

Отслеживание установок на iOS без эвристики и AdvertisingID

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План доклада

- Доступ к IDFA
- Треккинг установок
- App Clip
- Deep Linking через AppClip

Привет iOS 14! 🙌

**Allow "Debug" to track your
activity across other
companies' apps and
websites?**

Your data will be used to provide you a
personalized app experience.

Ask App not to Track

Allow

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Facebook собирается
подать на Apple в суд

\$80-ти миллиардный
рынок под угрозой

Apple откладывает ограничение доступа к IDFA

Вероятность получить доступ к IDFA

20-30%

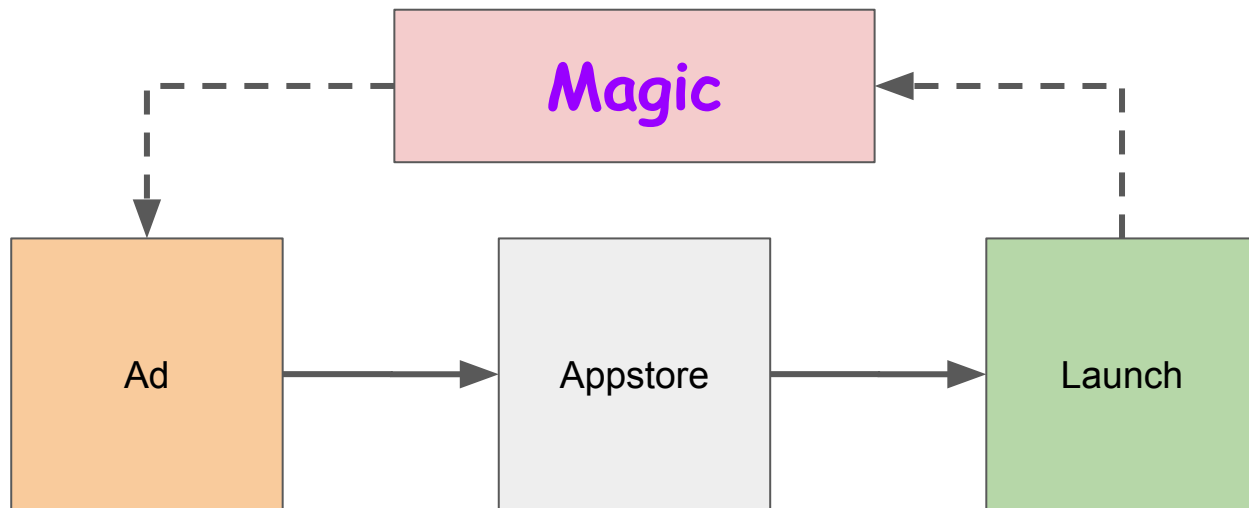
В чем проблема?

