

BuzzTouch iOS Push Notifications

Niraj Shah January 27, 2013 Version 1.1

BuzzTouch iOS Push Notifications

1	Intro	oduction	
	1.1	An overview of Apple's Push Notifications	5
2	On t	he Mac with Keychain Access utility	
	2.1	Create a Certificate Request	8
3	On A	Apple's Developer Provisioning Portal	
	3.1	Log into Apple's Developer Provisioning Portal	16
	3.2	Create an App ID with Push Notifications enabled	19
	3.3	Create APS Certificate	22
	3.4	Create .P12 certificate	30
	3.5	Convert .P12 file into an .PEM file	35
	3.6	Create and install Provisioning Profile	38
4	Sett	ings for BuzzTouch Control Panel	
	4.1	Core settings for Push Notifications	44
	4.2	Uploading .PEM Certificate into BuzzTouch	48
	4.3	Download your App's source code from BuzzTouch server	53
5	Initia	al App setup in Xcode	
	5.1	Open the App in Xcode	58
	5.2	Modify Bundle Identifier	62
6	Use	Xcode to load App onto iPhone	
	6.1	Setup Xcode Project to use new Provisioning Profile	66
	6.2	Run app on iPhone for testing of Push Notifications	68

7 Send a notification from BuzzTouch Control Panel

8

7.1	Send Push Notifications	72
7.2	Check the iPhone for a push notification	77
Proc	luction usage of Push Notifications	

80

8.1 Production Push Notifications

Introduction

ABOUT THIS TUTORIAL

We walk you through the necessary steps to get your App ready to receive Push Notifications for alerting Users to items about an app:

- Setting up and configuring the BuzzTouch Control Panel
- Making changes to the downloaded code from the BuzzTouch packager
- Creating and obtaining Push Certificates from Apple's Provisioning Portal
- Composing, sending and testing Push Notifications to registered devices
- Changes to make for Production push notifications

OVERVIEW OF PUSH NOTIFICATIONS

Push notifications are ways for an (non-foreground) application to let its users know it has information for them. The information could be:

- a message,
- an impending calendar event, or
- new data on a remote server.

Push notifcations can:

- display an alert message,
- badge the application icon and
- play a sound

When users are notified that the application has a message, event, or other data for them, they can launch the application and see the details. They can also choose to ignore the notification, in which case the application is not activated nor launched.

DETAILS ON THE PUSH NOTIFICATION SERVICE

Push notifications—also known as remote notifications—arrive from outside a device. They originate on a BuzzTouch server—the application's provider—and are pushed to applications on devices (via the Apple Push Notification service) when there are messages to see or data to download. To receive push notifications, an application must register to receive the notifications and then pass to BuzzTouch a device token it gets from the operating system.

Apple Push Notification service (APNs) propagates push notifications to devices having applications registered to receive those notifications. Each device establishes an accredited and encrypted IP connection with the service and receives notifications over this persistent connection.

The BuzzTouch server connects with APNs through a persistent and secure channel while monitoring incoming data intended for the applications. When new data for an application arrives, the BuzzTouch server prepares and sends a notification through the channel to APNs, which pushes the notification to the target device.

(The details were excerpted from Apple's article on "About Local and Push Notifications")

QUICK TIPS ON USING THIS TUTORIAL

For easy browsing of the PDF, try these techniques with the Preview or the Adobe Reader application on the Mac:

- Enable the Sidebar: View menu, show Table of Contents
- Show all items in Sidebar: View menu, expand all
- Search for a phrase or term: Command-F and view results in Sidebar

VERSION HISTORY

- 1.0 Initial release (Jan 27, 2013)
- 1.1 Moved creation of .PEM certificate to the beginning for overall chronological sequencing of steps (Jan 27, 2013)

On the Mac with Keychain Access utility

Create a Certificate Request

We have to request a Certificate from Apple to do the Push Notifications for the App.

Follow these steps to create a **Certificate Request**.



Create a folder on your computer to save some important files. It's important that you are able to locate this folder later and in the future. When you're done completing this process, do not move it to the trash.

- 1. It is best to keep this folder next to the App's Xcode folder.
- 2. The name of the folder should be the name of the App along with the Certificates designation.
- 3. Within that folder, create two new folders named **Dev** and **Prod**

2. Open the Keychain Access application on the Mac

00	🔯 Utilities	
		Q
FAVORITES	💾 Sequel Pro	Console
All My Files	🔄 Skype	🧭 DigitalColor Meter
AirDron	🗐 Stickies	🔊 Disk Utility
AirDrop	System Preferences	🕅 Grab
Applications	🞯 TextEdit	🧔 Grapher
Desktop	🕸 TextWrangler	iPhone Coation Utility
Decuments	Ime Machine	🕺 Keychain Access 🛛 🕄 🕺
Documents	📚 TinyUmbrella 🛛	🍇 Migration Assistant 🎽
🕑 Downloads	🖾 Utilities 👩 🔹 🕨	Network Utility
Movies	🗊 Xcode	Podcast Capture

Find and launch the Keychain Access application

- 1. Go into the Applications folder
- 2. Go into the Utilities folder
- 3. Launch the Keychain Access application

3. Select the Login keychain



1. Click on the Login keychain item.

4. Request a Certificate from a Certificate Authority



We have to make a special type of request to Aple, it is called a Certificate Request.

