App Frameworks #WWDC17

Making Great SiriKit Experiences

Session 228

José Angel Castillo Sanchez, SiriKit Engineering Rohit Dasari, SiriKit Engineering



Security

Custom vocabulary

Security

Custom vocabulary

Security

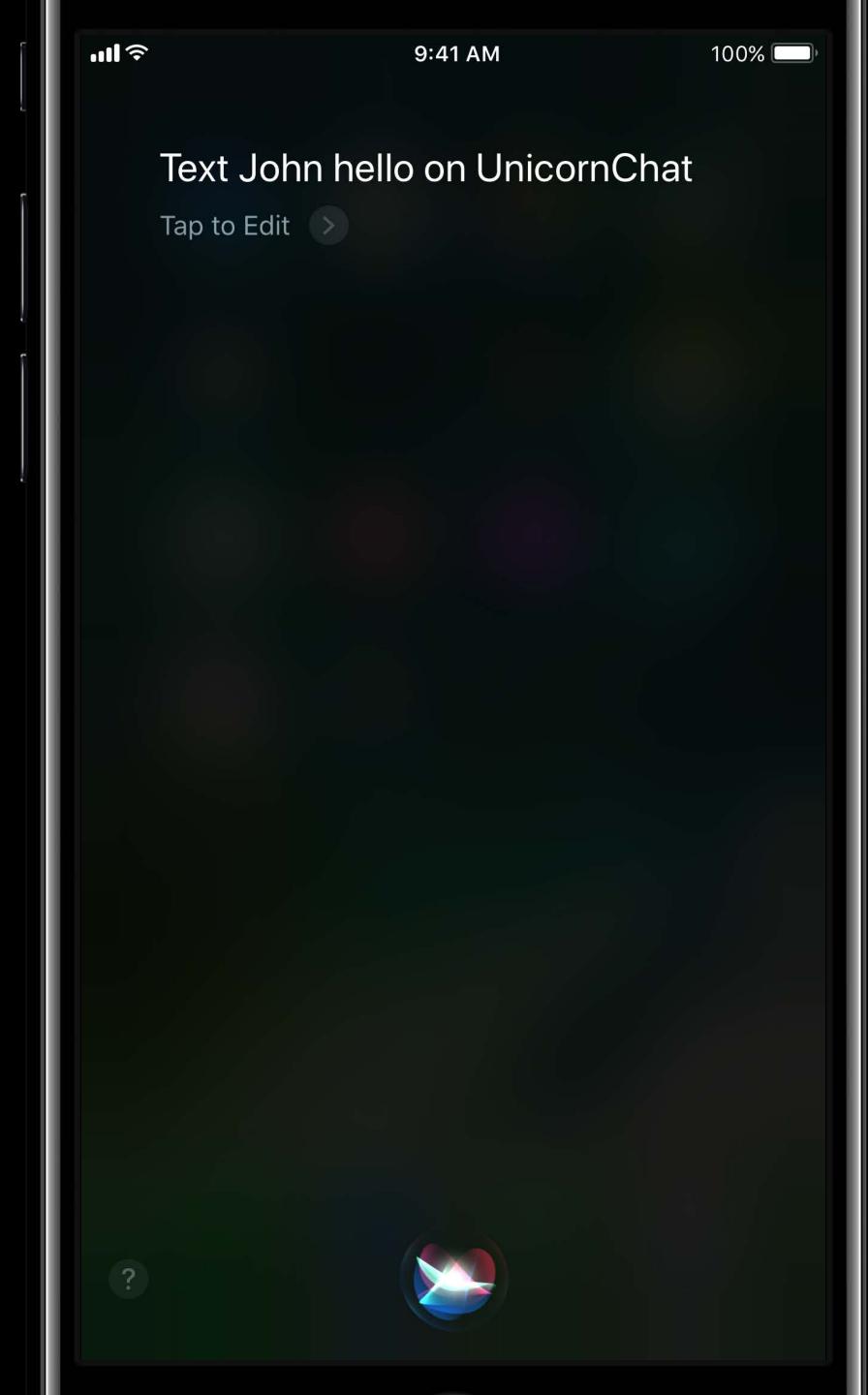
Custom vocabulary

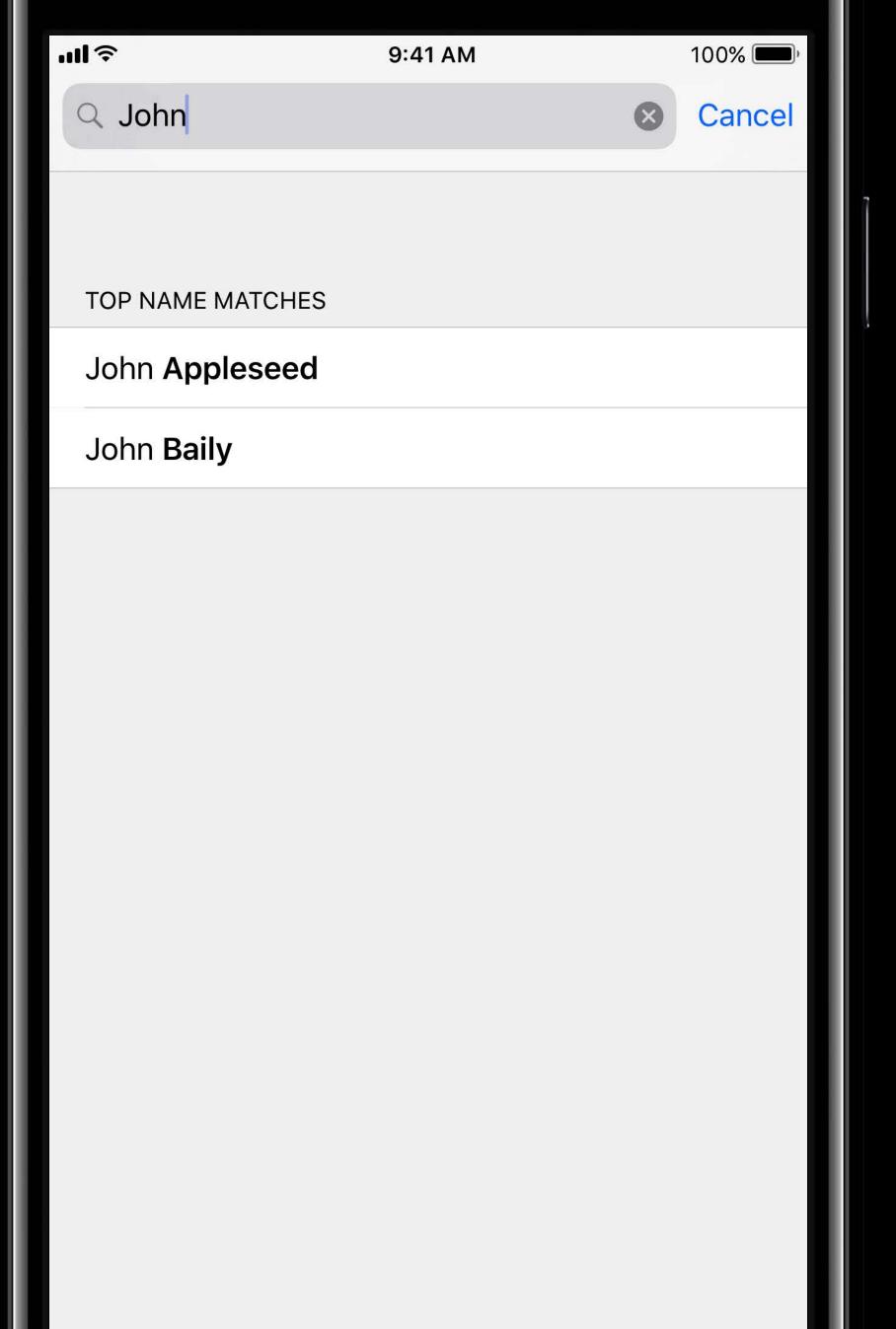
Security

Custom vocabulary



UnicornChat





```
extension INPerson : INSpeakable {
   open var siriMatches: [INPerson]? { get }
}
```

```
extension INPerson : INSpeakable {
   open var siriMatches: [INPerson]? { get }
}
```

INPerson.siriMatches



"Text John hello on UnicornChat"

INPerson.siriMatches

"Text John hello on UnicornChat"

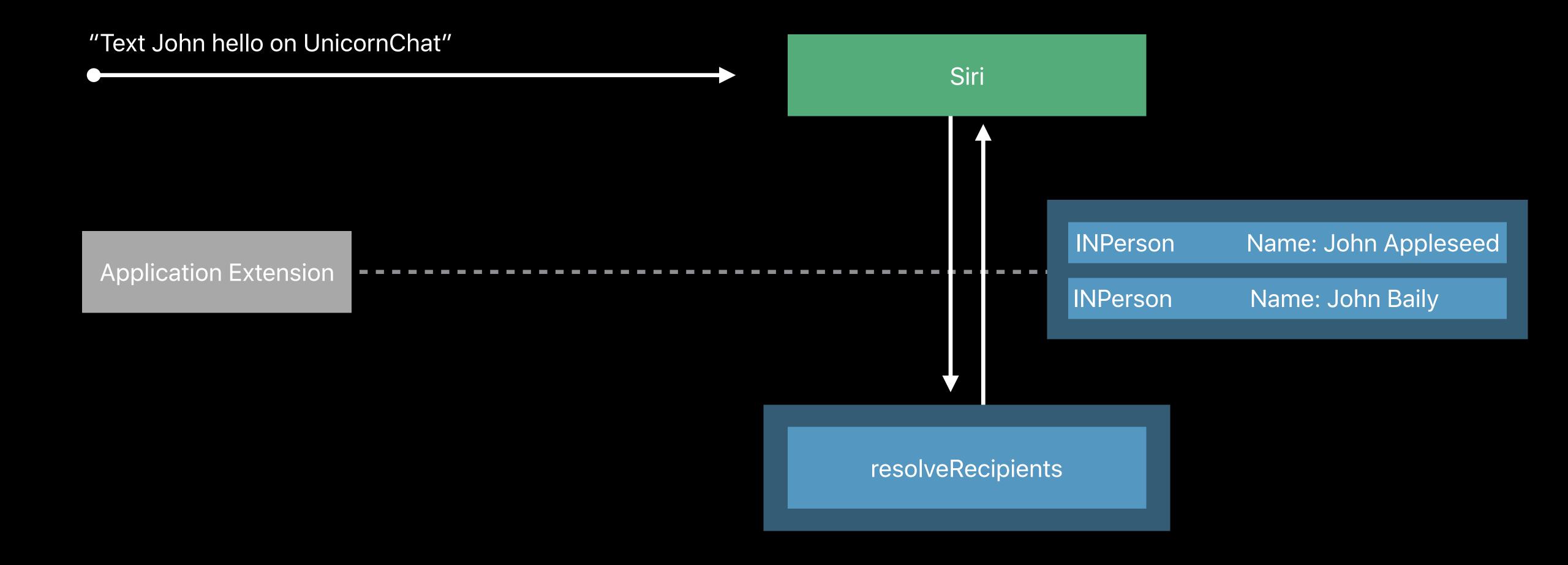


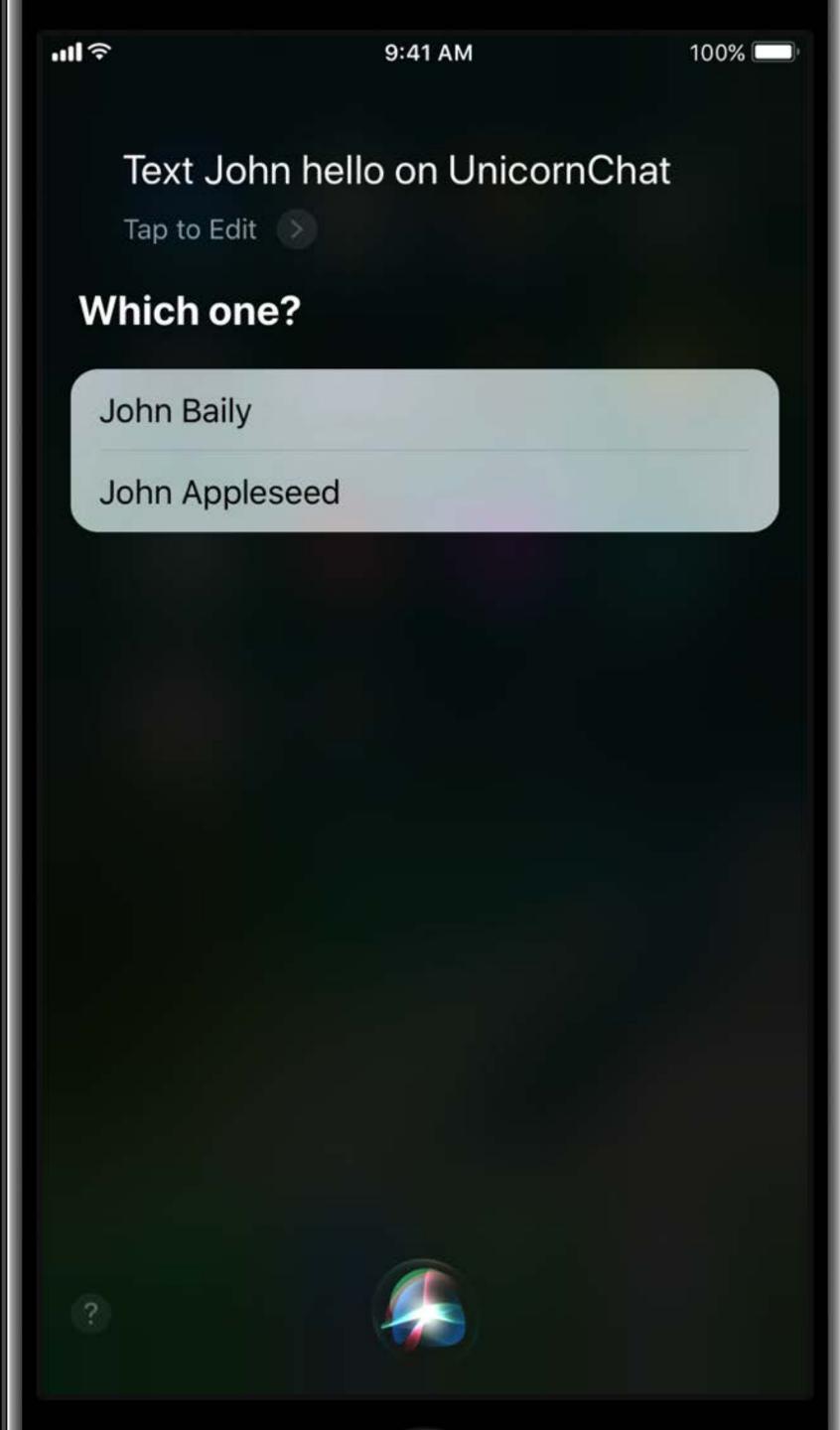
INPerson.siriMatches

"Text John hello on UnicornChat"

Siri

Application Extension



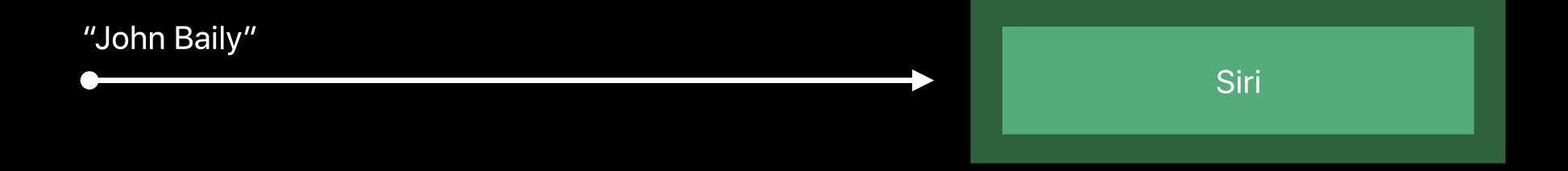


INPerson.siriMatches

"John Baily"