Трекинг установки

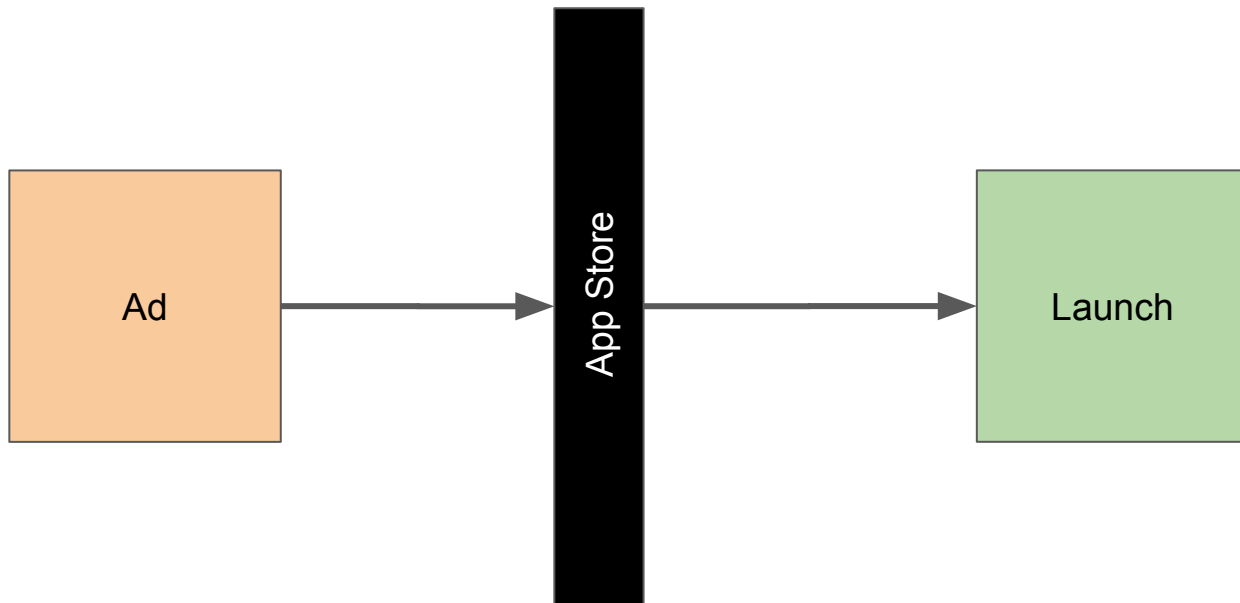
Органика

Неорганика

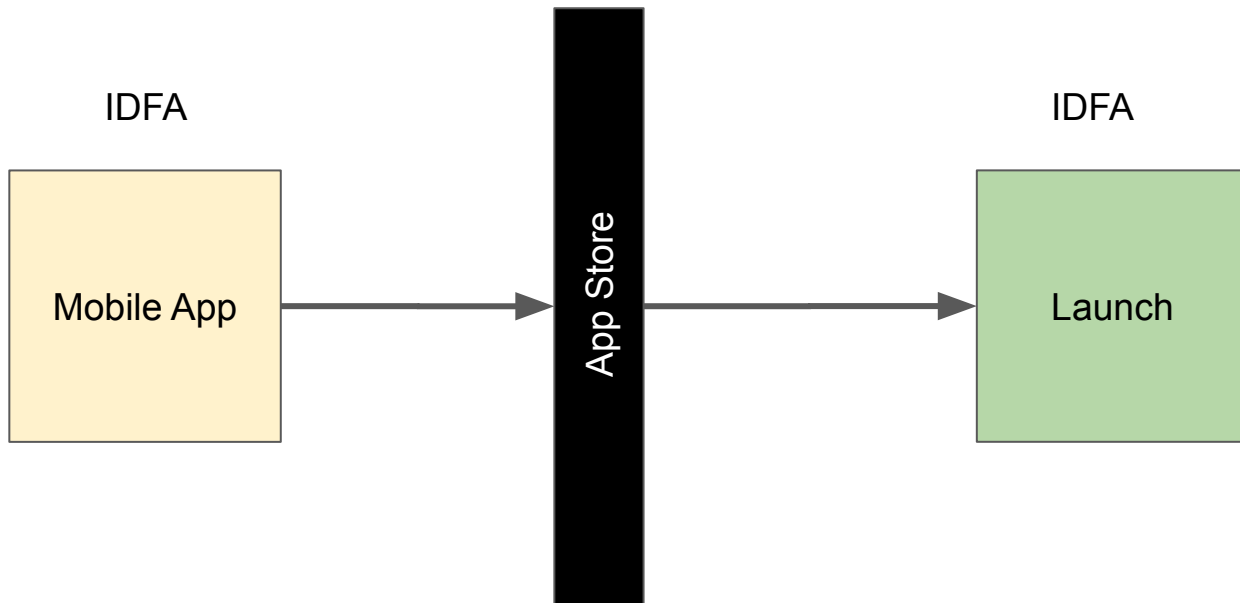
Трекинг установки



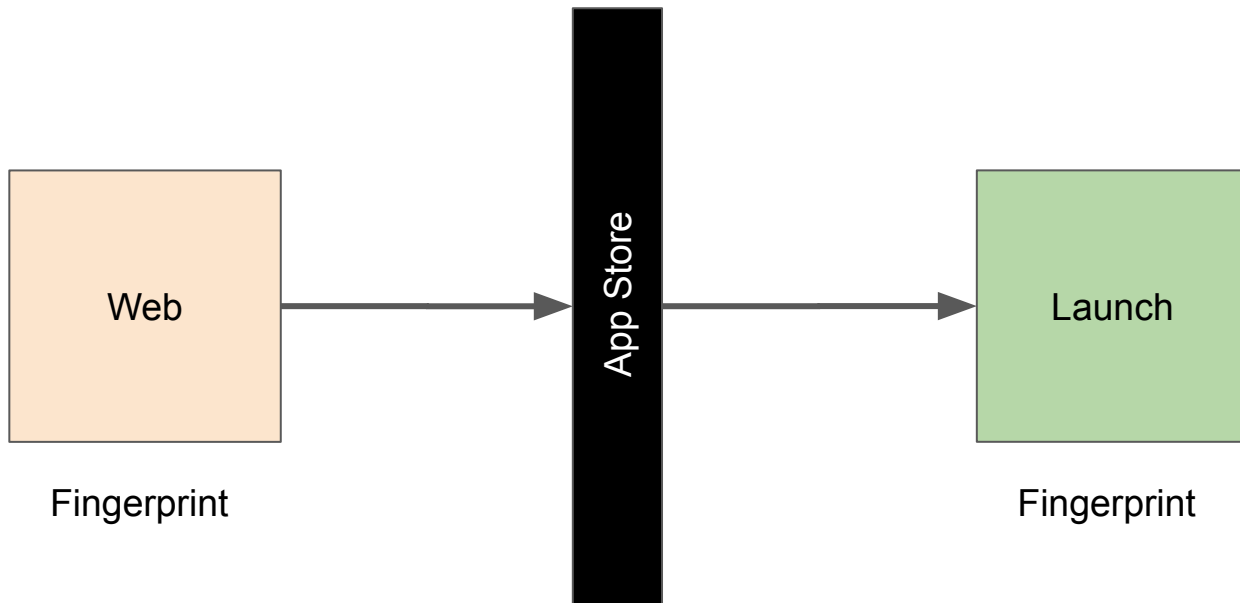
Трекинг установки



Трекинг установки



Трекинг установки



Fingerprint

- IP адрес
- Параметры сети (скорость)
- Мобильный оператор
- Версия операционной системы (eg. iOS 14.2)
- Размер экрана
- Количество памяти на устройстве
- Настройки UIAccessibility

My browser fingerprint

Are you unique ?

Yes! You are unique among the 3351666 fingerprints in our entire dataset.

The following informations reveal your OS, browser, browser version as well as your timezone and preferred language. Moreover, we show the proportion of users sharing the same elements.