- 1. Click on the **Keychain Access** menu
- 2. Select the Certificate Assistant item in the menu
- 3. Choose to Request a Certificate from a Certificate Authority

000	Certificate Assistant
	Certificate Information
	Enter information for the certificate you are requesting. Click Continue to request a certificate from the CA.
Bert	User Email Address: your_email_address Common Name: the App Name 2 CA Email Address: Request is: Emailed to the CA • Saved to disk 3 Let me specify key pair information
	4 Continue

- 1. Use your real email address
- 2. For the **Common Name**, put the name of your App (spaces in the name are okay)
- 3. Specify to **save** the request to disk
- 4. Click on **Continue**

S	Certificate As: CertificateSigningRequ	sistan Jest.ce	t rtSigningR		
	□ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □		Dev .	÷ Q	
Applications	phonegapp-8a3aa47	► ►	Prod		4
Desktop	ShuttleBus	Þ			
U Documents	ShuttleBus.p12				
Downloads	ShuttleBusCertificates	2			
Movies	ShuttleBusTimetables	Þ			
GoT1	SplitTableViewStory	Þ			
🎜 Music	TableViewStory				
Pictures	train schedule				
Sites	TwoTables	▶			11
- C:					
New Folder]		(Cancel	Save

Save the Certificate Request in a known place:

- 1. Documents folder
- 2. App's Certificates folder
- 3. Folder meant to hold the Certificate items for Development
- 4. Click on the Save button

000	Certificate Assistant
	Conclusion
	Your certificate request has been created on disk.
Cent	Show In Finder
	Done

1. Click on Show in Finder button to see where the Certificate Request was saved



Check to see the Certificate Request was saved in a known place:

- 1. Documents folder
- 2. App's Certificates folder

- 3. Folder meant to hold the Certificate items for Development
- 4. The Certificate Request file

On Apple's Developer Provisioning Portal

Log into Apple's Developer site to get to the Provisioning Portal.

In a later chapter, we will then create an App ID and a Provisioning Profile for the App.



- 1. Go to this site: <u>http://Developer.Apple.com</u>
- 2. Click on the **iOS Dev Center**



1. Click on the **Log in** button

3. Specify your Apple ID credentials

🗯 Developer
Sign in with your Apple ID
Password:
Register Sign In
Forgot ID or Password?

- 1. Use the Apple ID that is registered with the Apple's Developer program
- 2. Give the corresponding password

3. Click on the Sign In button

oning Portal	
ter Q Search Developer	
Mac Dev Center Safari Dev Center	
My Profile Log out	
iOS Developer Program	
iOS Provisioning Portal 1 🛛 🔊	
	Iter Q Search Developer Mac Dev Center Safari Dev Center My Profile Log out iOS Developer Program iOS Provisioning Portal 1 2

Apple Developer Forums

Developer Support Center

ø

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1. Click on the link for the iOS Provisioning Portal

We have to Push-enable the App by creating an App ID for it.

1. Create an App ID with Push Notifications enabled



In the iOS Provisioning Portal:

1. Click on the App IDs menu item

2. Create a new App ID



1. Click on the New App ID button

5. Details of the App ID	5. Details of the App ID
--------------------------	--------------------------

Description					
Enter a common name or description of your App ID using throughout the Provisioning Portal to identify this App ID.					
Shuttle Bus	You cannot i				
Bundle Seed ID (App ID Prefix)					
Use your Team ID or select an existing Bundle Seed ID for					
Use Team ID C G If Y a	you are creating a suite of applications that pplication's App IDs.				
Bundle Identifier (App ID Suffix)					
Enter a unique identifier for your App ID. The recommender Identifier portion of the App ID.					
com.YourCompanyNar	me.YourAppName Example: co				

- 1. Use the name of the App as the name for the App ID
- 2. Use a number, not the Team ID, for the **Bundle Seed**

3. For the **Bundle Identifier**, use this format: com.YourCompanyName.YourAppName (with no spaces)

4. Possible Configurations for the App iD	
9 IS.com.elsegundo Shuttle Bus	
Passes: 😑 Configurable 😔 Configurable	
Data Protection: 😑 Configurable 🗧 😔 Configurable	
iCloud: 😌 Configurable 😌 Configurable Configurable Configure	
In-App Purchase: \varTheta Enabled 🛛 😔 Enabled	
Game Center: \varTheta Enabled 🛛 😔 Enabled	
Push Notification: 😑 Configurable 🛛 😑 Configurable 💛	
÷	

1. Click on the **Configure** link to setup the App ID

5. Push Notification configuration for the App ID

1	Shuttle Bus	uttlebus				
	Enable for Apple Push Notification service					
	Push SSL Certificate	Status	Expiration Date	Action 2		
	E Development Push SSL Certificate	😑 Configurable		Configure		
	Production Push SSL Certificate	😑 Configurable		Configure		

- 1. Enable the Push Notification service
- 2. Click on the **Configure** button

Create APS Certificate

We will use the Certificate Request file (created previously) to generate a Push Notification certificate.

That Apple Push Notification System (APS) certificate will be uploaded to the BuzzTouch server (in later steps).

Apple Push N	otification service SSL Certificate Assistant
Genera	ate a Certificate Signing Request
To request Certificate	an Apple Push Notification SSL Certificate, you first need to generate a Signing Request (CSR) utilizing the Keychain Access application in Mac OS X.
	Launch Keychain Access
	In the Applications folder on your Mac, open the Utilities folder and launch Keychain Access.
	 Within the Keychain Access drop down menu, select Keychain Access > Certificate Assistant > Request a Certificate from a Certificate Authority
	In the Certificate Information window, enter the following information:
	In the User Email Address field, enter your email address In the Generate Name field, enter a same for some signification in the last
	 In the Common Name field, create a name for your private key (eg. John Doe Dev Key)
	 Select the "Saved to disk" option Click Continue within Keychain Access to complete the CSR generating process
	generating process

You've already created the Certificate Request file in previou steps.

1. Click on the **Continue** button



Apple Push Notification service SSL Certificate Assistant
Submit Certificate Signing Request
The creation of a CSR will prompt Keychain Access to simultaneously generate a public and private key pair. Your private key is stored on your Mac in the login Keychain by default and can be viewed in the Keychain Access application under the "Keys" category.
Select the Certificate Signing request (CSR) file that you saved to your disk.
Choose File no file selected
Cancel Go Back Generate

1. Click the Choose File button

Select the Certificate Request file						
(
F	All My Files	ScreenSteps Library Prod CertificateSigningRequest.certSigningRequest				
	Desktop Documents Downloads Movies	ShuttleBusTimetables Image: ShuttleBusTimetables SplitTableViewStory Image: SplitTableViewStory TableViewStory Image: SplitTableViewStory The iOS Ating Started Image: SplitTableViewStory Itrain schedule Image: SplitTableViewStory	н			

1. Documents folder

3.

