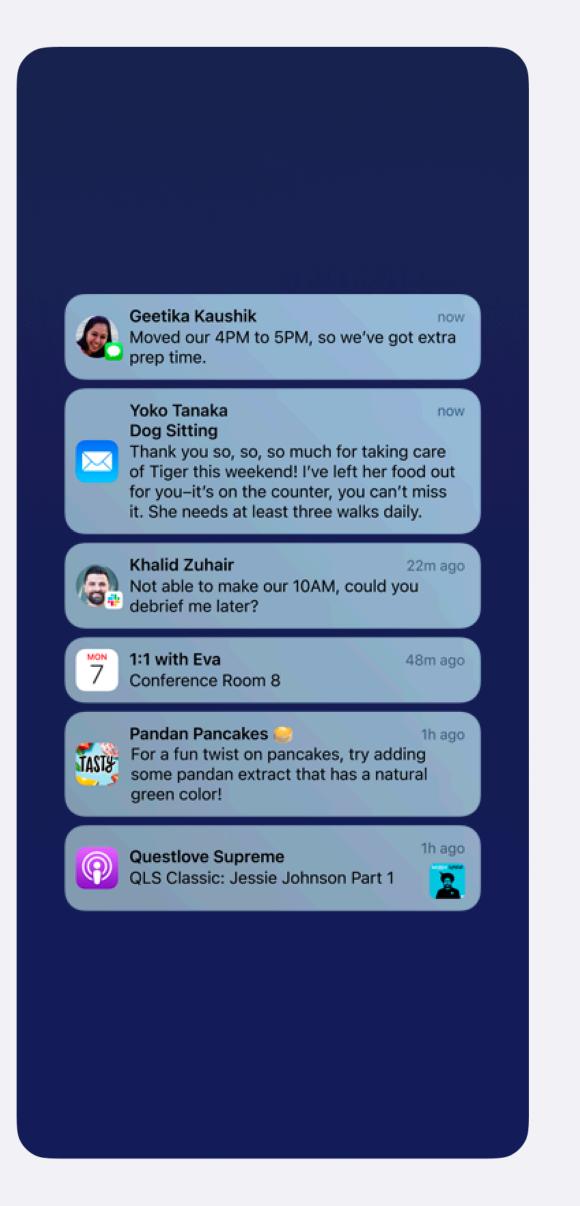


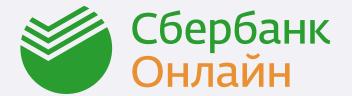
# 



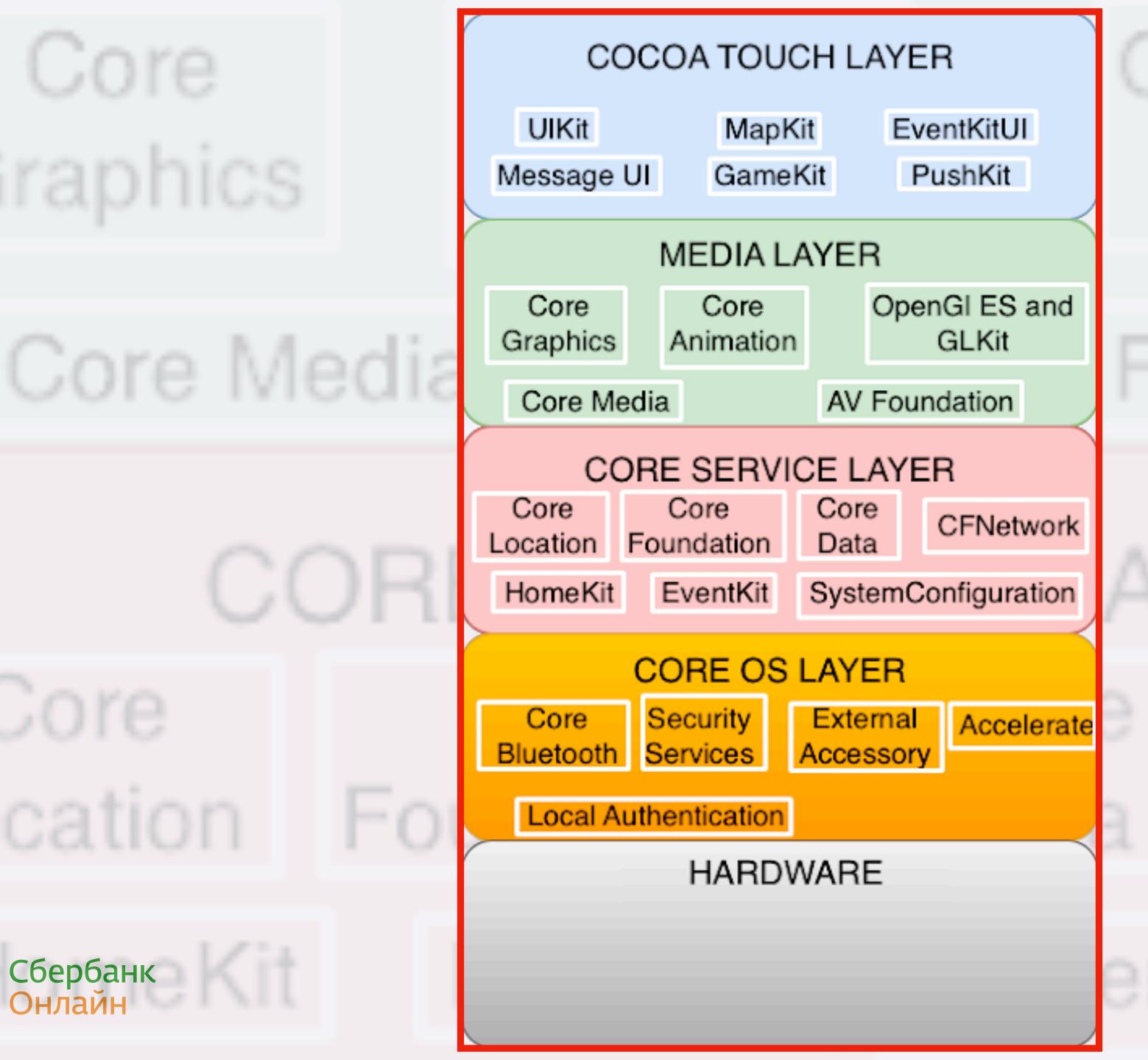


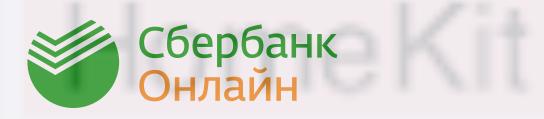








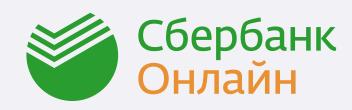






## CORE OS Layer

- Core Bluetooth Framework
- External Accessories Framework
- Accelerate Framework
- Security Services Framework
- Local Authorization Framework
- · etc.





# CORE SERVICES Layer

- FoundationFramework
- HealthKitFramework
- HomeKit Framework
- Social Framework
- StoreKit Framework

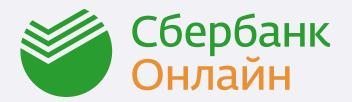
- Address Book
  Framework
- Cloud Kit Framework
- Core Data Framework
- Core Foundation
  Framework
- Core Location
  Framework
- **Core Motion Framework**





## MEDIA Layer

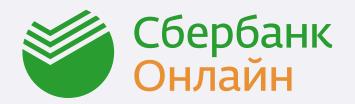
- ULKit Graphics
- Core Graphics Framework
- Core Animation
- Media Player Framework
- AV Kit
- Open AL
- Core Images
- GL Kit