10.62%



40.88%



v89

0.58%

UTC+3

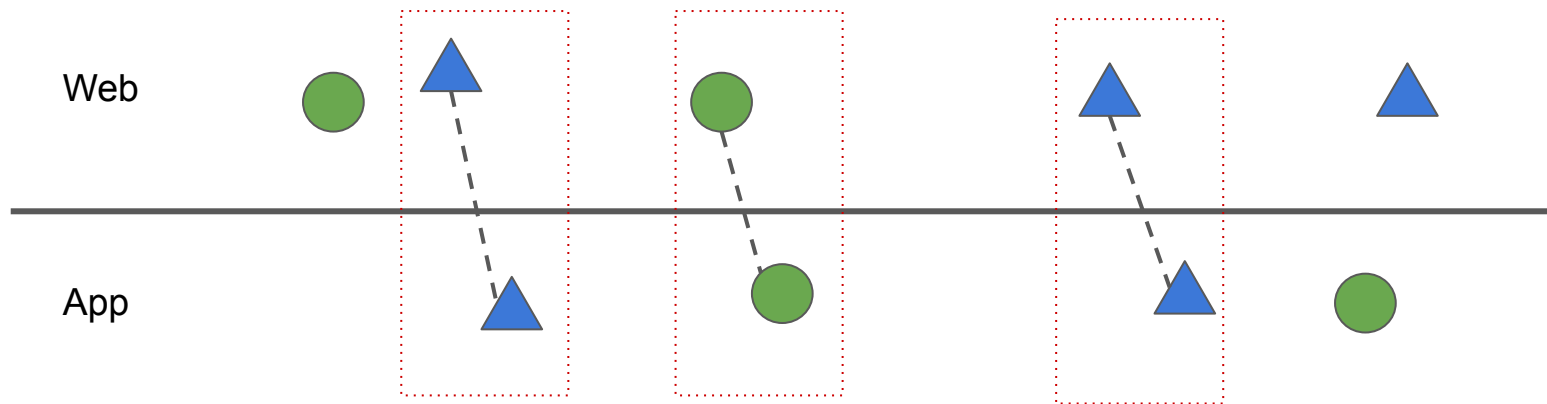
4.96%

en

76.25%

<https://amiunique.org/>

Fingerprint



Facebook и Google

Facebook

FBSDKCoreKit

Google

FirebaseAnalytics

Google и Facebook

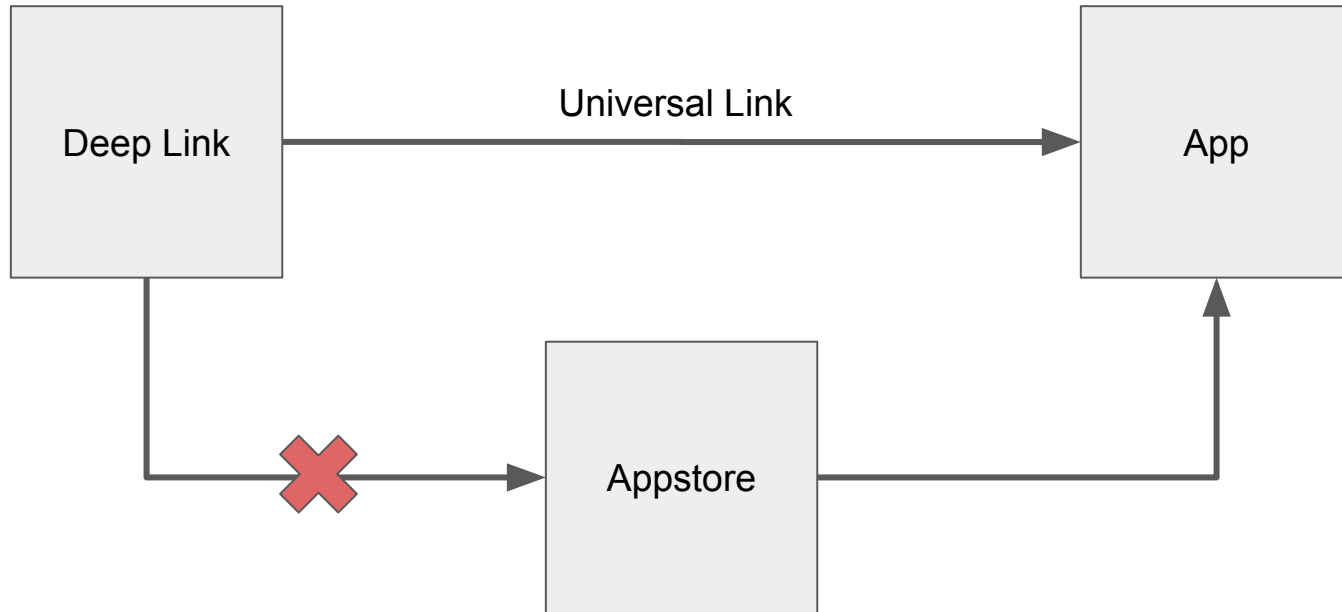


Sign in with Google



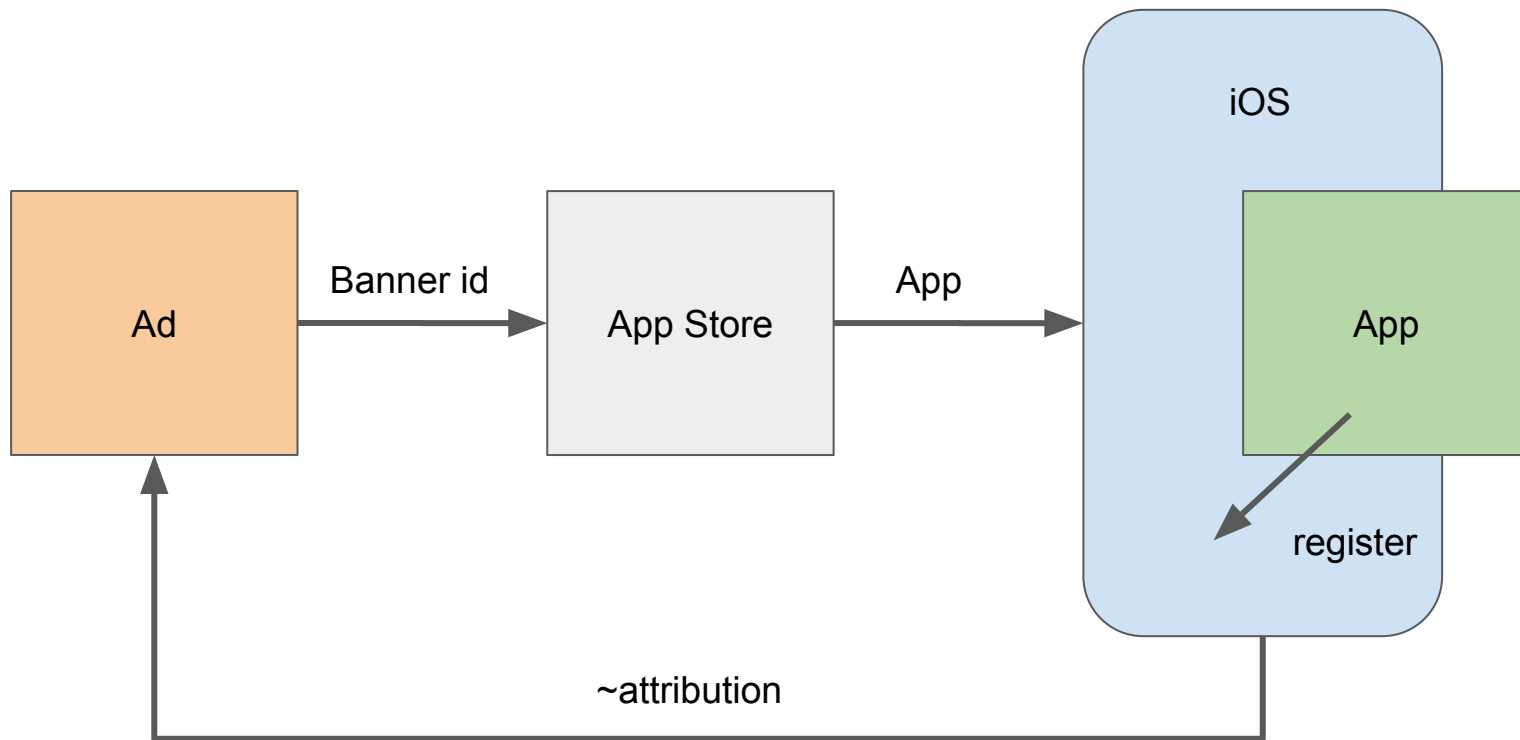
Sign in with Facebook

Deep Link



Что не так со SKAdNetwork?

Схема работы SKAdNetwork



SKAdNetwork. Проблемы

- Идентификаторы не доходят до приложения
- Задержка при получении данных
- Данные не точные

App Clip



App Clip

- Invocations**
- App Clip Codes
 - NFC Tag
 - QR Codes
 - Safari
 - Messages
 - Maps
 - Location