Application Extension

INPerson.siriMatches

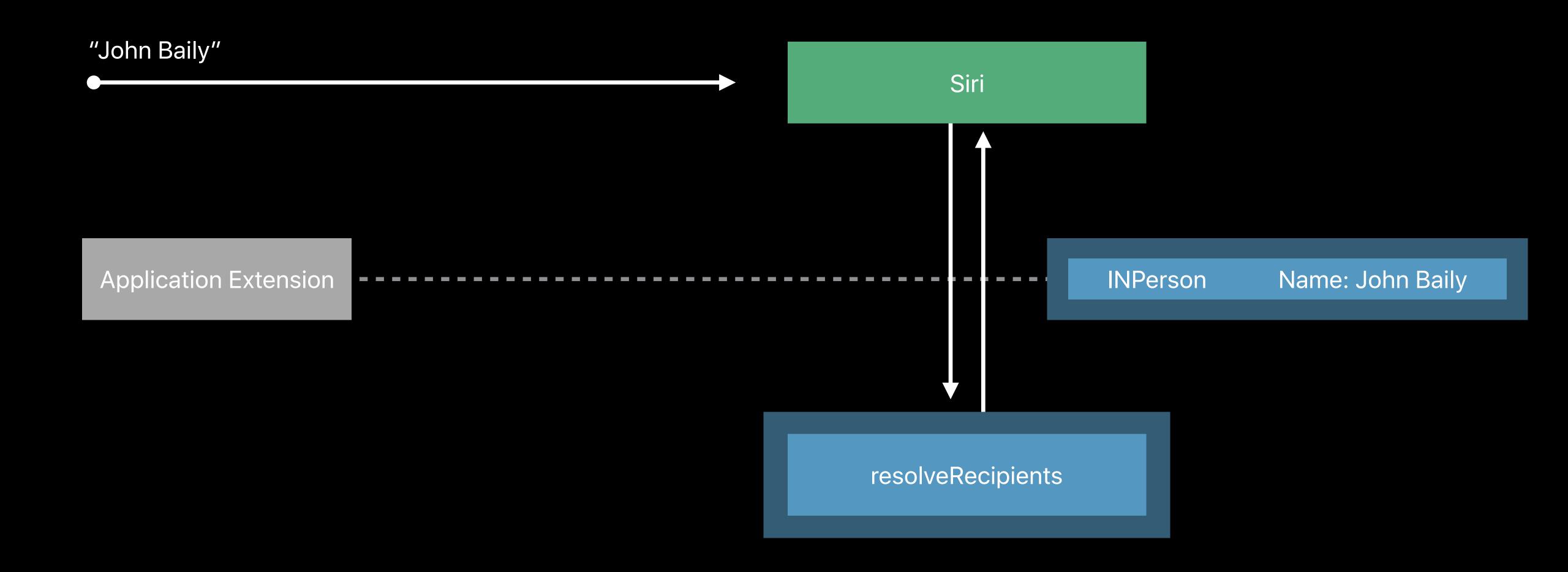


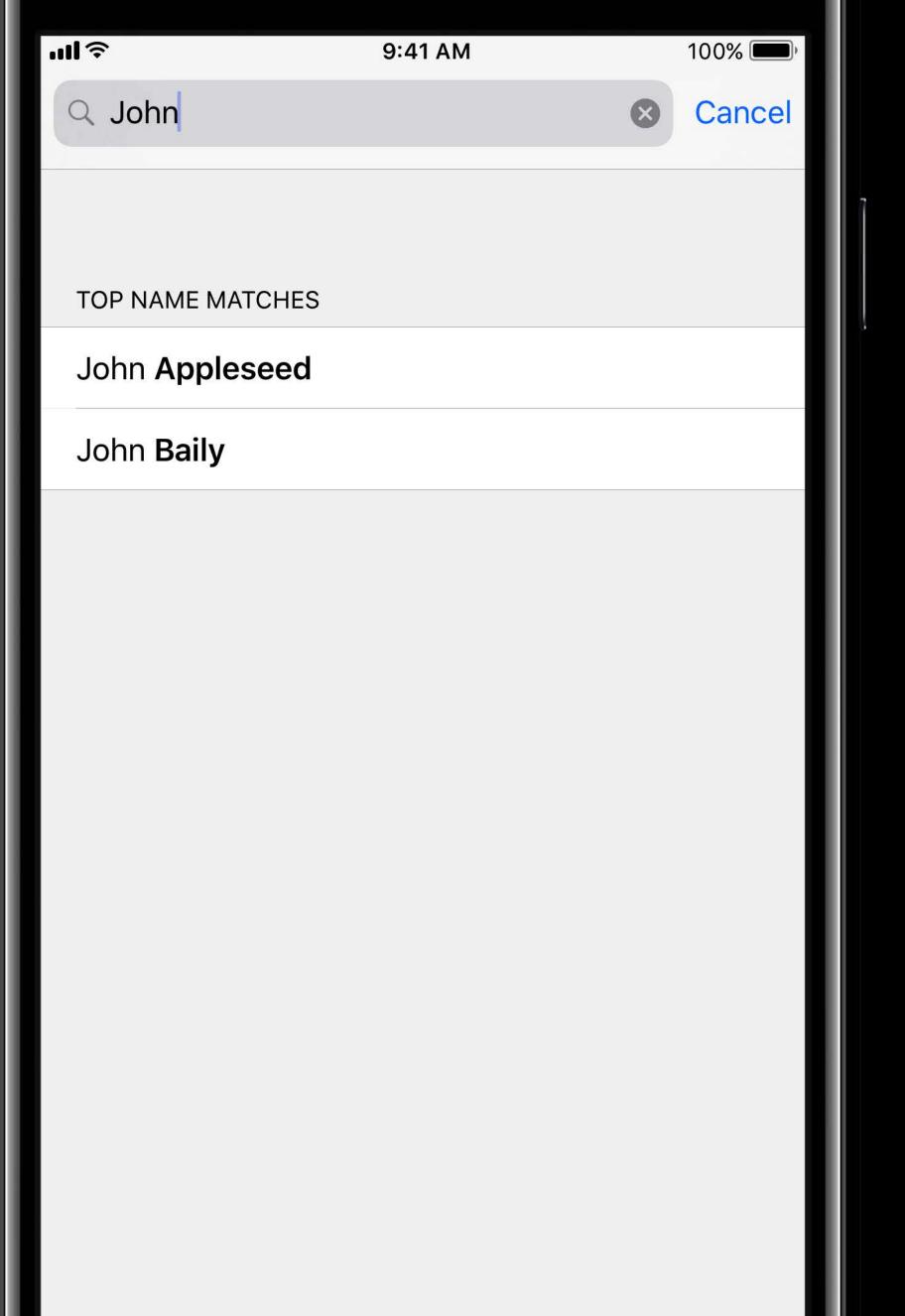
Application Extension

INPerson.siriMatches

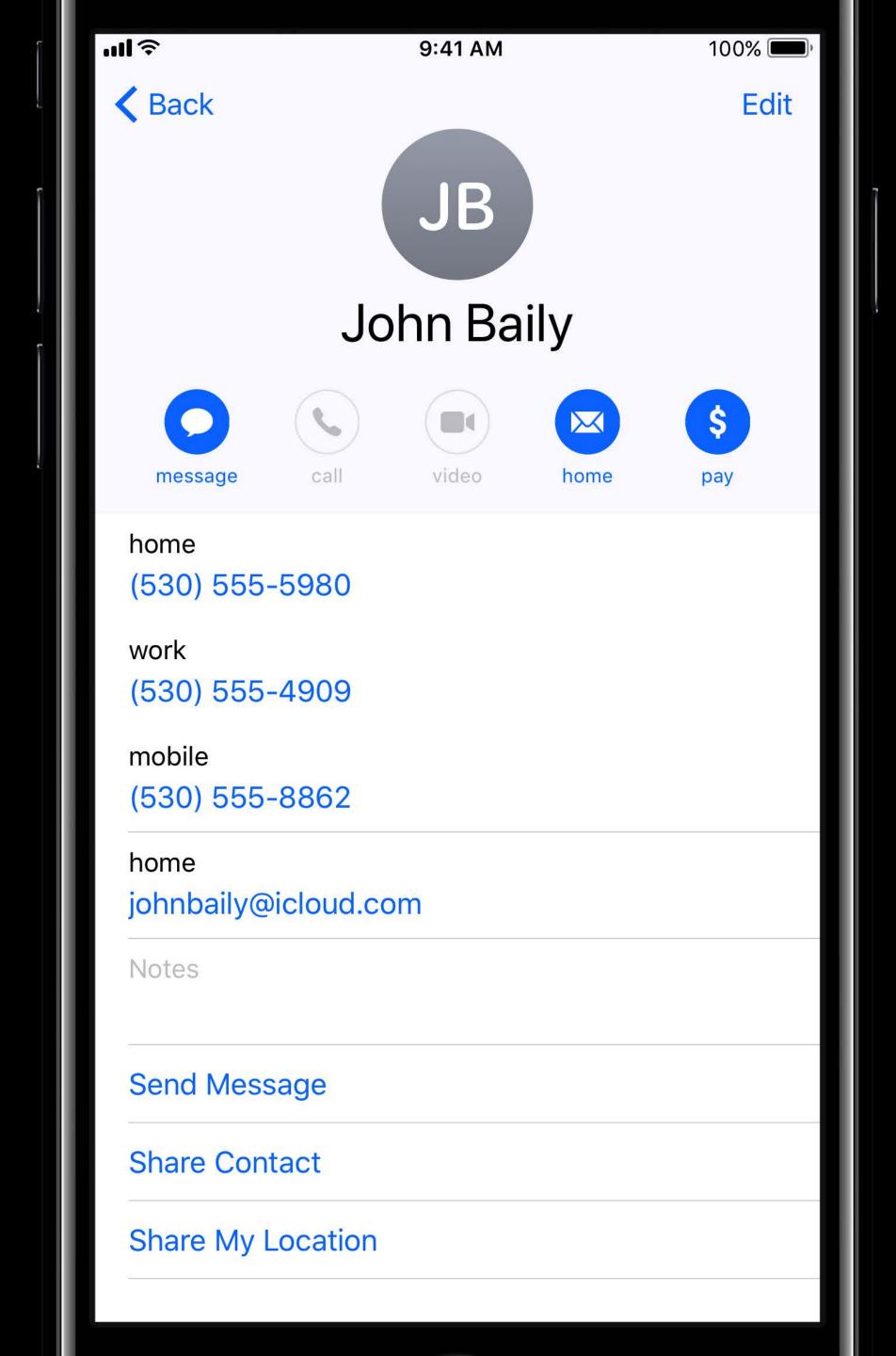


Application Extension





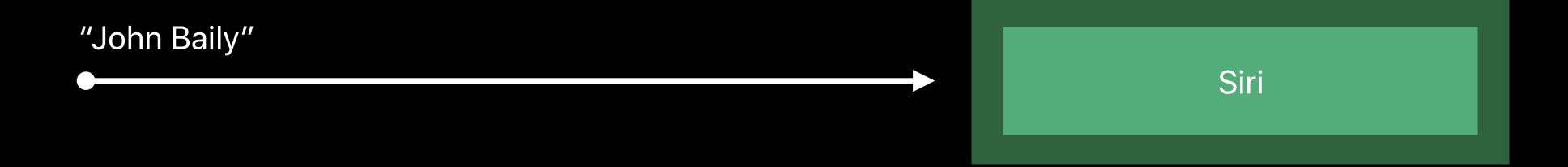
But what if...





INPerson.siriMatches

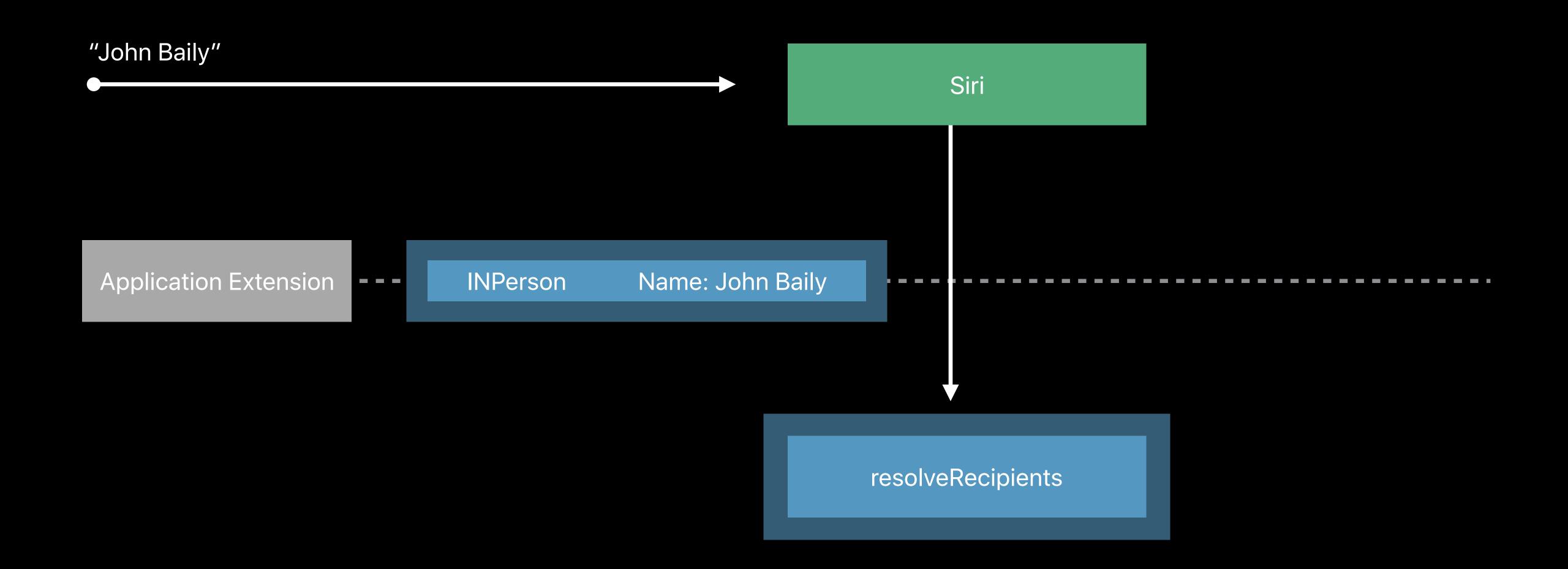
"John Baily"

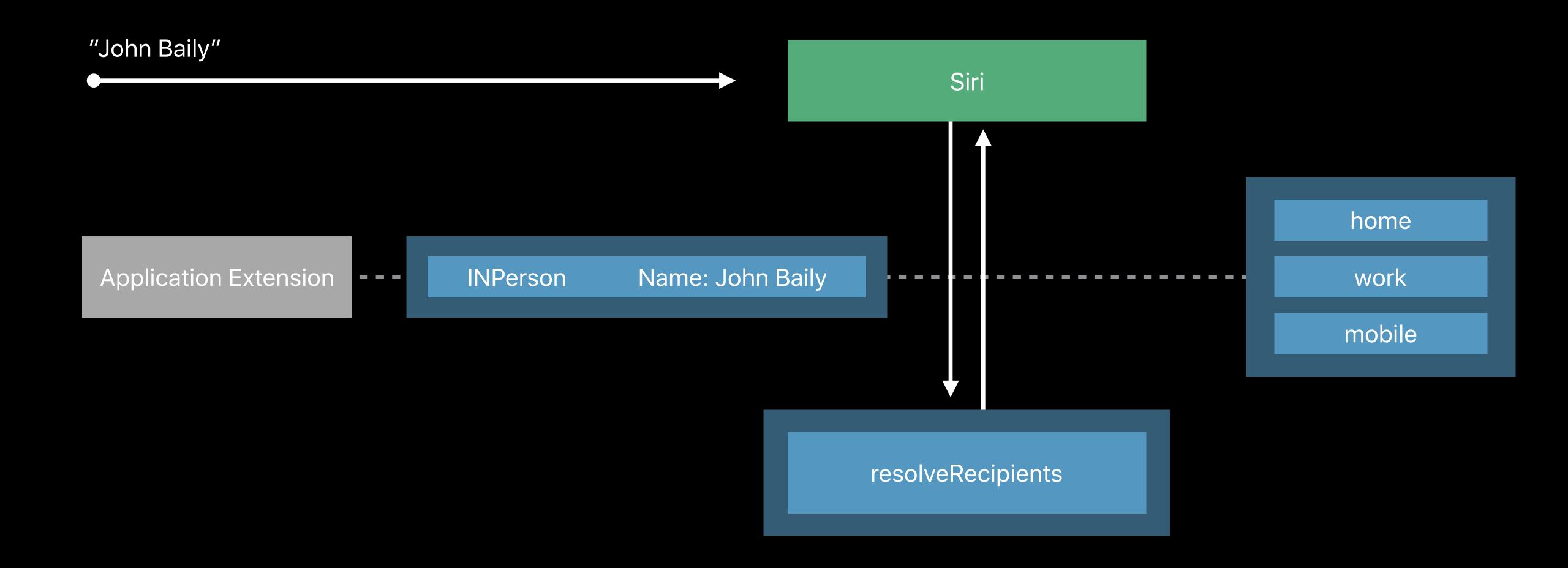


INPerson.siriMatches



Application Extension





ull 🕏

9:41 AM

100% 🔲

John Baily — John Baily

Which one?

