

iAd Implementation Best Practices

Session 505

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iOS Engineer

These are confidential sessions—please refrain from streaming, blogging, or taking pictures

Introduction

- What is iAd
- Mobile advertising 101
- Integrating the iAd network in your application
- Best practices with iAd

iAd Overview

iAd Overview

Developer benefits

- Great ad experience
 - High quality
 - Integrated features

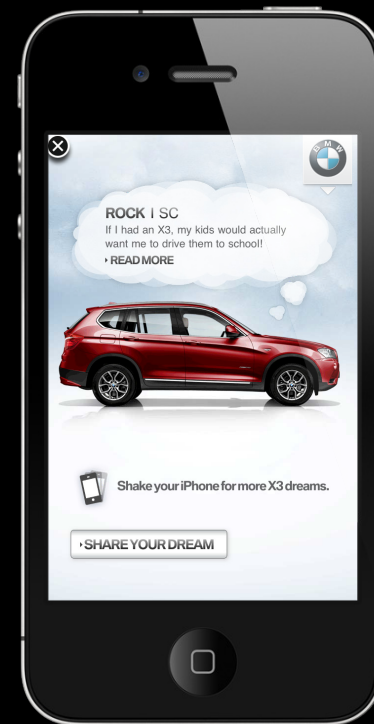


In-line audio/video

iAd Overview

Developer benefits

- Great ad experience
 - High quality
 - Integrated features



Accelerometer and gyro

iAd Overview

Developer benefits

- Great ad experience
 - High quality
 - Integrated features

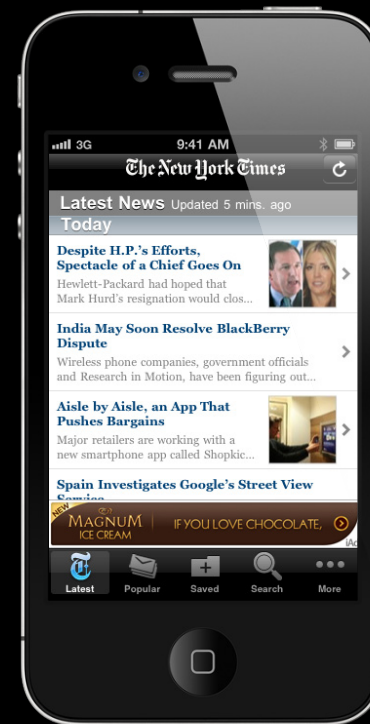


In-ad downloads

iAd Overview

Developer benefits

- Great ad experience
 - High quality
 - Integrated features



iAd Overview

Developer benefits

- Great ad experience
- Self-contained
 - Built into iOS



iAd Overview

Developer benefits

- Great ad experience
- Self-contained
 - Built into iOS



iAd Overview

Developer benefits

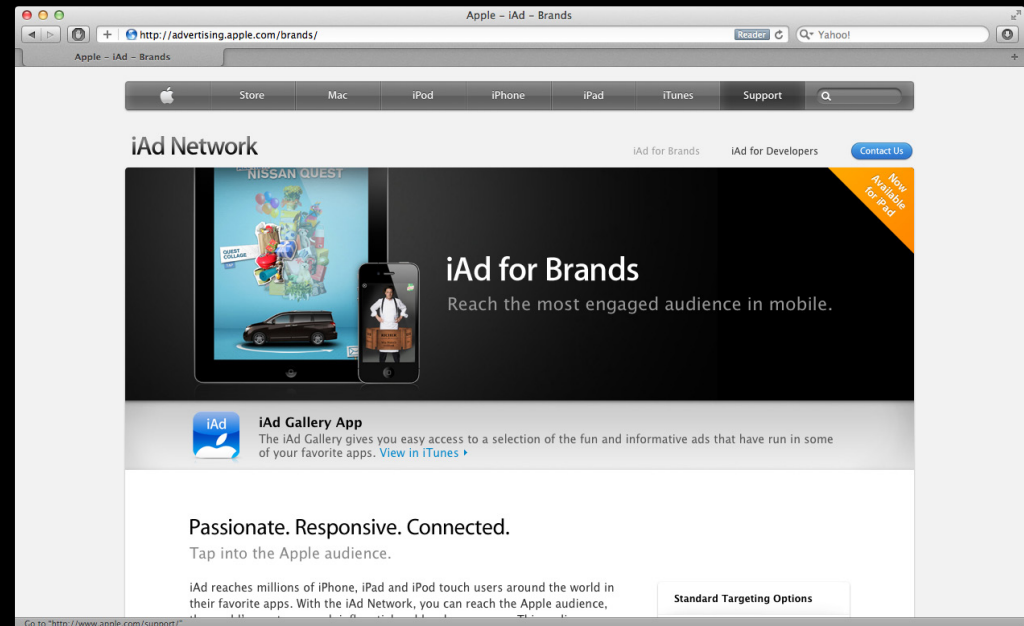
- Great ad experience
- Self-contained
 - Built into iOS
 - Stays in your app



iAd Overview

Developer benefits

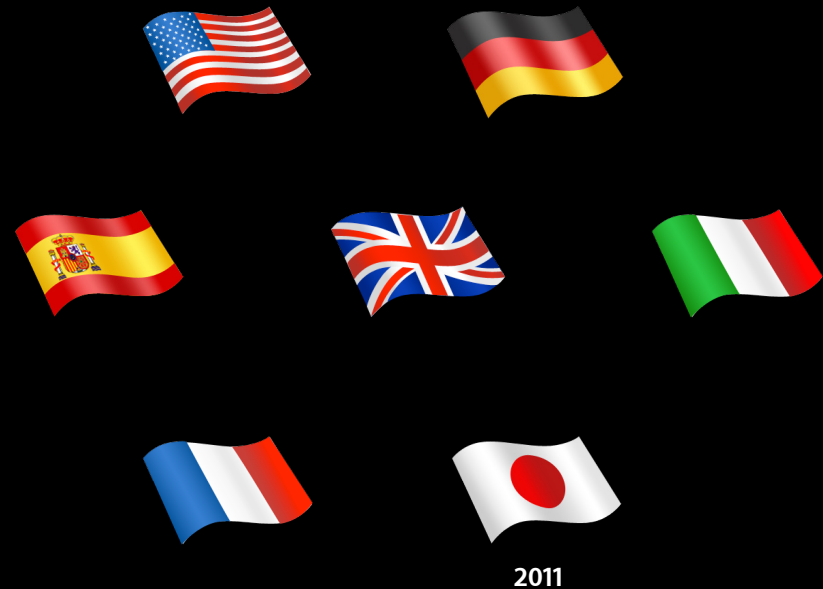
- Great ad experience
- Self-contained
- Well-known brands
 - More customer awareness
 - More engagement



iAd Overview

Developer benefits

- Great ad experience
- Self-contained
- Well-known brands
- Expanding globally



2011

iAd Overview

Developer benefits

- Great ad experience
- Self-contained
- Well-known brands
- Expanding globally
- Preserves privacy



iAd Overview

Developer benefits

- Great ad experience
- Self-contained
- Well-known brands
- Expanding globally
- Preserves privacy
- Easy to implement