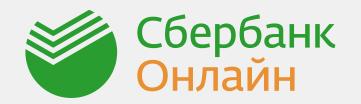
#### COCOA TOUCH

- EvenKit Framework
- GameKit Framework
- MapKit Framework
- PushKit Framework



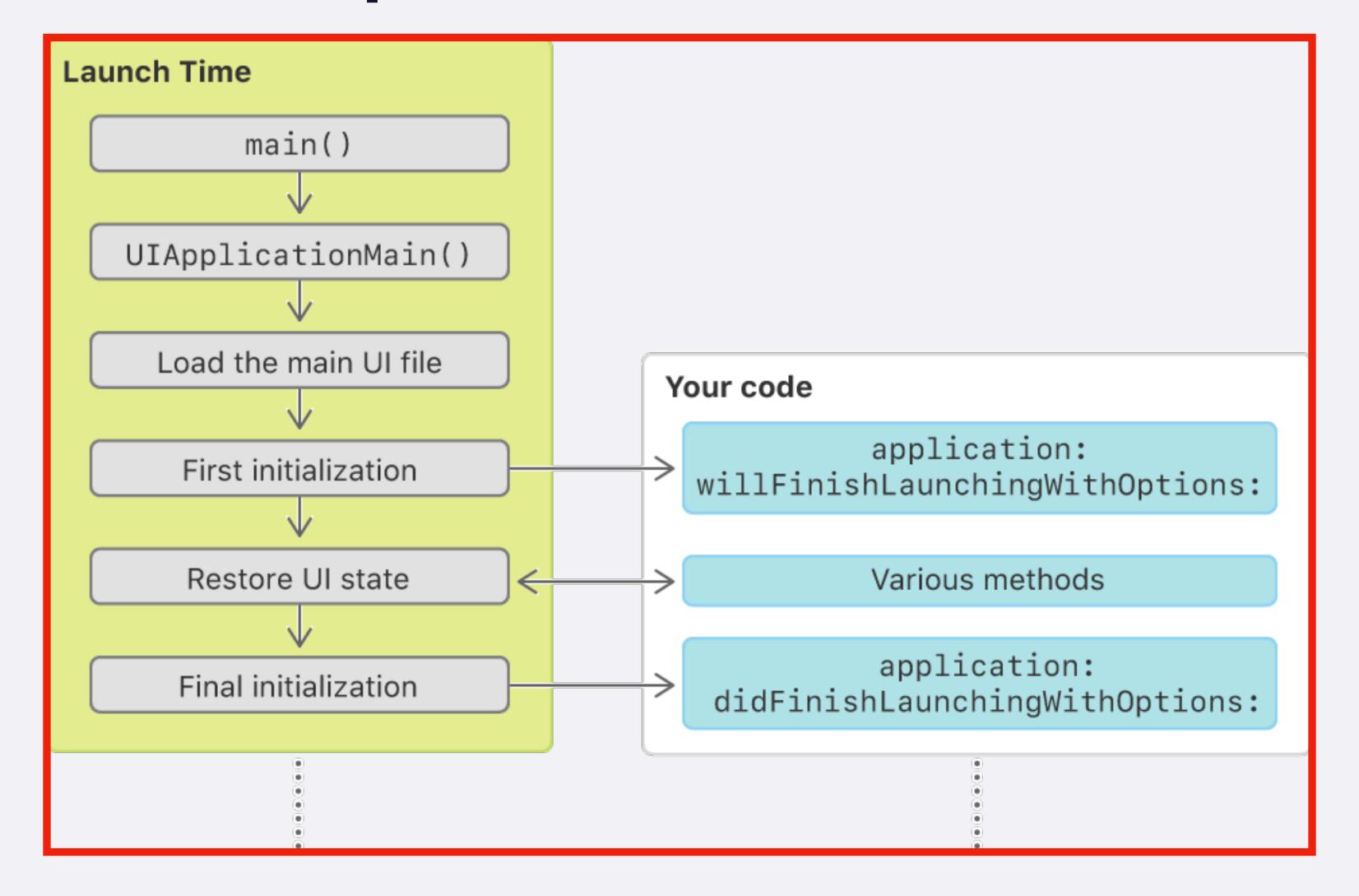


# App lifecycle





#### App Launch Sequence







Dackground

Enter background

#### applicationDidEnterBackground:

# DELEGATE OBJECT

No

Allowed to run?