John Baily — home

John Baily — work

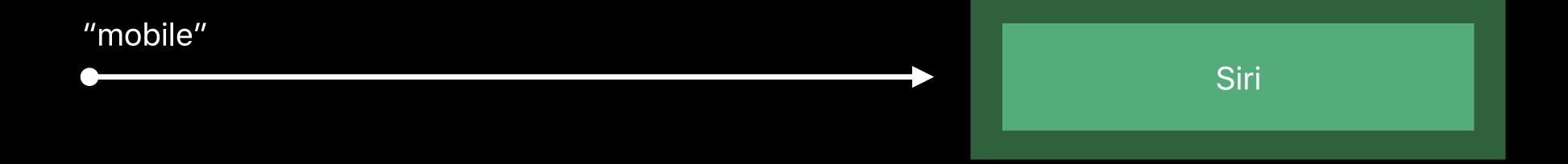
John Baily — mobile





INPerson.siriMatches

"mobile"

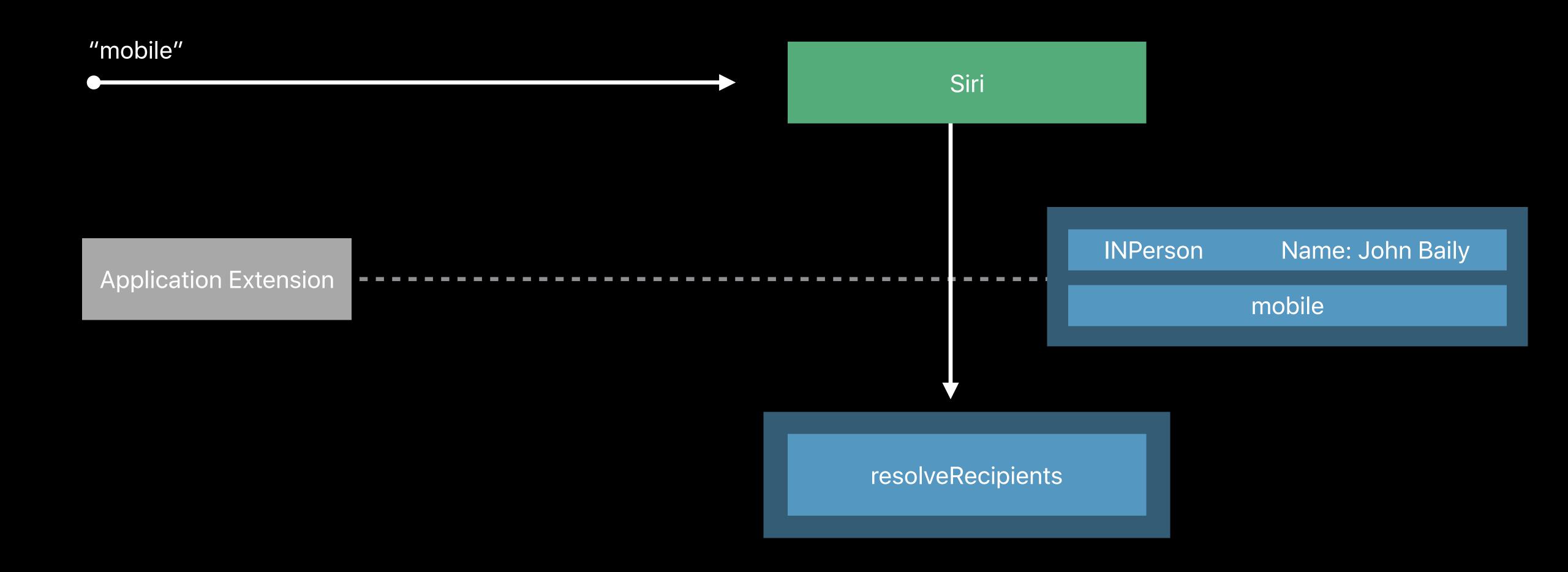


INPerson.siriMatches

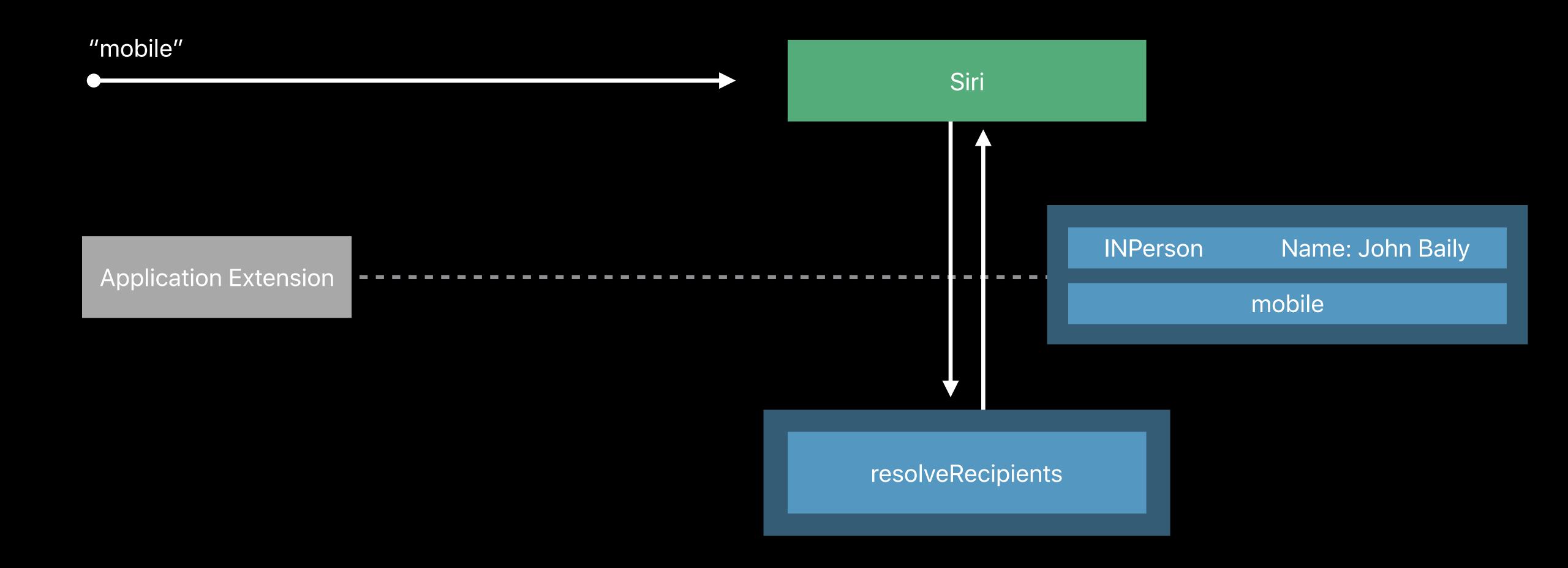


Application Extension

INPerson.siriMatches



INPerson.siriMatches



```
func resolveRecipients(forSendMessage intent: INSendMessageIntent, with completion: @escaping
([INPersonResolutionResult]) -> Void) {
        guard let recipients = intent.recipients, !recipients.isEmpty else {
            completion([.needsValue()])
            return
       let results = recipients.map { recipient in
            database.resolvePerson(for: recipient.user)
        completion(results)
```

completion(results)

```
func resolveRecipients(forSendMessage intent: INSendMessageIntent, with completion: @escaping
([INPersonResolutionResult]) -> Void) {
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        guard let recipients = intent.recipients, !recipients.isEmpty else {
            completion([.needsValue()])
            return
       let results = recipients.map { recipient in
            database.resolvePerson(for: recipient.user)
        completion(results)
```

Demo



"Read my messages on UnicornChat"

```
open class INMessage : NSObject, NSCopying, NSSecureCoding {
   open var identifier: String { get }
   @available(iOS 11.0, *)
   open var conversationIdentifier: String? { get }
   open var content: String? { get }
   open var dateSent: Date? { get }
   @NSCopying open var sender: INPerson? { get }
   open var recipients: [INPerson]? { get }
```

```
open class INMessage : NSObject, NSCopying, NSSecureCoding {
   open var identifier: String { get }
    @available(iOS 11.0, *)
   open var conversationIdentifier: String? { get }
    open var content: String? { get }
    open var dateSent: Date? { get }
    @NSCopying open var sender: INPerson? { get }
```

open var recipients: [INPerson]? { get }

```
open class INSendMessageIntent : INIntent {
   open var recipients: [INPerson]? { get }
   open var content: String? { get }
   open var groupName: String? { get }
   open var serviceName: String? { get }
   @available(iOS 11.0, *)
   open var conversationIdentifier: String? { get }
   @NSCopying open var sender: INPerson? { get }
```

```
open class INSendMessageIntent : INIntent {
   open var recipients: [INPerson]? { get }
   open var content: String? { get }
   open var groupName: String? { get }
   open var serviceName: String? { get }
   @available(iOS 11.0, *)
   open var conversationIdentifier: String? { get }
   @NSCopying open var sender: INPerson? { get }
```

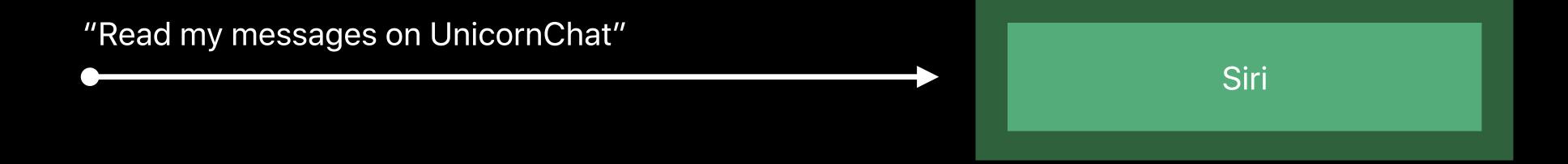
Conversation identifier



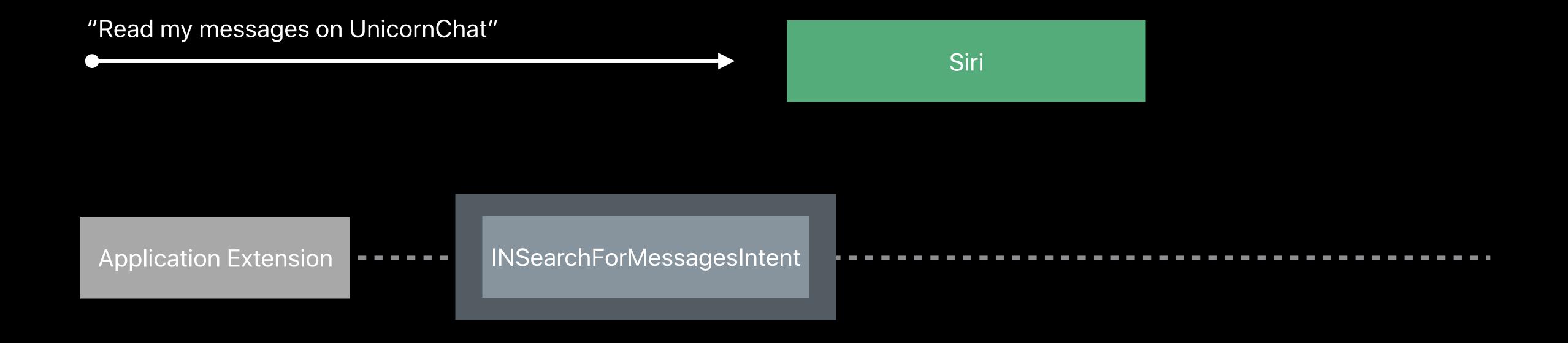
"Read my messages on UnicornChat"

Conversation identifier

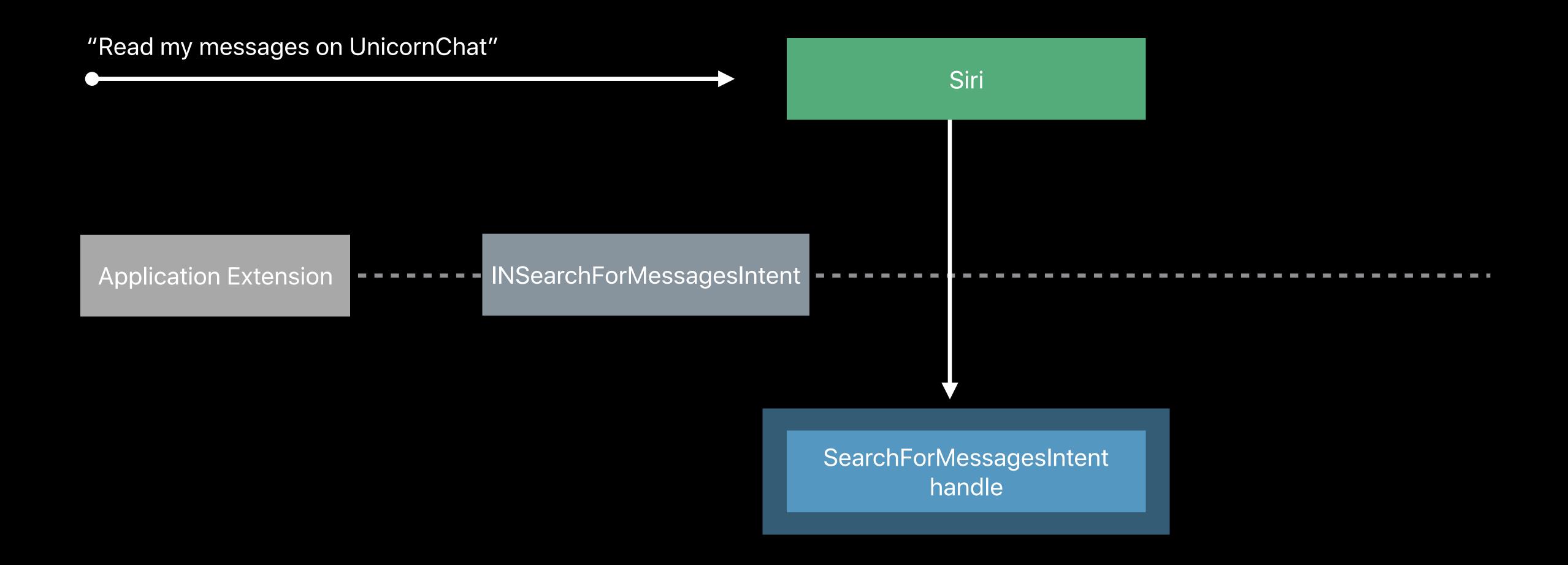
"Read my messages on UnicornChat"