Test Advertisement



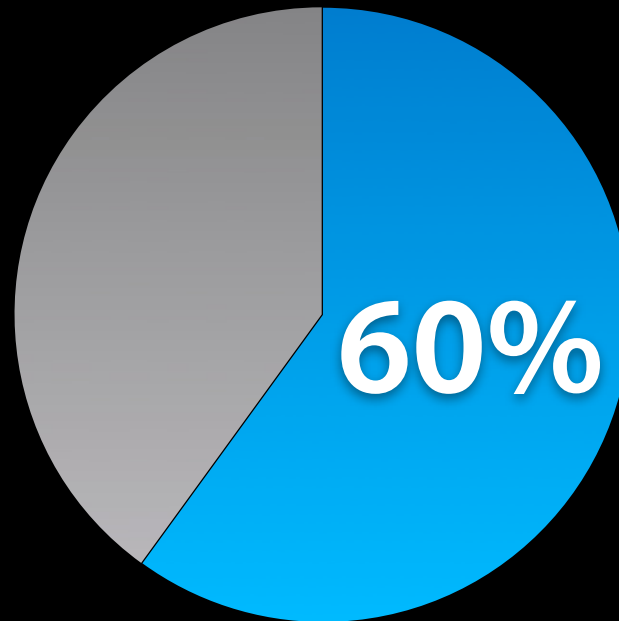
Test Advertisement

iAd Overview

Developer benefits

- Great ad experience
- Self-contained
- Well-known brands
- Expanding globally
- Preserves privacy
- Easy to implement
- ✓ Provides revenue