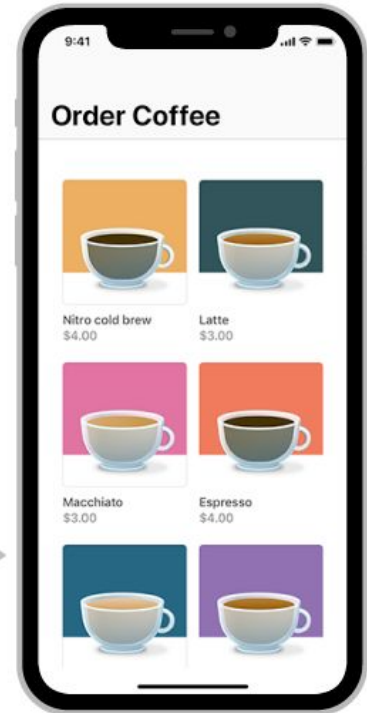
Invocation URL

App Clip Card



Invocation URL

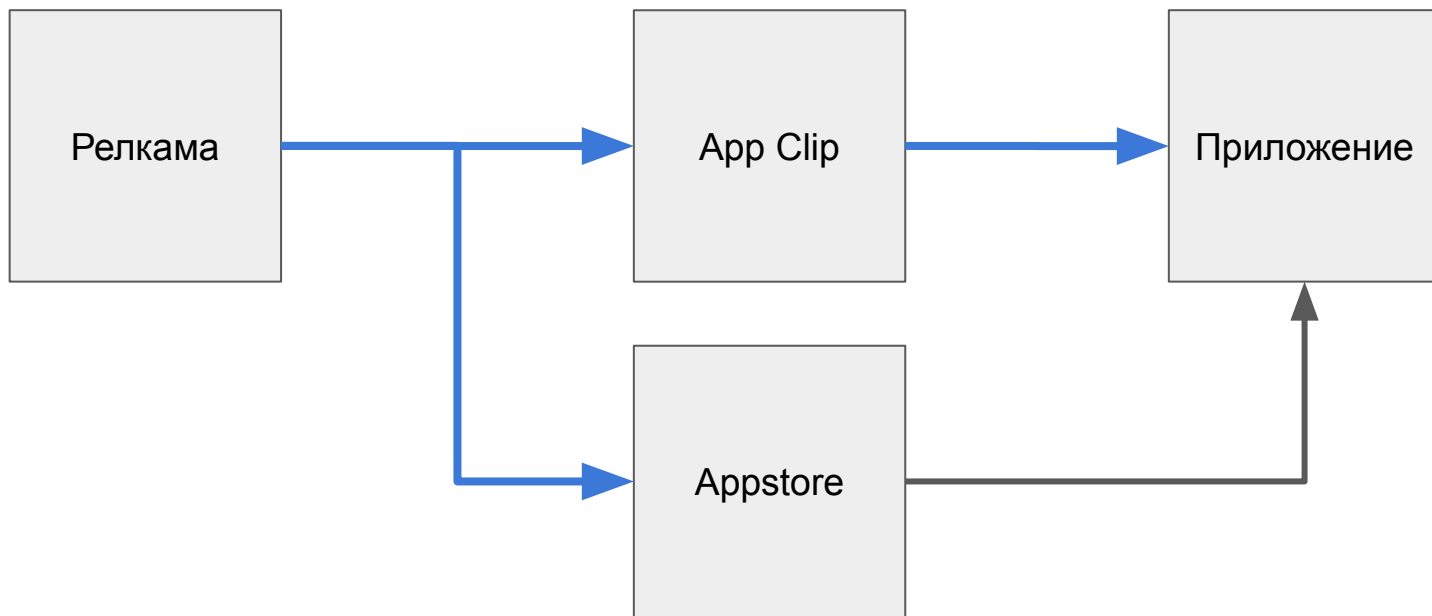
App Clip



App Clip

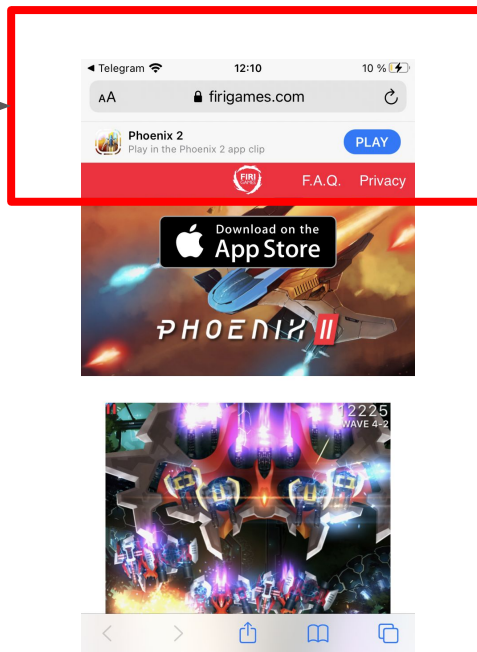
- До 10 МВ
- Отсутствуют IdentifierForAdvertisers и IdentifierForVendor
- Не доступна работа в фоне
- Ограничен доступ к GEO, контактам, сообщениям, фото и пр.