2. The **App's** certificates folder

3. Folder for **Development** items

4. The Certificate Request file

.....

Submit Certificate Signing Request
The creation of a CSR will prompt Keychain Access to simultaneously generate a public and private key pair. Your private key is stored on your Mac in the login Keychain by default and can be viewed in the Keychain Access application under the "Keys" category.
Select the Certificate Signing request (CSR) file that you saved to your disk.
Choose File CertificateningRequest

Use the Certificate Request file to generate the Push Notification certificate

- 1. Verify the Certificate Request file was selected
- 1. Click on the **Generate** button





- 1. Verify the Push Notification certificate was generated
- 2. Click the **Continue** button





1. Click on the **Download** button to get the Push Notification certificate

8. Download and save the APS certificate



- 1. Click on the Downloads icon
- 2. Drag-n-drop the APS certificate into the Dev folder



Create .P12 certificate

Using the APS certificate from the Provisioning Portal, we will create a .P12 certificate.

In later steps, the .P12 file will then be used to generate a .PEM certificate file to be used by the BuzzTouch server



Install the APS Push Notification certificate into the Keychain

1. Double-click on the APS file

2. Select the Push Notification certificates for exporting

000	Keychain Access	
Click to lock the l	ogin keychain.	
Keychains login System System Roots Category All Items All Items Passwords Secure Notes My Certificates Keys Certificates Certificates	3 N Y Apple Development IOS Push Services: com.elsegundo.shuttlebus P ShuttleBus Apple Worldwide Developer Relations Certification Authority Image: Service Ser	▲ Kind certificate private key certificate certificate certificate certificate certificate certificate certificate certificate certificate certificate certificate certificate certificate certificate certificate certificate certificate

- 1. Select the Login keychain
- 2. Select the Certificates category
- 3. Click on the triangle to expand-open the Push Notification certificate

3. Select certificates for exporting

00	Keychain Access		
Click to lock the l	ogin keychain.	Q.	
Keychains			
💣 login			
System			
System Roots			
	Name		Kind
	🔻 🔄 Apple Development IOS Push Services: com.elsegundo.shutt	tlebus	certif (1)
	ShuttleBus ShuttleBus	Copy 2 iten	ns ey
Category	Apple Worldwide Developer Relations Certification Author	Delete 2 ite	ms ^e
All Items			<u> </u>
A. Passwords		Export 2 ite	ems 2
Secure Notes		Get Info	e
🔤 My Certificates			certificate
🖗 Keys	20		certificate
📴 Certificates			certificate
	+ i Copy 13 items		

- 1. With the two certificates selected, **Right-Click** on those items
- 2. Select Export 2 items (in the form of a .P12 certificate)

4. Navigate to the desired folder

	Save As: ShuttleBu	S				
	Ⅲ I■I 📰 ▼ 🛅 Dev		÷ Q			\supset
FAVORITES Applications Desktop Documents Downloads Movies CoT1	ScreenSteps Library ShuttleBus ShuttleBus.p12 ShuttleBusCertificates ShuttleBusRoute ShuttleBusTimetables SplitTableViewStory TableViewStory The iOS Ating Started train schedule	Prod	3	Þ	 aps_development.cer CertificateingRequest 	
Music Pictures	TwoTables	* II		П		11
New Folder	File Format: Personal	Information Ex	change (.p12)	* *	Cancel Save	4

- 1. Select the Documents folder
- 2. Select the App's folder for certificates
- 3. Select the folder that holds items for **Development** (or Production)
- 4. Click on the Save button

5. No passwords

R	Enter a passwor the exported ite	d which will be used to protect ms:
	Password: Verify:	?
No pas to be sp	ssword becified	Cancel OK

Do not specify a password for this prompt.

1. Click the **OK** button to proceed to the next step



- 1. Specify the password for the Mac's account
- 2. Click on the Allow button to save the P12 certificate onto the Mac's drive



- 1. Select the **Documents** folder
- 2. Select the App's folder for certificates
- 3. Select the folder that holds items for **Development** (or Production)
- 4. Verify the App's .P12 certificate is in that folder

The BuzzTouch server uses a .PEM file to communicate with Apple's Push Notification Service.

Using the .P12 certificate created in previous steps, we will use a secure certification process to generate a .PEM file for the BuzzTouch server.

Launch the Termi	nal application	
FAVORITES All My Files All My Files AirDrop Applicati Desktop Documents Downloads Movies CoT1 Music	 Remote Deonnection Safari ScreenSteps Sequel Pro Skype Stickies System Preferences TextEdit TextWrangler Time Machine TinyUmbret Utilities Utilities Xcode Xcode State Grab Grab Orab Podcast Capture Podcast Capture Podcast Publisher Xcode Xcode 	ty Name Terminal Kind Application Size 18.3 MB Created Dec 8, 2011 9:13 PM Modified July 3, 2012 7:53 PM Last opened July 3, 2012 7:53 PM Version 2.2.3

- 1. Open the Applications folder
- 2. Go into the Utilities folder
- 3. Double-click the Terminal application to launch it

2.	Navigate to the f	older holding the certificates				
	T					
	$\Theta \Theta \Theta$	👚 personal — bash — 98×8	Red			
	MacBook:~ personal\$ MacBook:~ personal\$ MacBook:~ personal\$	cd ~/Documents/ShuttleBusCertificates/Dev/				
	1	I				

- 1. Change Directory to the folder holding the certificate items for Development (or Production)
- cd ~/Documents/ShuttleBusCertificates/Dev/

(At the Finder-level, try not to use spaces in any of the folder names)



1. Using the OpenSSL utility, use the .P12 file to generate a .PEM certificate

openssl pkcs12 -in APPNAME.p12 -out APPNAME.pem -nodes -clcerts

4. Ignore password prompt



1. When prompted for the password, ignore it by pressing the Return key on the keyboard



1. Verify the .PEM was generated with no errors
6. Validate .PEM file was created



- 1. Select the **Documents** folder
- 2. Select the App's folder for certificates
- 3. Select the folder that holds items for **Development** (or Production)
- 4. Verify the App's .PEM certificate is in that folder

Create and install Provisioning Profile

We need a Provisioning Profile that is enabled for Push Notifications. Using the new App ID, we will create a valid Provisioning Profile that can be used to install the Devolpment version of the App onto the enabled devices. That same Provisioning Profile is also associated with selected Developers to allow them to compile that App.