Yes

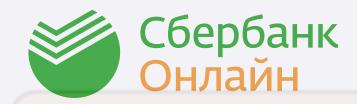
· UISceneDelegate

Monitor

· UIApplicationDelegate

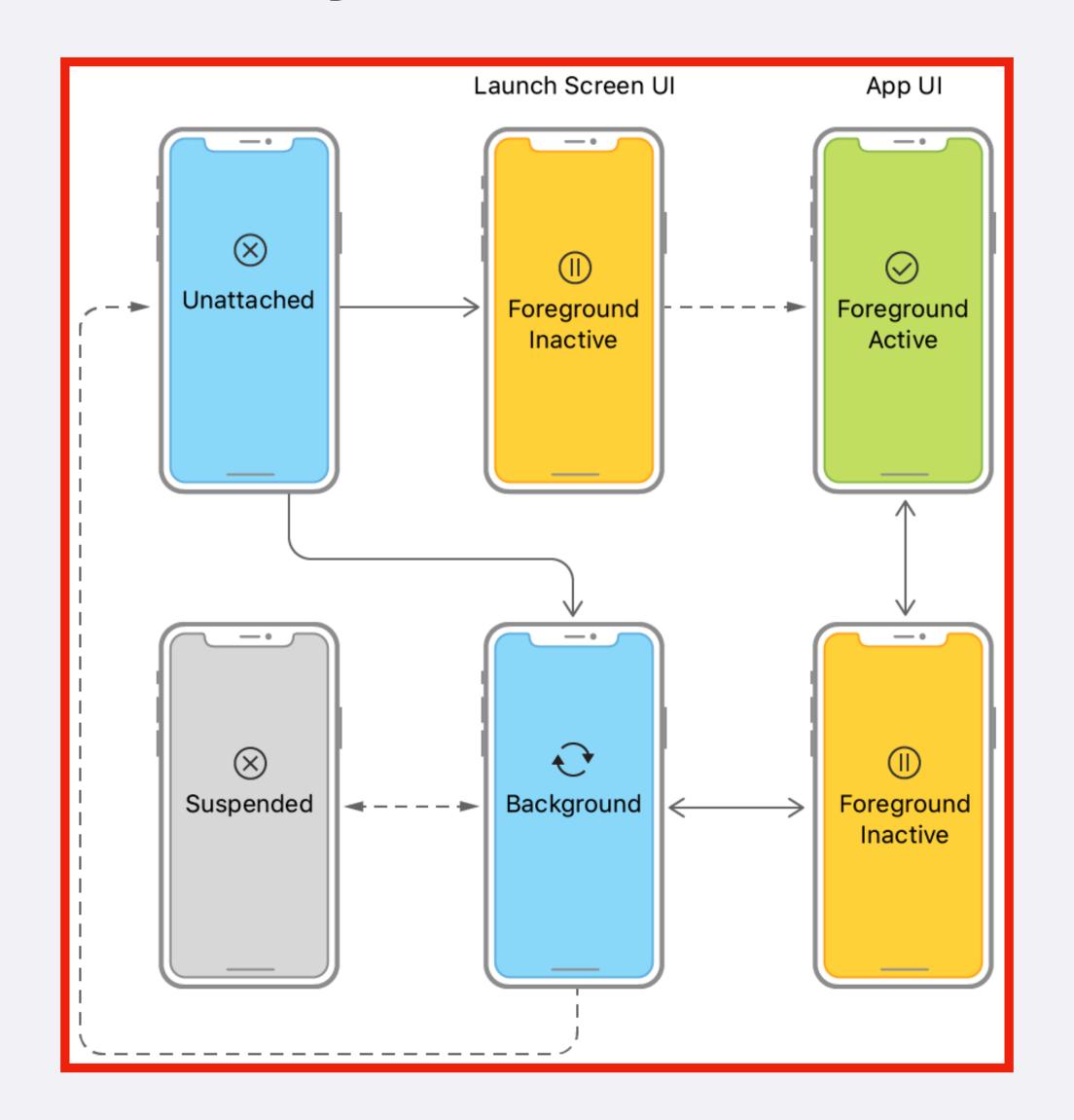
Handle events

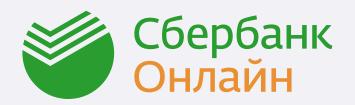
Sleep when not handling events





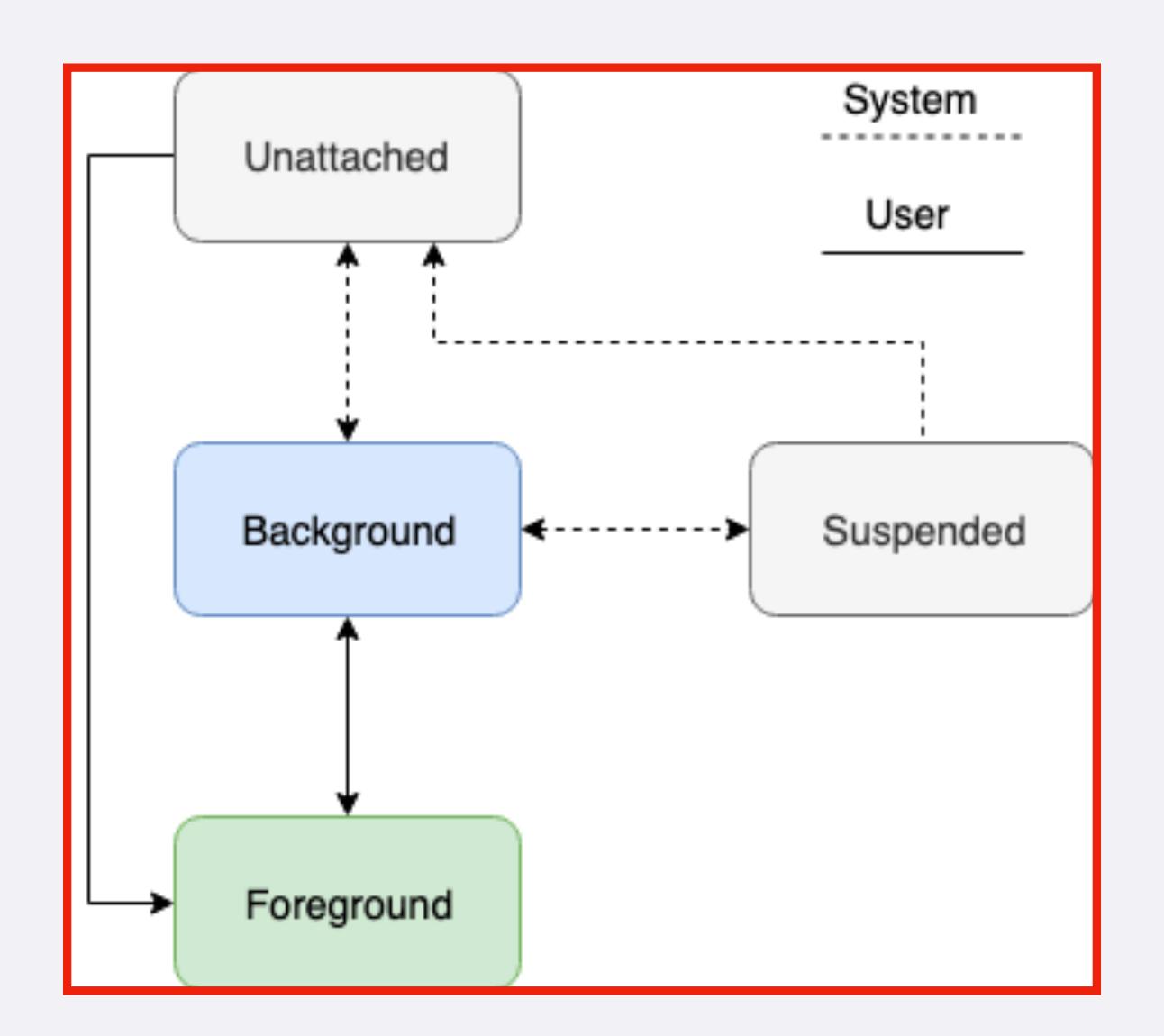
#### Scene-Based Life-Cycle Events

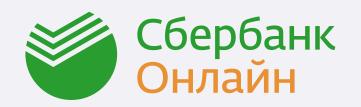






#### Scene-Based Life-Cycle Events







#### Scene-Based Life-Cycle Events

**Property List Key** 

#### **UIApplicationSceneManifest**

The information about the app's scene-based life-cycle support.

#### **Details**

Name

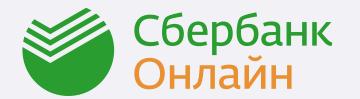
**Application Scene Manifest** 

Type

Dictionary

#### Discussion

The presence of this key indicates that the app supports scenes and does not use an app delegate object to manage transitions to and from the foreground or background.





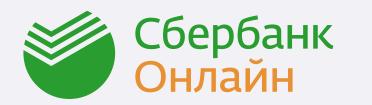
#### Remove scene delegate

While you **should** embrace using scenes when your app is run under iOS 13 and later, you can fully opt out while you still support iOS 12 or earlier.

- Completely remove the "Application Scene Manifest" entry from Info.plist.
- If there is a scene delegate class, remove it.
- If there are any scene related methods in your app delegate, remove those methods.
- If missing, add the property var window: UIWindow? to your app delegate.