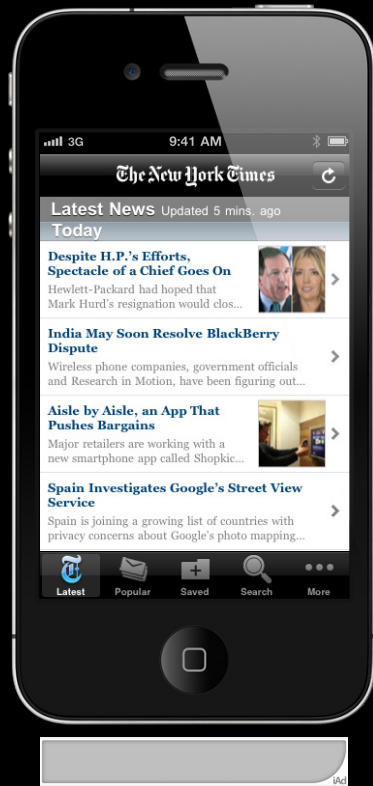
Your Share of the Revenue



Mobile Advertising 101

Mobile Advertising 101

Requests



Requests



Mobile Advertising 101

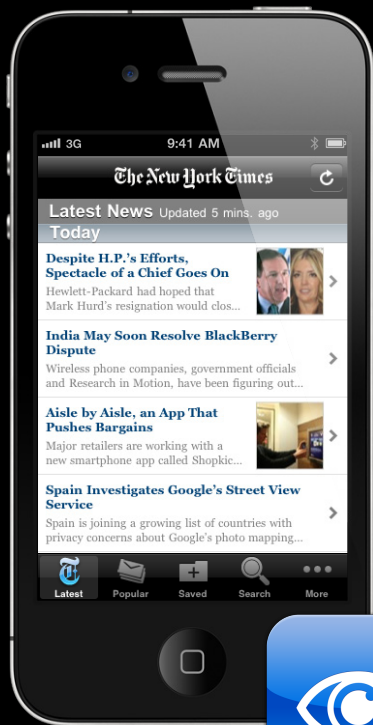
Impressions



Impression

Mobile Advertising 101

Fill Rate



Impression



Requests	1		
Impressions	2	÷	Requests
	2	÷	3



Mobile Advertising 101

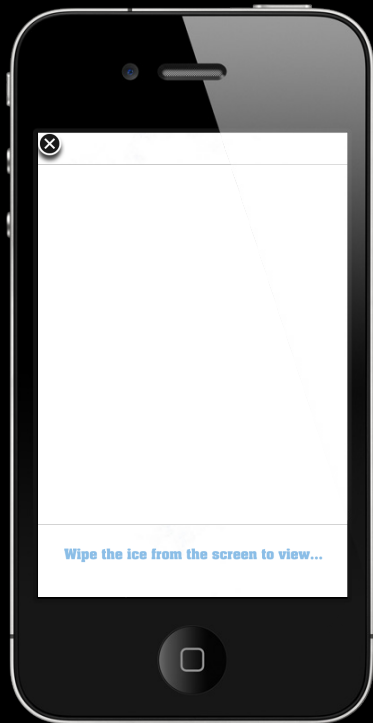
Clicks and Click-through Rate



Impressions	2
Clicks	

Mobile Advertising 101

Clicks and Click-through Rate



Impressions	2				
Clicks	1	÷	Impressions	=	CTR
Clicks	1	÷	2	=	50%



Mobile Advertising 101

Advertisers



Requests
Impressions
Fill Rate

+



Click-Through Rate

=



Revenue
eCPM

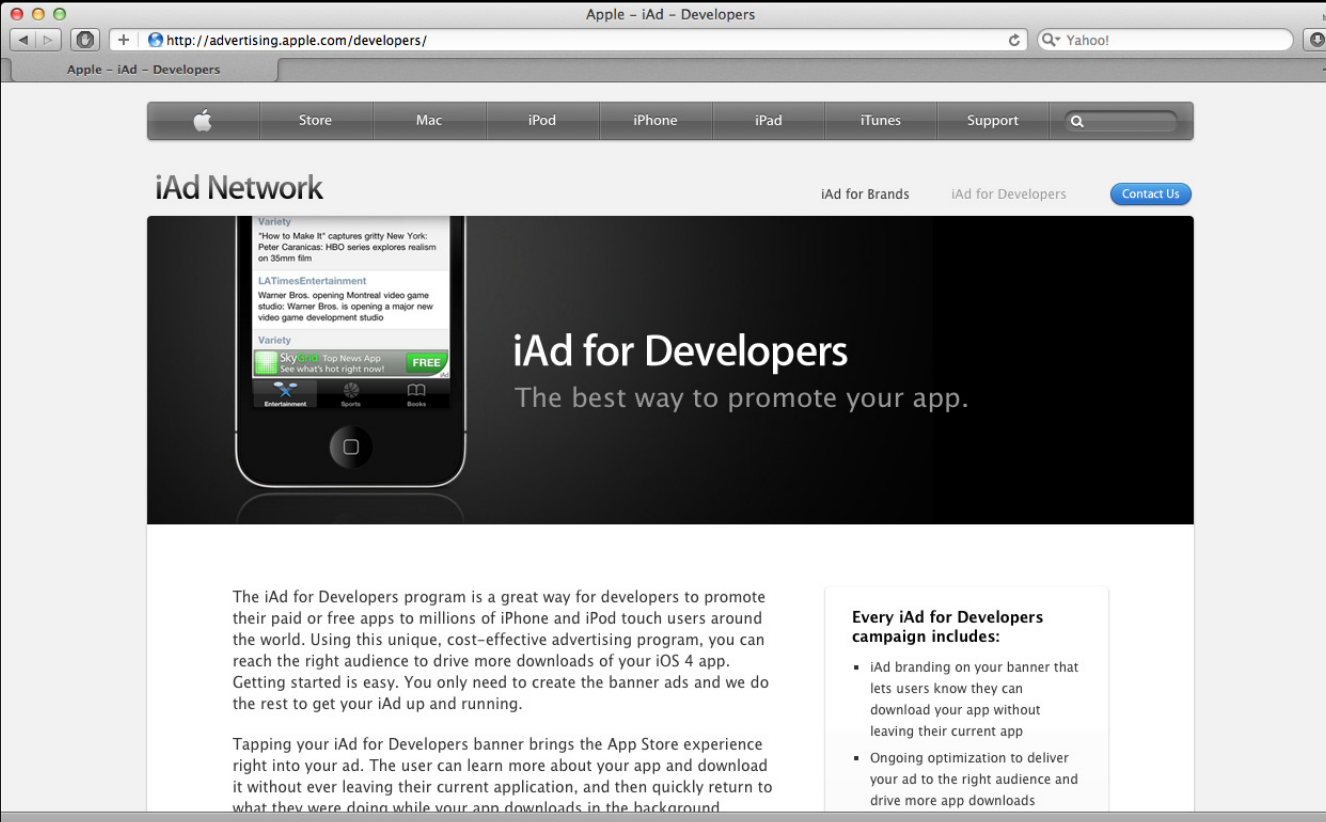
Mobile Advertising 101

iAd campaigns

The screenshot shows a web browser window with the URL <http://advertising.apple.com/brands/>. The page features a navigation bar with links to Store, Mac, iPod, iPhone, iPad, iTunes, and Support. The main content area is titled "iAd Network" and includes links for "iAd for Brands", "iAd for Developers", and a "Contact Us" button. A large advertisement for the Nissan Quest is displayed, featuring a collage of items and a car. The text "iAd for Brands" is prominent, followed by the tagline "Reach the most engaged audience in mobile." A yellow banner in the top right corner of the ad says "Now Available for iPad". Below the ad, there is a section for the "iAd Gallery App" with a description: "The iAd Gallery gives you easy access to a selection of the fun and informative ads that have run in some of your favorite apps. [View in iTunes](#)". At the bottom, the text "Passionate. Responsive. Connected." is followed by "Tap into the Apple audience." and a paragraph about iAd reaching millions of users. A button labeled "Standard Targeting Options" is visible in the bottom right corner.

Mobile Advertising 101

iAd campaigns



The screenshot shows a web browser window with the URL <http://advertising.apple.com/developers/>. The page features a navigation bar with links for Store, Mac, iPod, iPhone, iPad, iTunes, and Support. Below the navigation bar, the main heading is "iAd Network". To the right of the heading are links for "iAd for Brands", "iAd for Developers", and a "Contact Us" button. The central content area displays a mobile app interface on the left, showing a list of news items and a "Top News App" section with a "FREE" badge. To the right of the app interface, the text reads "iAd for Developers" and "The best way to promote your app." Below this, there are two columns of text. The left column describes the iAd for Developers program, and the right column lists the benefits of the program.

Apple – iAd – Developers

Store Mac iPod iPhone iPad iTunes Support

iAd Network

iAd for Brands iAd for Developers [Contact Us](#)

Variety
"How to Make It" captures gritty New York.
Peter Caranicas: HBO series explores realism
on 35mm film

LATimesEntertainment
Warner Bros. opening Montreal video game
studio: Warner Bros. is opening a major new
video game development studio

Variety
Sky Top News App
See what's hot right now! FREE

Entertainment Sports Books

iAd for Developers

The best way to promote your app.

The iAd for Developers program is a great way for developers to promote their paid or free apps to millions of iPhone and iPod touch users around the world. Using this unique, cost-effective advertising program, you can reach the right audience to drive more downloads of your iOS 4 app. Getting started is easy. You only need to create the banner ads and we do the rest to get your iAd up and running.

Tapping your iAd for Developers banner brings the App Store experience right into your ad. The user can learn more about your app and download it without ever leaving their current application, and then quickly return to what they were doing while your app downloads in the background.

Every iAd for Developers campaign includes:

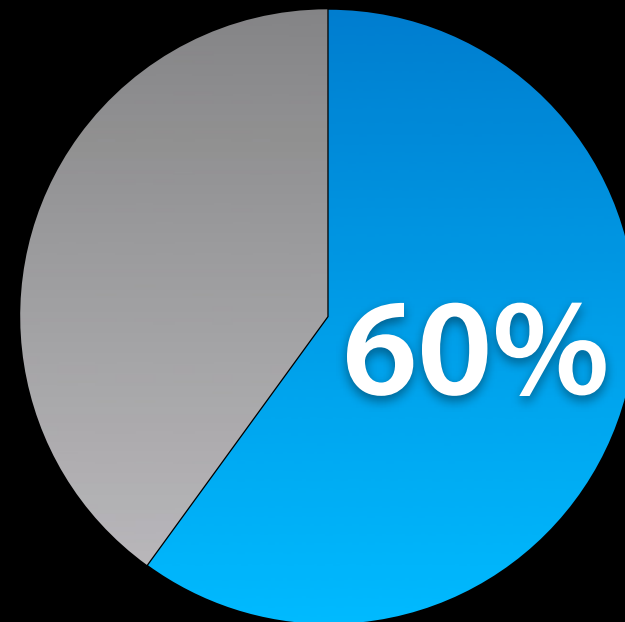
- iAd branding on your banner that lets users know they can download your app without leaving their current app
- Ongoing optimization to deliver your ad to the right audience and drive more app downloads

iAd Network

Revenue

- Brand advertisements
 - Advertisers pay per Impression and Click
- Developer advertisements
 - Advertisers pay per Click

Your share of the revenue



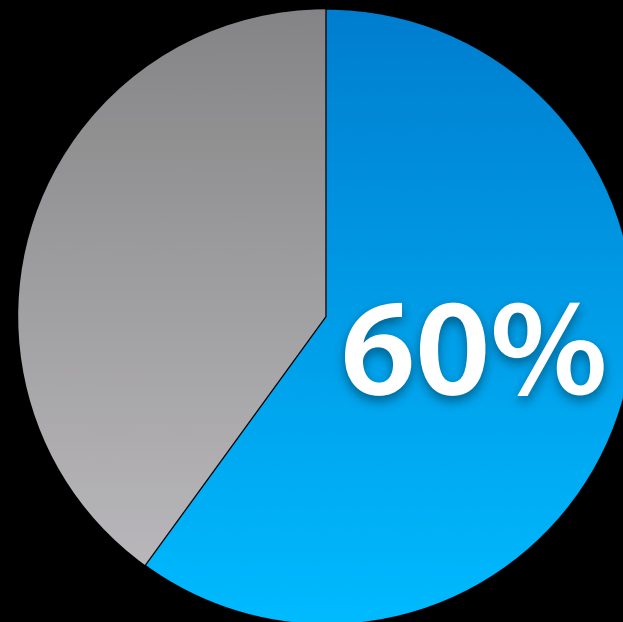
iAd Network

Revenue

- Brand advertisements
 - Advertisers pay per Impression and Click
- Developer advertisements
 - Advertisers pay per Click