Verify the new App ID has been enabled for Push Notification for Development (or Production)

- 1. In the App ID section, find the App ID with the name of the App
- 2. Look for a green light for Push Notification in the Development column (or Production column)

2. Provisioning section of the iOS Provisioning Portal



1. Click on the **Provisioning** menu item



1. Click on the **Development** folder tab for testing push notifications

(or click on the Distribution folder tabl for an App that is ready for publishing to the Apple App Store)

4. Create a New Provisioning P	Profile	
Center	Q Search Developer	
Welcon	Edit Profile Log out	
	Go to iOS Dev Center	
	1 New Profile	

1. Click on the **New Profile** button to create a new provisioning profile

Development	Distribution	History H
Create iOS D	evelopment Provi	sioning Profile
Generate provisioni	ng profiles here. All fields	are required unless otherw
Profile Name	1 Shuttle Bus Dev	
Certificates	Select All	
	2	
App ID	3 Shuttle Bus	*
Devices	Select All	
	(4) ☑	

1. Specify the **name** of the App and the **Dev** or **Prod** term.

Example: Shuttle Bus Dev or Shuttle Bus Prod (spaces are allowed)

2. Select which **People** to be included on that Provisioning Profile. These people are usually your Testers. Remember to include yourself!

- 3. Select the App ID that we had previously created
- 4. Select the devices that will be used by the Testers from item #2

Details for



1. Click on the **Submit** button

7. Download the new provisioning profile

Development Provisioning Profiles							
0	Pro	visioning Profile	٠ ۲	App ID		Status	Actions
						Active	Download Ed
						Active	Download Ed
						Active	Download Ed
						Active	Download Ed
						Active	Download Ed
						Active	Download Ed
1)		Shuttle Bus Dev			com.elsegundo.shutt	Active 2	Download Ed
		iOS Team Provisioning	Profile:		*	Active • Managed by Xcode	Download

After submitting the request for a new provisioning profile, the browser should be refreshed.

- 1. Find the row for the newly created provisioning profile
- 2. Click on the Download button for the new provisioning profile

8. Open the new Provisioning Profile



- 1 Open the Downloads view of the Browser
- 2. Right-click on the row for he Provisioning Profile

the provisioning profile

3 Select the **Open** item in the list

Veritv

00 Organizer - Devices Projects Repositories Archives Documentation Devices LIBRARY Q- Profile Name A Provisioning Profiles Platform Creation | Expiration | App Identifier Name Team Status Software Images iOS Profile 6/27/12 6/26/13 Unk... \rm A Valid signing ident Device Logs App Testing... iOS Profile Unk... 🛕 Valid signing ident 9/26/12 9/26/13 Screenshots Shuttle Bus Dev iOS Profile 1/26/13 1/26/14 Unk... 🕑 Valid profile TEAMS iOS Team iOS Profile 12/30/12 12/30/13 Unk Valid profile 22 뮜 DEVICES My Mac 10.7.5 (11G63b) iPhone 5 white 6.0.2 (10A551)

Opening a Provisioning Profile will cause it to be imported into the Organizer (on the Mac)

- 1. Looking at the list of Provisioning Profiles, verify the App's name is in the list
- 2. Verify the Status of that Provisioning Profile is "Valid profile" and it has a green checkmark

Settings for BuzzTouch Control Panel

There are two core settings for Push Notifications, both of which need to be changed from the default settings:

- Prompting the User to allow push notifications to be sent to the app installed on the device
- The URL to register the device with push notifications Provider (the BuzzTouch server)



Go into the Core Settings for the App:

1. For your BuzzTouch account, click on Applications

- 2. Click on the App that needs Push Notifications
- 3. Click on "Core Properties"



To change the core settings for Push Notifications:

1. Click on "Push Notification Settings"

3. Default settings for Push Notifications

Home	Home How it Works				tou	ich U™		Self Hosting	
Applications		Shuttle Bus	I	App Icon	I	Core	Layout	I	Themes
Manage	Manage Core Properties for Shuttle Bus								
Core Properties allow you to control the app's basic behavior when it launch name you enter here will appear under the app's icon on the device. You can Xcode or Android project.									
Application Name									
Application Id, API Key, API Secret									
Project N	Project Name								
Configura	ition I	Data URL							
Report to	Report to Cloud URL								
• Start Tra	Start Tracking Location (turn on GPS)								
• Push Not	Push Notification Settings								
Prompt for Push Notifications									
Register I These sett device toke save	2 ings a en to	e URL → R are used to p a remote se	e-s ron rve	<u>et to the t</u> npt the ap r where it	ne pu is s	default o ser to all aved and	ontrol p ow or di d used w	sall he	el URL ow Push Nc n push noti

We have to change the default settings, which are:

- 1. Prompt for Push Notifications = No (default)
- 2. Register Device URL = blank (default)