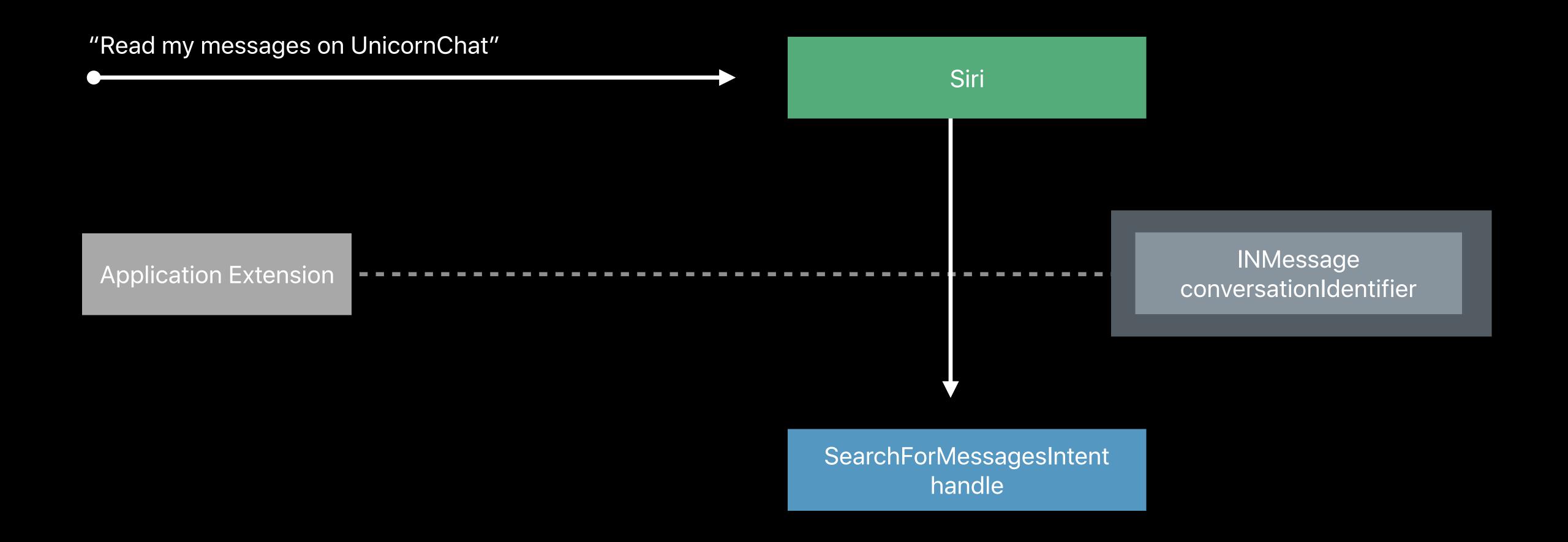


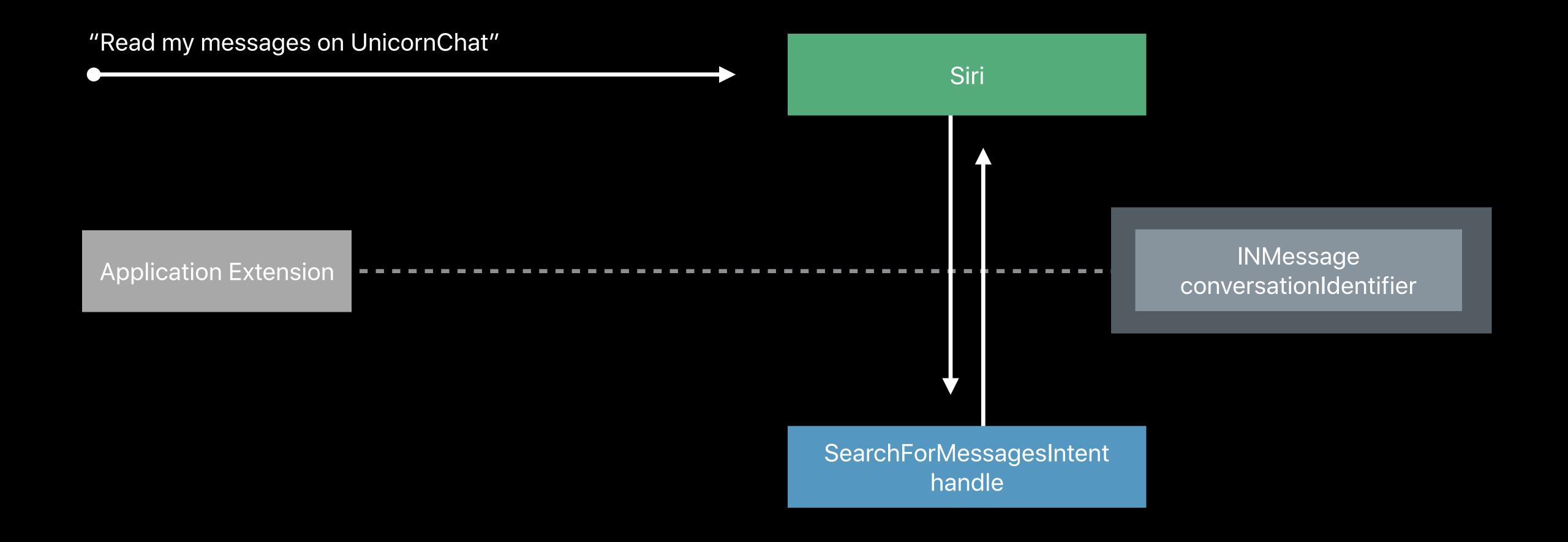
Conversation identifier

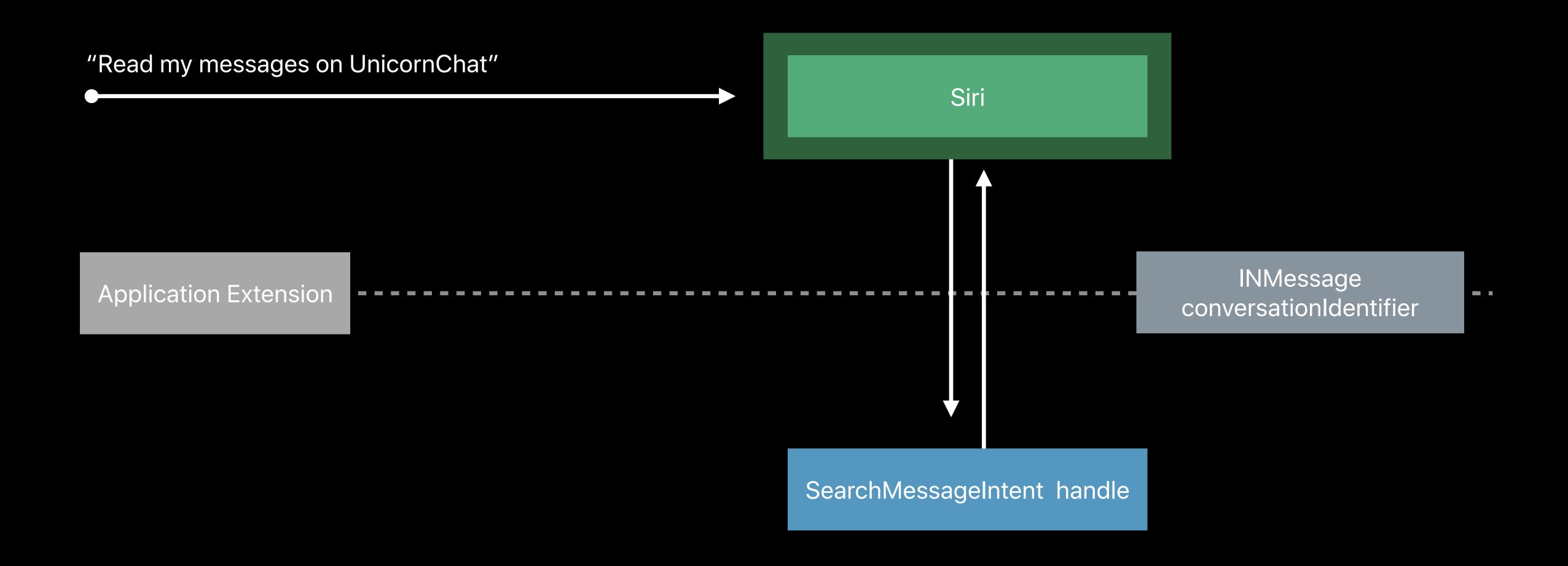


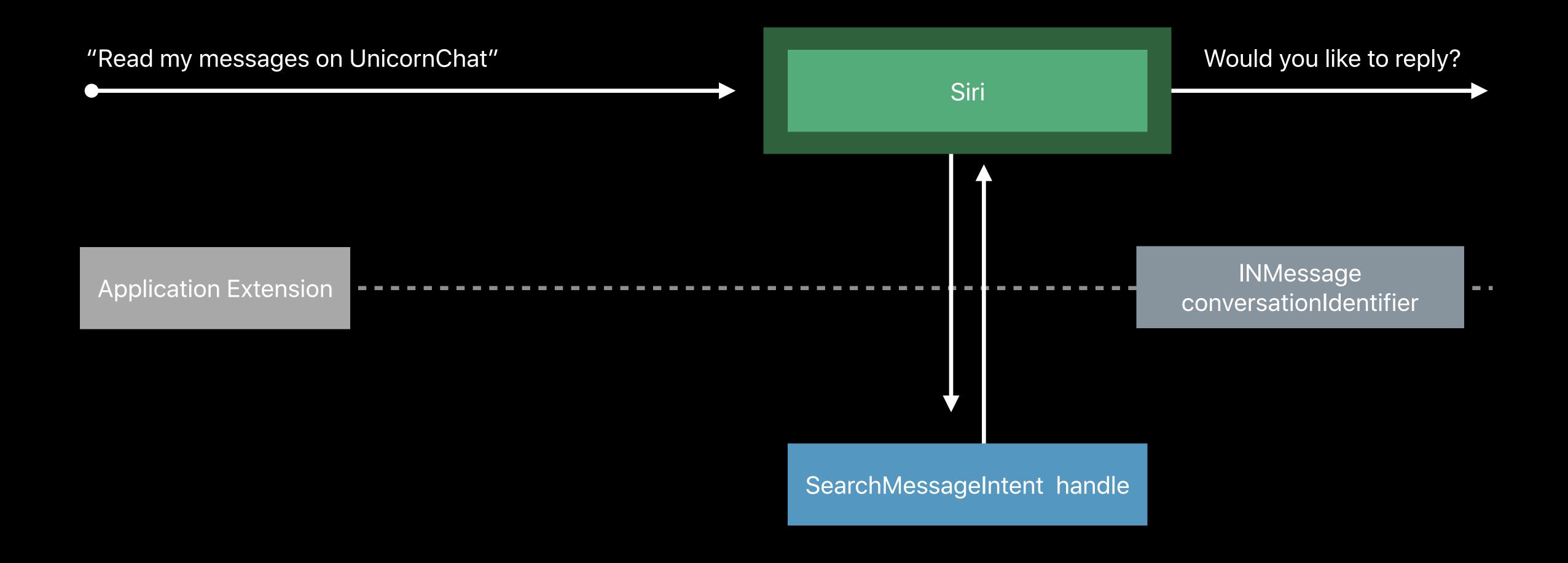
SearchForMessagesIntent handle









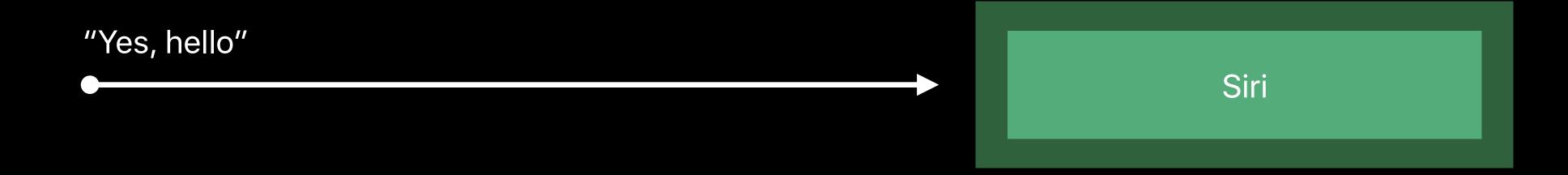


Conversation identifier

"Yes, hello"

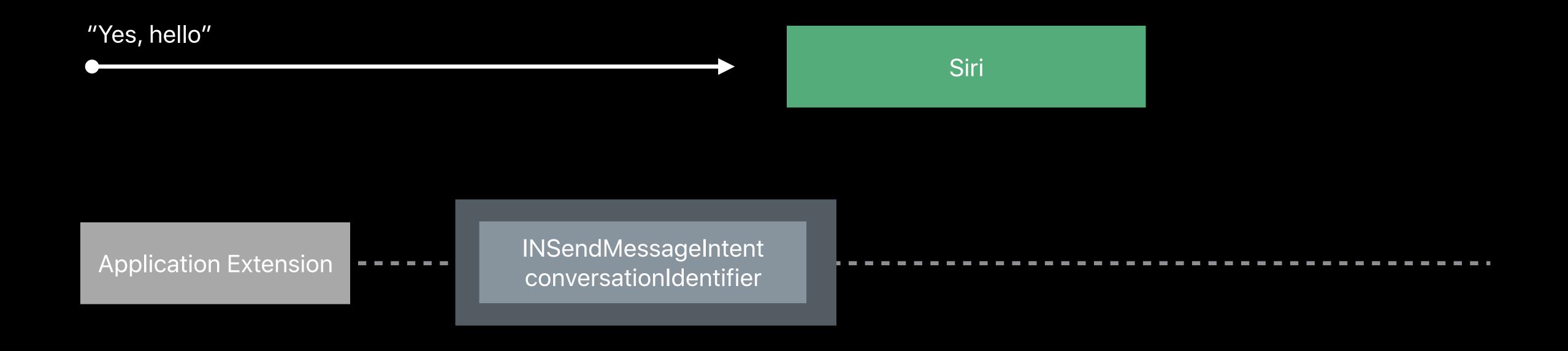
Application Extension

Conversation identifier

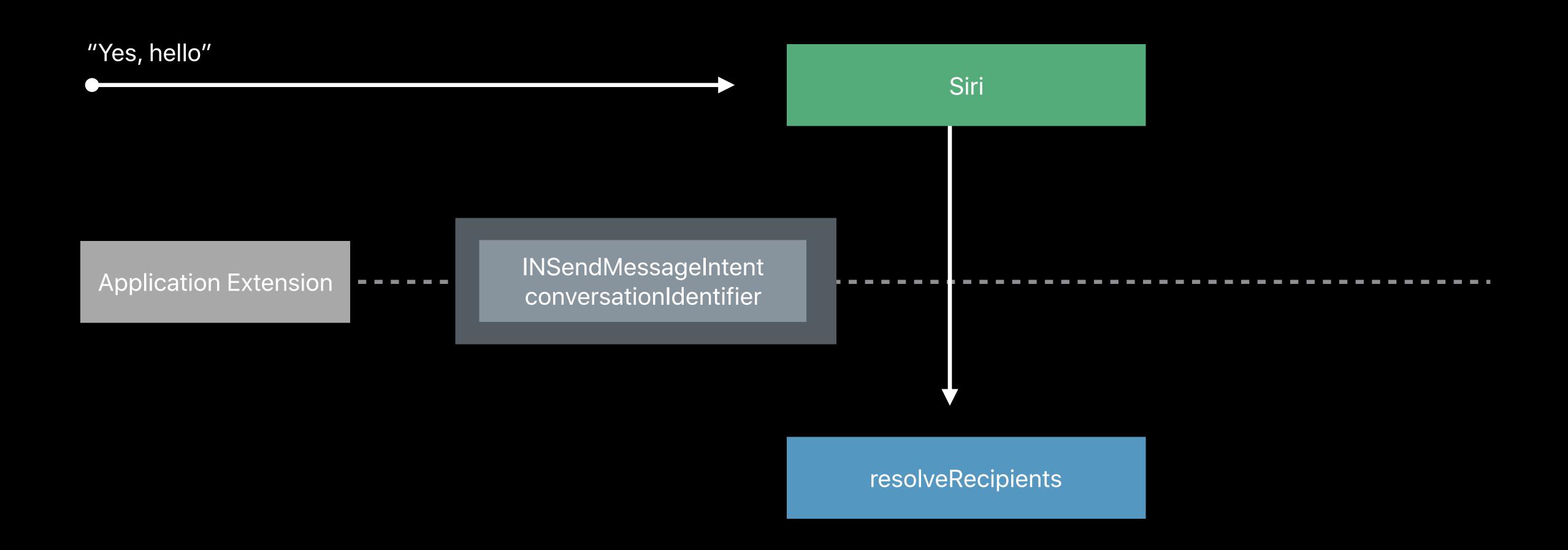


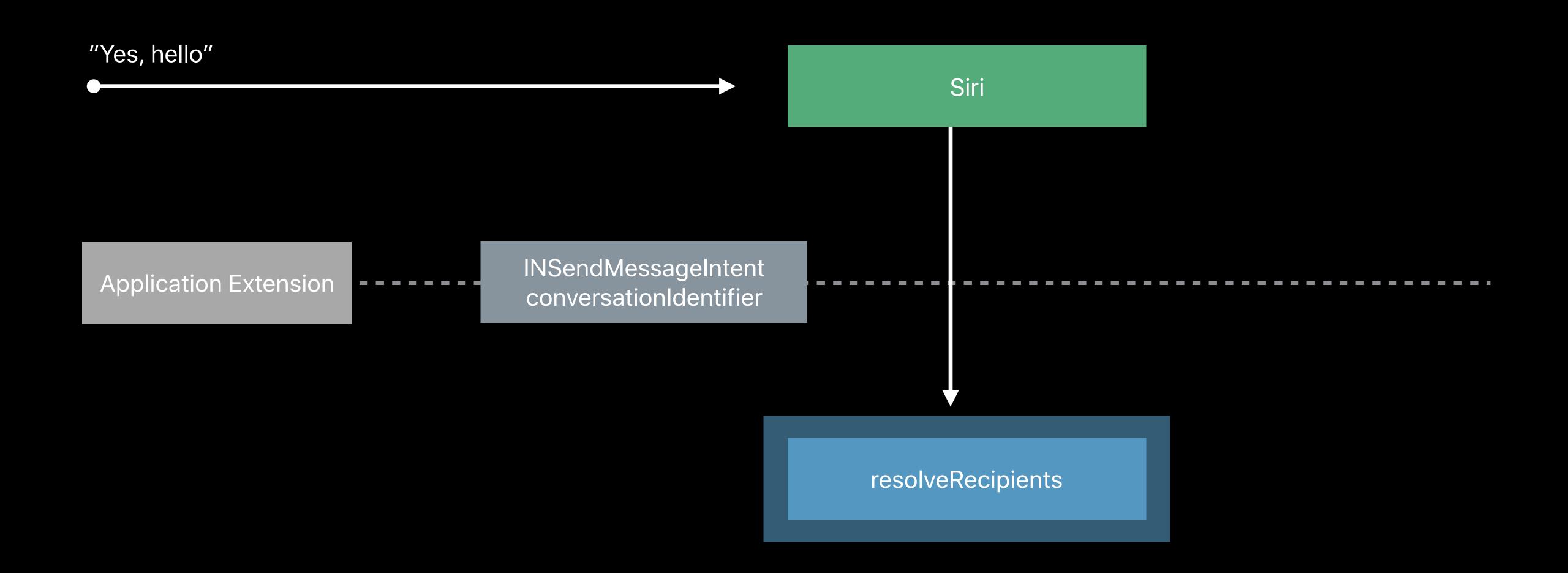
Application Extension

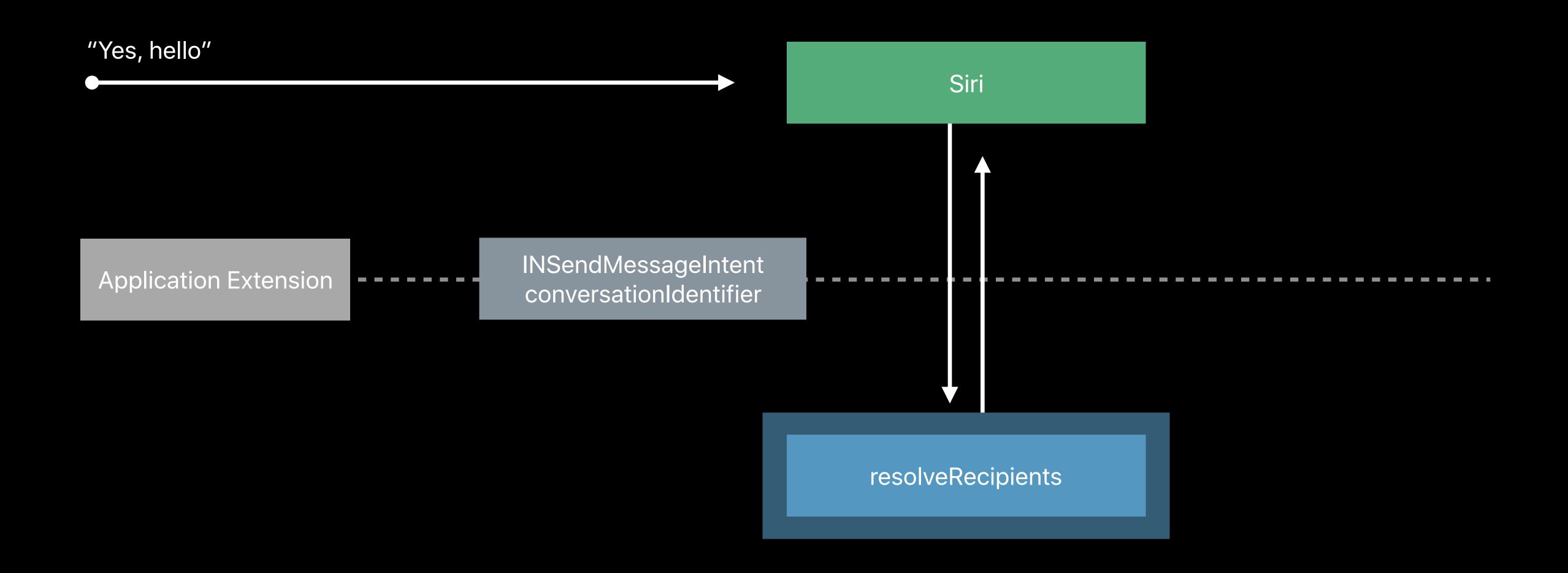
Conversation identifier



resolveRecipients







Related Session

Enabling Your App for CarPlay

WWDC 2017 Video

all 🕏

9:41 AM

100%

Sorry, the messaging service is temporarily not available for this app.

