

## Enterprise Computing: App Distribution

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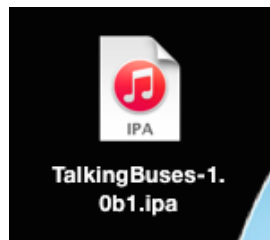
## Accessibility is extreme usability.

- *Designing accessible apps is the most extreme form of usability engineering.*
- Apps designed for the eyes need also to work with the fingers.
- Even a careful implementor needs to test their work both in the conventional way (interactive testing, unit testing, and the like), and then in a completely different, non-automate-able way where VoiceOver has completely replaced the conventional user interface experience.
- Worse, VoiceOver buttons are invisible to sighted software developers.<sup>†</sup>
- *Software developers who are trying to create accessible apps need all of the assistance that they can get.*

<sup>†</sup>Most software developers are sighted.

## Installing iPhone apps via IPA files

- Most smartphone users are familiar with the idea of installing apps via a store (such as the Apple App Store, Google Play Store, Windows Phone Apps+Games Store, or others).
- During user testing *before* application store approval, apps need to be distributed using archive files.



## .ipa (file extension) — Wikipedia

- *An .ipa file is an iOS application archive file which stores an iOS app.*
- *It is usually encrypted with Apple's FairPlay DRM technology.*
- *Each .ipa file is compressed with a binary for the ARM architecture and can only be installed on an iOS-device.*
- *Files with the .ipa extension can be uncompressed by changing the extension to .zip and unzipping.*

## That sounds like fun! (1/3)

```
Stephens-MacBook-Pro-2:software stg$ ls
TalkingBuses-1.0b1.ipa
Stephens-MacBook-Pro-2:software stg$ mv TalkingBuses-1.0b1.ipa TalkingBuses-1.0b1.zip
Stephens-MacBook-Pro-2:software stg$ unzip TalkingBuses-1.0b1.zip
Archive: TalkingBuses-1.0b1.zip
creating: Payload/
creating: Payload/TalkingBuses.app/
creating: Payload/TalkingBuses.app/.monotouch-32/
inflating: Payload/TalkingBuses.app/.monotouch-32/Mono.Dynamic.Interpreter.dll
inflating: Payload/TalkingBuses.app/.monotouch-32/mscorlib.dll
inflating: Payload/TalkingBuses.app/.monotouch-32/Newtonsoft.Json.dll
inflating: Payload/TalkingBuses.app/.monotouch-32/PLCrashReporterUnifiedBinding.dll
inflating: Payload/TalkingBuses.app/.monotouch-32/RestSharp.MonoTouch.dll
inflating: Payload/TalkingBuses.app/.monotouch-32/SimpleStorage.iOS-Unified.dll
inflating: Payload/TalkingBuses.app/.monotouch-32/SQLite.dll
inflating: Payload/TalkingBuses.app/.monotouch-32/System.Core.dll
inflating: Payload/TalkingBuses.app/.monotouch-32/System.dll
inflating: Payload/TalkingBuses.app/.monotouch-32/System.Runtime.Serialization.dll
inflating: Payload/TalkingBuses.app/.monotouch-32/System.Xml.dll
inflating: Payload/TalkingBuses.app/.monotouch-32/System.Xml.Linq.dll
inflating: Payload/TalkingBuses.app/.monotouch-32/TalkingBuses.exe
inflating: Payload/TalkingBuses.app/.monotouch-32/Xamarin.Insights.dll
inflating: Payload/TalkingBuses.app/.monotouch-32/Xamarin.iOS.dll
creating: Payload/TalkingBuses.app/.monotouch-64/
inflating: Payload/TalkingBuses.app/.monotouch-64/Mono.Dynamic.Interpreter.dll
inflating: Payload/TalkingBuses.app/.monotouch-64/mscorlib.dll
inflating: Payload/TalkingBuses.app/.monotouch-64/Newtonsoft.Json.dll
inflating: Payload/TalkingBuses.app/.monotouch-64/PLCrashReporterUnifiedBinding.dll
inflating: Payload/TalkingBuses.app/.monotouch-64/RestSharp.MonoTouch.dll
inflating: Payload/TalkingBuses.app/.monotouch-64/SimpleStorage.iOS-Unified.dll
inflating: Payload/TalkingBuses.app/.monotouch-64/SQLite.dll
```

