

In the 'Certificates' section of the iOS Provisioning Portal, you can request individual iOS Development Certificates. All iOS applications must be signed by a valid certificate before they can be run on an Apple device. In order to sign applications for testing purposes, Team Members need an iOS Development Certificate.

A digital identity is an electronic means of identification consisting of a secret "private key" and a shared "public key". This private key allows Xcode to sign your iOS application binary.

The digital certificates you request and download are electronic documents that associate your digital identity with other information, including your name, email address, or business. An iOS Development Certificate is restricted to application development only and is valid for a limited amount of time. The Apple Certification Authority can also invalidate ("revoke") a certificate before it expires.

## Generating a Certificate Signing Request

To request an iOS Development Certificate, you first need to generate a Certificate Signing Request (CSR) utilizing the Keychain Access application in Mac OS X Leopard. The creation of a CSR will prompt Keychain Access to simultaneously generate your public and private key pair establishing your iOS Developer identity. Your private key is stored in the login Keychain by default and can be viewed in the Keychain Access application under the 'Keys' category. To generate a CSR:

- 1. In your Applications folder, open the Utilities folder and launch Keychain Access.
- 2. In the Preferences menu, set Online Certificate Status Protocol (OSCP) and Certificate Revocation List (CRL) to "Off".

	General First Aid	Certificates	
Online Certi	ficate Status Protocol (OCSP):	Off	•
Cer	tificate Revocation List (CRL):	Off	\$
	Priority:	OCSP	\$

3. Choose Keychain Access -> Certificate Assistant -> Request a Certificate from a Certificate Authority. Note: If you have a noncompliant private key highlighted in the Keychain during this process, the resulting Certificate Request will not be accepted by the Provisioning Portal. Confirm that you are selecting "Request a Certificate From a Certificate Authority..." and not selecting "Request a Certificate From a Certificate Authority..." and not selecting "Request a Certificate From a Certificate Authority with <Private Key>..."

Certificates - How To - iOS Provisioning Portal - Apple Developer https://developer.apple.com/ios/manage/certificates/team/ho...

Keychain Access File	Edit View	Window Help
About Keychain Access		
Preferences	æ,	
Keychain First Aid	\C#A	
Certificate Assistant	<b>&gt;</b>	Open
Kerberos Ticket Viewer	て 企業K	Create a Certificate
Services	Þ	Create a Certificate Authority Create a Certificate For Someone Else as a Certificate Authority
Hide Keychain Access	жн	Request a Certificate From a Certificate Authority
Hide Others C#H Show All		Set the default Certificate Authority
		Evaluate "Thawte Personal Freemail Issuing CA"
Quit Keychain Access	жQ	

- 4. In the User Email Address field, enter your email address. Please ensure that the email address entered matches the information that was submitted when you registered as an iOS Developer.
- 5. In the Common Name field enter your name. Please ensure that the name entered matches the information that was submitted when you registered as an iOS Developer.
- 6. No CA (Certificate Authority) Email Address is required. The 'Required' message will be removed after completing the following step.
- 7. Select the 'Saved to Disk' radio button and if prompted, select 'Let me specify key pair information' and click 'Continue'.

(	Certificate Inform	ation
	Enter information Click Continue to	for the certificate you are requesting. request a certificate from the CA.
	User Email Address:	PatLee@mac.com
PA.	Common Name:	Pat Lee
()en	CA Email Address: Request is:	<ul> <li>Emailed to the CA</li> <li>Saved to disk</li> <li>Let me specify key pair information</li> </ul>
		Contin

8. If 'Let me specify key pair' was selected, specify a file name and click 'Save'. In the following screen select '2048 bits' for the Key Size and 'RSA' for the Algorithm. Click 'Continue'.