Open UnicornChat



```
public enum INStartVideoCallIntentResponseCode : Int {
   case unspecified
    case ready
    case continueInApp
    case failure
    case failureRequiringAppLaunch
   case failureAppConfigurationRequired
   case failureCallingServiceNotAvailable
   @available(iOS 11.0, *)
    case failureInvalidNumber
```

```
public enum INStartVideoCallIntentResponseCode : Int {
   case unspecified
    case ready
    case continueInApp
    case failure
    case failureRequiringAppLaunch
   case failureAppConfigurationRequired
   case failureCallingServiceNotAvailable
   @available(iOS 11.0, *)
    case failureInvalidNumber
```

INPerson.siriMatches

INPerson.siriMatches Multiple handles

INPerson.siriMatches

Multiple handles

INPerson.siriMatches

Multiple handles

Conversation identifier

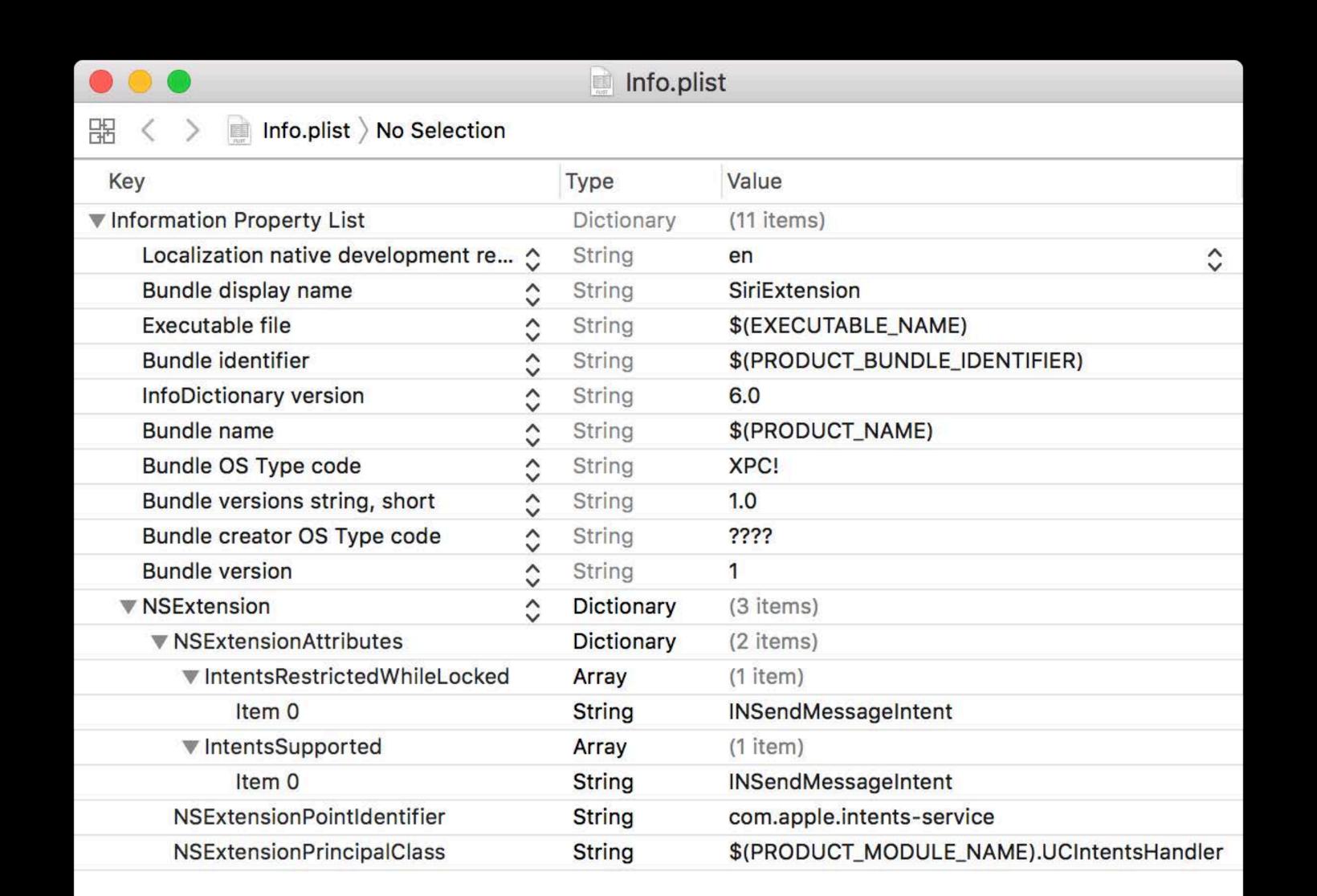
Response codes

Device unlock, authentication, and payments

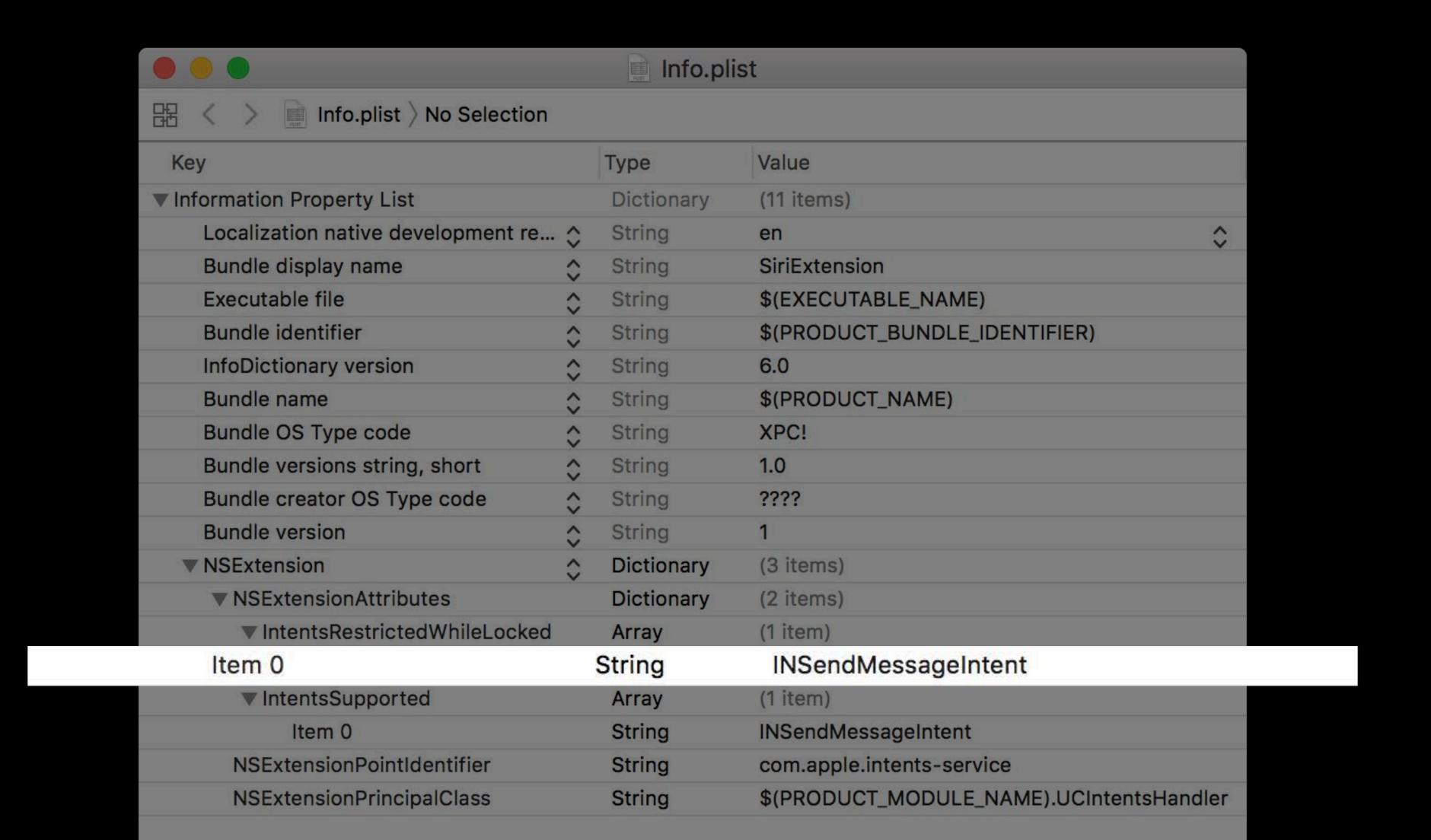




Requiring device unlock



Requiring device unlock



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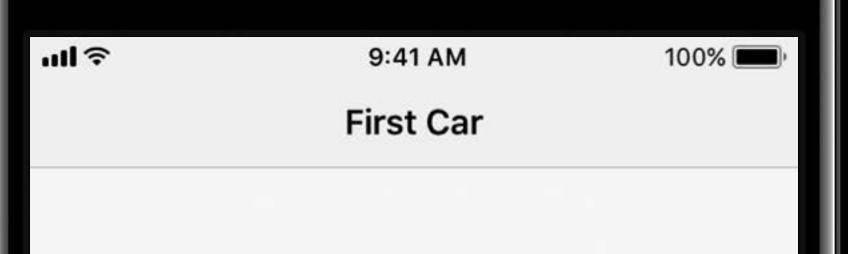
9:41 AM

100% 🔲

Send a UnicornChat to Ryan Orr saying I'm on my way

You'll need to unlock your iPhone first.

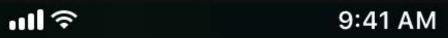




First

Second

```
class INSetCarLockStatusIntent : INIntent {
    var carName: INSpeakableString? { get }
    var locked: Bool? { get }
}
```

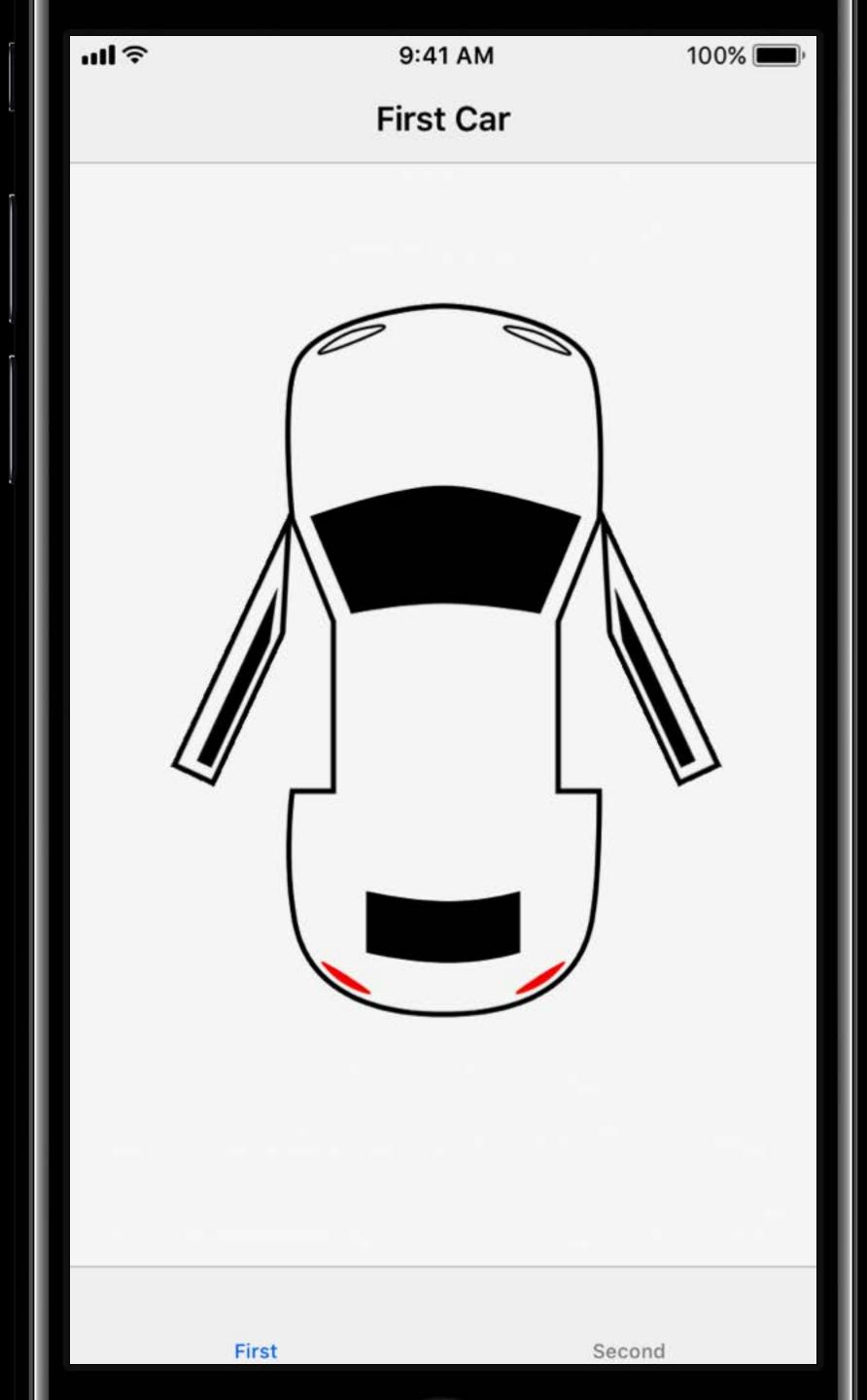


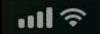
√ 100% 🔙

Unlock my car

OK, I've unlocked it.

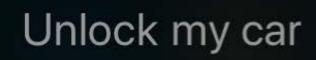






9:41 AM

100%



You'll need to authorize this.