## That sounds like fun! (2/3)

```
inflating: Payload/TalkingBuses.app/.monotouch-64/System.Core.dll
inflating: Payload/TalkingBuses.app/.monotouch-64/System.dll
inflating: Payload/TalkingBuses.app/.monotouch-64/System.Runtime.Serialization.dll
inflating: Payload/TalkingBuses.app/.monotouch-64/System.Xml.dll
inflating: Payload/TalkingBuses.app/.monotouch-64/System.Xml.Linq.dll
inflating: Payload/TalkingBuses.app/.monotouch-64/TalkingBuses.exe
inflating: Payload/TalkingBuses.app/.monotouch-64/Xamarin.Insights.dll
inflating: Payload/TalkingBuses.app/.monotouch-64/Xamarin.iOS.dll
creating: Payload/TalkingBuses.app/CodeSignature/
inflating: Payload/TalkingBuses.app/CodeSignature/CodeResources
inflating: Payload/TalkingBuses.app/AddPlacemarkScreen.nib
inflating: Payload/TalkingBuses.app/AddTransitStopScreen.nib
inflating: Payload/TalkingBuses.app/archived-expanded-entitlements.xcent
inflating: Payload/TalkingBuses.app/BusBell.caf
inflating: Payload/TalkingBuses.app/BusDepartureBoardScreen.nib
inflating: Payload/TalkingBuses.app/CallingPointsScreen.nib
inflating: Payload/TalkingBuses.app/Data.db
inflating: Payload/TalkingBuses.app/Default-568h@2x.png
inflating: Payload/TalkingBuses.app/DirectionsChooseDateScreen.nib
inflating: Payload/TalkingBuses.app/DirectionsChooseFinishScreen.nib
inflating: Payload/TalkingBuses.app/DirectionsChooseStartScreen.nib
inflating: Payload/TalkingBuses.app/DirectionsInstructionsScreen.nib
inflating: Payload/TalkingBuses.app/DirectionsResultsScreen.nib
inflating: Payload/TalkingBuses.app/DirectionsStartScreen.nib
inflating: Payload/TalkingBuses.app/embedded.mobileprovision
inflating: Payload/TalkingBuses.app/FavouritesScreen.nib
inflating: Payload/TalkingBuses.app/HistoryScreen.nib
inflating: Payload/TalkingBuses.app/Icon-60@2x.png
inflating: Payload/TalkingBuses.app/Icon.png
inflating: Payload/TalkingBuses.app/Icon@2x.png
inflating: Payload/TalkingBuses.app/Info.plist
```

## That sounds like fun! (3/3)

```
inflating: Payload/TalkingBuses.app/iTunesMetadata.plist
creating: Payload/TalkingBuses.app/MainStoryboard.storyboardc/
inflating: Payload/TalkingBuses.app/MainStoryboard.storyboardc/Info.plist
inflating: Payload/TalkingBuses.app/MainStoryboard.storyboardc/UIViewController-vXZ-lx-hvc.nib
inflating: Payload/TalkingBuses.app/MainStoryboard.storyboardc/vXZ-lx-hvc-view-kh9-bI-dsS.nib
inflating: Payload/TalkingBuses.app/navbar-bg@2x.png
inflating: Payload/TalkingBuses.app/NearbyServicesScreen.nib
inflating: Payload/TalkingBuses.app/NearbyStopsScreen.nib
inflating: Payload/TalkingBuses.app/NextStopAnnouncementScreen.nib
inflating: Payload/TalkingBuses.app/NextStopChooseRouteScreen.nib
inflating: Payload/TalkingBuses.app/NextStopChooseServiceScreen.nib
inflating: Payload/TalkingBuses.app/NextStopDisplayScreen.nib
inflating: Payload/TalkingBuses.app/NOTICE
extracting: Payload/TalkingBuses.app/PkgInfo
inflating: Payload/TalkingBuses.app/ResourceRules.plist
inflating: Payload/TalkingBuses.app/Roboto-Bold.ttf
inflating: Payload/TalkingBuses.app/RobotoCondensed-Bold.ttf
inflating: Payload/TalkingBuses.app/screen-bg@2x.png
inflating: Payload/TalkingBuses.app/SearchScreen.nib
inflating: Payload/TalkingBuses.app/SettingsScreen.nib
inflating: Payload/TalkingBuses.app/TalkingBuses
inflating: Payload/TalkingBuses.app/TestScreen.nib
Stephens-MacBook-Pro-2:software stg$
```

## Recruiting testers (rink.hockeyapp.net)

### Recruitment



#### TFE Talk

for iOS 8.0 or later  
by Lothian Buses plc

Would you like to help us test the next version of the Transport for Edinburgh app, specifically designed for blind and partially-sighted passengers?

