

openssl

█████

Linux openssl █████cer██crt

```
openssl x509 -in server.cer -out server2.crt -inform DER
```

crt██cer(DER██)

```
openssl x509 -in server.crt -out server.cer -outform DER
```

██crt██key███pfx██ca

```
openssl pkcs12 -export -in server.crt -inkey server.key -out server.pfx -certfile ca.crt -password pass:123456
```

pfx██pem

```
openssl pkcs12 -in server.pfx -out server.pem -nodes -password pass:123456
```

pem██crt

```
openssl x509 in server.pem -out server.crt
```

pem██key

```
openssl rsa -in server.pem -out server.key
```

pfx██crt██ca

```
openssl pkcs12 -in server.pfx -nokeys -out server2.crt -nodes -password pass:123456
```

pfx██key

```
openssl pkcs12 -in server.pfx -nocerts -out server2.key -nodes -password pass:123456
```

crt █ p7b

```
openssl crl2pkcs7 -nocrl -certfile server.crt -out server.p7b -certfile ca.crt
```

pfx转jks

```
keytool -importkeystore -srckeystore server.pfx -destkeystore server.jks -srcstoretype PKCS12 -deststoretype jks -
```

jks转pfx

```
keytool -importkeystore -srckeystore server.jks -destkeystore server2.pfx -srcstoretype jks -deststoretype PKCS12
```

3.生成hash值

```
openssl pkey -in server.key -pubout -outform pem | sha256sum  
openssl x509 -in server.crt -pubkey -noout -outform pem | sha256sum  
openssl req -in server.csr -pubkey -noout -outform pem | sha256sum
```

crt

```
openssl x509 -in server.crt -text -noout
```

key

```
openssl verify server.crt
```

key

```
openssl rsa -in server.key -text -noout
```

key

```
openssl rsa -noout -text -check -in server.key
```

server.pfx

```
openssl pkcs12 -info -in server.pfx
```

server.jks

```
keytool -v -list -storetype jks -keystore server.jks -storepass 123456
```

:cer:IIS:crt:apache:nginx::

cert:cr certificate::

windows命令:cer pfx p7b\cer\der(证书)\base64\plain text)

apache\nginx\pem\crt

java\jks\pfx

pem*.crt\key

-----BEGIN CERTIFICATE-----END CERTIFICATE

-----BEGIN RSA PRIVATE KEY-----END RSA PRIVATE KEY

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<https://ssorc.tw/7142/openssl-command-line-convert-file-for-pem-der-p7b-pfx-cer/>

Revision #3

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