4. Change settings for Push Notifications

Home	Н	low it Works		buzz	tοι	uch U™		Se	lf Hosting
Applications	I	Shuttle Bus	I	App Icon	I	Core	Layout	I	Themes
Manage	Manage Core Properties for Shuttle Bus								
Core Proper name you en Xcode or And	tie ter roio	s allow you to here will appe project.	o co ear	ontrol the a under the	ap	's basic b p's icon (ehavior on the de	wh evid	en it launcł ce. You can
Application Name									
Application Id, API Key, API Secret									
Project Na	Project Name								
Configurat Configurat	tion	Data URL			_				
Report to	Report to Cloud URL								
→ Start Trac	Start Tracking Location (turn on GPS)								
• Push Noti	ficat	tion Settings						_	
Prompt for Push Notifications									
Register Device URL Re-set to the the default control panel URL https://www.buzztouch.com/api/app/?command=registerForPush&appGuid=JA594									
These setti device toke	ngs n to	are used to p a remote se	ror rve	npt the ap r where it	p u is s	iser to all saved an	low or di: d used w	sall he	ow Push No n push noti
save • Saved!	3)							

Change the default settings to:

- 1. Prompt for Push Notifications = Yes
- 2. **Register Device URL** = click on the "Re-set" link
- 3. Click on the "save" button

The .**PEM certificate** is the connection between the App and the BuzzTouch server for Push Notifications.

Two different types of certificates are used:

- Development
- Production / Distribution

For this tutorial, the Development .PEM certificate is used.

The same procedure is used for the Production .PEM certificate.



- 1. Ensure you are in the correct **Application's** Control Panel.
- 2. Click on the "Push Notifications" menu

Development Cert.	• (1)
Production Cert. 🗕	<u> </u>
Apple: Development	÷ 2
PEM Certificate Pas	sphrase
•••••	3
PEM Certificate File	-
unload	•

- 1. Due to the **red-dots**, notice that neither type of certificate has not yet been uploaded.
- 2. Select "Development" as the type of certificate to be uploaded
- 3. Type in a random **passphrase**, you won't have to remember it's value
- 4. Click on the **Plus-sign** to invoke the file browser (to point it to the .PEM certificate file)

(In the next step, you will specify the actual .PEM certificate file)

3. Find the .PEM Certificate file on the Mac



In previous steps, we had exported the Certificate-pair from the KeyChain as a .PEM certificate. Lets upload that .PEM certificate into the BuzzTouch Control Panel.

- 1. Documents folder
- 2. App-specific certificates folder
- 3. Dev certificates folder (or Prod folder)
- 4. App's .PEM certificate file

4.	Upload	.PEM	certificate	into B	uzzTouc	h server

\$
ohrase
+
•

Now that you've located the Dev (or Prod) .PEM certificate file, upload it into the BuzzTouch server.

- 1. Verify the field shows the name of the .PEM certificate file
- 2. Click on the "upload" button

5. Verify the Development Certificate is installed on BuzzTouch server

Apple Push Certificates Help About
Development Cert. • remove Production Cert. •
choose cert. type \Rightarrow .PEM Certificate Passphrase
.PEM Certificate File
upload

Now that you have uploaded the .PEM certificate onto the BuzzTouch server, lets make sure BuzzTouch liked it.

1. Verify the Development (or Production) certificate has a green-dot

To ensure you have the latest version of software, download the Source Code from the BuzzTouch server.

1. App's Control Panel

Home	How it Works	buzztouch U™							
Account	Applications Shutt	le Bus							
0?	Shuttle Bus created: 12/30/201 modified: 01/26/20 vers. 2.0 views: 23	12 09:24 AM 013 08:13 AM 3							
App Icon									
Core Proper	Core Properties								
Layout / Ta	Layout / Tabs								
Global Ther	Global Themes								
Screens / A	Screens / Actions								
Logins / Us	ers								
Files / Medi	а								
Configuration	on Data								
Publish Cha	Publish Changes •								
App Usage	App Usage Map								
Push Notific	Push Notifications								
→ <u>Download S</u> → Permanent	Source Code								

- 1. Ensure you are in the correct App's Control Panel on the BuzzTouch server
- 2. Click on the **Download Source Code** menu item



1. Click on the **Prepare package for download** link





1. Click on the **Download** .zip archive link

5. Open the downloaded source code folder



- 1. Click on the Downloads icon
- 2. Right-click on the source-code package

3. Select **Open** to view the contents of that folder

Initial App setup in Xcode

Open the App in Xcode

Open the App in Xcode

After downloading the Source Code of your app from the BuzzTouch server, five of the folders must be "connected" with the Xcode project.

000 shuttlebus_v20_iOS-1 Q BT_Art FAVORITES 🔊 MAMP_201...20-34-48 🕨 BT_Config 📇 All My Files 🗊 MAMP_201...4-48 alias 🛛 🕨 BT_Core menu_with_image ⊳ AirDrop BT_Docs 🚞 Mr-Data-C...ter-master ト Applications BT_Images 🚞 my-progra...les-master ト BT_Layout Desktop 🔲 ocean BT_Plugins Raytheon_I...leprovision Documents BT_Sound 6 Raytheon_I...leprovision Downloads BT_Video 🚞 redsn0w_mac_0.9.11b4 ト instructions.pdf Movies Reflection.dmg LICENSE.txt RoleWorks...aster.xlsx GoT1 README.txt rotation.php.html shuttlebus.xcodeproj Music ScreenSteps.dmg Name shuttlebus.xcodep Secure_Ap...ileprovision Pictures oj Kind Xcode Project Shuttle_Bu...leprovision Sites Size -shuttlebus_v20_iOS Created Today 9:53 AM iPhone Simulator shuttlebus_v20_iOS-1 ⊧ Modified Today 9:54 AM htdocs simple_me...t_advanced Last opened Today 9:54 AM Tabster Þ 1 lockdown 🚞 The iOS A...- Checklists ト 📊 SHARED

