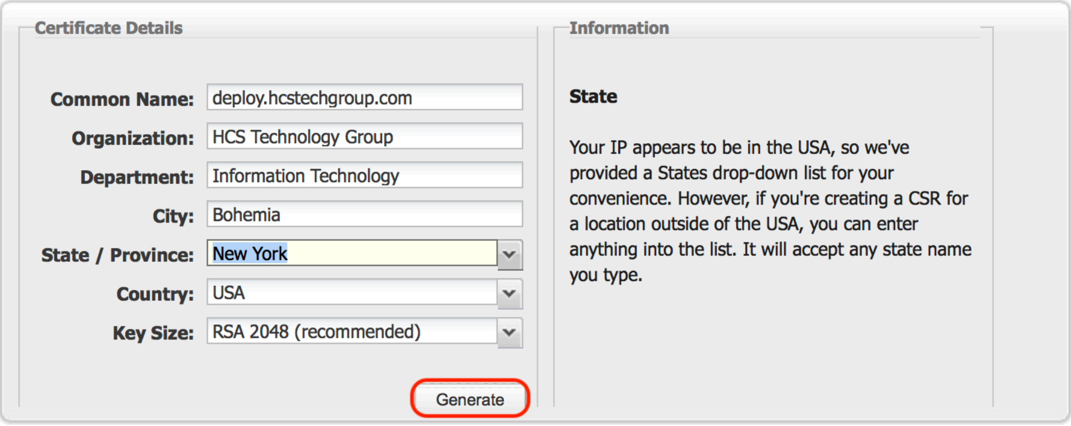
Using OpenSSL to generate CSR and getting a signed Certificate

Overview

The purpose of this document is to supply guidance and best practice solutions to facilitate the successful creation of a Certificate Signing Request (CSR), Private Key and eventual Signed Certificate for use in Jamf Pro

1. Open Safari, and navigate to OpenSSL CSR Creation https://www.digicert.com/easy-csr/openssl.htm
2. Complete the Certificate Details
3. Click Generate

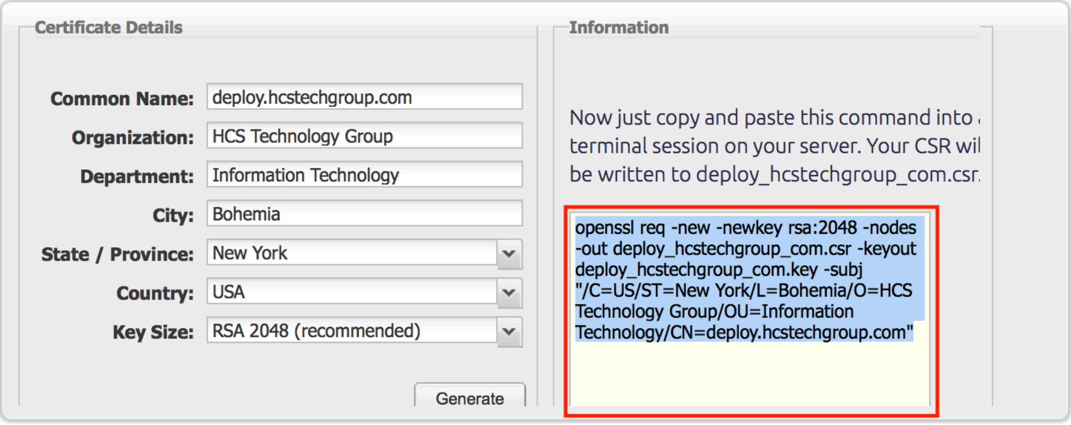


Common Name: deploy.hcstechgroup.com
Organization: HCS Technology Group
Department: Information Technology
City: Bohemia
State / Province: New York
Country: USA
Key Size: RSA 2048 (recommended)

State

Your IP appears to be in the USA, so we've provided a States drop-down list for your convenience. However, if you're creating a CSR for a location outside of the USA, you can enter anything into the list. It will accept any state name you type.