Установка с AppClip



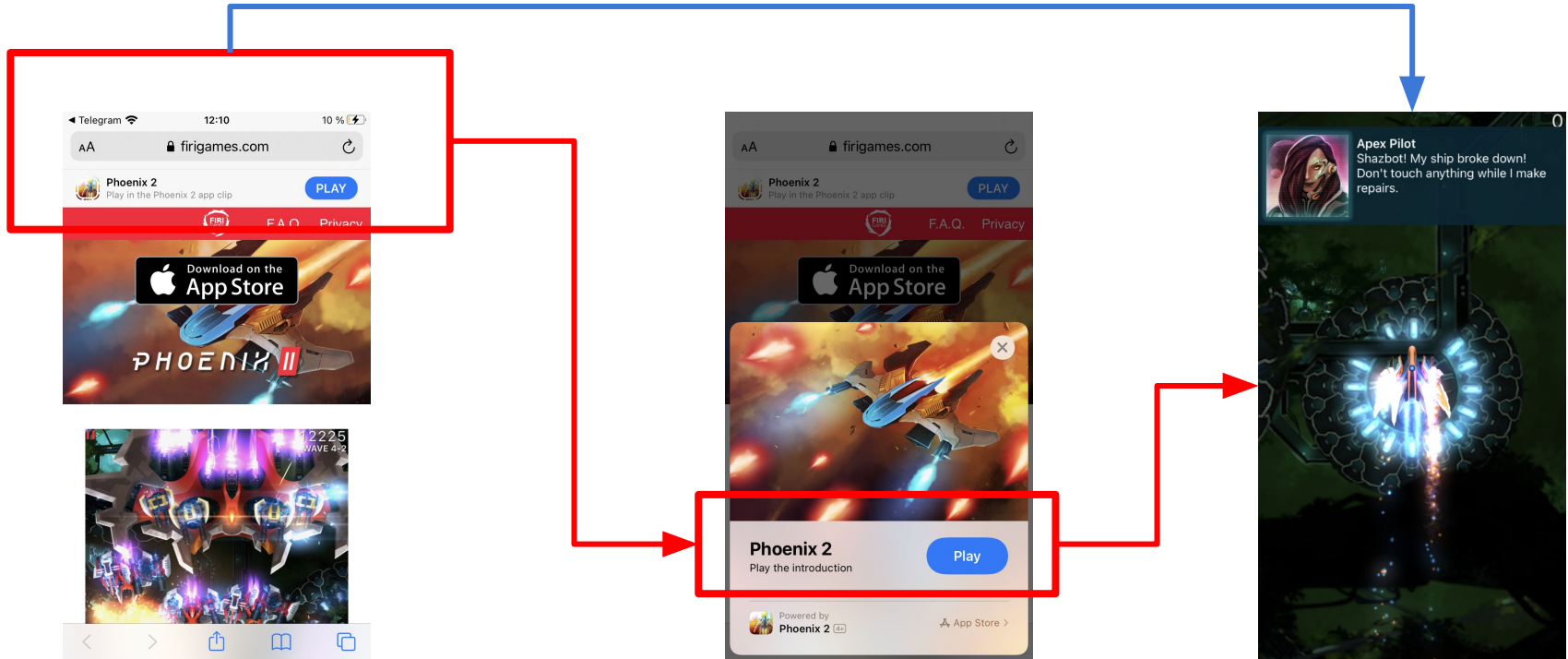
Deep Link

<https://myapp.homepage/campaign-id/banner-id/something>

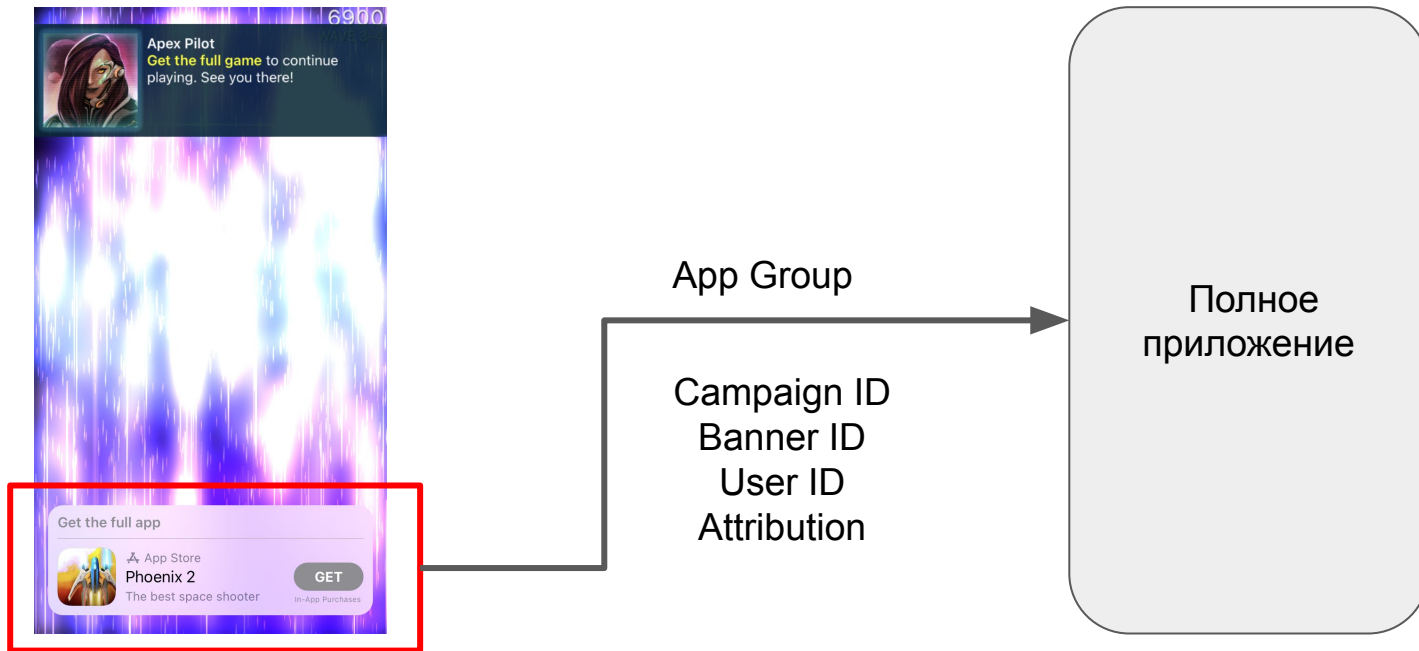


Deep Link

Universal Link

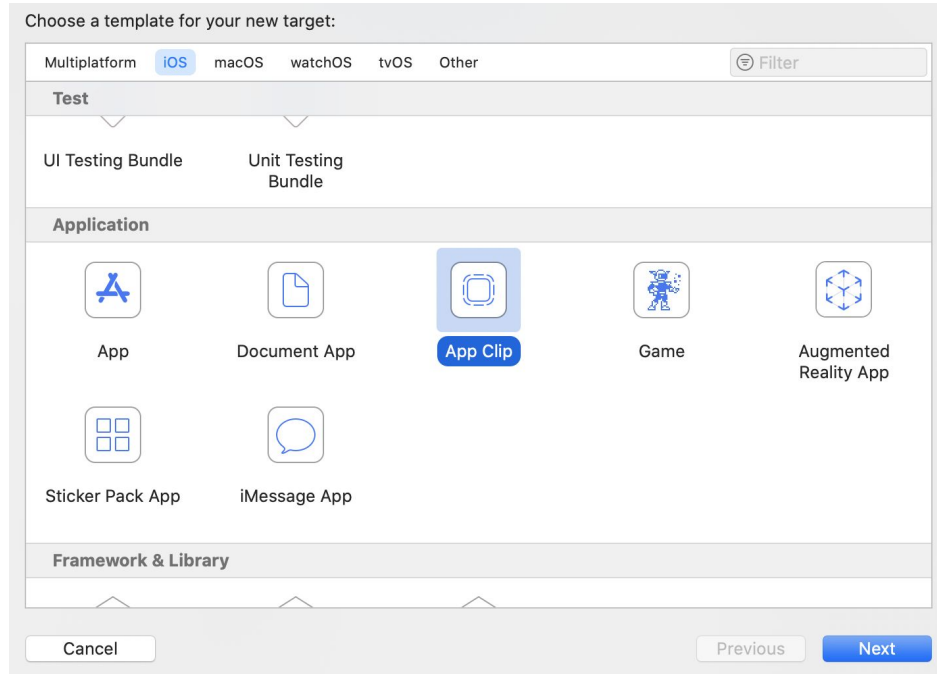


Deep Link

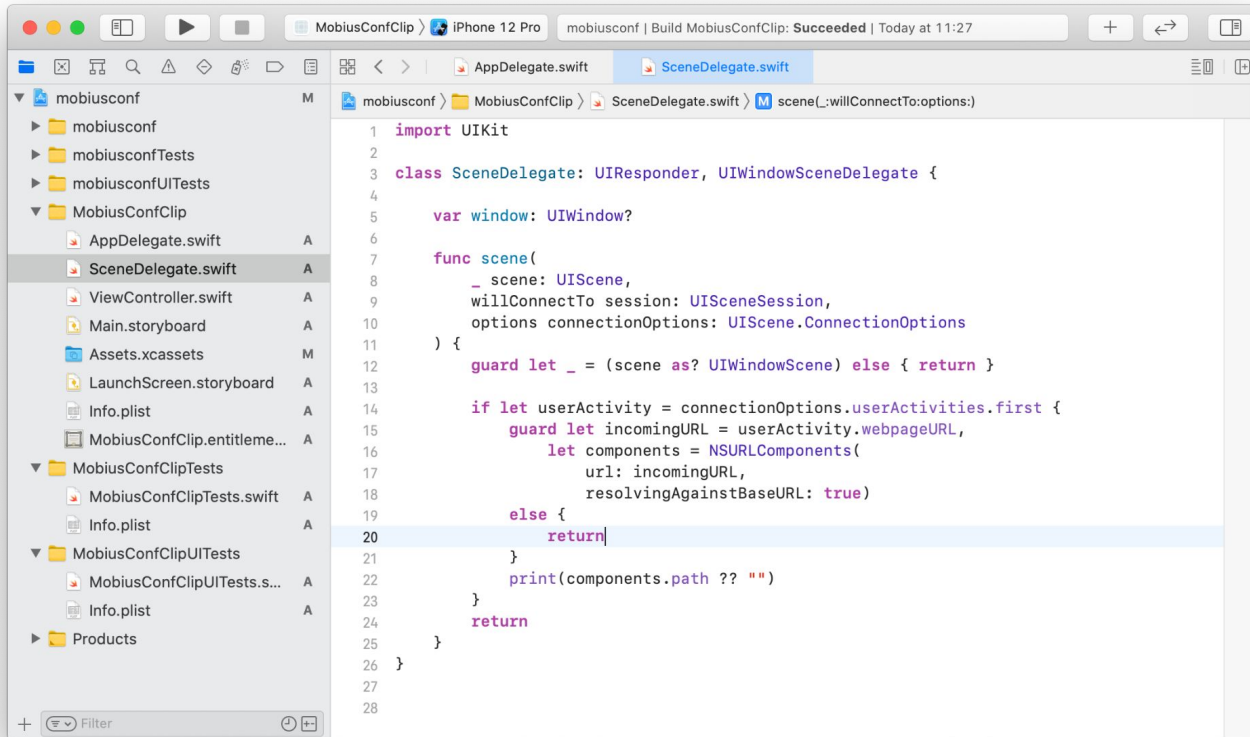


Настройка проекта

Add Target



Code, Run, Debug



Настройка сайта

Associated Domains

▼  **Associated Domains**

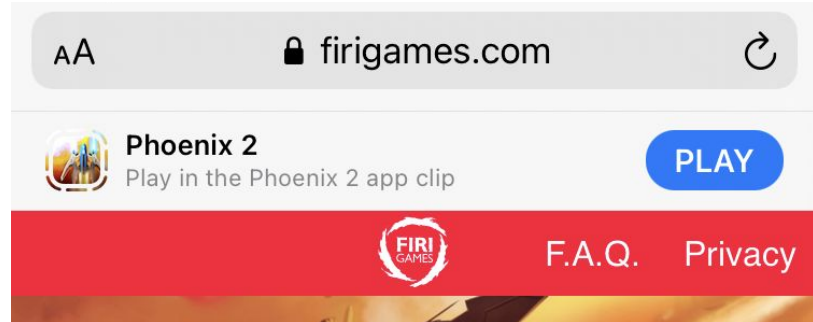
Domains appclips:mobiusconf.com

+ -

Apple-App-Site-Association file.

```
{  
  "appclips": {  
    "apps": ["ABCDE12345.org.kurkin.mobiusconf.Clip"]  
  }  
  ...  
}
```

Smart banner



```
<meta
  name="apple-itunes-app"
  content="
    app-clip-bundle-id=org.kurkin.mobiusconf.Clip,
    app-id=ABCED12345">
```

App Clip Experience

App Clip

English (U.S.)

You can set up a default app clip experience in App Store Connect. Default clips can be invoked only in Safari by meta tag and must include a valid domain. [Learn More](#)

Header Image



Subtitle ?

Explore the nation's parks

12

Action ?

Open

Advanced App Clip Experiences

Advanced settings allows you to set up multiple app clip experiences, associate them with places in Maps, add NFC tags and more. [Learn More](#)

[Get Started](#)

Перенос данных

Перенос данных

```
func scene(  
    _ scene: UIScene,  
    willConnectTo session: UISceneSession,  
    options connectionOptions: UIScene.ConnectionOptions  
) {  
    ....  
    if let userActivity = connectionOptions.userActivities.first,  
        let incomingURL = userActivity.webpageURL,  
        let components = NSURLComponents(  
            url: incomingURL,  