$$eCPM = \frac{\text{Total Revenue}}{\text{Impressions} / 1000}$$

Your share of the revenue



The iAd Network

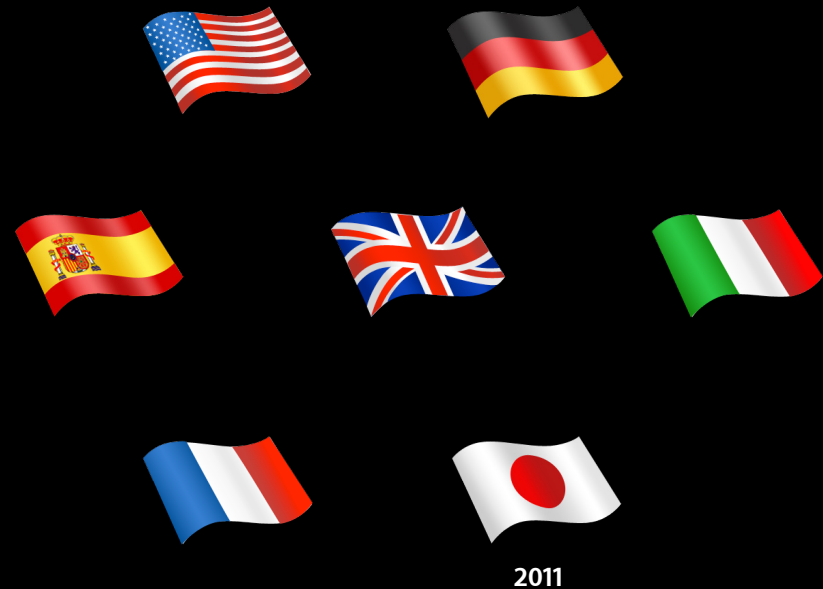
Common questions

- What affects requests?
 - Active customers
 - Banner placement
 - Time spent

The iAd Network

Common questions

- What affects Impressions?
- What affects my Fill Rate?
 - Banner placement
 - Available advertisements
 - Customer location



The iAd Network

Common questions

- Why does my Fill Rate vary?
 - Seasonality

Driving Ad Revenue

Qualities of a successful App

- Stable
- Engaging
- Loyal, active customers



Configuring the iAd Network

Configuring the iAd Network

iAd Contract

Contracts, Tax, and Banking

Request Contracts

Select the contract(s) you would like to view from the list and click Request. You can distribute your free apps without entering into the contracts below.
Note: Only users with the Legal role can enter into contracts.

Contract Region	Contract Type	Legal Entity	
World	iAd Network		Request
All	iOS Paid Applications		Request

Contracts In Effect

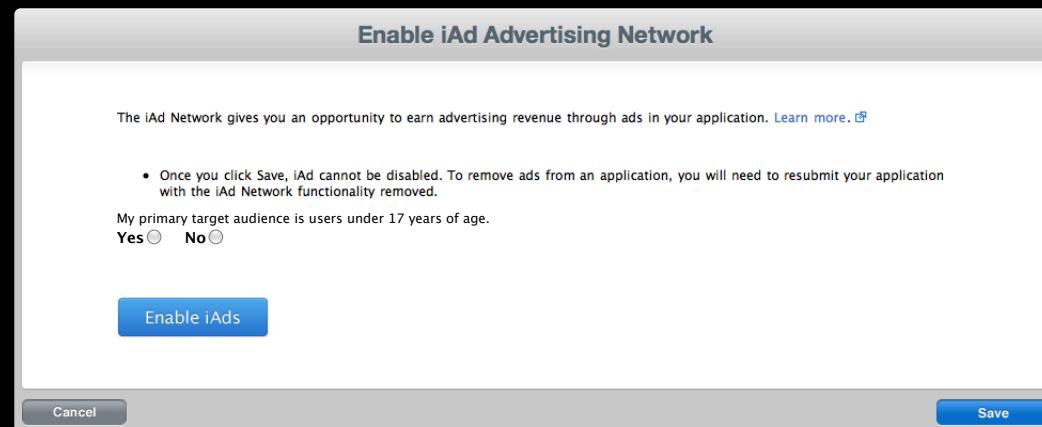
Contract Region	Contract Type	Contract Number	Contact Info	Bank Info	Tax Info	Effective Date	Expiration Date	Download
World	iOS Free Apps		N/A	N/A	N/A	Oct 01, 2010	Oct 01, 2011	N/A

[Done](#)

Configuring the iAd Network

Primary audience

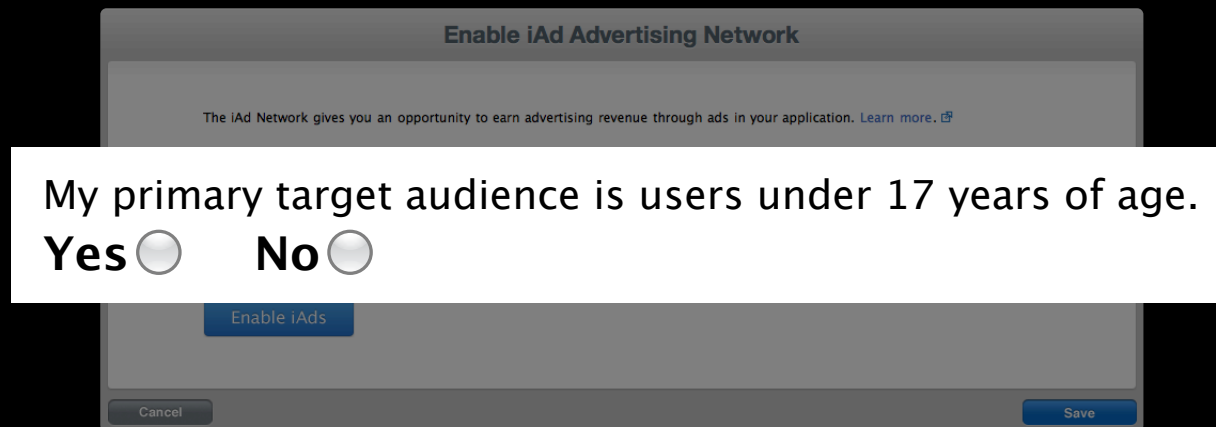
- Helps better target ads



Configuring the iAd Network

Primary audience

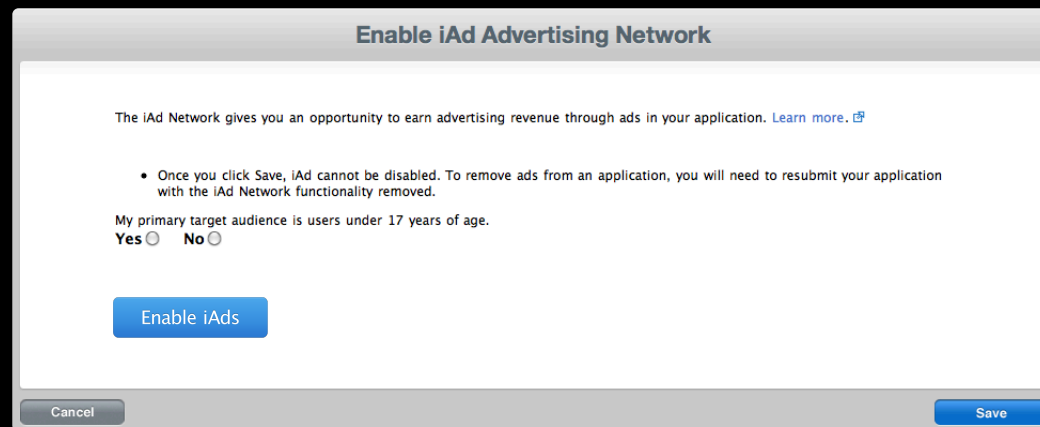
- Helps better target ads
 - Cannot be changed if set to Yes