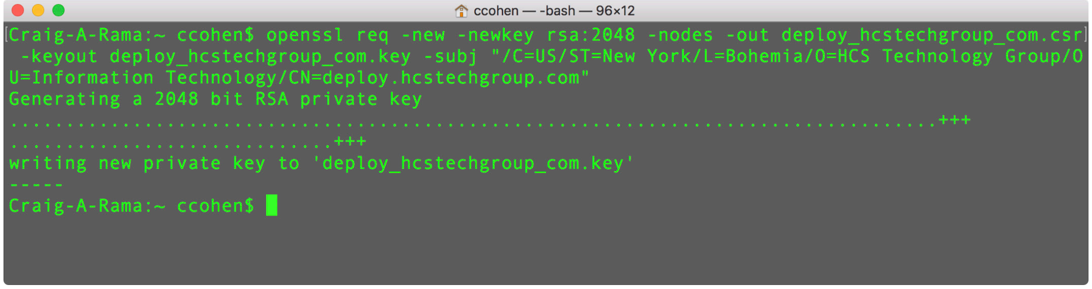
4. Copy and paste this command into a terminal session on your computer.
   - In this example the CSR will be written to deploy_hcstechgroup_com.csr.
   - NOTE: This will get saved to your working directory. IE /Users/YOURUSERNAME



Common Name: deploy.hcstechgroup.com
Organization: HCS Technology Group
Department: Information Technology
City: Bohemia
State / Province: New York
Country: USA
Key Size: RSA 2048 (recommended)

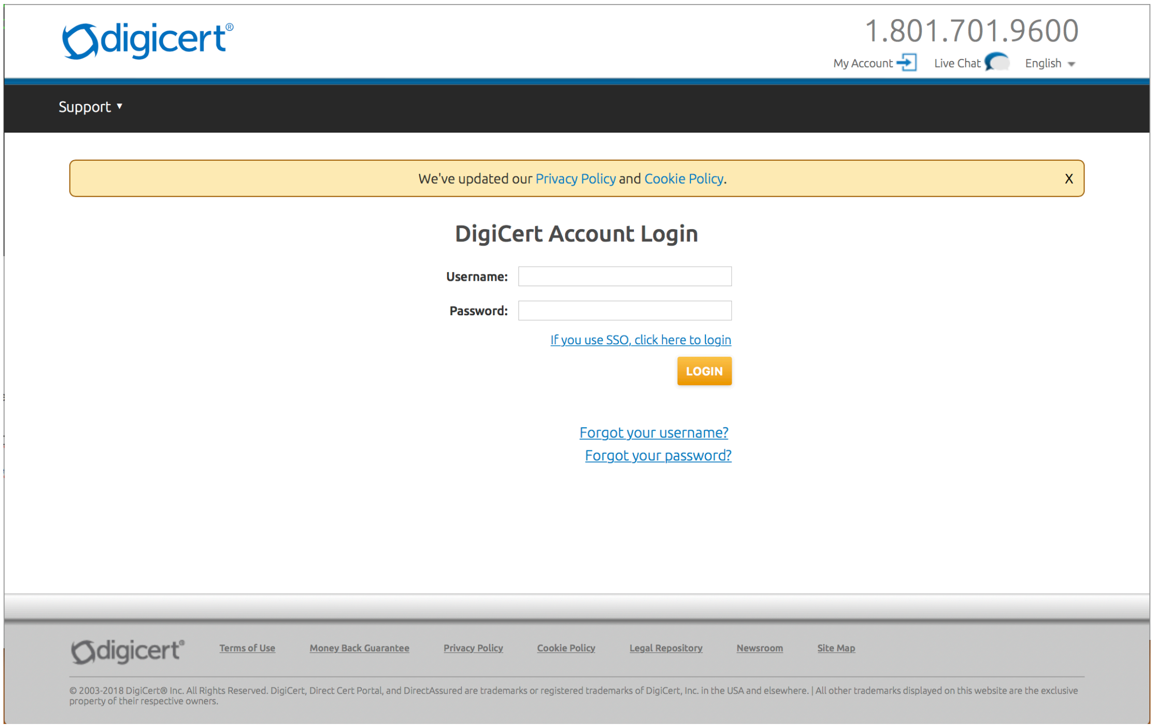
Now just copy and paste this command into a terminal session on your server. Your CSR wil be written to deploy_hcstechgroup_com.csr.

```
openssl req -new -newkey rsa:2048 -nodes
-out deploy_hcstechgroup_com.csr -keyout
deploy_hcstechgroup_com.key -subj
"/C=US/ST=New York/L=Bohemia/O=HCS
Technology Group/OU=Information
Technology/CN=deploy.hcstechgroup.com"
```



```
[Craig-A-Rama:~ ccohen$ openssl req -new -newkey rsa:2048 -nodes -out deploy_hcstechgroup_com.csr]
 -keyout deploy_hcstechgroup_com.key -subj "/C=US/ST=New York/L=Bohemia/O=HCS Technology Group/O
U=Information Technology/CN=deploy.hcstechgroup.com"
Generating a 2048 bit RSA private key
...................................................................................+++
.............................+++
writing new private key to 'deploy_hcstechgroup_com.key'
-----
Craig-A-Rama:~ ccohen$ █
```