            resolvingAgainstBaseURL: true)  
    {  
        handle(urlInfo: components)  
    }  
    ....  
}
```

Перенос данных

```
let campaign = components.queryItems?.first(where: { $0.name == "campaign" })?.value
let referenceId = components.queryItems?.first(where: { $0.name == "UUID" })?.value
```

```
store(campaignName, forKey: "campaign")
store(referenceId, forKey: "UUID")
```

```
track(campaignName, referenceId)
```


Перенос данных

```
func store(_ value: String, forKey key: String) {  
    UserDefaults(suiteName: "group.bygreatapp.appClipMigration").map { storage in  
        storage.set(value, forKey: key)  
    }  
}
```

Установка полного приложения

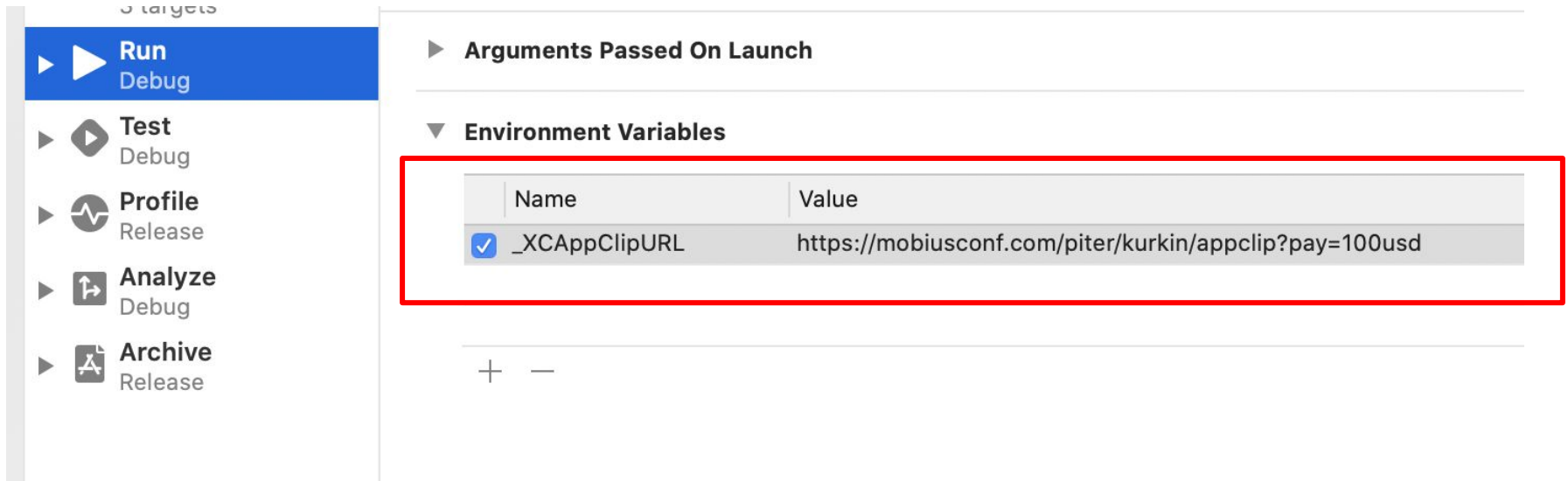
```
guard let scene = UIApplication.shared.connectedScenes.first as? UIWindowScene
else { return }
let config = SKOverlay.AppClipConfiguration(position: .bottom)
let overlay = SKOverlay(configuration: config)
overlay.delegate = self
overlay.present(in: scene)
```

Фиксация установки

```
UserDefaults(suiteName: "group.bygreatapp.appClipMigration").map { storage in
    let uuid = storage.string(forKey: "UUID")
    let campaign = storage.string(forKey: "campaign")
    trackInstall(uuid, campaign)
}
```

Тестирование

URL Invocation



The screenshot shows the Xcode interface with the 'Run' target selected in the left sidebar. The main panel displays the 'Environment Variables' section, which is expanded to show a table of variables. A red box highlights the table, which contains one variable: '_XCApplURL' with the value 'https://mobiusconf.com/piter/kurkin/appclip?pay=100usd'. The variable is checked, indicating it is active.