Configuring the iAd Network

Enable iAds

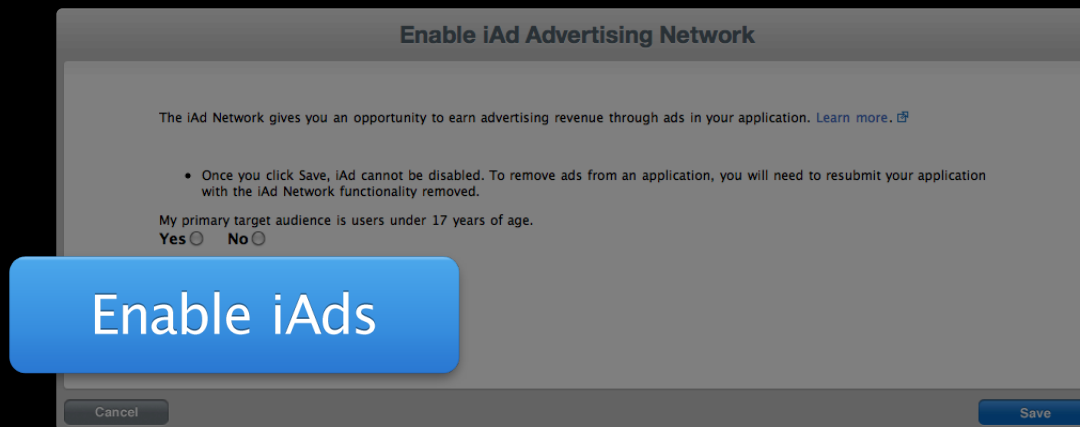
- Allows customers to get ads
 - If not done, the iAd Framework returns an error
- Must be done before submission



Configuring the iAd Network

Enable iAds

- Allows customers to get ads
 - If not done, the iAd Framework returns an error
- Must be done before submission



Configuring the iAd Network

Test Ads vs Live Ads

- “Development Mode” yields Test Ads
 - Fill Rate intentionally varies
- App Store Download yields Live Ads

Implementing iAd

iAd Framework

- ADBannerView
- ADInterstitialAd

ADBannerView

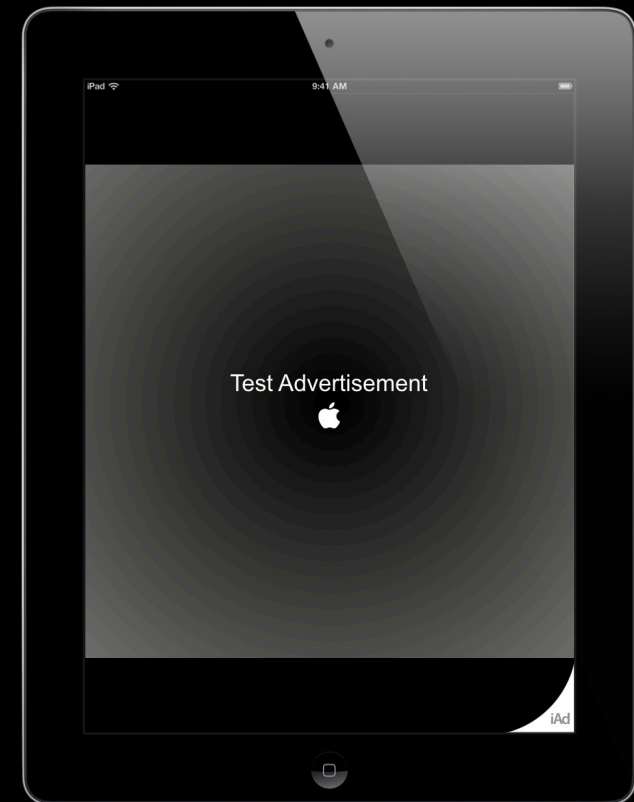
- Traditional (small) banner
- Introduced in iOS 4.0 (iPad on 4.2)
- Automatically cycles in new ads
- Communicates via ADBannerViewDelegate protocol



ADInterstitialAd

Only on
iPad

- “Full-screen” banners
- Introduced on iOS 4.3
- Persistent content
- Communicates via the
ADInterstitialAdDelegate protocol



iAd Framework

- ADBannerView
- ADInterstitialAd

ADBannerView

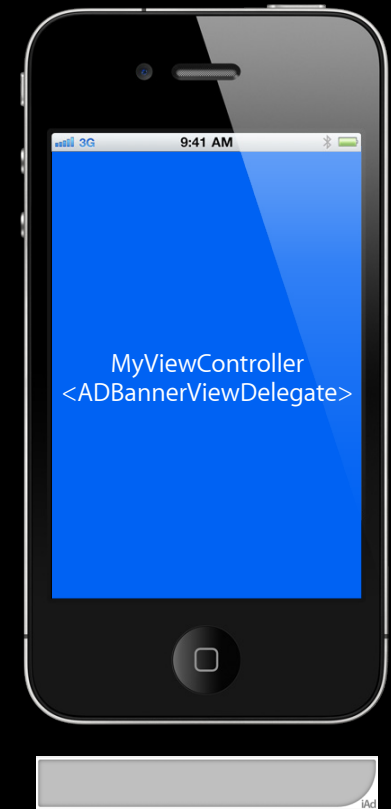
Banner placement



ADBannerView

Creating a banner

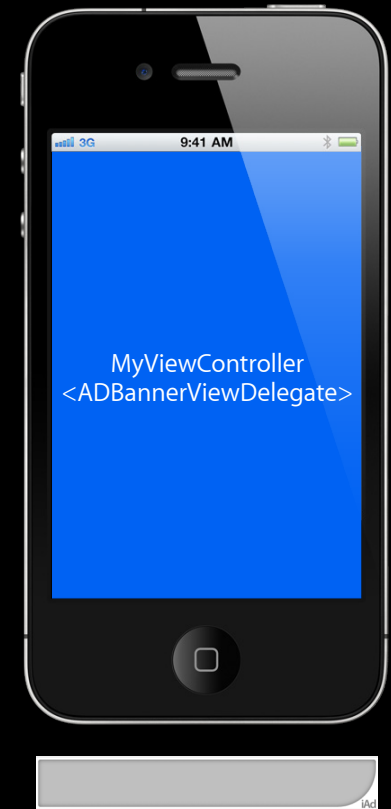
```
banner = [[ADBannerView alloc] init]
banner.delegate = self
```