Apply for this app by pressing "Apply". Once the developer has accepted your request, you will automatically see the app on your dashboard.

Apply




Support

Desktop UI

# The app (rink.hockeyapp.net)


**App**

 **TFE Talk**  
for iOS  
by Lothian Buses plc

Details History Feedback

PLEASE WAIT - THE DEVELOPER NEEDS TO ADD YOUR DEVICE

You cannot install this app until you receive an email letting you know that a build is available. The developer still needs to add your device to the app's profile.

 Desktop UI


# Helping Transport for Edinburgh

- We are looking for feedback over the next two weeks.
  - March 4th – March 18th, say.
- Once you or your students have accepted the invitation, you need to register your iPhone with HockeyApp.
- This is easy enough to do.<sup>‡</sup>
- At the moment, Craig is the only one to have done so.
- Once that is done, we can upload a new build that include that device's ID and you can download the app to your phone.
- Remember to do all this on your phone's Safari browser.

<sup>‡</sup><http://support.hockeyapp.net/discussions/problems/25566-how-do-i-register-my-iphone>


# Registering with HockeyApp

Home - General Questions - How do I register my iphone?

 **Natasha**  
Jul 09, 2014 @ 12:25 AM

I am working with company called zova fit and they need me to register my phone and I cant find a tab or button on how to do this?

**1** Posted by **Thomas Dohmke** on Jul 09, 2014 @ 12:38 PM SUPPORT STAFF

 Hi Natasha,

Open <https://install.hockeyapp.net> in Safari on your iPhone, follow the steps, then make sure to sign in so the device is assigned to your account.

Best,  
Thomas

**0** people watching

New Issue

Conversation Started  
A conversation has been started with the HockeyApp staff to resolve this discussion.

Close the discussion

Permissions  
This discussion is public. Everyone can see and reply to it.

Comments Feed

# Registering with HockeyApp (rink.hockeyapp.net)

**HockeyApp**

REGISTER DEVICE

To register your device with HockeyApp, tap the button below. This will create an icon on your home screen allowing quick access to HockeyApp.

**Install**

A warning dialog will appear stating that your settings will be changed. A configuration profile will be installed, but rest assured, HockeyApp will not actually change any settings.


If you are asked to enter a passcode, you should enter the same passcode that you enter when you unlock your device.

The page should automatically refresh if the process was successful. If not, please tap the

# Installing the HockeyApp profile

Cancel Install Profile Install

---



**HockeyApp**  
Bit Stadium

---

Signed by Thawte DV SSL CA  
**Verified** ✓

Description Install this profile to access  
HockeyApp with your UDID.

Contains Device Enrollment Challenge

More Details >

# Installing the HockeyApp profile > More Details (1/2)

< Install Profile HockeyApp

---

DEVICE ENROLLMENT CHALLENGE

**Encrypted Profile Service**  
URL: https://rink.hockeyapp.net/  
configuration/create/  
47fcf40ad8b433cdecf228b4badf  
d454

---

SIGNING CERTIFICATES

**Thawte DV SSL CA**  
Issued by: thawte Primary Root CA >  
Expires: 17 February 2020  
**\*.hockeyapp.net**

# Installing the HockeyApp profile > More Details (2/2)

**Encrypted Profile Service**  
URL: https://rink.hockeyapp.net/  
configuration/create/  
47fcf40ad8b433cdecf228b4badf  
d454