1. Open the App in Xcode by double-clicking its Xcode project xcodeproj file

2. Open the PDF of Instructions

FAVORITES MAMP_20120-34-48 BT_Art All My Files MAMP_2014-48 alias BT_Config All My Files MAMP_2014-48 alias BT_Config Applications Mr-Data-Cter-master BT_Layout BT_layout Desktop ocean BT_lunges BT_lunges Documents BT_Sound BT_Video Movies Raytheon_Ileprovision BT_Video Movies Reflection.dmg LICEN txt Music ScreenSteps.dmg shuttlebu_xcodeproj Sites iphone Simulator shuttlebu_x20_i0S-1 iphone Simulator shuttlebus_v20_i0S-1 imple_met_advanced Tabster The iOS A Checklists I	● ⊖ ⊖	shuttlebus_v20_iOS-1	
FAVORITES MAMP_20120-34-48 BT_Art All My Files MAMP_2014-48 alias BT_Config AirDrop Mr-Data-Cter-master BT_Core Mr-Data-Cter-master BT_Layout Desktop BT_Plugins Documents BT_Sound Aytheon_Ileprovision BT_Video Reflection.dmg Reflection.dmg RoleWorksaster.xlsx rotation.php.html ScreenSteps.dmg Secure_Aplleprovision Shuttlebus_v20_iOS shuttlebus_v20_iOS Shuttlebus_v20_iOS shuttlebus_v20_iOS Shuttlebus_v20_iOS Tabster The iOS A Checklists Image: State			
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	htdocs	shuttlebus_v20_IOS-1 simple_met_advanced Tabster The iOS A Checklists II	

Understand what to do with the source code by opening and reading the initial set of instructions.

3. Import folders into the Xcode project

Run Stop Scheme Breakpoints Empty BT_Docs	Shuttlebus.xcodeproj Xcode Editor No Selection
shuttlebus 6.0 BT_Plugins 1 target, iOS 6.0 + T_Sound BT_Config + T_Sound - BT_Layout - - BT_Art - BT_Core	□ shuttlebus_v20_iOS-1 □□ □□ □□ □□ □□ □□ □□ □□ □□ □□ □□ □□ □□
 ▶ → Frameworks ▶ → Products ▶ → Products ▶ → AirDrop ▲ All My Files ④ AirDrop ▲ Applications ⇒ Desktop > Documents ◆ Downloads → Movies → GoT1 → Music ● Pictures → Sites → iPhone Simu → htdocs 	MAMP_20120-34-48 MAMP_2014-48 alias Mamp_Data Mamp_base Mamp_programmed Mamp_programmed Maxtheon_1leprovision Raytheon_1leprovision Raytheon_1leprovision Raytheon_html ScreenSteps.dmg Secure_Aplleprovision Shuttlebus_v20_IOS shuttlebus_v20_IOS-1 simple_met_advanced

- 1. Using the Command key, select these folders
- BT_Docs
- BT_Images

- BT_Plugins
- BT_Sound
- BT_Video
- 2. Drag-n-drop that group into the Xcode project

4. Set parameters for import

	Choose options for adding these files	
	1 Destination 🗌 Copy items into destination group's folder (if needed)	
	Folders • Create groups for any added folders	
auna W	Create folder references for any added folders	
	Add to targets 🗹 À shuttlebus	
	3	
TY Is		
1	ANN ADDRESS	
KON APPLICATION . APP		
	Cancel	nish

- 1. Disable (do not check) the Copy items ...
- 2. Ensure Folders is set to "Create groups for any added folders"
- 3. Verify target is the new App



1. Verify those groups were created when we imported the folders from the downloaded package

Modify Bundle Identifier

When packaging the source code for downloading, the BuzzTouch server sets the Bundle Identifier to it's own naming convention of *com.AppName.com*

However, when we had created the App ID in earlier steps, the Bundle Identifier was specified in the format of *com.CompanyName.AppName*

These steps will show how to change the Bundle Identifier within Xcode to match that of the App ID.

1. Find the Bundle Identifier



1. Open the File Browser

- 2. Expand the Xcode project by clicking on it's Left-triangle
- 3. Expand the **BT_Config** group by clicking on it's Left-triangle
- 4. Click on the BT_info.plist file for editing
- 5. Observe the value of the **CFBundleIdentifier**

2. Change the Bundle Identifier



Lets change the Bundle Identifier to match the one associated with the App ID

- 1. Click on the File Browser icon of the Xcode project
- 2. Open the Xcode project by clicking on it's triangle
- 3. Open the **BT_Config** group
- 4. Select the BF_info.plist file for editing

5. For the **CFBundleIdentifier** row, double-**c**lick it's value and change it to match the value given when creating the App ID

(Do not use any of the numbers preceding the com.CompanyName.AppName)



Because we modified the CFBundleldentifier to match our Company's name and App name, we should save the BT_info.plist file

- 1. Open the File menu
- 2. Select the Save menu item

Use Xcode to load App onto iPhone

Setup Xcode Project to use new Provisioning Profile

When compiling the App, we want the new Provisioning Profile to be used. That profile is associated with an App ID that is configured for Push Notifications.

Also, remember that the Developer is registered with the new Provisioning Profile.

Thus, we have to specify the new Provisioning Profile to be used when the App is compiled.

1. Go into Build Settings



- 1. Open the File Browser
- 2. Select the Project
- 3. Select the Target
- 4. Select the Build Settings tab
- 4. Open the Code Signing Identity by clicking on it's triangle

2. Change code signing identity

Summary Info	Build Settings	Build Phases	Build Rules	
Basic All Combined Levels		Q.		og o
Setting	A shuttlebus			
Build Options			0	
Compiler for C/C++/Objective-C	Don't Code Sign	\bigcirc	0.001	nte
Validate Built Product Debug Release VCode Signing	Automatic Profile Sel iPhone Developer iPhone Distribution	ctor (Recommende	ed)	
Code Signing Identity	Shuttle Bus Dev (for	bundle identifiers 'c	om.elsegundo.shuttlebus')	_
Debug (1)	✓ iPhone Developer:	F		ile
Any iOS SDK Release Any iOS SDK	iOS Team Provisionir iPhone Developer:	ng Profile: * (for bun	dle identifiers '*')	
▼Deployment	App Testing for Dev	(for bundle identifie	ers 'com.ray.test')	it
Installation Directory	profile doesn't match bundle identifier 'com.elsegundo.shuttlebus'			
Strip Debug Symbols During Copy Debug Release	identifiers '*') profile doesn't match any valid certificate/private key pair in your keychains			it
Strip Linked Product	Other			it
Targeted Device Family	iPhone/iPad 🛊			

Change the code signing identity to match the Provisioning Profile associated with the App ID that has Push Notifications enabled

1. Click on the **Debug** (or Release) row

2. Find and select the App's **Provisioning Profile** (notice where it says "Shuttle Bus Dev" in this example)

Run app on iPhone for testing of Push Notifications

Since Push Notifications do not work on Simulators, the App must be tested on an actual device.