	Key Pair Information			
	Specify the key size and algorithm used to create your key pair.			
Ce.	The key pair is made up of your private and public keys. The private key is the secret part of the key pair and should be kept secret. The public key is made publicly available as part of the digital certificate.			
	Key Size: 2048 bits			
	Algorithm: RSA			
	Learn More			
	Continue			

9. The Certificate Assistant will create a CSR file on your desktop.

Submitting a Certificate Signing Request for Approval

- 1. After creating a CSR, log in to the iOS Provisioning Portal and navigate to 'Certificates' > 'Development' and click 'Add Certificate'.
- 2. Click the 'Choose file' button, select your CSR and click 'Submit'. If the Key Size was not set to 2048 bits during the CSR creation process, the Portal will reject the CSR.
- 3. Upon submission, Team Admins will be notified via email of the certificate request.
- 4. Once your CSR is approved or rejected by a Team Admin, you will be notified via email of the change in your certificate status.

Certificates - How To - iOS Provisioning Portal - Apple Developer https://developer.apple.com/ios/manage/certificates/team/ho...

iPhone De	veloper Program					
Program Porta	l: Example Corp, Inc.	Exit Program Porta				
Home						
Team	Development Distribution History	How To				
Certificates	Create iBhana Development Cartificate					
Devices	Create Phone Development Certificate					
App IDs	The Development Certificate is used to sign a provisioning profile and	associate a developer to a registered device. Each member of				
Provisioning	a team may have only one active Development Certificate. To learn mo	ore, visit the How To section.				
Distribution	How to create a development certificate:					
	<ol> <li>Generate a Certificate Signing Request (CSR) with a public key</li> <li>In your Applications folder, onen the Utilities folder and laugeb Keyrib</li> </ol>	Areas				
	Choose Keychain Access > Certificate Assistant > Reguest a Certificate	te from a Certificate Authority.				
	In the Certificate Information window, enter or select the following information:					
	In the User Email Address field, enter your email address					
	In the Common Name field, enter your name					
	<ul> <li>In the Request is group, select the Saved to disk option</li> </ul>					
	Click Continue					
	The Certificate Assistant saves a Certificate Signing Request (CSR) file to your Desktop.					
	The public/private key pair will be generated when you create the Certificate Signing Request (CSR) if you use the Key Chain Assistant to					
	create the CSR.					
	<ol> <li>Submit the CSR through the Program Portal to the Admin for approval.</li> <li>Click the Development tab</li> </ol>					
	Upload the certificate by choosing the file					
	Click Submit					
	3. You will be notified by email when your CSR has been approved or rejecte	ed.				
	Choose File					
		Submi				
sit the Apple Store online	e (1-800-MY-APPLE), find a retail location or find a reseller.	Contact Us   🗰 News & F				
pyright © 2008 Apple In	nc. All rights reserved. Terms of Use   Privacy Policy					

Approving Certificate Signing Requests

Team Agents and Team Admins have the authority and responsibility to approve or reject all iOS Development Certificate requests. In order to approve/reject Team Members' requests, all Team Admins should first submit their own CSR for approval.

- 1. After submitting a CSR for approval, Team Admins will be directed to the 'Development' tab of the 'Certificates' section. Here, CSRs can be approved or rejected by clicking the corresponding action next to each request.
- 2. Once a CSR is approved or rejected, the requesting Team Member is notified via email of the change in their certificate status. Each iOS Development Certificate is available to both the Team Member who submitted the CSR for approval and to the Team Admin(s).

Certificates - How To - iOS Provisioning Portal - Apple Developer https://developer.apple.com/ios/manage/certificates/team/ho...

S Develope	r Connection					4   ADC Member Site   Contact
					Dev Centers - W	VDC ADC on iTunes Information
<b>iPhone</b> De	veloper Pro <u>c</u>	gram				Welcome, Pat Lee ( Log out
Program Porta	1					Exit Program Portal
Home						
Team	Developm	ent Distribution		History How To		
	Current	avelonment Certi	ficator			Add Certificate
Devices	current	vevelopment certi	incate:	,		
App IDs	This is a list o	of your current certificates,	which an	e assigned to members of yo	ur team. To download	a Certificate, click the team
Provisioning	includer 5 has					
Distribution	In addition to double-click	your development certifica each certificate to launch R	ite, you v leychain	will also need to download the Access. Then click 'OK' for ea	e WWDR Intermediate ( ach certificate.	Certificate. After downloading,
	Name	Expiration Date	*	Provisioning Profiles	Status	Actions
	Pat Lee				Pending Approval	Approve Reject
isit the Apple Store online	: (1-800-MY-APPLE), find	a retail location or find a resell	er.			Contact Us   🖷 News & Fe
Sait the Apple Store online apyright © 2008 Apple In	: (1–800–MY–APPLE), find c. All rights reserved. Te	a retail location or find a resell rms of Use   Privacy Policy	er.			Contact Us   🍓 News & Fer
failt the Apple Store online lopyright © 2008 Apple In	t (1-800-MY-APPLE), find c. All rights reserved. Te	a retail location or find a resell rms of Use   Privacy Policy	er.			Contact Us   🖷 News & Fer