---

SIGNING CERTIFICATES

**Thawte DV SSL CA**  
Issued by: thawte Primary Root CA >  
Expires: 17 February 2020

---

**\*.hockeyapp.net**  
Issued by: RapidSSL CA >  
Expires: 12 July 2015

# Enter Passcode

Enter Passcode Cancel

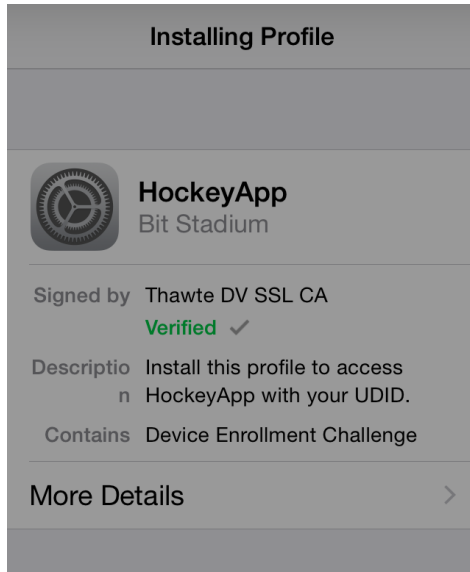
---

Enter your passcode

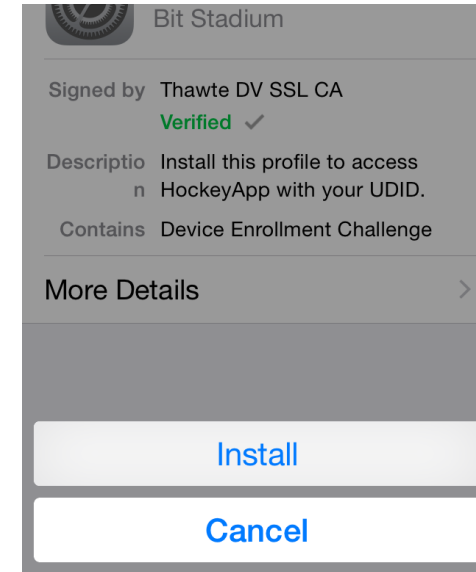
— — — —

1	2 ABC	3 DEF
4	5	6

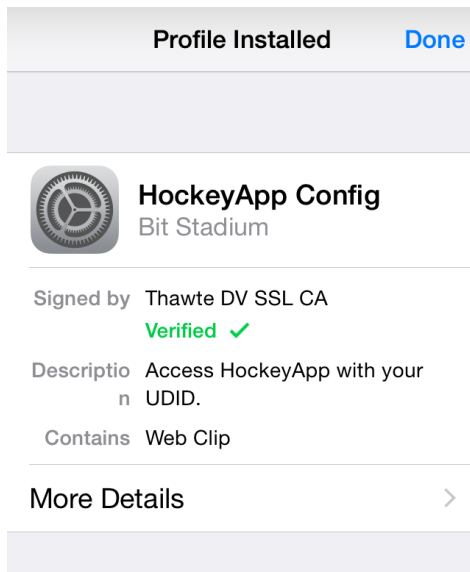
## Installing Profile (1/2)



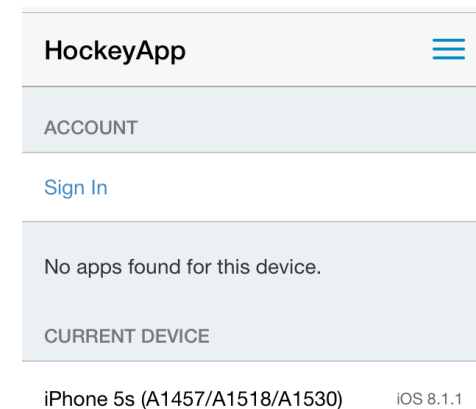
## Installing Profile (2/2). Click Install.




## Success! Profile Installed. Click Done.



## Back to HockeyApp to Sign In (rink.hockeyapp.net).



# Sign In to HockeyApp


**HockeyApp** 


SIGN IN


Email

Password



[Sign In](#)

 [Connect With Facebook](#)


 [Sign In With Google](#)

 [Sign In With Microsoft](#)


# Dashboard (rink.hockeyapp.net).


**Dashboard**  

iOS

 **TFE Talk**  
Lothian Buses plc [Beta](#)

# App (rink.hockeyapp.net).

**App** 

 **TFE Talk**  
for iOS  
by Lothian Buses plc

[Details](#) [History](#) [Feedback](#)

**PLEASE WAIT - THE DEVELOPER NEEDS TO ADD YOUR DEVICE**

You cannot install this app until you receive an email letting you know that a build is available. The developer still needs to add your device to the app's profile.

# A new icon on your home screen.