Connect your device (iPhone) to the Mac. Use Xcode to "sideload" the App onto the iPhone.

Then testing of Push Notifications for the App can begin!

1. Change from Simulator to iPhone



- 1. Click on the previous setting, such as "iPhone 6.0 Simulator"
- 2. Change the device type to your iPhone

2. Run the app to install onto iPhone



Since the App has run fine on the Simulator, it is ready to be loaded and ran on the iPhone

1. Click on the Run button to install and run the app

(Be patient, it takes a bit longer than it would for the Simulator)



To receive notifications from the BuzzTouch Control Panel, the User must allow the App to receive notifications on his iPhone.

1. Tap on "**OK**" to enable notifications for this App on this iPhone

Send a notification from BuzzTouch Control Panel

Send Push Notifications

When the User accepts the prompt asking for permission to send him push notifications for the App, the iPhone then sends a token to Apple's Push Notification Server. That essentially registers the Device to receive notifications for the App.

(We had previously configured the Core settings for Push Notification to prompt the User for permission)

After a device has been registered to receive Push Notifications, we can test by sending actual messages to the Development devices!

1. Push Notification Menu

	buz	ztouch	Lm I					
	Home	How it Works	buzztouch U™					
	Account Applications Shuttle Bus							
C	?	Shuttle Bus created: 12/30/2012 modified: 01/01/2013 vers. 2.0 views: 227	09:24 AM 09:19 PM					
	App Icon							
	Core Properties							
	Layout / Tabs							
	Global Themes							
	Screens / Actions							
	Logins / Users							
	Files / Media							
	Configuration Data							
	Publish Changes •							
	App Usage Map							
	Push Notifications							
	Downloa Push Notifications							
	Permanently Delete App							

- 1. Ensure you are in the correct **Application's** Control Panel.
- 2. Click on the "Push Notifications" menu
2. Ensure device is registered for Push Notifications

S	How To	o's	buzz Map	About
uration	Data	Publish	Changes	
$\overline{\mathbf{n}}$				
Reg	gistered	Device	s Show De	vices
iOS		1 -	-	2
And	droid	0	-	-

During the first-running of the App on the iPhone, you were asked if Push Notifications were allowed (for that app on that device). By saying "yes", that registered the iPhone with Apple and the BuzzTouch server.

- 1. Look at the **Registered Devices** section on the page
- 2. Verify the quantity of registered devices for iOS is correct

. Add a Pus	h Notific	ation into the	e Queue			
	Home	How it Works	buzztouch U™	Self Hosting	Plugins	Forums
	Application	Home App Icon	Core Layout 1	hemes Screens	Logins Files	Configui
	Push N	otifications for S	huttle Bus			
	Send to iOS De Message	Devices evelopment Devices	iOS Production Dev	ices 🗌 Android Devic	es	
	3 My first p	ush notification to an iPho	one app!			
	4 audio file	iffect (ios only) → Sel	ect Badge Nun 22 Must be nur	nber (ios only) 5 neric or blank		
	6 save will	add this message to th	e Push Notification qu	eue.		

- 1. Look at the Send to Devices section of the screen
- 2. Enable the sending to **iOS Development Devices** (or iOS Production Devices)

3

- 3. Type something into the Message Text field
- 4. (optional) Select a previously uploaded **Sound Effect**

5. (optional) Specify a numeric value for the **Badge Number** (red circle with that number will be displayed on the icon of the App)

6. Click the **save** button

gin sending	from queue				
Home	How it Works	buzztouch U™	Self Hosting	Plugins	Forums
Application	n Home App Icon	Core Layout Th	emes Screens	Logins Files	Configui
Push I	Notifications for S	huttle Bus			
Send to	Devices Development Devices	iOS Production Device	es 🗌 Android Devi	ces	
Messag Sound audio fil	e Text (200 chars max Effect (ios only) → Se e in Xcode project	() lect Badge Numb	er (ios only) eric or blank		
save Save wi	ll add this message to th	he Push Notification que	Je.		
Push N	otification Queue				
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1. Click on **begin sending** the notifications from the queue

(You will get a chance to Cancel or to Confirm in the next step)

5. Confirm the sending from the queue

Home	How it Works	buzztouch U™	Self Hosting	Plugins	Forums
Application I	Home App Icon	Core Layout The	mes Screens	Logins Files	Configu
Push No	otifications for S	huttle Bus			
Send to I	Devices				
iOS De	velopment Devices	iOS Production Device	s 🗌 Android Devic	ces	
Message	Text (200 chars max	;)			
Sound Ef	ifect (ios only) → Se	lect Badge Numb	er (ios only)		
audio file i	in Xcode project	Must be nume	ric or blank		
save					
Save will a	add this message to th	ne Push Notification queu	e.		
Push Not	tification Queue				
Created: (1/27/13 01·12 AM		begin sending	I remove from que	
Payload: { notificatio "sound":"	["apps":{"alert":"My f n to an iPhone app!", default"}}	first push "badge":22,	v begin senting	confirm car	icel
Send To:	1 iOS devices 0 Andro	id devices			