3 targets

- ▶ ▶ **Run**
Debug
- ▶ ◀ **Test**
Debug
- ▶ 📈 **Profile**
Release
- ▶ ↻ **Analyze**
Debug
- ▶ 📄 **Archive**
Release

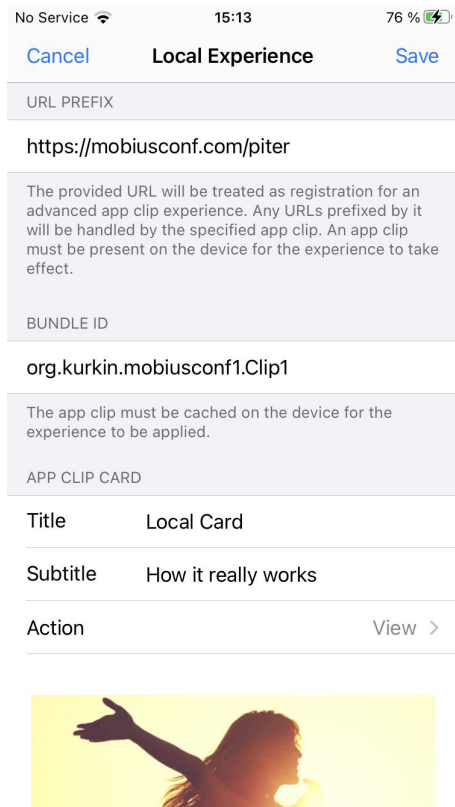
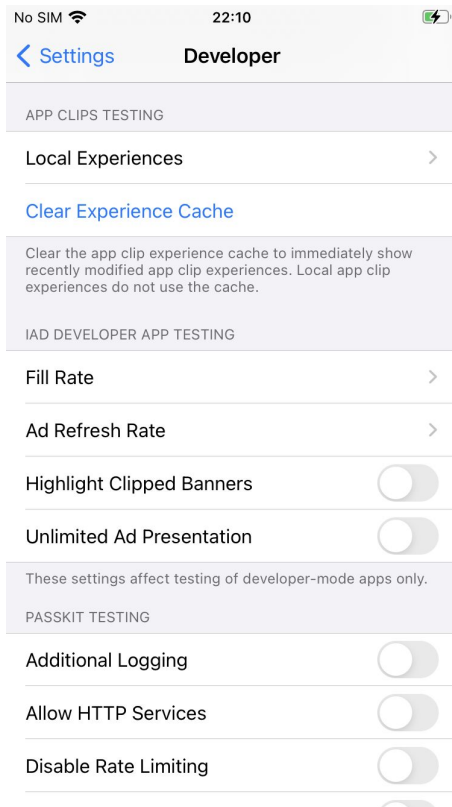
▶ **Arguments Passed On Launch**

▼ **Environment Variables**

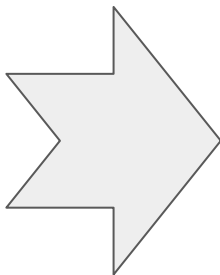
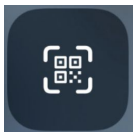
Name	Value
<input checked="" type="checkbox"/> _XCApplURL	https://mobiusconf.com/piter/kurkin/appclip?pay=100usd

+ -

На устройстве



Запуск на устройстве



No Service 15:13 76%

Cancel

Local Experience

Save

URL PREFIX

<https://mobiusconf.com/piter>

The provided URL will be treated as registration for an advanced app clip experience. Any URLs prefixed by it will be handled by the specified app clip. An app clip must be present on the device for the experience to take effect.

BUNDLE ID

`org.kurkin.mobiusconf1.Clip1`

The app clip must be cached on the device for the experience to be applied.

APP CLIP CARD

Title Local Card

Subtitle How it really works

Action

View >



Testflight

App Store Connect Apps Analytics Trends Users and Access Jane Appleseed ▾
Nature Labs

Forest Explorer ▾ App Store Features TestFlight Activity

< 14.5

Build 1943

Expire Build Save

Test Information Metadata English (U.S.) ▾

Test Notes

Let testers know what type of feedback you're looking for. This information will be available to testers in all groups that have access to this build.

You can provide feedback on our new App Clip experiences. We've included a few common flows for you to test out.

App Clip Invocations

To start collecting invocation feedback about your app clip experience, add a title and a URL. This app clip will be available to all groups that have access to this build.

[Add App Clip Invocation](#)

Groups (3) +

Add groups to this build. All testers in these groups will have access to this build.

GROUP NAME ▾	TESTERS
App Store Connect Users	9
External Beta	65
Friends and Family	17

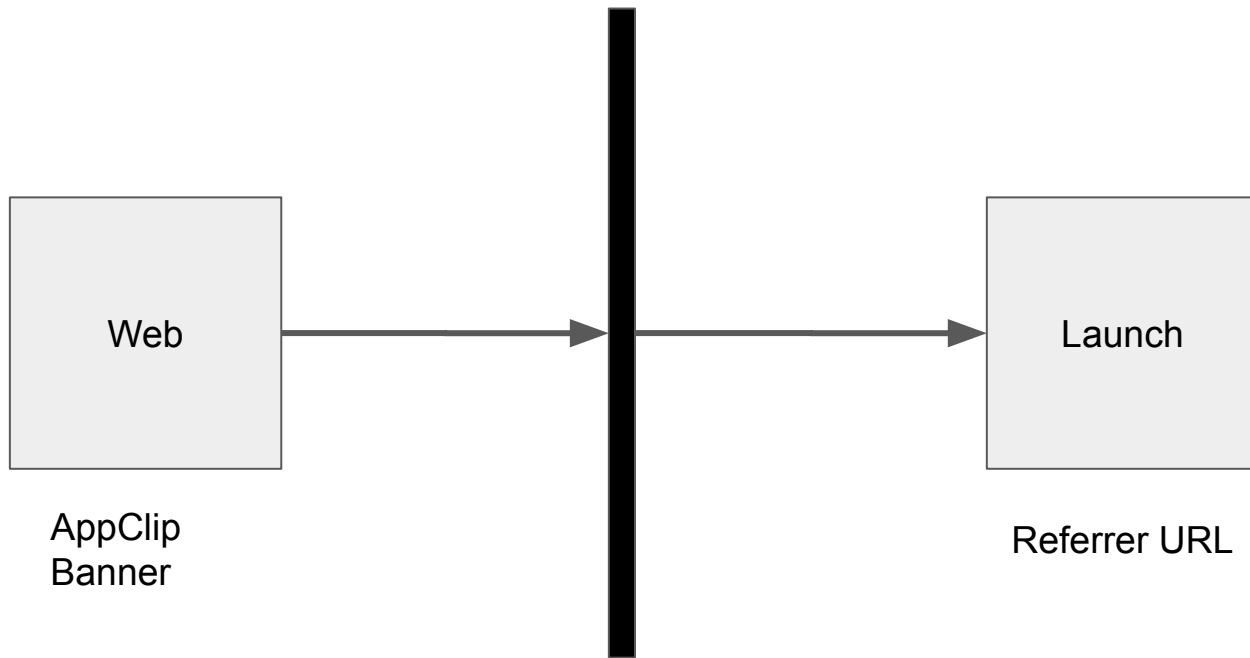
Individual Testers (2) +

Add an individual tester to this specific build. [Edit](#)