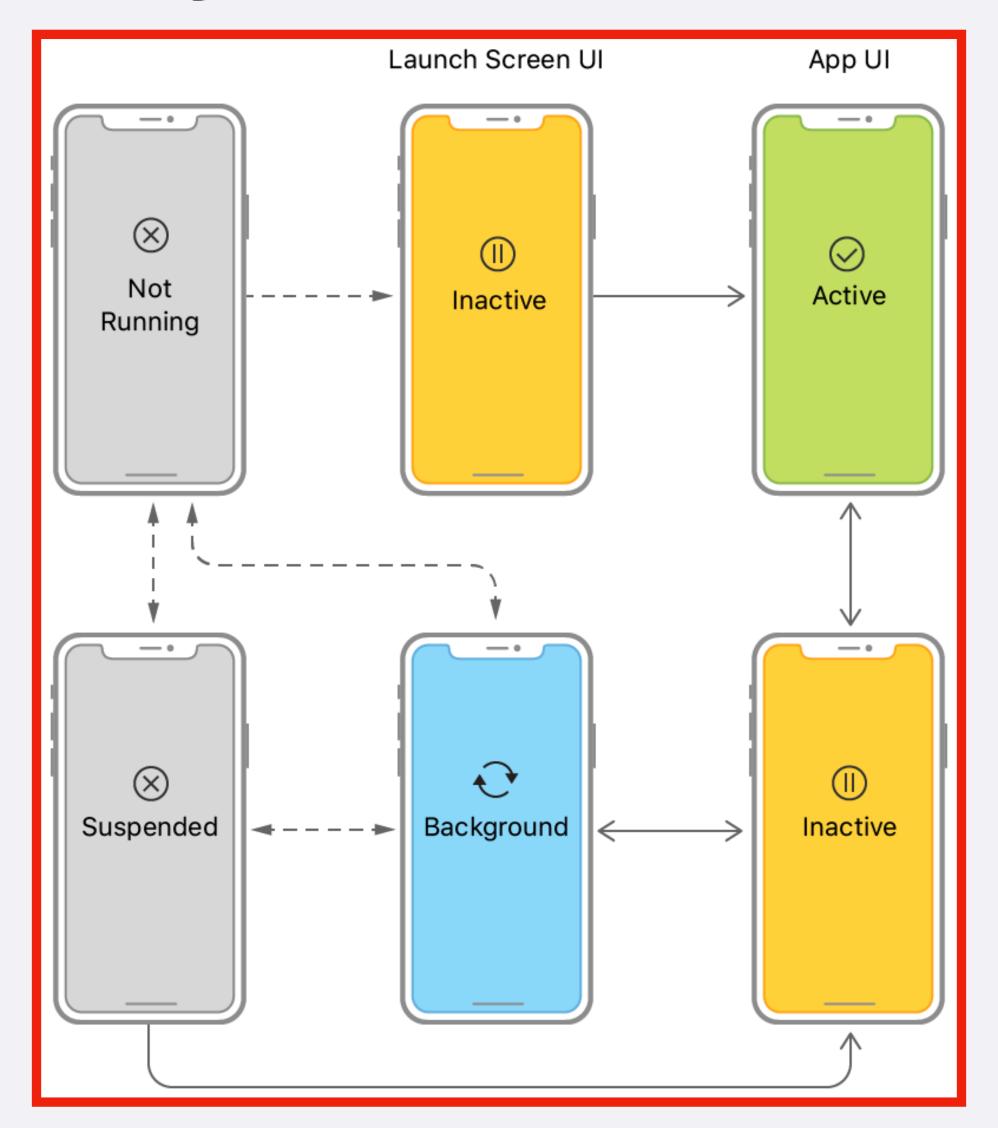
Your app should now only use the app delegate and under iOS 13 it should have the same life cycle as iOS 12.

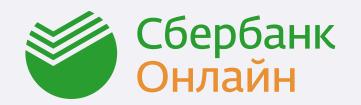
Note: None of this is specific to Swift or SwiftUI.





#### App-Based Life-Cycle Events







#### App-Based Life-Cycle Events

- Memory warnings
- · Protected data becomes available/unavailable
- Handoff tasks
- Time changes
- · Open URLs