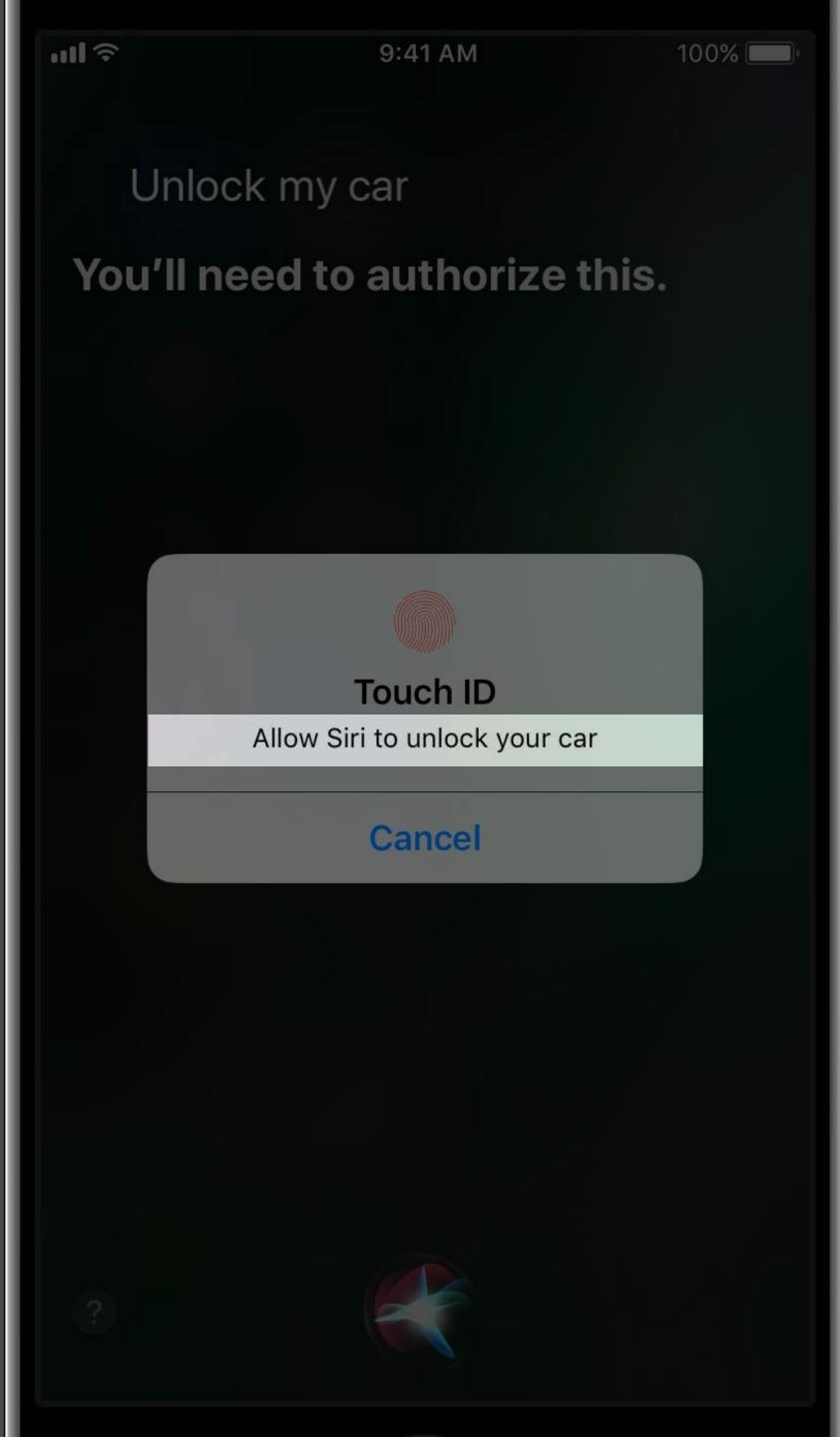


Touch ID

Allow Siri to unlock your car

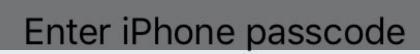
Cancel





Enter iPhone passcode Allow Siri to unlock your car

q w e r t y u i o p
a s d f g h j k l
公 z x c v b n m 🗵
.?123 space Cancel



Allow Siri to unlock your car

qwertyuiop
asdfghjkl
むzxcvbnmex
.?123 space Cancel

Demo

LocalAuthentication.framework

LocalAuthentication.framework

Multiple forms of authentication

LocalAuthentication.framework

Multiple forms of authentication

TouchID

LocalAuthentication.framework

Multiple forms of authentication

- TouchID
- Passcode

LocalAuthentication.framework

Multiple forms of authentication

- TouchID
- Passcode

Call in your handle method

LocalAuthentication.framework

Multiple forms of authentication

- TouchID
- Passcode

Call in your handle method

Siri waits for user input

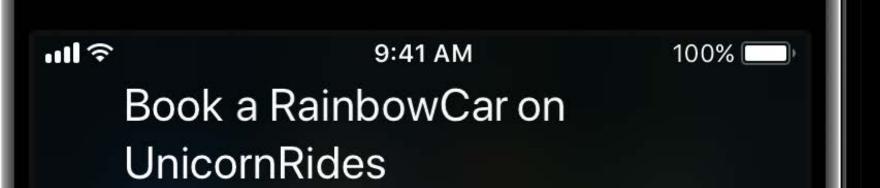
LocalAuthentication.framework

Multiple forms of authentication

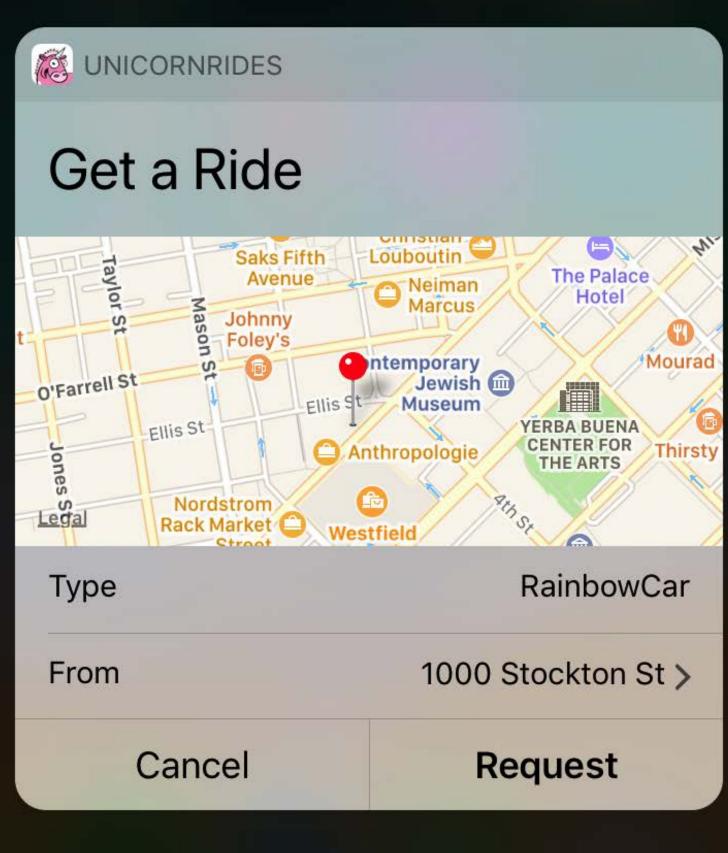
- TouchID
- Passcode

Call in your handle method

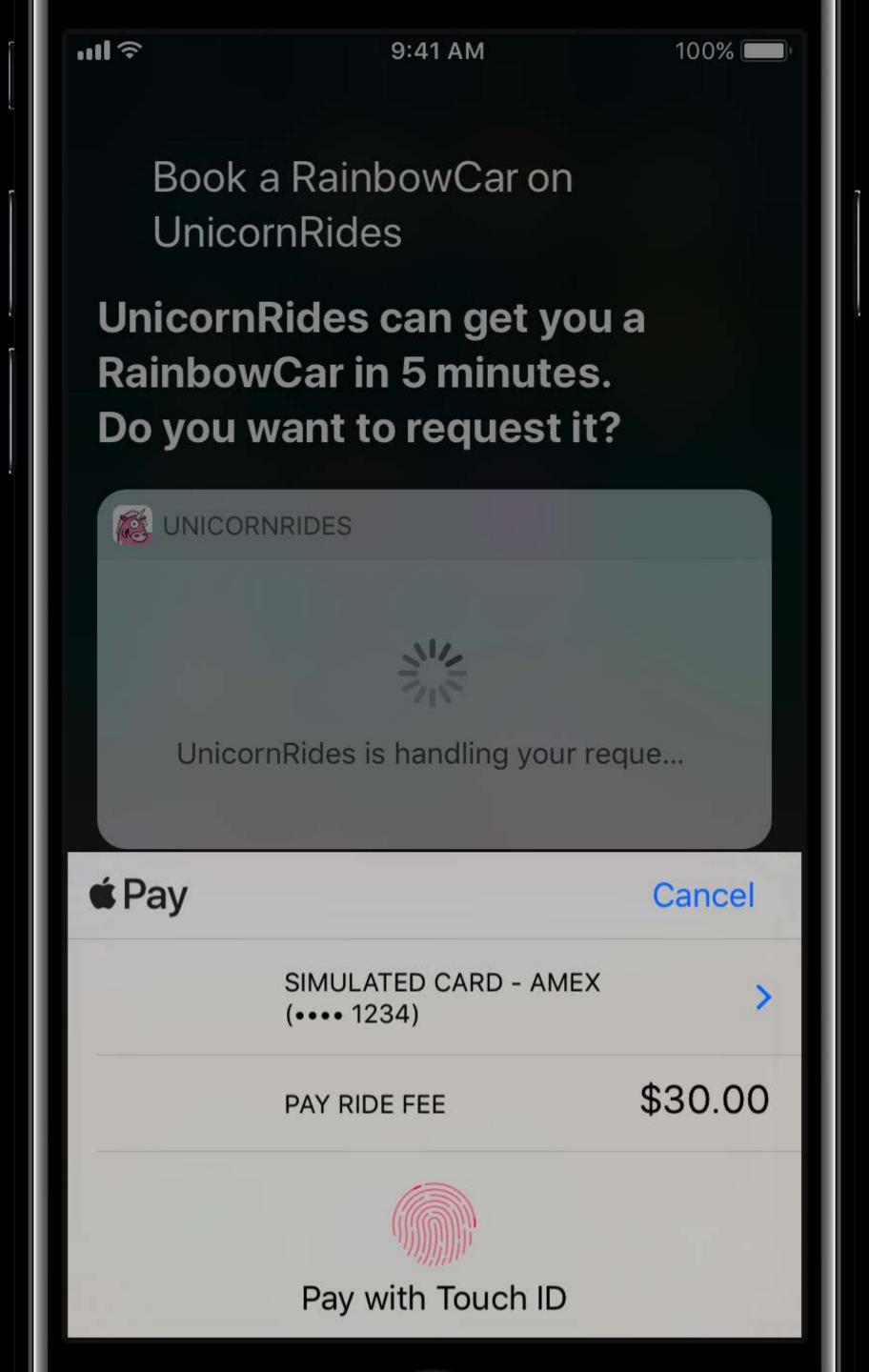
Siri waits for user input



UnicornRides can get you a RainbowCar in 5 minutes. Do you want to request it?







User-specific and app global



9:41 AM

100%

Check balance on UnicornPay

Which account are you looking for?

NestEgg

SharedAccount



매후

9:41 AM

100% 🔲

Check balance in my nest egg on UnicornPay

UnicornPay didn't find that account.

Ok, Which account?



User-specific

User-specific

Help Siri understand words unique to users

User-specific

Help Siri understand words unique to users

• Contact, photo album and keyword, car, workout, bank, account, note, list item

User-specific

Help Siri understand words unique to users

• Contact, photo album and keyword, car, workout, bank, account, note, list item

Use INVocabulary API

User-specific

Help Siri understand words unique to users

• Contact, photo album and keyword, car, workout, bank, account, note, list item

Use INVocabulary API

Introducing SiriKit	WWDC 2016
Extending your apps with SiriKit	WWDC 2016

```
open class INVocabulary : NSObject {
  open func setVocabularyStrings(_ vocabulary: NSOrderedSet, of type: INVocabularyStringType)
```

INVocabulary

Siri

Application

NestEgg Object

SharedAccount Object

INVocabulary

Siri

Application

"NestEgg"

"SharedAccount"

NestEgg Object

SharedAccount Object

INVocabulary

Siri

Application

NestEgg Object

SharedAccount Object

INVocabulary

Siri

"NestEgg"

"SharedAccount"

Application

NestEgg Object

INVocabulary

Siri

"NestEgg"

"SharedAccount"

Application

NestEgg Object

INVocabulary



"Show my nest egg balance"

INVocabulary

"Show my nest egg balance"

Siri

"NestEgg"

"SharedAccount"

Application

NestEgg Object

INVocabulary

"Show my nest egg balance"

Siri

"NestEgg"

"SharedAccount"

NestEgg Object

INVocabulary

"Show my nest egg balance"

Siri

"NestEgg"

"SharedAccount"

NestEgg Object

INVocabulary



Application

NestEgg Object

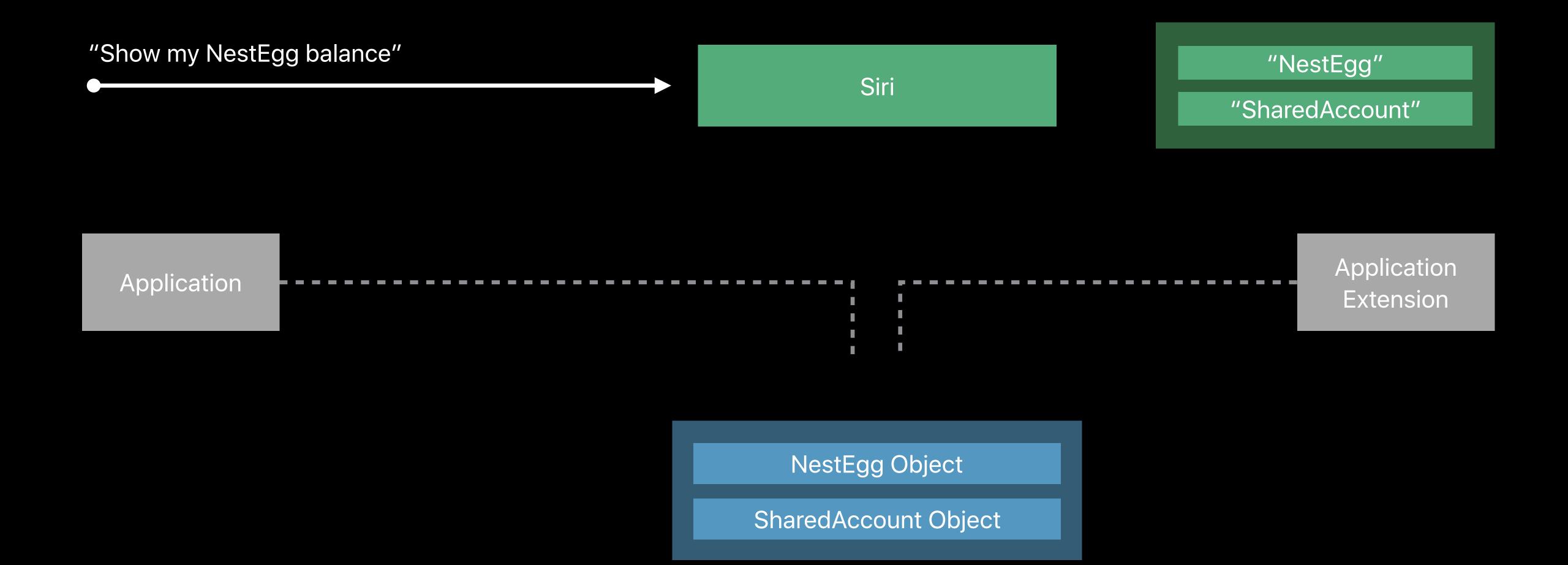
INVocabulary



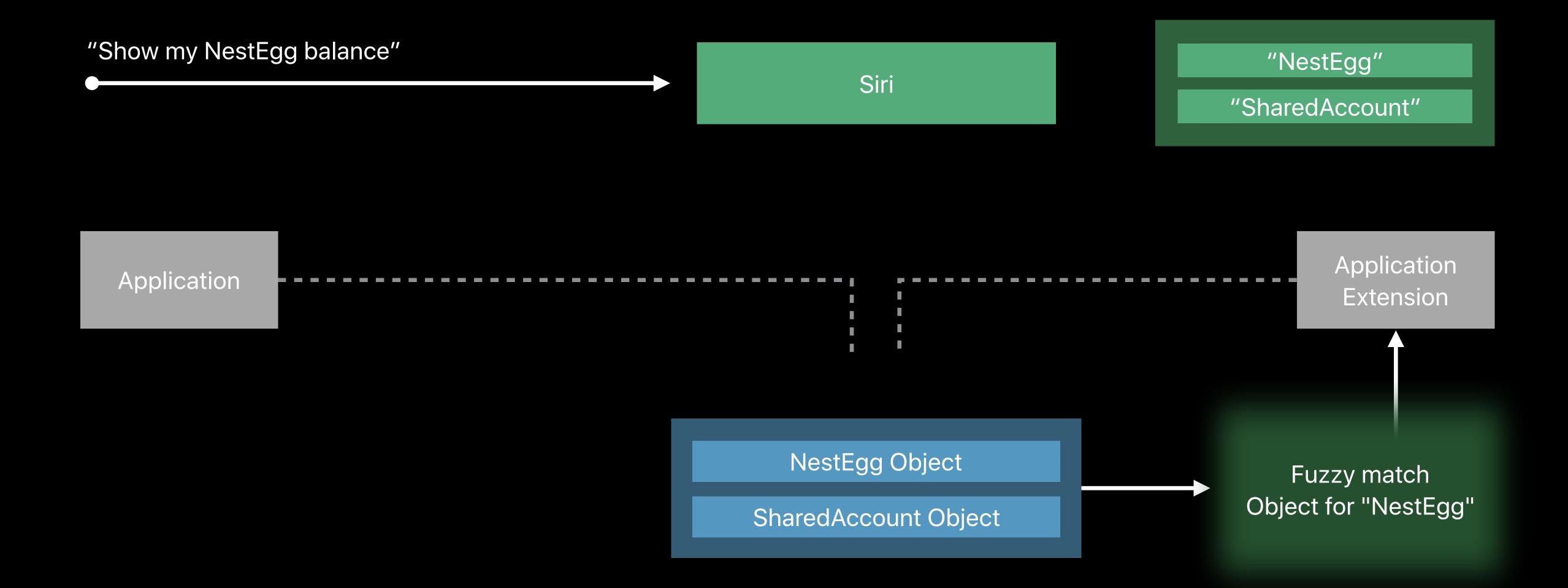
Application

NestEgg Object

INVocabulary



INVocabulary





```
open class INVocabulary : NSObject {
  open func setVocabularyStrings(_ vocabulary: NSOrderedSet, of type: INVocabularyStringType)

    @available(iOS 11.0, *)
    open func setVocabulary(_ vocabulary: NSOrderedSet, of type: INVocabularyStringType)
    // vocabulary items can be of any type that conforms to the INSpeakable protocol
}
```

```
public protocol INSpeakable : NSObjectProtocol {
   public var spokenPhrase: String { get }
   // "NestEgg", "Spyn"
   public var pronunciationHint: String? { get }
   // "nest egg", "spin"
   public var vocabularyIdentifier: String? { get }
   // "nestegg", "object-id:456ABCDEF1237890"
   public var alternativeSpeakableMatches: [INSpeakable]? { get }
```

```
public protocol INSpeakable : NSObjectProtocol {

   public var spokenPhrase: String { get }
   // "NestEgg", "Spyn"

   public var pronunciationHint: String? { get }
   // "nest egg", "spin"
```

public var vocabularyIdentifier: String? { get }

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// "nestegg", "object-id:456ABCDEF1237890"