5. Open Safari, navigate to your Certificate Authority



We've updated our Privacy Policy and Cookie Policy.

DigiCert Account Login

Username:

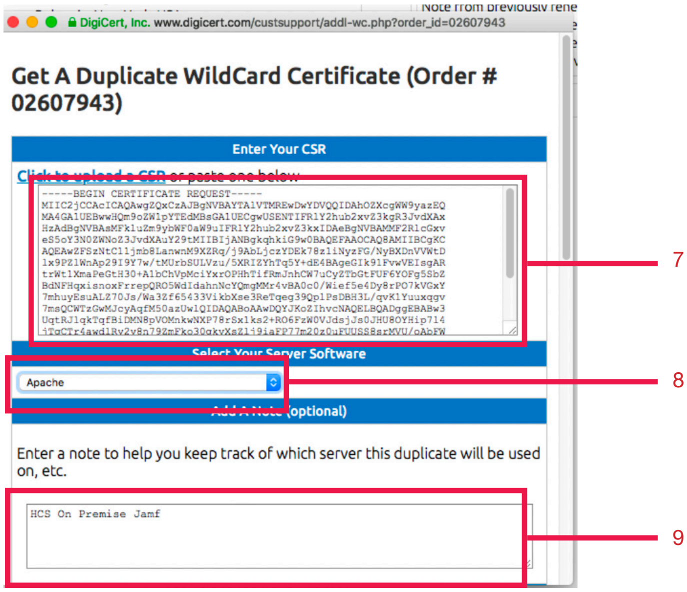
Password:

If you use SSO, click here to login

Forgot your username?
Forgot your password?

© 2003-2018 DigiCert® Inc. All Rights Reserved. DigiCert, Direct Cert Portal, and DirectAssured are trademarks or registered trademarks of DigiCert, Inc. in the USA and elsewhere. | All other trademarks displayed on this website are the exclusive property of their respective owners.

6. Depending on your requirements you will choose Re-Key or Get Duplicate
7. Upload CSR
8. For Select Server Software, choose Apache
9. Add Notes and Specify subdomain
10. Click Generate


Note from previously rene
DigiCert, Inc. www.digicert.com/custsupport/addl-wc.php?order_id=02607943
7
8
9

Get A Duplicate WildCard Certificate (Order # 02607943)

Enter Your CSR

Click to upload a CSR or paste one below

```
-----BEGIN CERTIFICATE REQUEST-----
MIIC2jCCAcICAQAwgZQxCzAJBgNVBAYTAlVTMREwDwYDVQQIDAhOZXcgWW9yazEQ
MA4GA1UEBwwHQm9oZW1pYTEdMBsGA1UECgwUSENTIFRlY2hub2xvZ3kgR3JvdXAx
HzAdBgNVBAsMFkluZm9ybWF0aW9uIFRlY2hub2xvZ3kxIDAeBgNVBAMMF2RlcGxv
eS5oY3N0ZWNoZ3JvdXAuY29tMIIBIjANBgkqhkiG9w0BAQEFAAOCAQ8AMIIBCgKC
AQEAwZFSzNtCl1jmb8LanwnM9XZRq/j9AbLjczYDEk78zliNyzFG/NyBXDnVVWtD
lx9PZlWnAp29I9Y7w/tMUrbSULVzu/5XRIZYhTq5Y+dE4BAgeGIk91FvwVEIsgAR
trWtlXmaPeGtH30+AlbChVpMciYxrOPHhTifRmJnhCW7uCyZTbGtFUF6YOFg5SbZ
BdNFHqxisnoxFrrepQRO5WdIdahnNcYQmgMMr4vBA0c0/Wief5e4Dy8rPO7kVGxY
7mhuyEsuALZ70Js/Wa3Zf65433VikbXse3ReTqeg39QplPsDBH3L/qvK1Yuuxqgv
7msQCWTzGwMJcyAqfM50azUwlQIDAQABoAAwDQYJKoZIhvcNAQELBQADggEBABw3
UqtRJlqkTqfBiDMN8pVOMnkwNXP78rSxlks2+RO6FzW0VJdsjJs0JHU8OYHip714
jTqCTr4awdlRv2v8n79ZmFko30gkvXsZlj9iaFP77m20z0uFUUSS8srMVU/oAbFW
```