ADBannerView

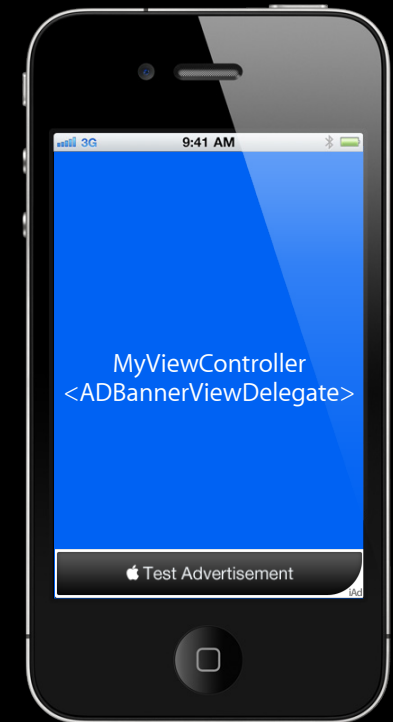
Handling content events

- bannerViewWillLoadAd:
- bannerViewDidLoadAd:
- bannerView: didFailToReceiveAdWithError:



ADBannerView

```
willAnimateRotationToInterfaceOrientation: duration: {  
    if (UIInterfaceOrientationIsPortrait(orientation)) {  
        banner.currentContentSizeIdentifier =  
        ADBannerContentSizeIdentifierPortrait  
    } else {  
        banner.currentContentSizeIdentifier =  
        ADBannerContentSizeIdentifierLandscape  
    }  
}
```



ADBannerView

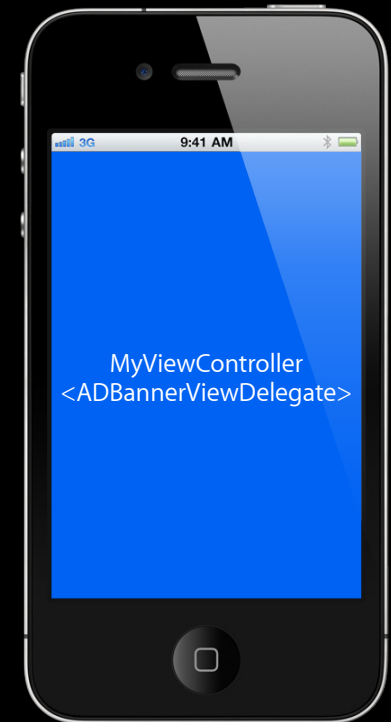
```
willAnimateRotationToInterfaceOrientation: duration: {  
    if (UIInterfaceOrientationIsPortrait(orientation)) {  
        banner.currentContentSizeIdentifier =  
        ADBannerContentSizeIdentifierPortrait  
    } else {  
        banner.currentContentSizeIdentifier =  
        ADBannerContentSizeIdentifierLandscape  
    }  
}
```



ADBannerView

User interaction

```
-bannerViewActionShouldBegin:  
willLeaveApplication:
```



ADBannerView

User interaction

```
-bannerViewActionShouldBegin:  
willLeaveApplication:
```



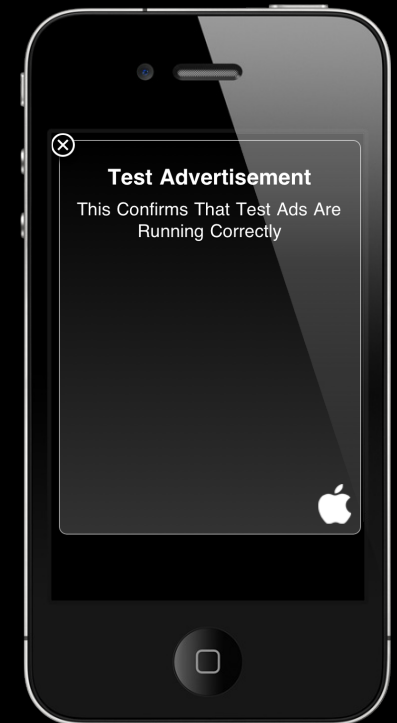
ADBannerView

User interaction

`-bannerViewActionShouldBegin:`

`willLeaveApplication:`

`-bannerViewActionDidFinish:`



Handling Errors

`-bannerView:didFailToReceiveAdWithError:`

- Minimal requirement: hide the banner view
- Debugging may want to look at the specific error

Detecting Errors

ADError

`ADErrorInventoryUnavailable`

`ADErrorConfigurationError`

`ADErrorBannerVisibleWithoutContent`

`ADErrorLoadingThrottled`

`ADErrorServerFailure`

`ADErrorApplicationInactive`

Detecting Errors

AError

`InventoryUnavailable`

`ConfigurationError`

`BannerVisibleWithoutContent`

`LoadingThrottled`

Detecting Errors

ADError

InventoryUnavailable

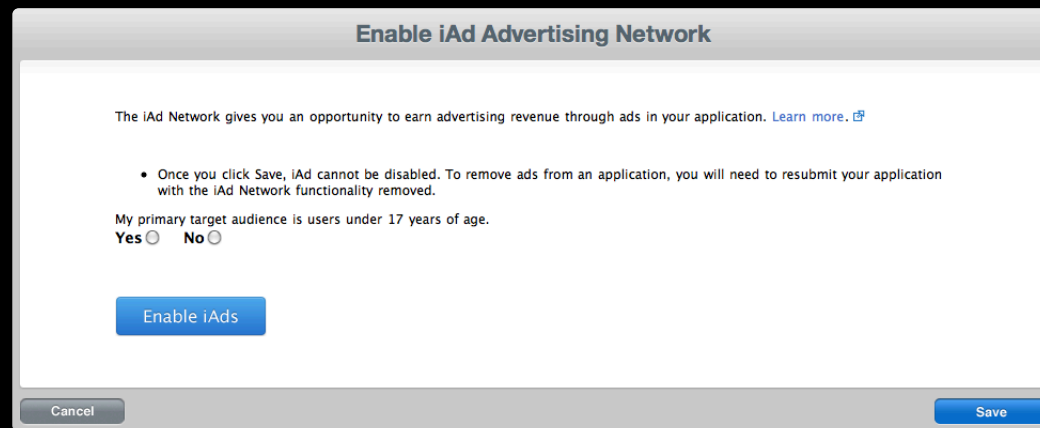
- The iAd Network does not have an advertisement available for your application at this time