1. Click on **confirm** to send all messages that are in the queue

e notifi	cations were s	sent			
Home	How it Works	buzztouch U™	Self Hosting	Plugins	Forums
Application	Home App Icon	Core Layout	Themes Screens	Logins Files	Configu
Push N	lotifications for S	Shuttle Bus			
Send to	Devices				
ios d	evelopment Devices	iOS Production De	vices 🗌 Android Devi	ices	
Messag	e Text (200 chars ma	x)			
Sound I	Effect (ios only) > Se	elect Badge Nu	mber (ios only)		
audio file	in Xcode project	Must be nu	meric or blank		
save					
Save will	add this message to t	he Push Notification o	ueue.		
Push No	otification Queue				
Created:	01/27/13 01:12 AM			Notifications S	ent
Payload: notificati	{"apps":{"alert":"My on to an iPhone app!",	first push , "badge":22,	1	/	
"sound": Send To:	"default"}} 1 iOS devices 0 Andro	oid devices			

1. Verify the notifications were **sent** out to the devices from the queue

6.

After sending the queue of notifications from the BuzzTouch Control Panel, the messages are then distributed to the Devices by Apple's Push Notification System (APNS).

Check your devices to verify the receipt of the push notifications, the sound and the badge.

1. Notification appears on lock screen



A wee bit after you confirmed with the BuzzTouch Control Panel, the notification arrived on the registered devices.

In this case, the device was sleeping, only showing its lock screen.

Upon receipt of the push notification, the iPhone was awoken to briefly display the push message that was entered into the BuzzTouch Control Panel.



Along with receiving a push message, the App's icon can also be configured to display a "badge". The purpose of a Badge is to inform the User that the App has something new that may be of interest. The Badge is a means of encouraging the User to launch the App.

The badge number was entered into the BuzzTouch Control Panel and sent along with the push message. Upon receipt of the Push Notification, the badge number is then displayed on the icon of the App.

Production usage of Push Notifications

If you diligently followed all the steps in this tutorial, then a hearty congratulations to you! It feels great to have such a powerful way of engaging Users with your App.

Now that you've tested the Push Notifications with your Test Devices, you're ready to do it for real on with Apps published on Apple's App Store.

To be in production mode, repeat this Tutorial's steps with these specific changes:

- 1. Use the Distribution section of Apple's Provisioning Portal to create a production Provisioning Profile
- 2. Upload a Production .PEM Certificate into the BuzzTouch Control Panel
- 3. Enable the Production Devices in the Push Notifications section of the BuzzTouch Control Panel
- 4. Send push notifications to Users of your Apps

Here is a brief set of steps that help to jog your memory on the differences between Development mode and Production mode. Bear in mind that you'll still have to re-execute many of the steps documented elsewhere in this tutorial.

Home Distribution History Development How To Certificates Devices New Profile **Distribution Provisioning Profiles** ۲ App IDs **Provisioning Profile** App ID Status Actions Pass Type IDs Active Download ۲ Provisioning Distribution Download ۲ Active Download ۲ Active ۲ Active Download Remove Selected

1. Create a Distribution Provisioning Profile

Go into Apple's Provisioning Portal (follow previous steps in this Tutorial)

- 1. Select the **Provisioning** menu item
- 2. Select the Distribution folder tab

3. Click on "New Profile"

Then follow previous steps in this Tutorial for obtaining a Certificate.

Apple Push Certificates Help About
Development Cert. • remove 1
Production Cert. •
Apple: Production
.PEM Certificate Passphrase
.PEM Certificate File
C:\fakepath\ShuttleB

Navigate to the **Apple Push Certificates** section by going to the App's Control Panel, then click on Push Notifications.

- 1. Due to the **red-dot**, notice the Production certificate has not yet been uploaded.
- 2. Select "Production" as the type of certificate to be uploaded
- 3. Type in a random **passphrase**, you won't have to remember it's value
- 4. Click on the Plus-sign to invoke the file browser (to point it to the .PEM certificate file)
- 5. Click on the **upload** button to transfer the .PEM certificate to the BuzzTouch server

3. Add a Push Notification into the Queue

	Home	How it Works	buzztouch U™	Self Hosting	Plugins	Forums
	Application	Home App Icon	Core Layout 1	Themes Screens	Logins Files	Configu
	Push N	lotifications for SI	nuttle Bus			
0						
	Send to	Devices				
	ios d	evelopment Devices) iOS Production Dev	rices 🗌 Android Devi	ces	
	Message	• Text (200 chars max))			
(3	My first p	ush notification to an iPho	one app!			
	Sound E	ffect (ios only) Sel	ect Badge Nun 22	nber (ios only)		
C	audio file	in Xcode project	Must be nur	meric or blank		
(6 save	add this message to th	e Push Notification qu	Jeue.		

Navigate to the **Apple Push Certificates** section by going to the App's Control Panel, then click on Push Notifications.

- 1. Look at the Send to Devices section of the screen
- 2. Enable the sending to **iOS Production Devices** (and iOS Development Devices)
- 3. Type something into the Message Text field
- 4. (optional) Select a previously uploaded Sound Effect

5. (optional) Specify a numeric value for the **Badge Number** (red circle with that number will be displayed on the icon of the App)

6. Click the **save** button

Home	How it Works	buzztouch U™	Self Hosting	Plugir	ns	Foru
pplication H	lome App Icon	Core Layout The	mes Screens	Logins	Files	Conf
Push No	tifications for S	huttle Bus				
Send to D	evices					
iOS Dev	velopment Devices	iOS Production Device	s 🗌 Android Dev	rices		
Message 1	Text (200 chars max	()				
Sound Eff	iect (ios only) → Se	ect Badge Numbe	er (ios only)			
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Navigate to the **Apple Push Certificates** section by going to the App's Control Panel, then click on Push Notifications.

1. Click on begin sending the notifications from the queue

(You will get a chance to Cancel or to Confirm in the next step)

Send