Select Your Server Software

Apache

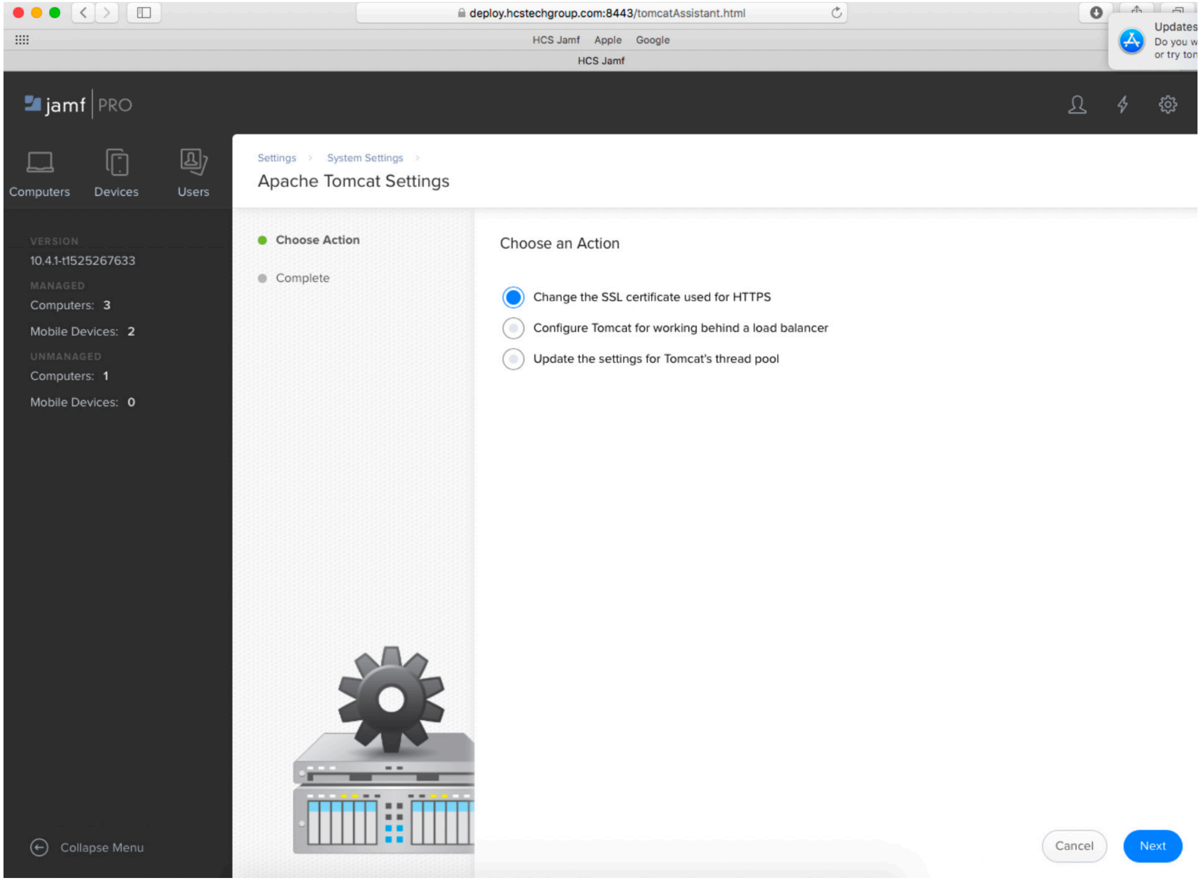
Add A Note (optional)

Enter a note to help you keep track of which server this duplicate will be used on, etc.