Detecting Errors

ADError

ConfigurationError

- Your application has not enabled the iAd Network in iTunes Connect



Detecting Errors

ADError

BannerVisibleWithoutContent

- An ADBannerView has been displayed without an ad

Detecting Errors

ADError

LoadingThrottled

- Too many banners
- Use a shared banner and never get this error

Sharing an ADBannerView

iAd Framework

- ADBannerView
- ADInterstitialAd

ADInterstitialAd

Creating an interstitial

Only on
iPad



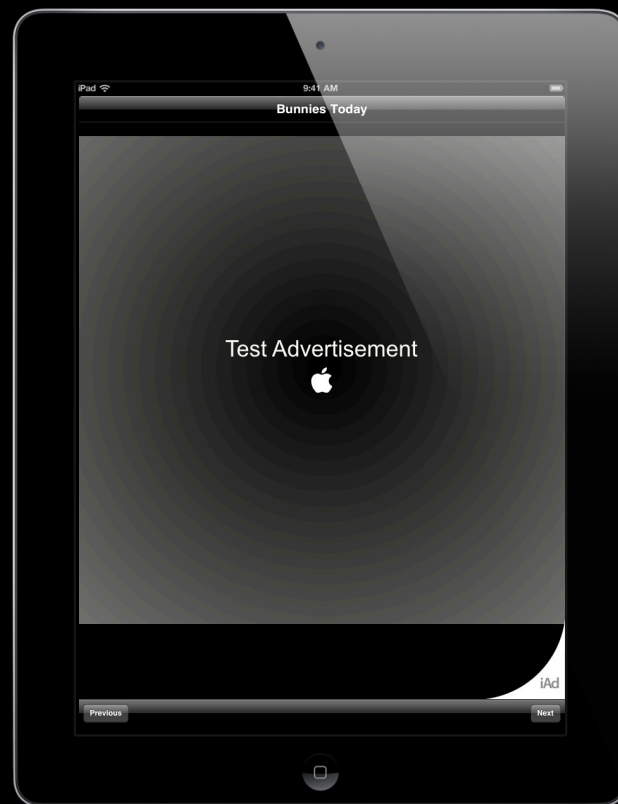
```
interstitial = [[ADInterstitialAd  
alloc] init]
```

```
interstitial.delegate = self
```

ADInterstitialAd

Presenting interstitials

Only on
iPad

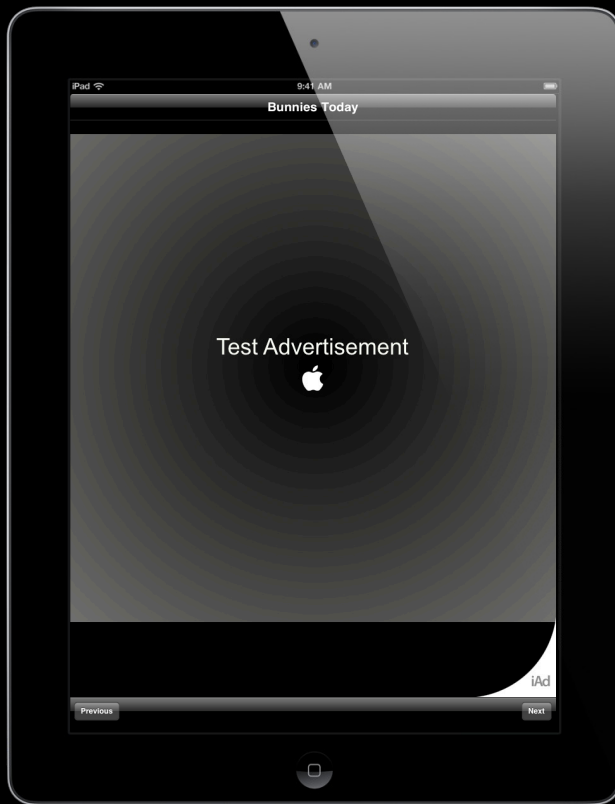


Inline

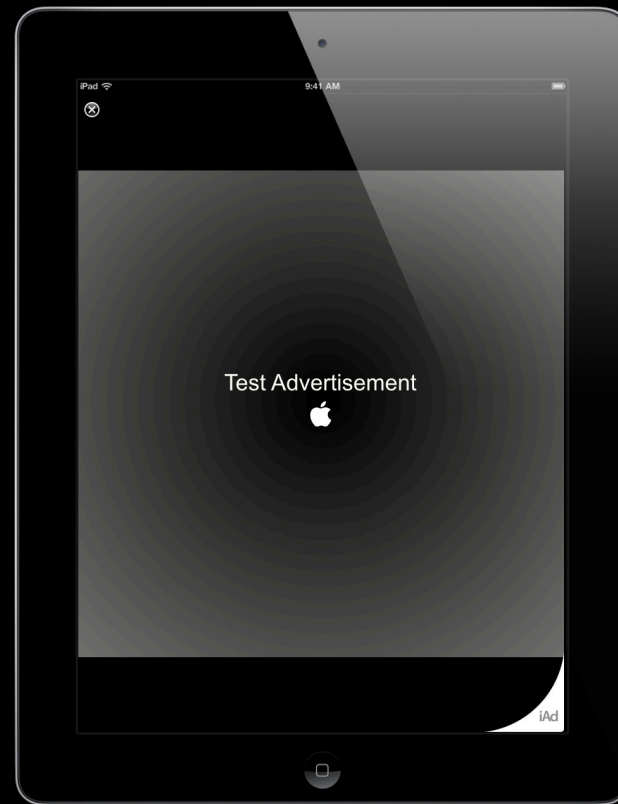
ADInterstitialAd

Presenting interstitials

Only on
iPad



Inline

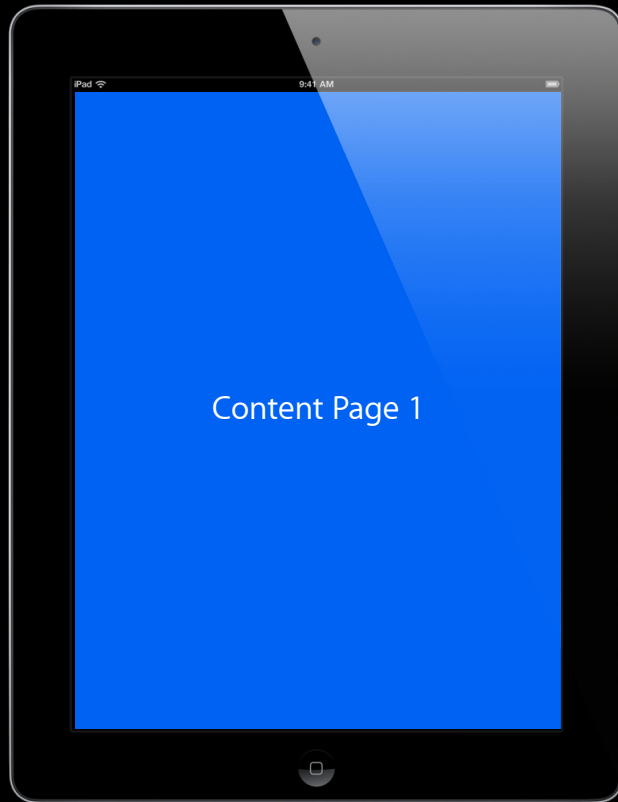


Modal

ADInterstitialAd

Inline presentation

Only on
iPad



```
-interstitialAdDidLoad: {  
    UIView *view = // a view for the ad  
    [interstitial presentInView:view]  
}
```

