

Introduction

Currently 128 Technology makes available to its customers 2 ISOs for each software release:

1. **One Touch ISO (OTP) ISO.** This ISO sets up DHCP on all interfaces and boots a Web Server GUI into which a URL generated by a conductor can be pasted (the one touch) in order to bootstrap router-to-conductor connectivity and the subsequent installation and configuration of the router by the conductor.
2. **Interactive ISO.** Installing from this ISO is done via a serial console or VGA. An interactive session is started which allows network interfaces, passwords, node name and type, conductor IP (if applicable) before the 128T software is started.

Downloading the ISOs.

128 Technology ISOs are available to anyone with an activated download client certificate from our public yum servers located at:

<https://yum.128technology.com/isos>

Your download client certificate should have been provided to you via email and installed on your 128 Technology routers in order for them to download software updates from our yum servers.

Downloading from the command line

In some ways this method is the simplest, and should work for Linux, MacIntosh, and possibly Windows 10 with its Subsystem for Linux:

```
localhost> curl --cert 128T-0000XXX.pem  
https://yum.128technology.com/isos/128T-<VERSION>.el7.centos.x86\_64.i  
so -o 128T-<VERSION>.el7.centos.x86_64.iso
```

Where **<VERSION>** is replaced with the 128T version you are interested in.

The example below shows downloading [128T-4.1.8-1](https://yum.128technology.com/isos/128T-4.1.8-1.el7.centos.x86_64.iso), the latest version generally available at the time this document was written. You'll probably want to download a different version.

```
localhost> curl --cert 128T-0000XXX.pem  
https://yum.128technology.com/isos/128T-4.1.8-1.el7.centos.x86\_64.iso  
-o 128T-4.1.8-1.el7.centos.x86_64.iso
```

Listing Available ISOs from the Command Line:

To see what ISOs are available for download, one can type the command below. Egrep is used to filter the results to 4.1.*.

```
localhost> curl --cert 128T-0000XXX.pem  
https://yum.128technology.com/isos/ | egrep '4\.1'
```

```
% Total      % Received % Xferd  Average Speed   Time    Time  
Time  Current  
                                Dload  Upload  Total  Spent  
Left  Speed  
100 6758 100 6758    0    0 29136      0 --:--:-- --:--:--  
--:--:-- 29255  
<tr><td valign="top"></td><td><a  
href="128T-4.1.5-3.el7.centos.x86_64.iso">128T-4.1.5-3.el7.centos.x86  
_64.iso</a></td><td align="right">2019-12-09 19:05  </td><td  
align="right">1.2G</td></tr>  
<tr><td valign="top"></td><td><a  
href="128T-4.1.6-1.el7.centos.x86_64.iso">128T-4.1.6-1.el7.centos.x86  
_64.iso</a></td><td align="right">2019-12-09 19:10  </td><td  
align="right">1.2G</td></tr>  
<tr><td valign="top"></td><td><a  
href="128T-4.1.7-1.el7.centos.x86_64.iso">128T-4.1.7-1.el7.centos.x86  
_64.iso</a></td><td align="right">2020-01-08 23:14  </td><td  
align="right">1.2G</td></tr>  
<tr><td valign="top"></td><td><a  
href="128T-4.1.8-1.el7.centos.x86_64.iso">128T-4.1.8-1.el7.centos.x86  
_64.iso</a></td><td align="right">2020-03-02 22:14  </td><td  
align="right">1.2G</td></tr>
```

Downloading using a web browser.