HCS On Premise Jamf

11. Once the Certificate Authority confirms the creation of the signed certificate(s), download the files and put them in the same directory as the CSR and Private Key.
    - This will allow simpler commands, unless you would prefer to specify the path to the file(s) outside that directory.
12. Open Terminal
13. At the prompt, type openssl pkcs12 -export -out certificate.pfx -inkey privateKey.key -in certificate.crt -certfile DigiCertCA.crt
    1. Just update the following:
        - certificate.pfx (the name you would like the final file)
        - privateKey.key (your private key file name)
        - certificate.crt (your primary certificate name)
            - IE: For a .pfx format: openssl pkcs12 -export -out deploy.pfx -inkey deploy_hcstechgroup_com.key -in star hcstechgroup_com.crt -certfile DigiCertCA.crt
            - IE: For a .p12 format: openssl pkcs12 -export -out deploy.p12 -inkey deploy_hcstechgroup_com.key -in star_hcstechgroup_com.crt -certfile DigiCertCA.crt
        - NOTE: You will need to provide a Keystore Password. This password will be used in a later step.

14. Open Safari Log into Jamf Pro
15. Select All Settings > System Settings > Apache Tomcat Settings
16. Select Edit
17. Select Change the SSL certificate used for HTTPS



deploy.hcstechgroup.com:8443/tomcatAssistant.html

Settings > System Settings >

Apache Tomcat Settings

VERSION 10.4.1-t1525267633

MANAGED
Computers: 3
Mobile Devices: 2

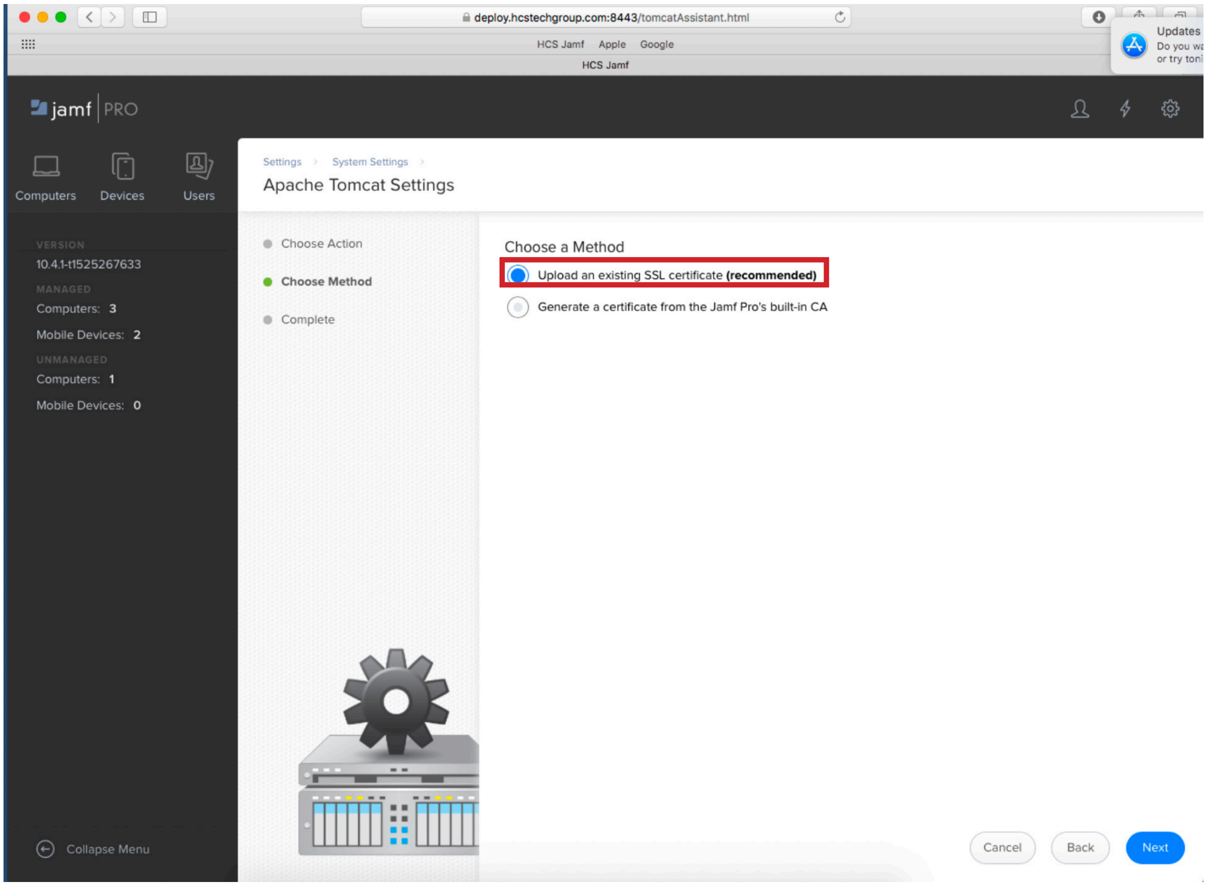
UNMANAGED
Computers: 1
Mobile Devices: 0