ADInterstitialAd

Inline presentation

Only on
iPad

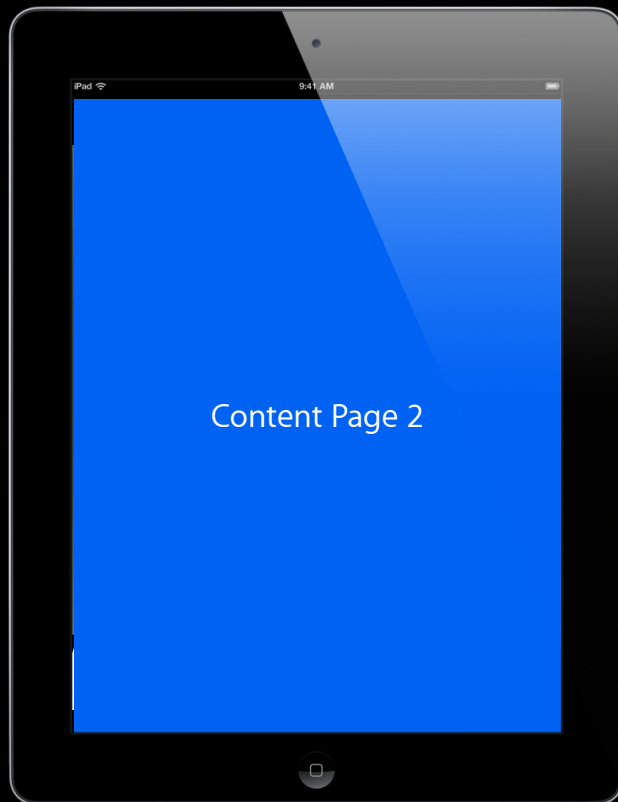


```
-interstitialAdDidLoad: {  
    UIView *view = // a view for the ad  
    [interstitial presentInView:view]  
}
```


ADInterstitialAd

Inline presentation

Only on
iPad

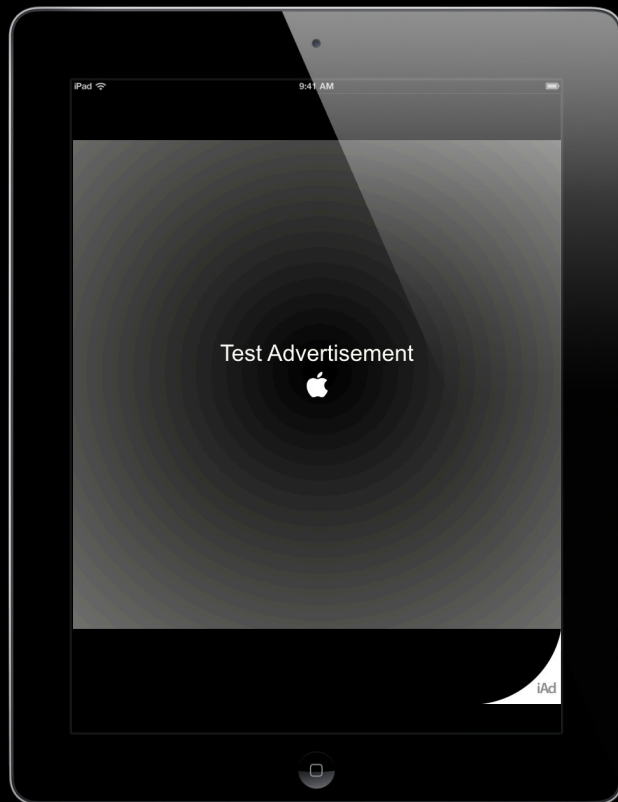


```
-interstitialAdDidLoad: {  
    UIView *view = // a view for the ad  
    [interstitial presentInView:view]  
}
```

ADInterstitialAd

Inline presentation

Only on
iPad



```
-interstitialAdDidLoad: {  
    UIView *view = // a view for the ad  
    [interstitial presentInView:view]  
}
```

ADInterstitialAd

Modal presentation

Only on
iPad

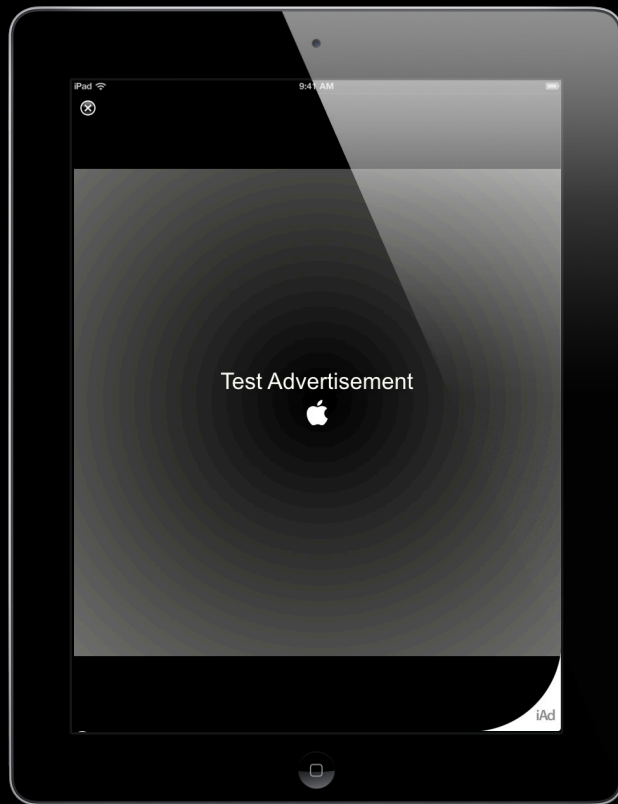


```
if (interstitial.loaded) {  
    [interstitial  
    presentFromViewController: self]  
}
```

ADInterstitialAd

User Interaction

Only on
iPad



```
-interstitialAdActionShouldBegin:  
willLeaveApplication:  
-interstitialAdActionDidFinish:
```

ADM Magazine

iAd Best Practices

iAd Best Practices

Memory warnings

- Implement memory warning methods
 - [UIViewController viewDidLoad]
 - didReceiveMemoryWarning
- Do not release iAd objects

iAd Best Practices

View controllers

- iOS 4: Do not nest view controllers

```
[self.view addSubview:otherViewController.view]
```



- UIKit expects a view controller to represent the entire screen

- iOS 5: Follow UIKit's Rules

Implementing UINavigationController Containment

Marina
Tuesday 10:15AM

Summary

- Advertisers are creating awesome experiences in iAd
- Customers want a great experience
 - In your App, and with ads
- You can create that experience
 - The reward is ad revenue

More Information

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Documentation

Mac OS X Human Interface Guidelines
<http://developer.apple.com/ue>

Apple Developer Forums: Integration, iAd

<http://devforums.apple.com/community/ios/integration/iad>

Related Sessions

Improving the Stability of Your Apps

Presidio
Thursday 11:30AM

Implementing UIViewController Containment

Marina
Tuesday 10:15AM

Building iAd Rich Media Ads with iAd Producer

Nob Hill
Wednesday 11:30AM

Labs

iAd Integration Lab

Internet and Web Lab B
Wednesday 2:00PM