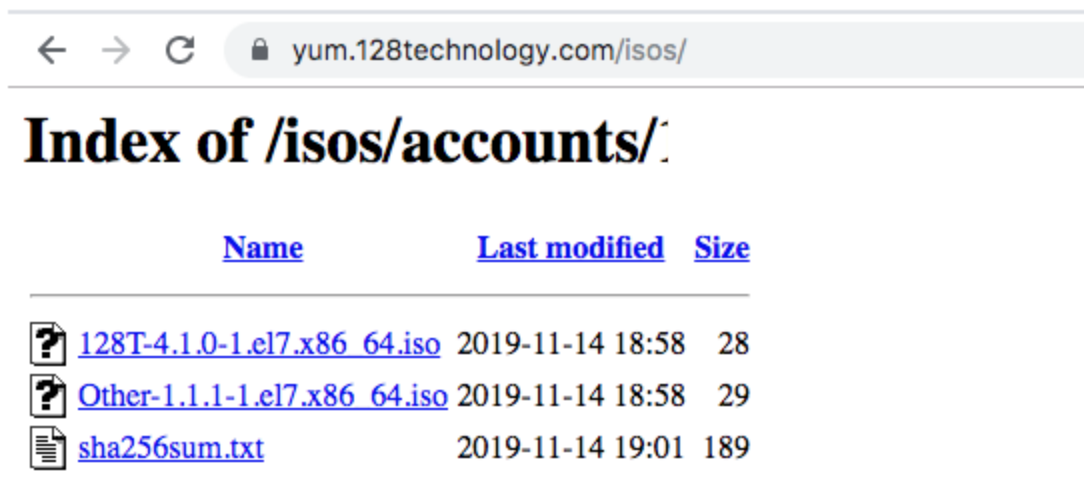
In order for the yum download client certificate to be imported into a browser, it must first be transformed into the PFX format, using openssl from a Linux, Macintosh, or Windows 10 Subsystem for Linux shell.




With your client certificate (i.e. 128T-0000XXX.pem) in the current directory, run the following command:

```
openssl pkcs12 -inkey 128T-0000XXX.pem -in 128T-0000XXX.pem -export  
-out 128T-0000XXX.pfx
```

If you are unable to run this command for whatever reason, and would like assistance with this process please reach out to your sales representative.

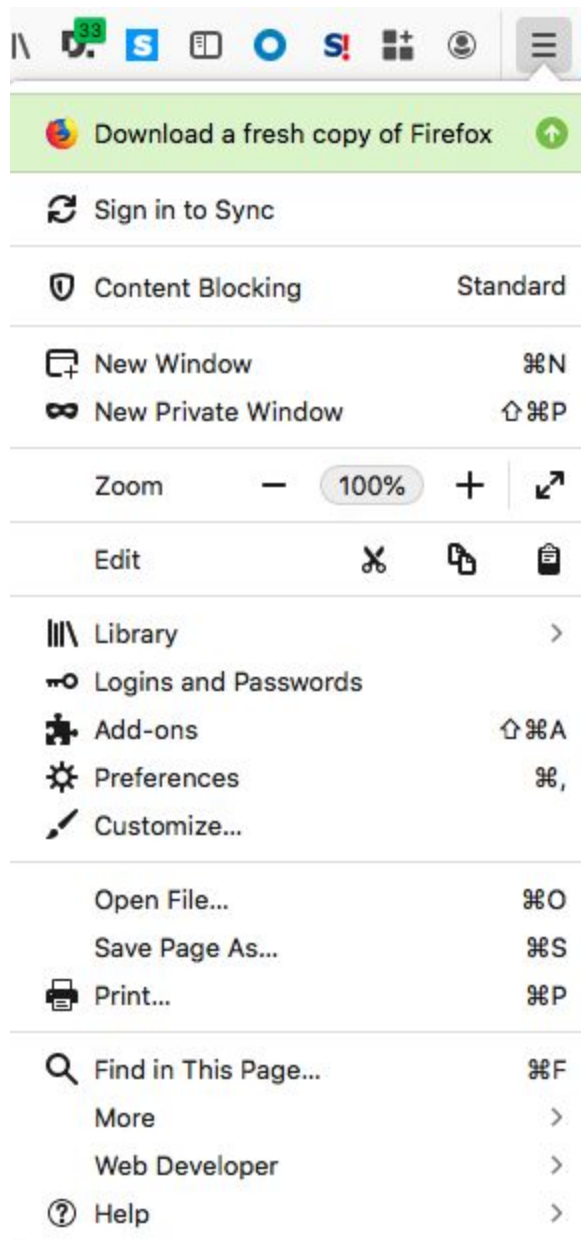
With the yum download client certificate transformed, you can now import it to your browser. Once imported to your browser, the client certificate will allow you to browse and download from the folder located at <https://yum.128technology.com/isos/>:



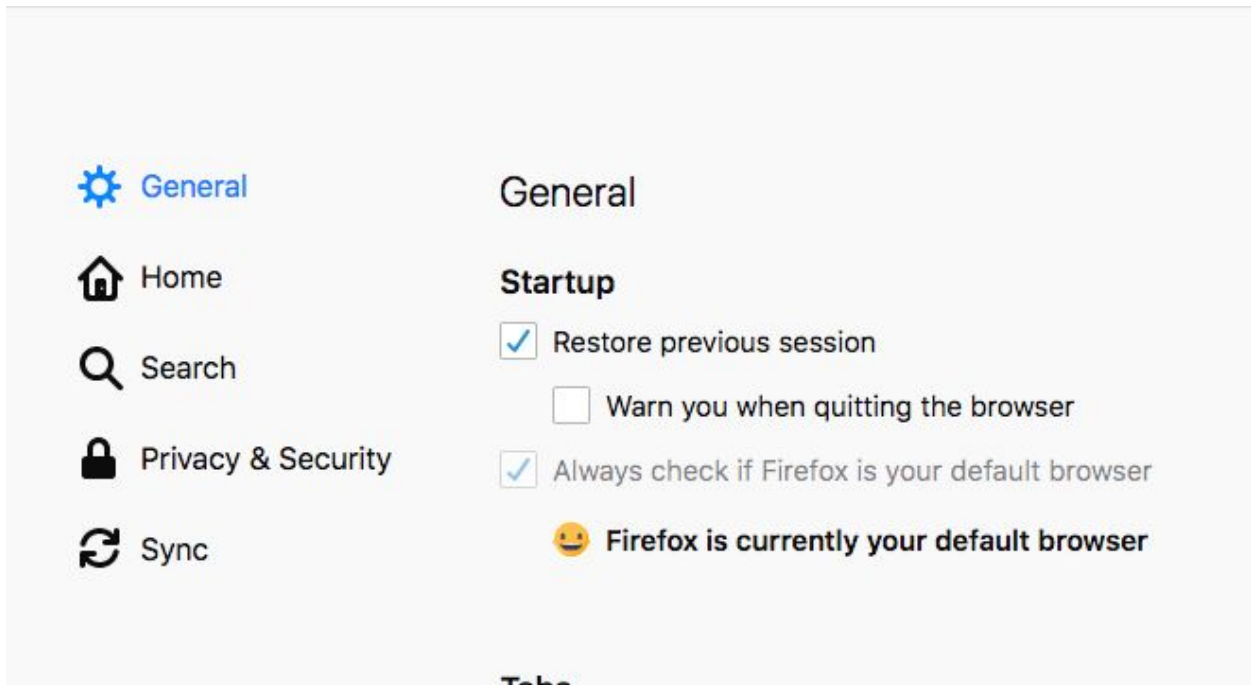
	Name	Last modified	Size
	128T-4.1.0-1.el7.x86_64.iso	2019-11-14 18:58	28
	Other-1.1.1-1.el7.x86_64.iso	2019-11-14 18:58	29
	sha256sum.txt	2019-11-14 19:01	189

Importing PFX file to Firefox

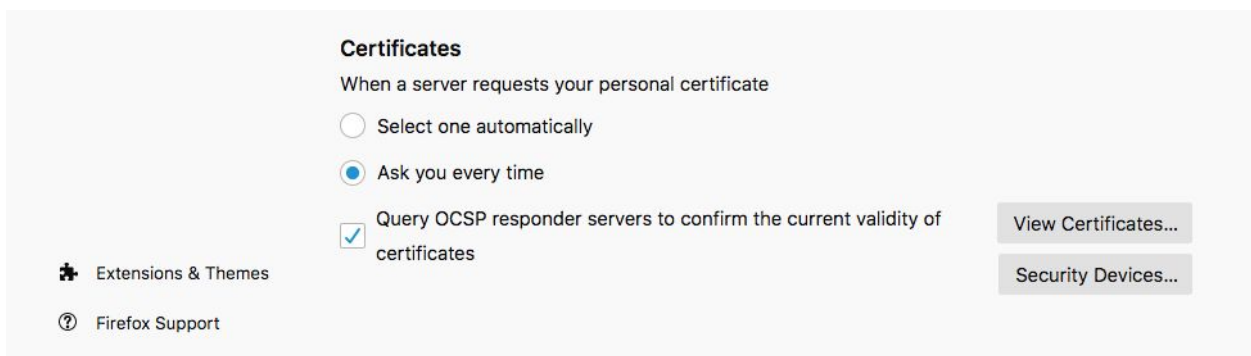
Select Preferences from the menu at the upper right hand corner



