

# Install metadata signing certificates on Apache

This page will help you create a self signed key and install it. [Skip ahead to the folder location](#) if you already have one to use (e.g. if you are upgrading from Shibboleth).

## Create a self-signed certificate

The standard install creates a keys directory at `/usr/share/atacama-platform/keys`. In this folder there is a script that will generate a self-signed keypair valid for 10 years. To run it:

```
cd /usr/share/atacama-platform/keys

sudo ./gen_self_signed_cert.sh 'yourdomain.com' 'Short Description'
```

The script places the key in the same directory, which is where OpenAthens SP expects to find it.

## Next

- Return to [general instructions](#)
- On to [Configuring Apache vhosts for OpenAthens SP](#)

## Move an existing certificate pair to the expected location

If you already have a key pair, concatenate your public and private keys into one file:

```

-----BEGIN PRIVATE KEY-----
MIIEvQIBADANBgkqhkiG9w0BAQTFAAASCBKcwggSjAgEAAoIBAQDefGbxYibPLb9b
svsQ30nDbNY7mJYn+qkQLDC6MzHE6yP6dpzPuz3s0x7feLsY5VP2d9QT9GDgbg7I
3XqpGM/eMed/iPi4YK4gQYWO/1IdpJrmUyXvs1jVjn6X7HHLyFb3eE5Do7Mmg5Sx
rg4k9lex9ti+90iYETw/odlDoASejHRRa2kWydT+osXAdzRldzHYG9jHiJ5+Lzhe
y2PE7HrYeazvVLXDCulehbnLNdlnwkZxJInJ+kRpYNzi3wGtuMARvkqsi50jj8
rPbXXbvT6p5SfCrbth3PSr/gLkOIQlylbuhGdif6acGiigfi41pXaHR5qX17mv4i
nXth0L6hAgMBAACGgEBAKR1E5TacG1cdxyDlE0s94qQ4EeFkbjovvUAZ9CR67p8
reKHwPzGVjCRDPgzDzbpS/uxlFRXYra2p71MU8yRLftlIZMHZFZW5aet7+IerKom
alh6I/ibfrFQ0XjLuPu+Nbxwf+ExdRO5co29h608W25j1EtSovpVAr6n9pERs3oM
0PcrJ+e/WuXqmDhjdDKcQ7sAunA0MaFM2OuvksjxJCi8EAdcscoM9dTeLlk36UBW
LBojkcG2bhA1orxVDOPdH6jIkAL3q9C4Hto2kka6F7AdXM42RumQmytbrWqHHMQ5
w5XMG5B2xTXeYI5NrFv1oCqNMch40g+0PBygUTEIqSECgYEA8so2Co0BlziCCVG8
0xYne39DfTxRRRqMcTb6JG0cSHcAsdLpXy7xmTOWd/8Oc9Gf1uht30iS025xznzNVb
A81YANyRnbPlht1iLKQWhvugrYSahFm1Md1GL2uqTWb+NecZUP2d10zp7G//s/N2
BnhfExvYcz9ZSxa4iPny0PIIA/WCgYEAzy06uzL1BSh4z0u/VWsmqmaHs5hdV5Zg
nBSHVTco5yBiEC08yi9FFGLWzKoyxqcFapXZxSr4XyqUZBoplt7/SK90AcBBTLRN
s5t+2RzXMBQ1R/orOLiylU12jRO3acqUeniHOVK+ySyGX9T926Yfr/rdN+mkVer
iu5FoJvZkH0CgYAX1eZMTt+TGwDZJx8kkg46P5o+10dbafQDZetLuJO8vRwnMYwh
AlQAxKI0U+n6zKIBBI4F9UiuLTS57VBMJUK4gu8AzoQSQ3W58DoN8nIp1u3+hFgX