● Choose Action
● Complete

Choose an Action

● Change the SSL certificate used for HTTPS
○ Configure Tomcat for working behind a load balancer
○ Update the settings for Tomcat's thread pool

18. Upload an existing SSL Certificate



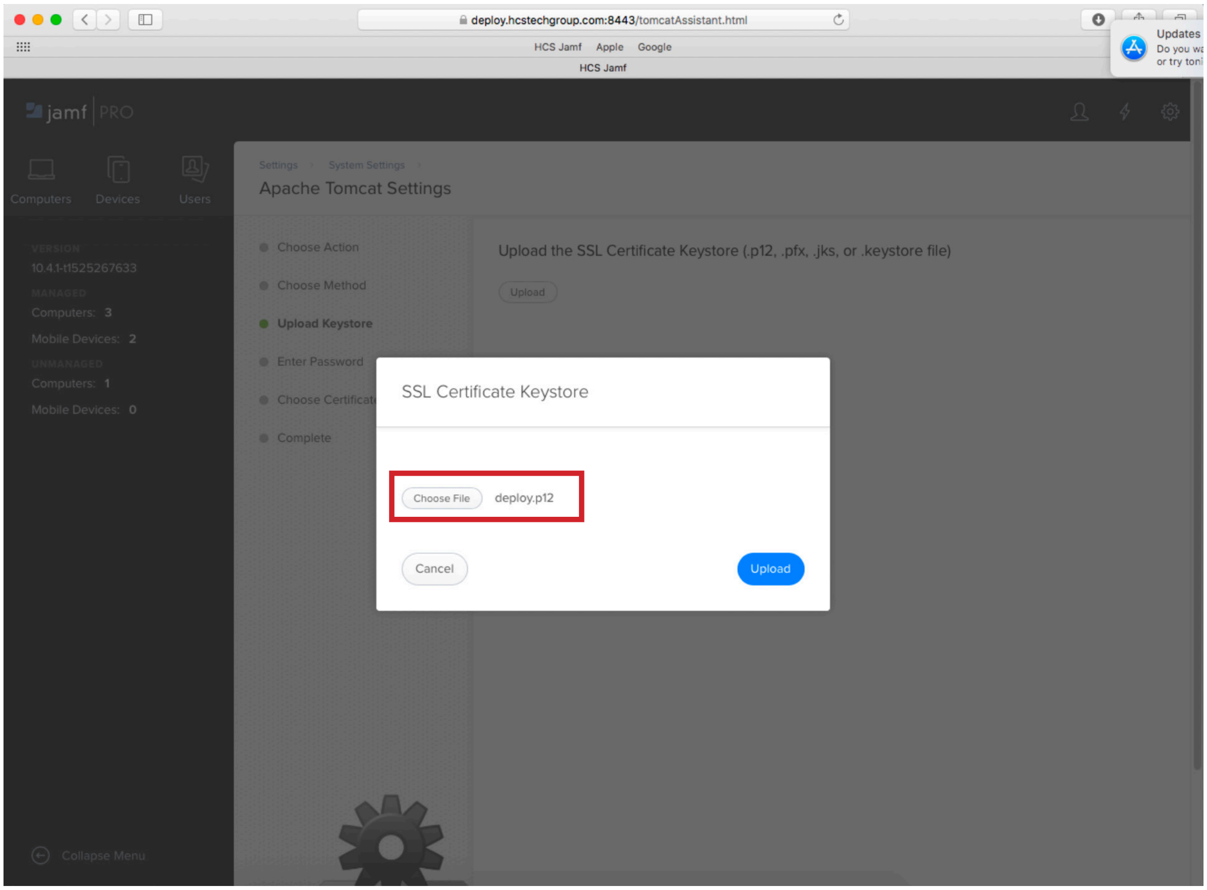
Apache Tomcat Settings

Choose a Method

● Upload an existing SSL certificate **(recommended)**

○ Generate a certificate from the Jamf Pro's built-in CA

19. Choose the p12 exported from the previous steps and click Upload



deploy.hcstechgroup.com:8443/tomcatAssistant.html