Downloading and Installing Development Certificates

- 1. In the 'Certificates' > 'Distribution' section of the Portal, control-click the WWDR Intermediate Certificate link and select "Saved Linked File to Downloads" to initiate download of the certificate.
- 2. On your local machine, double-click the WWDR Intermediate certificate to launch Keychain Access and install.
- 3. Upon CSR approval, Team Members and Team Admins can download their certificates via the 'Certificates' section of the Provisioning Portal. Click 'Download' next to the certificate name to download your iOS Development Certificate to your local machine.
- 4. On your local machine, double-click the downloaded .cer file to launch Keychain Access and install your certificate.
- 5. Team Members can only download their own iOS Development Certificates. Team Admins have the authority to download the public certificates of all of their Team Members. Apple never receives the private key for a CSR. The private keys are not available to anyone except the original key pair creator and are stored in the system keychain of that Team Member.

000		Keychain Access	
Click to lock the	login keychain.		Q
Keychains login System System Roots			
	Name	Kind Expires Keychain	
Category All Items L. Passwords Certificates My Certificates V Keys Secure Notes		Do you want to add the certificate(s) from the file "applewwdrca.cer" to a keychain? Keychain: login	
	• 1	0 items	

00	(J	Keychain Access	5		
Click to lock the l	login keychain.				Q
Keychains login System System Roots	iPhone Developer: Team Leader Issued by: Apple Worldwide Developer Relations Ce Expires: Wednesday, February 25, 2009 10:30:00 A This certificate is valid				
	Name	A Kind	Expires	Keychain	
	Apple Worldwide Developer Relations Certification Authority	certificate	Feb 14, 2016 12:00:00 AM	login	
	🕒 📷 iPhone Developer: Team Leader	certificate	Feb 25, 2009 12:00:00 AM	login	
Certificates Certificates My Certificates Keys					
Secure Notes					
_					
N.	± 1	2	items		

Saving your Private Key and Transferring to other Systems

It is critical that you save your private key somewhere safe in the event that you need to develop on multiple computers or decide to reinstall your system OS. Without your private key, you will be unable to sign binaries in Xcode and test your application on any Apple device. When a CSR is generated, the Keychain Access application creates a private key on your login keychain. This private key is tied to your user account and cannot be reproduced if lost due to an OS reinstall. If you plan to do development and testing on multiple systems, you will need to import your private key onto all of the systems you'll be doing work on.

- 1. To export your private key and certificate for safe-keeping and for enabling development on multiple systems, open up the Keychain Access Application and select the 'Keys' category.
- 2. Control-Click on the private key associated with your iOS Development Certificate and click 'Export Items' in the menu. The private key is identified by the iOS Developer: <First Name> <Last Name> public certificate that is paired with it.
- 3. Save your key in the Personal Information Exchange (.p12) file format.
- 4. You will be prompted to create a password which is used when you attempt to import this key on another computer.
- 5. You can now transfer this .p12 file between systems. Double-click on the .p12 to install it on a system. You will be prompted for the password you entered in Step 4.

Keychains login System System Roots	Eric Kind: Usap	Kelley private key, RSA, 20 e: Any	048-bit	
	Name	# Kind	Date Modified	Expires Keychain
	► Ψ Enc Kelley	private key		Copy "Eric Kelley" Delete "Eric Kelley"
			-	Export "Eric Kelley"
All Items			-	Cet Info
+ L. Passwords			_	Create a Certificate With "Eric Kelley" Request a Certificate From a Certificate Authority With "Eric Kelley"
Certificates				Create a Certificate Authority With "Eric Kelley"
Keys				
Secure Notes				
				1.000