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```

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   // "nest egg", "spin"
   public var vocabularyIdentifier: String? { get }
   // "nestegg", "object-id:456ABCDEF1237890"
   public var alternativeSpeakableMatches: [INSpeakable]? { get }
```

INVocabulary

Siri

Application

NestEgg Object

INVocabulary

Siri

Application

NestEgg <INSpeakable>

SharedAccount <INSpeakable>

NestEgg Object

INVocabulary

Siri

Application

NestEgg Object

INVocabulary

Siri

NestEgg < INSpeakable >

SharedAccount <INSpeakable>

Application

NestEgg Object

INVocabulary

Siri

NestEgg <INSpeakable>

SharedAccount <INSpeakable>

Application

NestEgg Object

INVocabulary



"Show my nest egg balance"

INVocabulary

"Show my nest egg balance"

Siri

NestEgg < INSpeakable >

SharedAccount <INSpeakable>

Application

NestEgg Object

INVocabulary

Siri

NestEgg <INSpeakable>
SharedAccount <INSpeakable>

Application

NestEgg Object

INVocabulary



Application

NestEgg Object

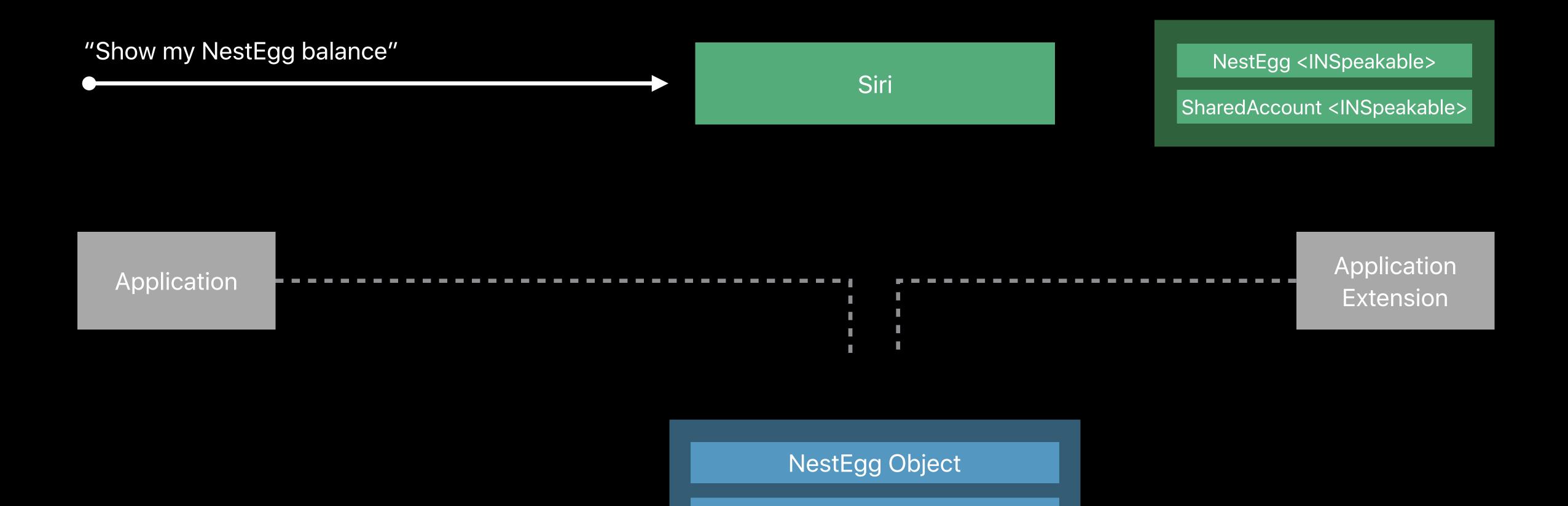
INVocabulary



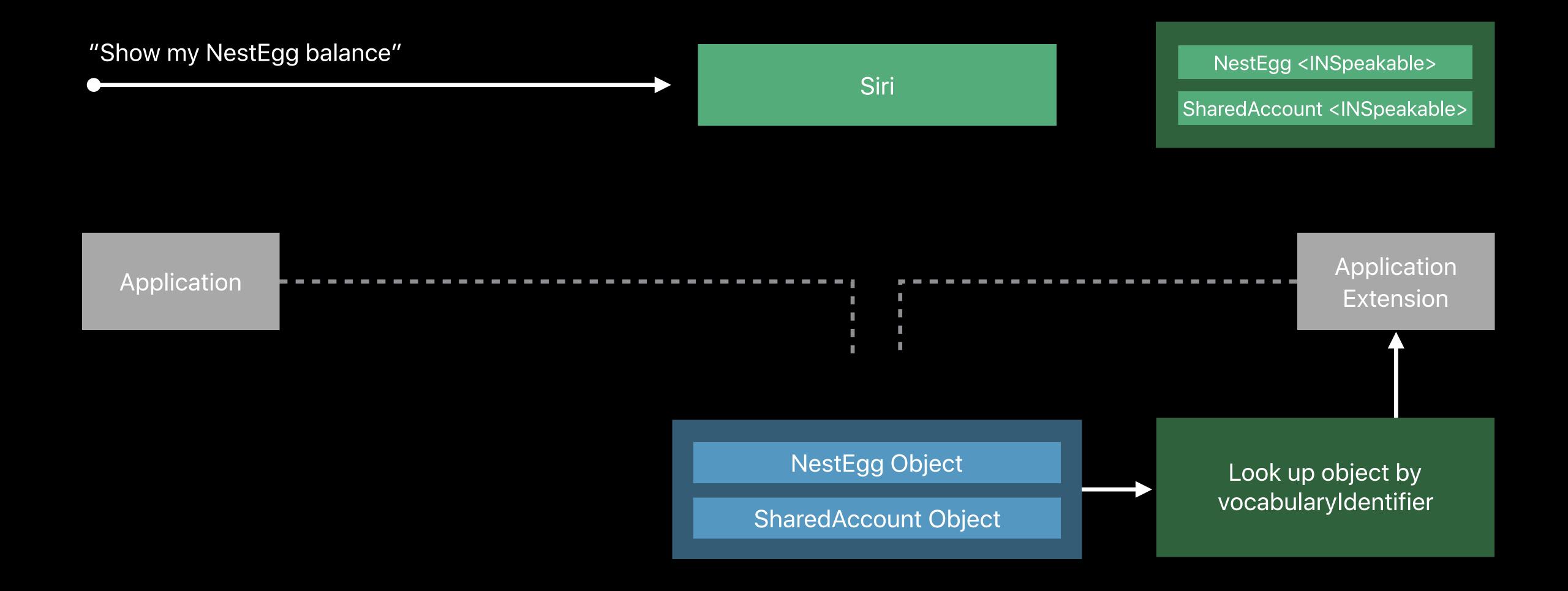
Application

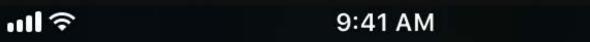
NestEgg Object

INVocabulary



INVocabulary

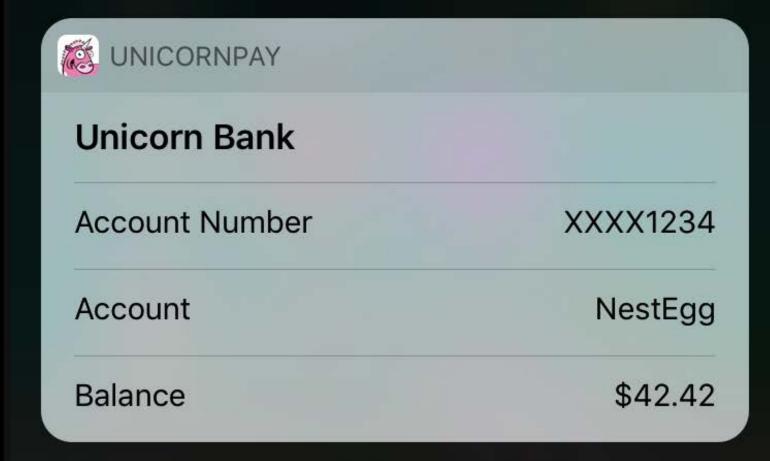




100% 🔲

Check balance in my NestEgg on UnicornPay

Here you go:





App global

App global

Help Siri understand words unique to your app

App global

Help Siri understand words unique to your app

Common to all of your users

App global

Help Siri understand words unique to your app

Common to all of your users

• Ride name, workout names

App global

Help Siri understand words unique to your app

Common to all of your users

• Ride name, workout names

Use AppIntentVocabulary.plist



9:41 AM

1 100% ■

Book a car on UnicornRides

What type of ride do you want?

SparkleCar

RainbowCar





9:41 AM

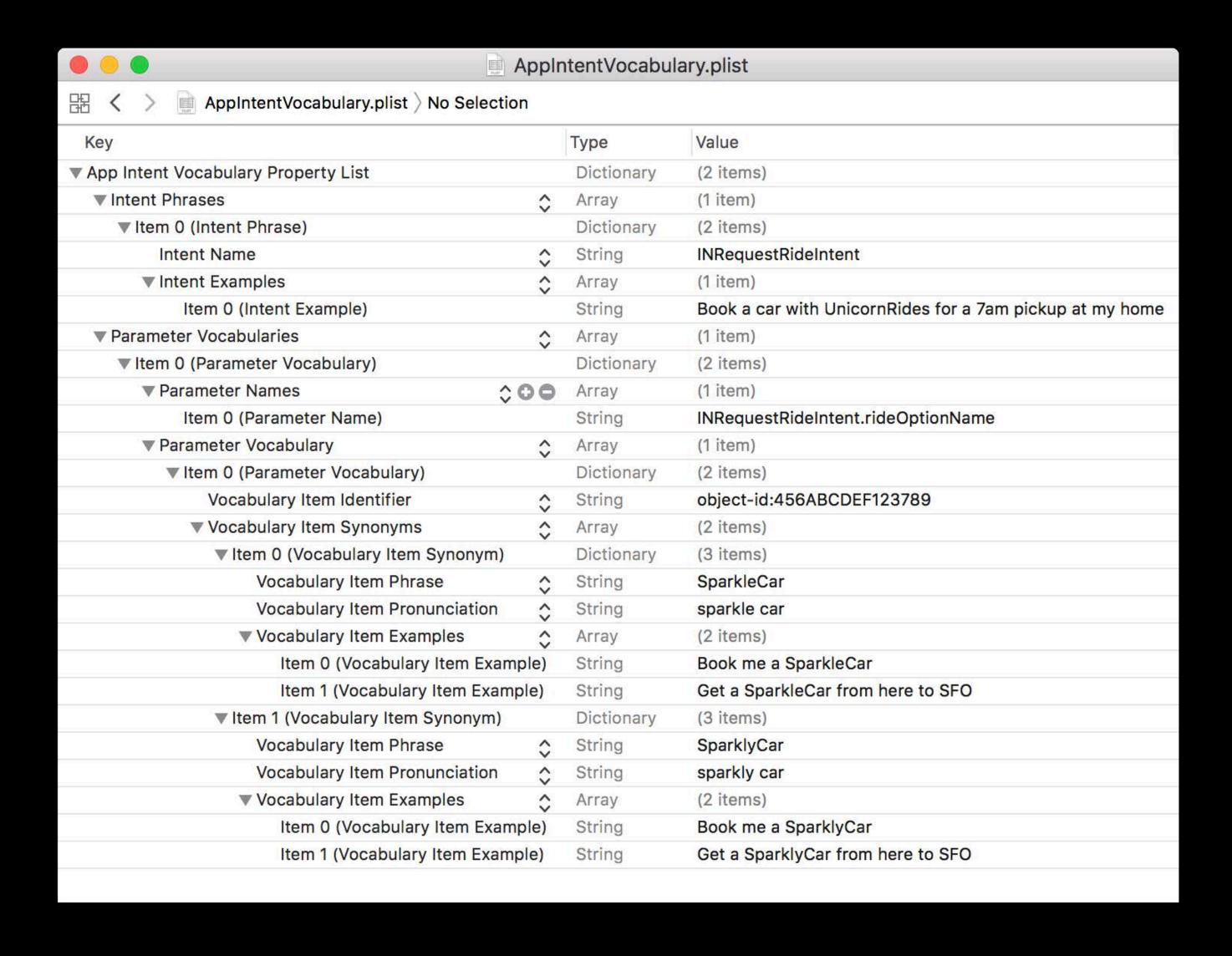
√ 100% 🔙

Book a sparkle car on UnicornRides