lyOm0CkeBDh8zj/peZyFJMsqXSE7XDGAHR0oYR105wk7J1KfKBRyKwpaqQKBgFJG
6RstCoeo4gin2021/Nqw1n4p1XASZT23HWPnSxQ3FRrNjGXTTgDhm+KcYm/oJsuE
hX67KPKZKZ7I1fazQFNwd6d1EK+RaQZ0ZtM+ul3xmegovLbF3TZADLsw1D5zRZYow
cz78hMGmeiCMI6GRR3iW6YB5zaCNCnBbXkWBf27VAoGAT1EKEdJquyrJx6vX+a+
12uGkFnpLKiYxz+ySZkwAzQiDtHeEXDLFZ9mZ0CA9jsPKipva5W1LLu4eBxGcpzG
gqeoStkrOf2FlISw3lexGt0ECOyUSEUzVaqcmJxquqmUpXq/35CnyVqzks1WBKfA
FAKEkrm2FvodwgQs4dUmjyU=
-----END PRIVATE KEY-----
-----BEGIN CERTIFICATE-----
FAKEITCCAgmgAwIBAgIJAKRw0xue4uCTMA0GCSqGSIb3DQEBBQUAMCcxEjAQBgNV
BAoMCWFuZHkqdGVzdDERMA8GA1UEAwIYW5keXRlc3QwHhcNMTYwNTA5MTYwMzMO
WhcNMjYwNTA3MjYwMzMOwJAnMRIwEAYDVQQKDA1hbmr5IHRlc3QxETAPBgNVBAMM
CGFuZGl0ZXN0MIIBIjANBgkqhkiG9w0BAQEFAAOCAQ8AMIIBCgKCAQEAXm8WIm
zy2/W7L7EN9Jw2zW05iWJ/qpECwWuJm5x0sJ+nacZ7s97NMe33i7GOVT9nfUE/Rg
4G4OyN16qRjP3jBHf4j4uGCuIEGFjv9bnaSa5lMl77NY1Y5+l+xy8hW93hOQ6Oz
JoOUsa4OJPZXSfbYvvdImBE8P6HdQ6AIHoxOUWtpFmHU/qLFwHc0ZXcx2BvYx4ie
fi2YXstjxOx62Hms71S1wrrpXrow53SzhDz8JGcSSJyfpEaWdc4t8BrbjAEb5KrI
udI4/Kz211270+qeUnwq27Ydz0q/4C5MCEJcpW7oRnYn+mnBoohn4uNaV2h0eal9
e5r+Ip17YdC+oQIDAQABo1AwTjAdBgNVHQ4EFgQUy10JS50kLrbUG2zN0eTDhUdm
qH8wHwYDVR0jBBBgwFoAuy10JS50kLrbUG2zN0eTDhUdmqH8wDAYDVR0TBAUwAwEB
/zANBgkqhkiG9w0BAQUFAAOCAQEAL3napI9qZq6H1TrIZvoVZTsd9a145Qp8VVVs
mpjC5kWGEggUiQDiYSnfqUX1IvHHRfi+7D/iFyZs4B/1DnTUZ8YVwqTEGmTsCnu1
2nd+eYiMBNJLkhGKf4mtlm3DsCwMkFM1JZ8i9lxqqOOK+dFF4aT/rZv3pstJF8
z+BczfPM6r5zsXy4Cd6Zb+SO9IsumlmXID0ghrflPaQTWUmVBoJMBPPVoS73YVEc
nFlYV6k3c7ZEWTmVzwhgmZCQmSu5G6MDSMPmPpITZsnTXZpj7Cqda6c76aGBGE7
tZRH29ELP8kXm2A4Ijv/7fs0PCdSSqWpv5mx2c4SxNLVbti7Uw==
-----END CERTIFICATE-----

```

...and place it in the /usr/share/atacama/keys directory.

You should check the key's permissions and security context are correct:

```

ls -Z yourdomain.com.pem

-rw-r--r--. root root unconfined_u:object_r:usr_t:s0 yourdomain.com.pem

```

If you see anything different from the above, change it with the following commands:

```
sudo chmod 644 yourdomain.com.pem  
sudo chown root:root yourdomain.com.pem  
sudo chcon -u unconfined_u -r object_r -t usr_t:s0
```

## Next

- Return to [general instructions](#)
- On to [Configuring Apache vhosts for OpenAthens SP](#)