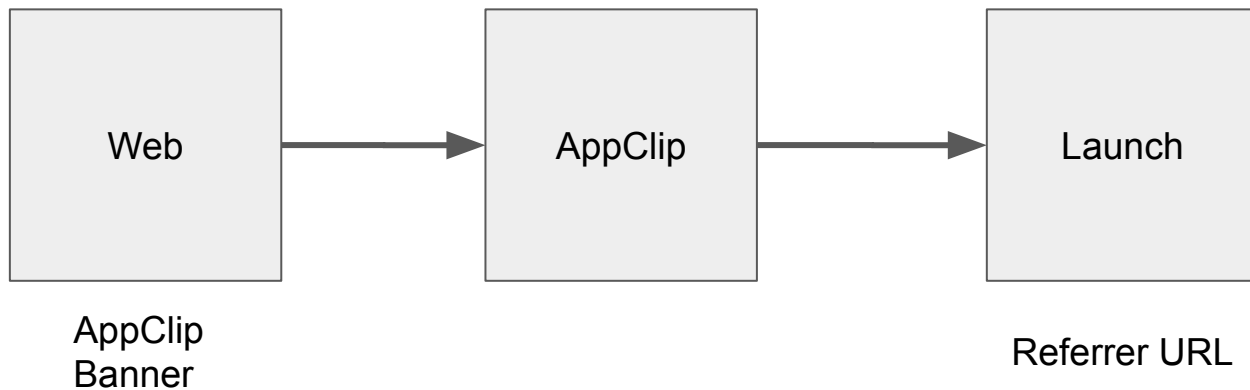
EMAIL ▾	NAME	STATUS
j_appleseed@icloud.com	Johnny Appleseed	● Installed 2.0.4 (1) Sep 14, 2018
cindy_cheung@icloud.com	Cindy Cheung	● Installed 2.0.4 (1) Sep 14, 2018

Итого

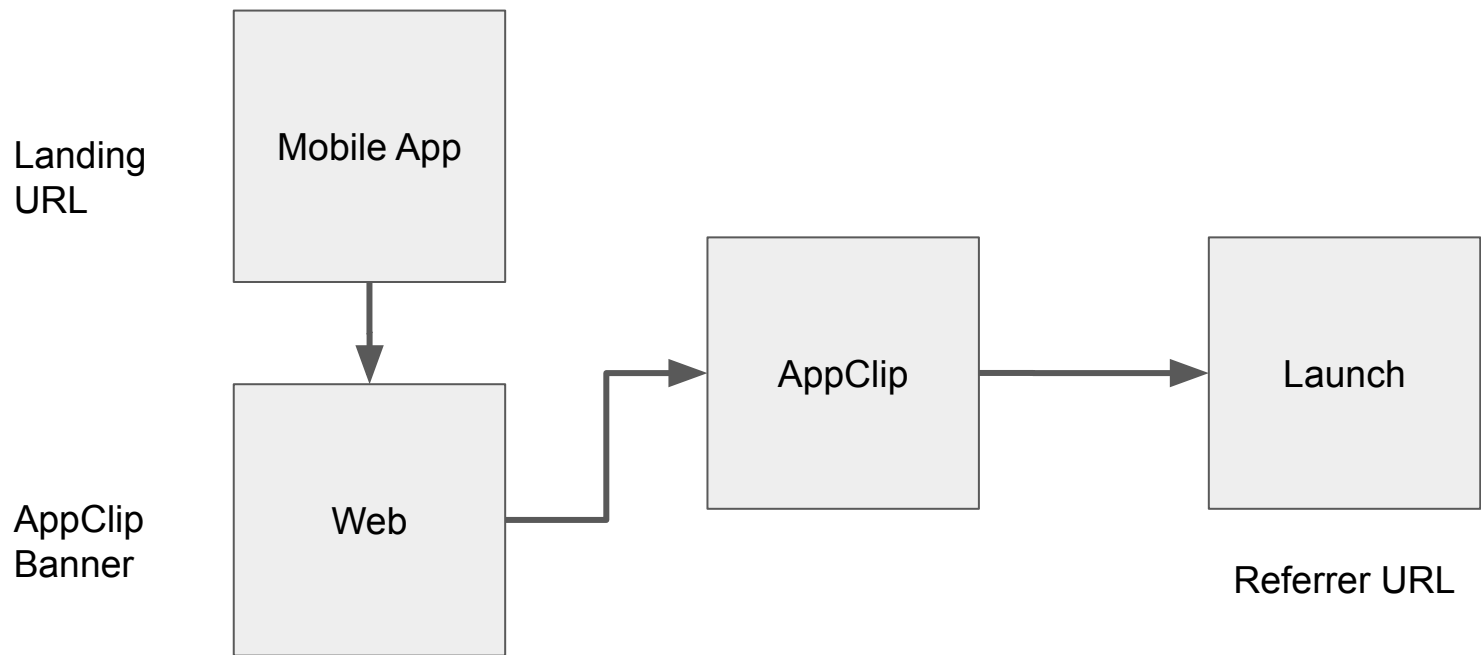
Трекинг



Трекинг



Трекинг



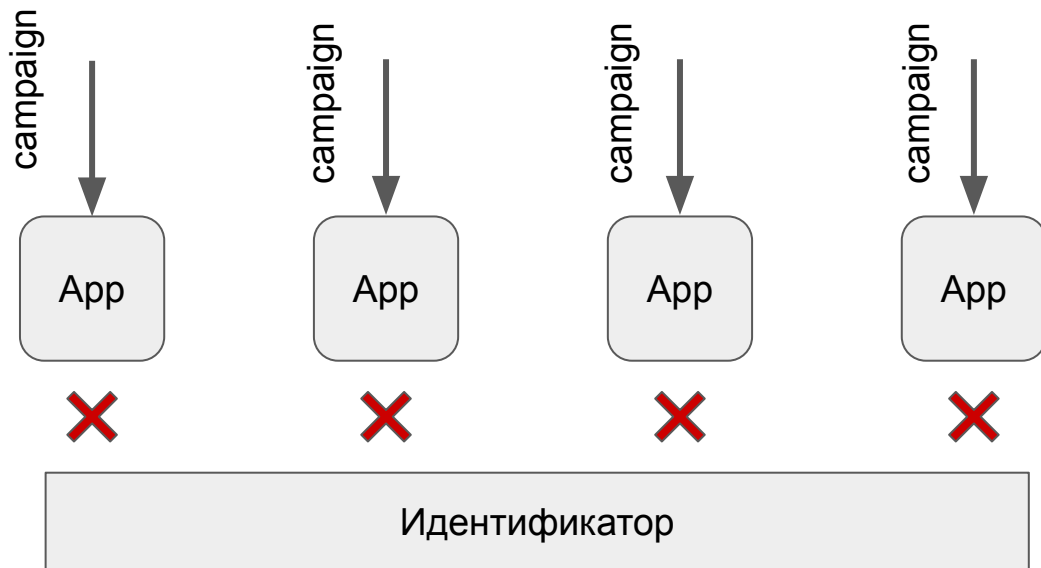
Плюсы

- Точное соответствие
- Без системных идентификаторов
- Не нужны дополнительные данные

Минусы

- Схема длинней и сложней для пользователя
- Нужны дополнительные элементы от разработчика
- Нужен Web
- Нужно владеть доменом

Возможности трекеров



Ссылки

<https://developer.apple.com/app-clips/>

<https://www.appsflyer.com/resources/others/apple-app-clips/>

<https://firigames.com/phoenix2>

Вопросы

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Telegram: @kurkinm

<https://www.facebook.com/sclown.kurkin>

<https://github.com/sclown>