Settings › System Settings ›

Apache Tomcat Settings

VERSION
10.4.1-t1525267633

MANAGED
Computers: 3
Mobile Devices: 2

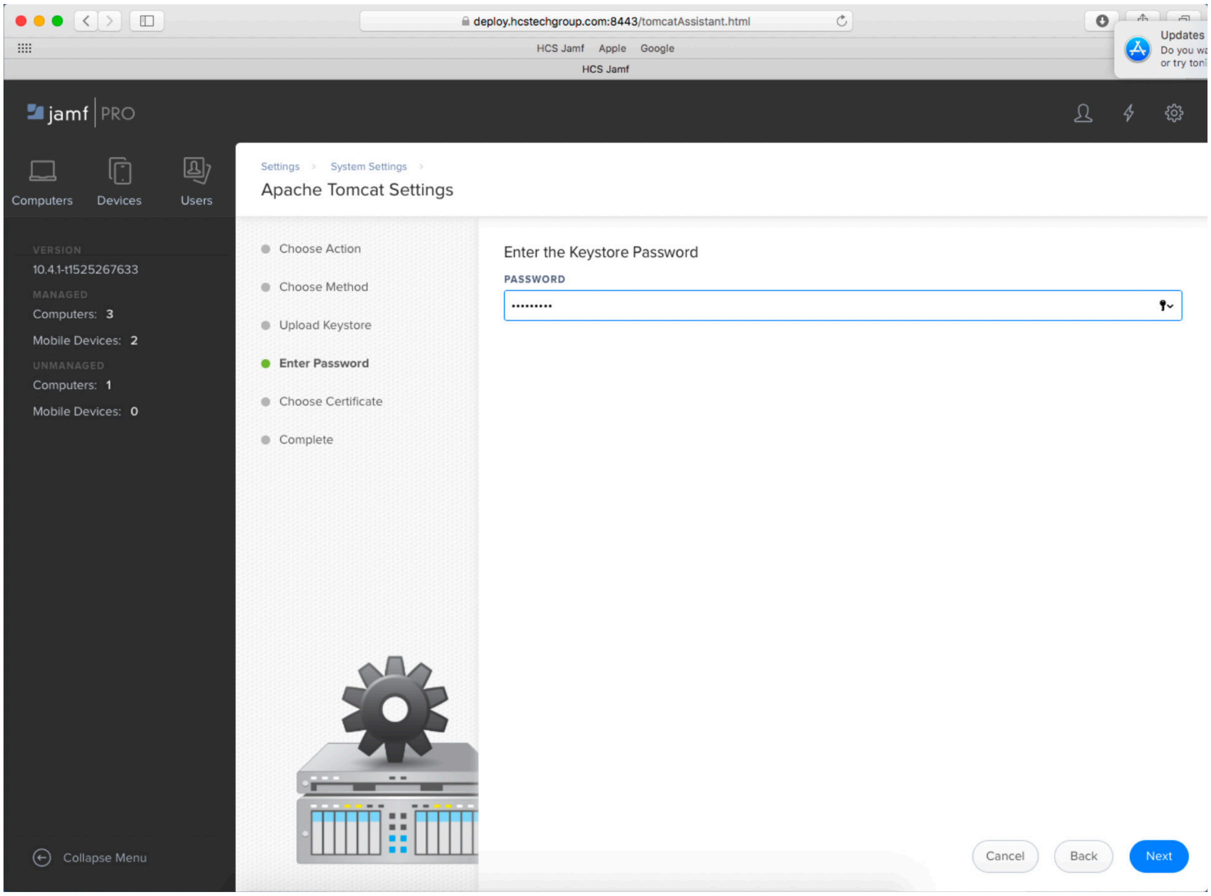
UNMANAGED
Computers: 1
Mobile Devices: 0

Upload the SSL Certificate Keystore (.p12, .pfx, .jks, or .keystore file)

SSL Certificate Keystore

Choose File deploy.p12

20. Enter the Keystore Password and Click Next



Enter the Keystore Password

PASSWORD: •••••••••

21. You have completed the steps in generating a SSL certificate and uploading it to your Jamf server.