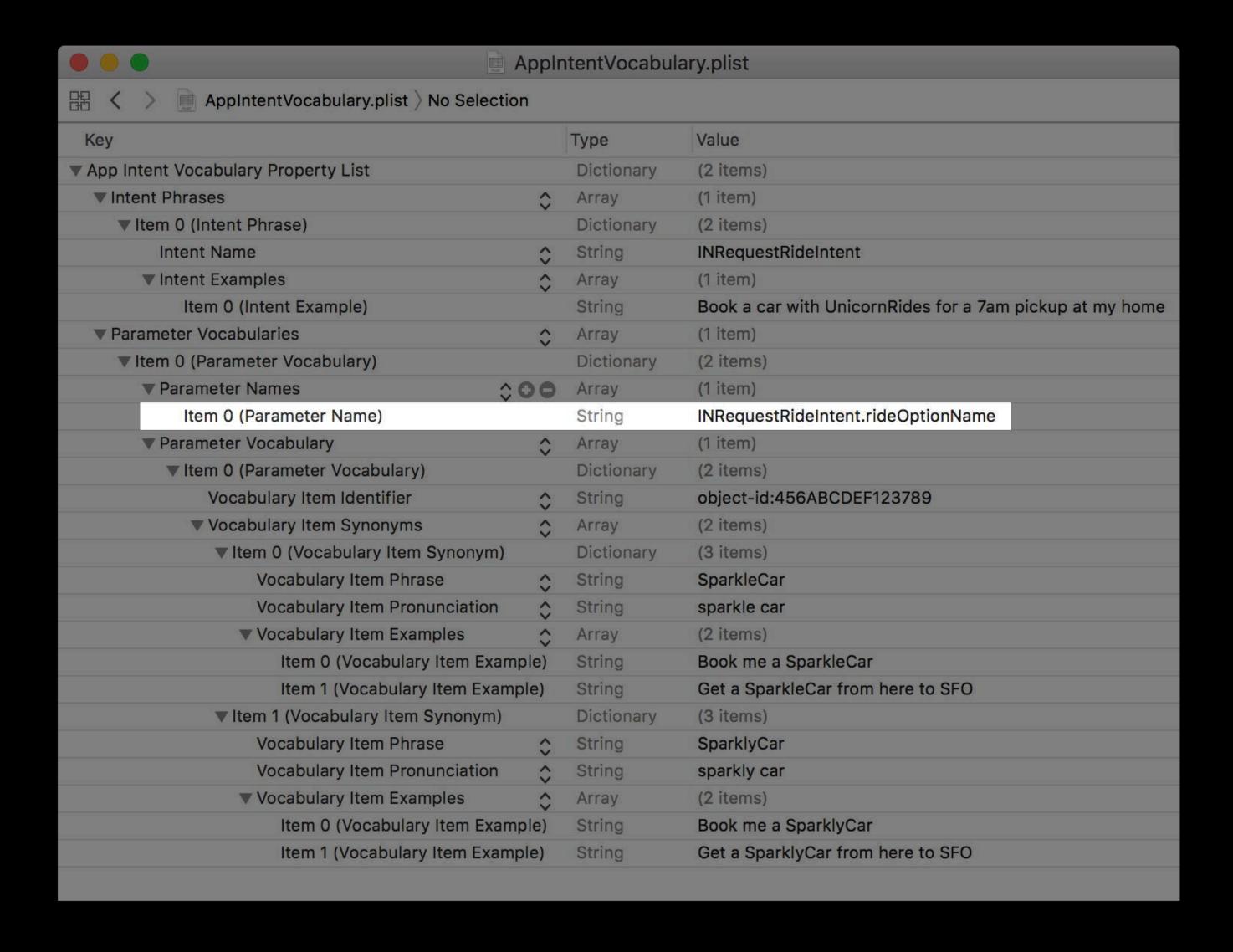
Sorry, I can't do that.

Open the UnicornRides app



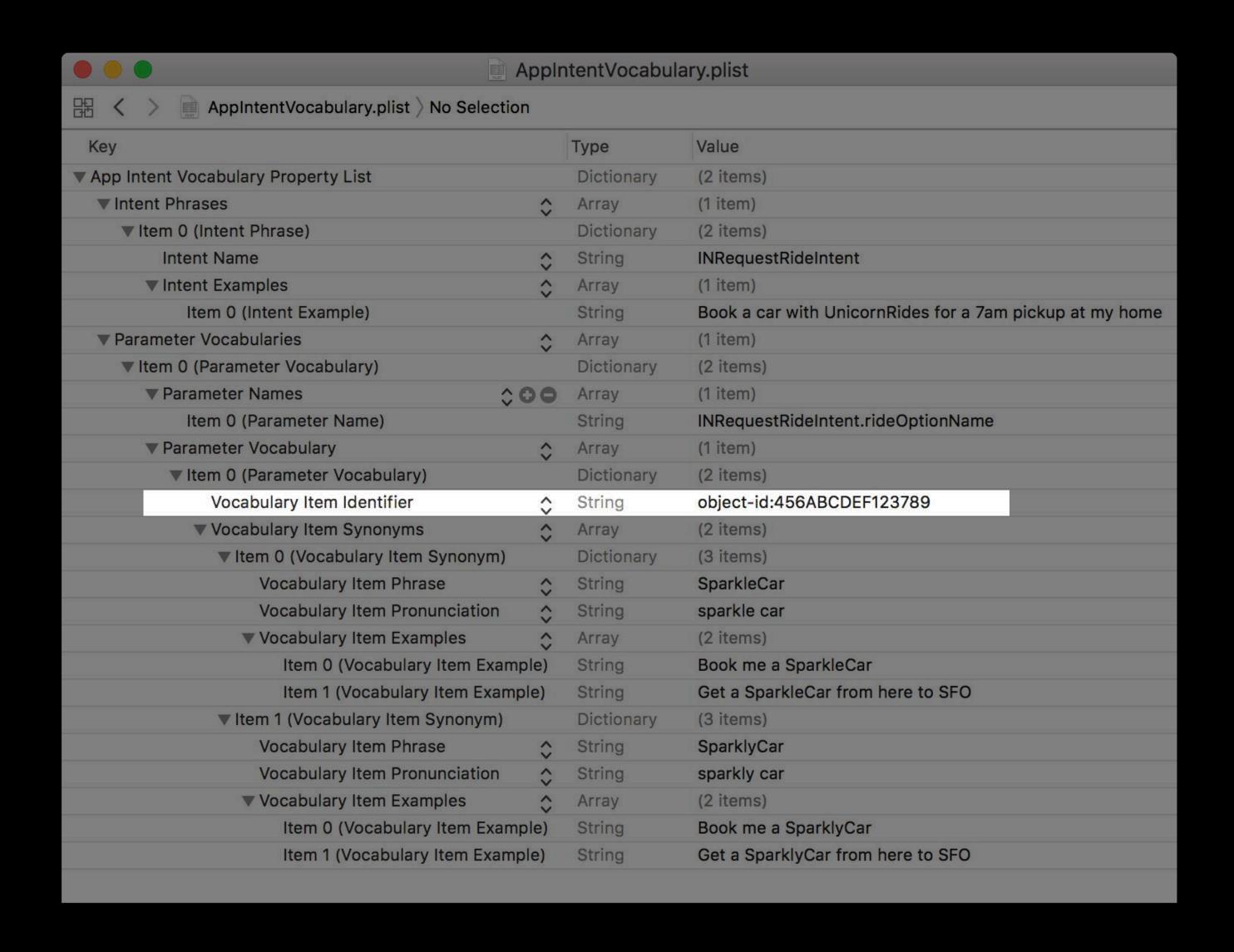


INSpeakable



NSpeakable

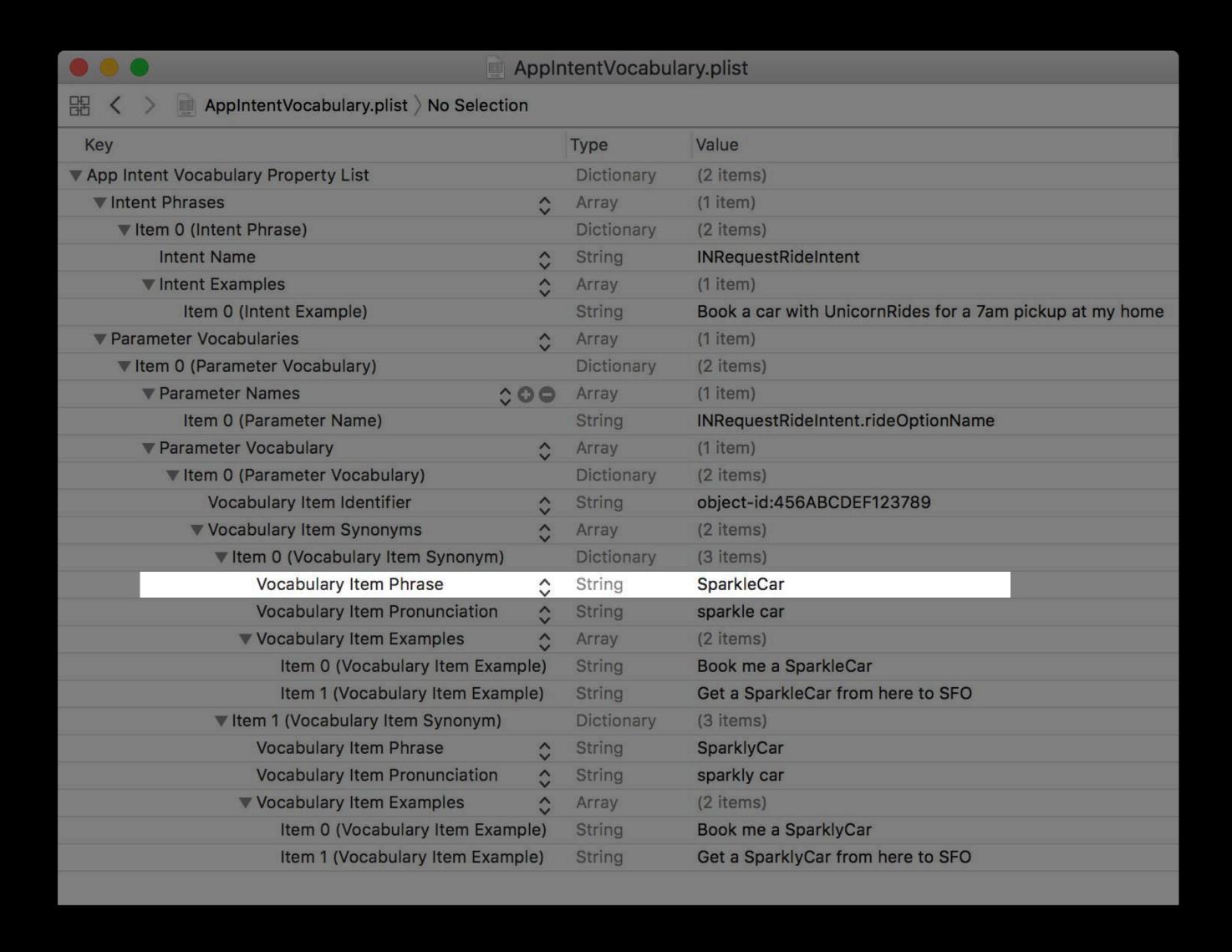
vocabularyIdentifier



NSpeakable

vocabularyldentifier

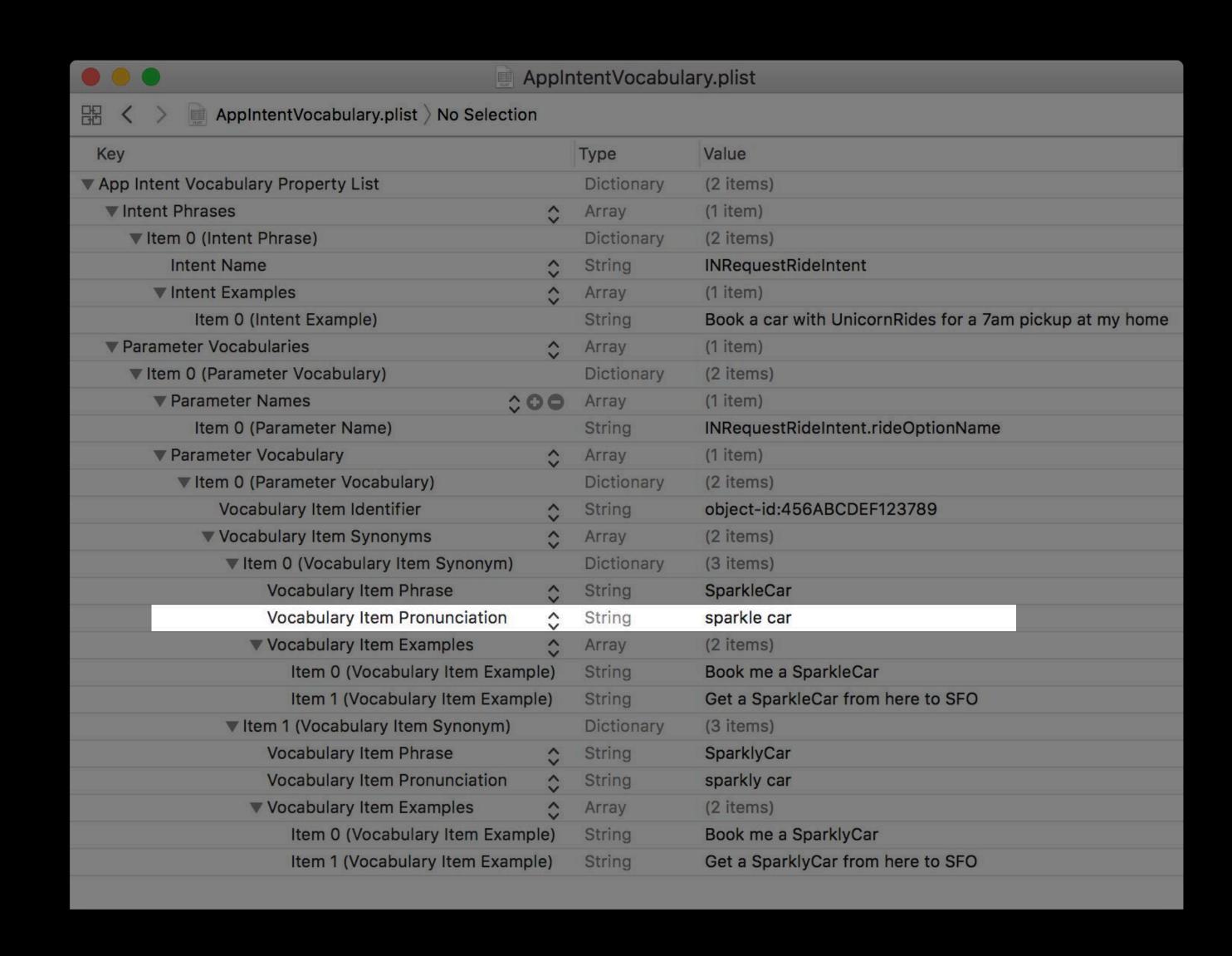
spokenPhrase

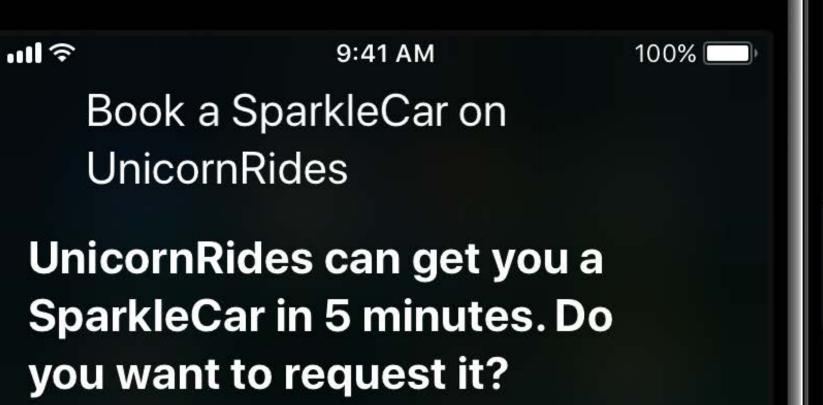


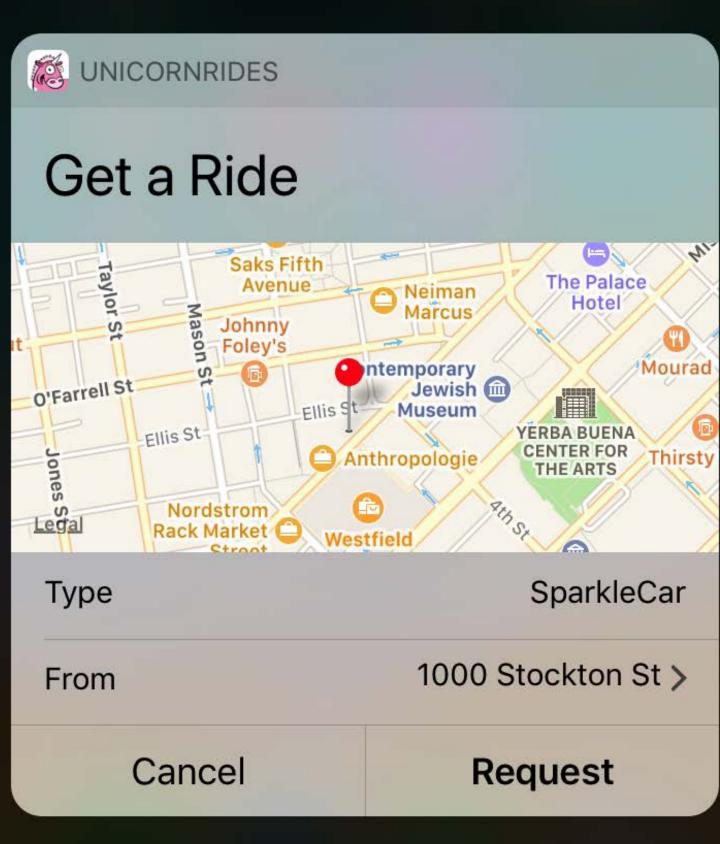
vocabularyldentifier

spokenPhrase

pronunciationHint









Ul Testing

Ul Testing

Inside your project in Xcode

Inside your project in Xcode

Siri in simulator lets you test on multiple devices

Inside your project in Xcode

Siri in simulator lets you test on multiple devices

Automate your tests to check and maintain quality

Inside your project in Xcode

Siri in simulator lets you test on multiple devices

Automate your tests to check and maintain quality

Language independence

Inside your project in Xcode

Siri in simulator lets you test on multiple devices

Automate your tests to check and maintain quality

Language independence

UI Testing in Xcode	WWDC 2015
Continuous Integration and Code Coverage in Xcode 7	WWDC 2015

let siriService = XCUIDevice.shared.siriService



let siriService = XCUIDevice.shared.siriService
siriService.activate(voiceRecognitionText: "Unlock my car")



Demo

Contact resolution

Contact resolution

Security

Contact resolution

Security

Custom vocabulary

Contact resolution

Security

Custom vocabulary

UI testing

More Information

https://developer.apple.com/wwdc17/228

Related Sessions

What's New in ApplePay and Wallet	Executive Ballroom	Thursday 5:10PM
Enabling Your App for CarPlay		WWDC 2017 Video
Introducing SiriKit		WWDC 2016
Extending your apps with SiriKit		WWDC 2016
Continuous Integration and Code Coverage in Xcode 7		WWDC 2015
UI Testing in Xcode		WWDC 2015
Keychain and Authentication with Touch ID		WWDC 2014

Labs

SiriKit Lab Technology Lab C Fri 9:00AM–12:00PM

SWWDC17