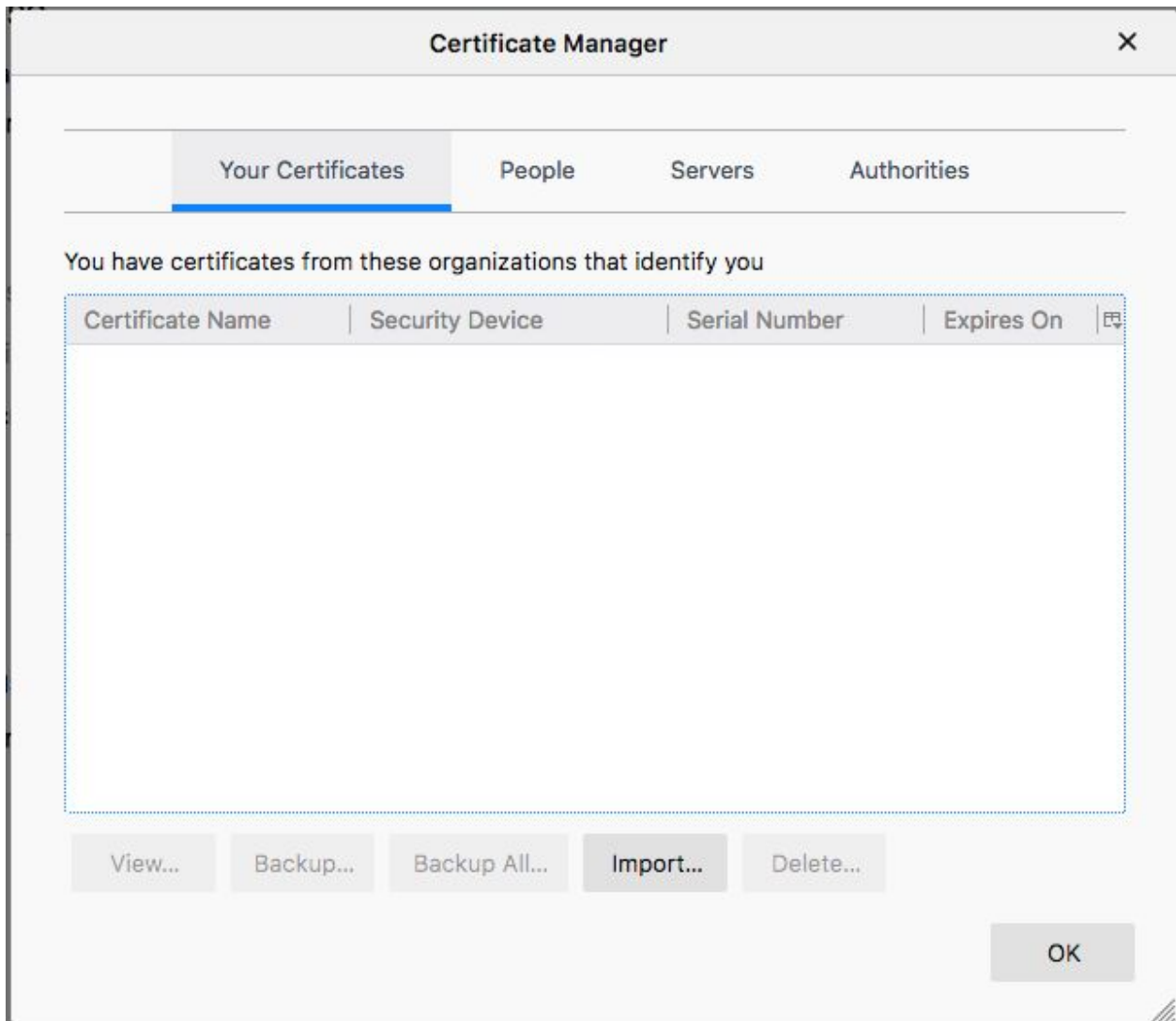
Select Privacy and Security:



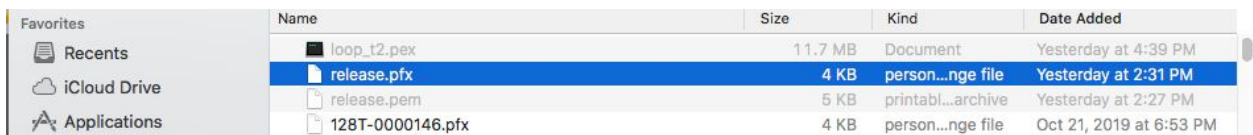
Select View Certificates:



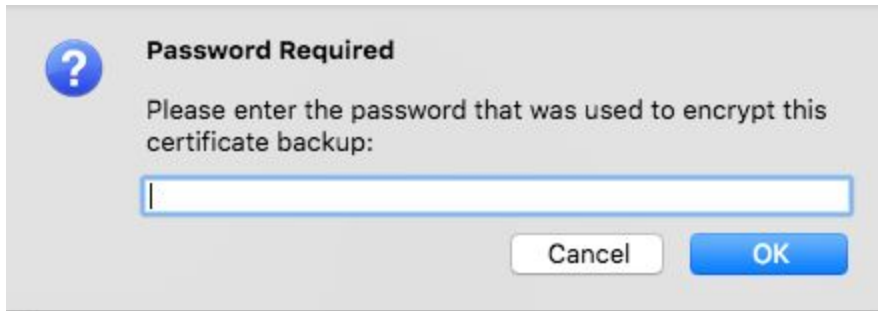
Click the 'Your Certificates' TAB:



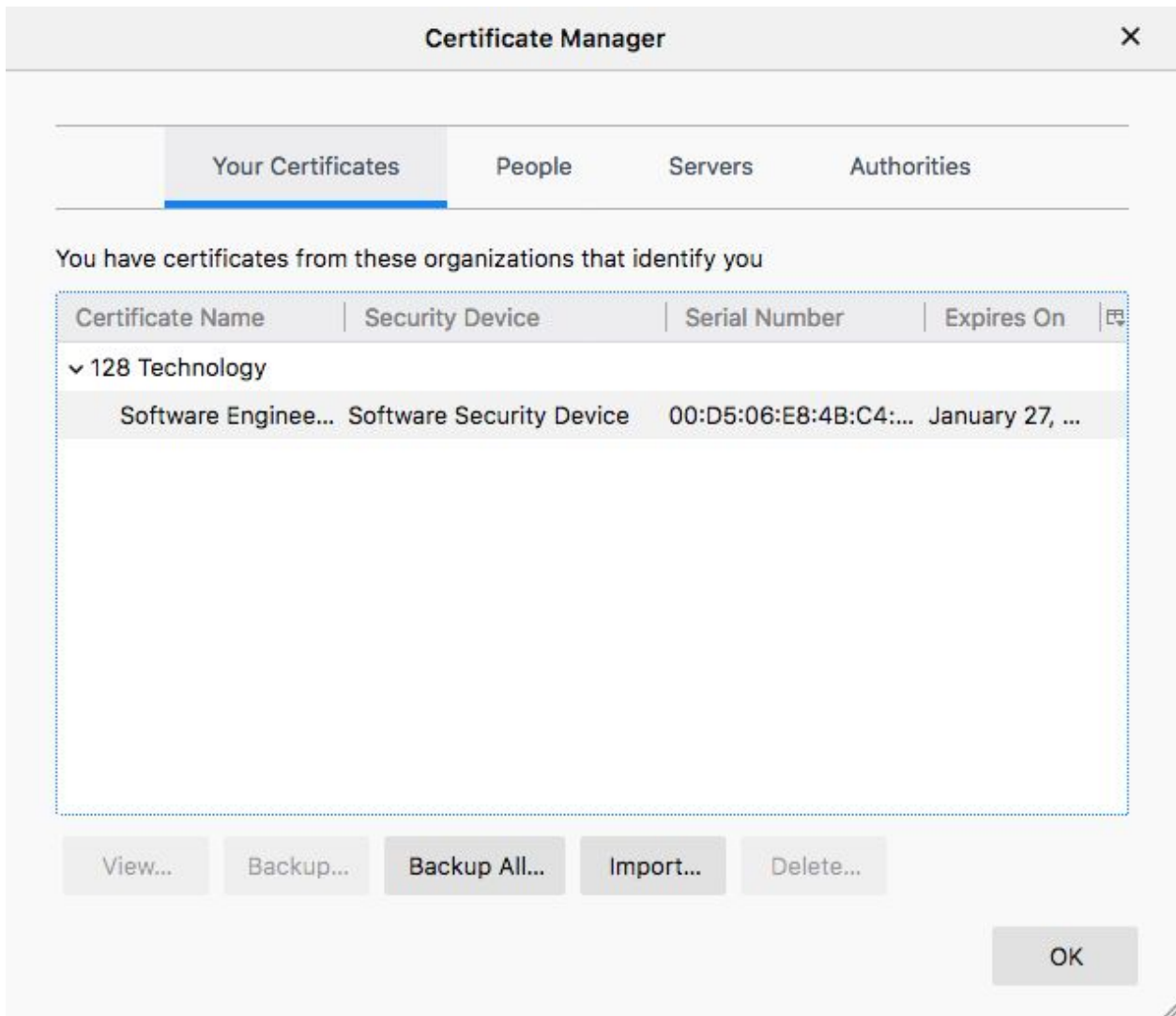
And then click the Import button:



Click [OPEN] to select the PFX form of the certificate, and a password prompt will be displayed:

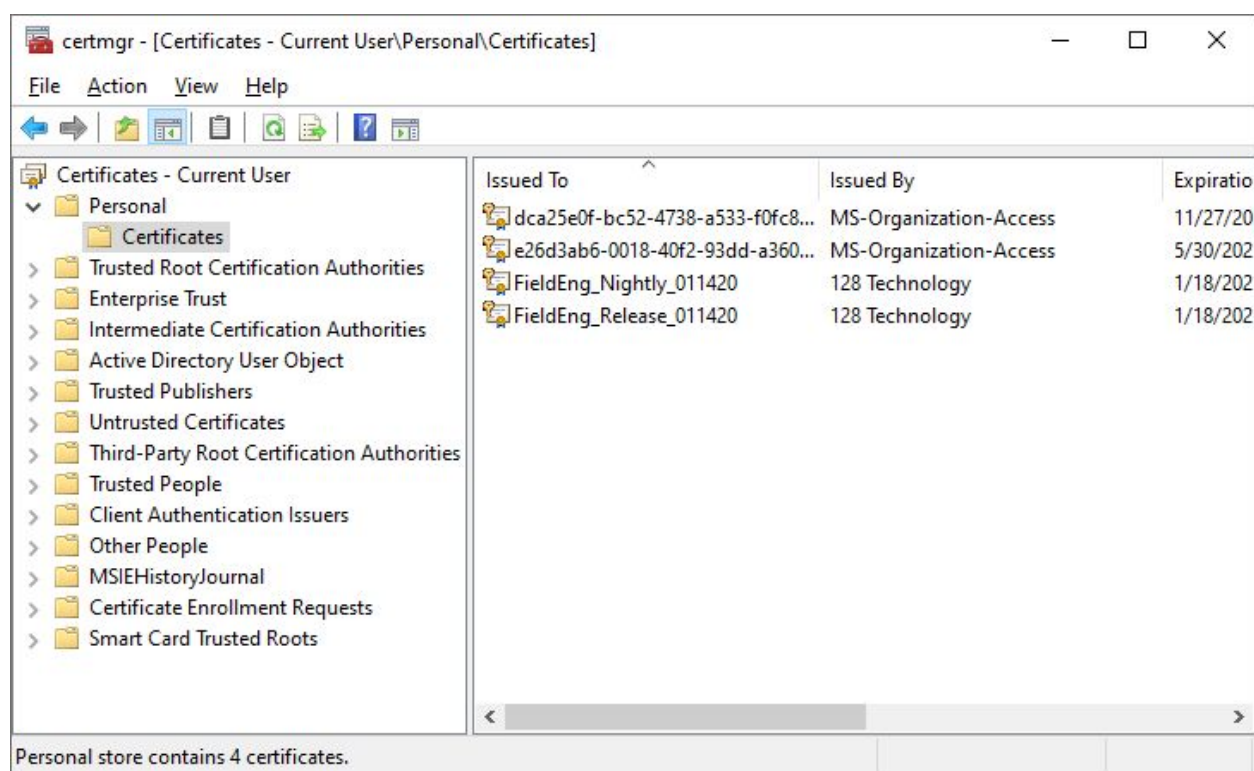


No password is necessary to import the certificate, so just click OK:

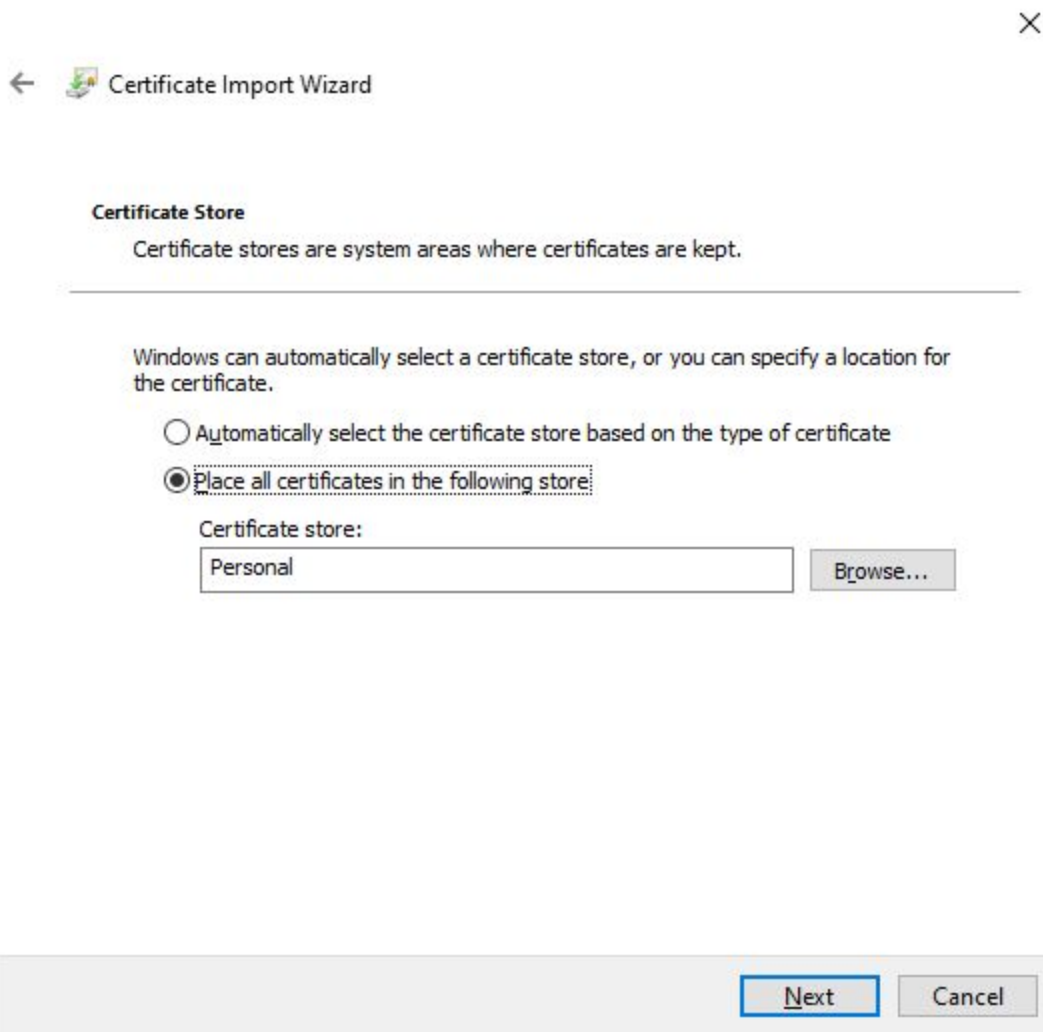


Downloading ISOs in Windows using Microsoft Edge, Explorer, and Chrome Browsers:

- 1). Navigate to “Control Panel” and search for “Manage user certificates”.
- 2). Clicking on “Manage user certificates” will open the “certmgr.msi” utility. Another option is to just open command line window and enter command: certmgr
- 3). Open “Personal” folder and then - “Certificates” folder.



- 4). Go to the Action menu at the top, then “All Tasks”. Choose “Import...”
- 5). This will open “Certificate Import Wizard”.
- 6). Click “Next” button in the wizard.
- 7). Browse to the .PFX certificate file and upon selecting click “Next”.
- 8). On the next screen, make sure “Place all certificate in the following store” radio button is selected, and the chosen certificate store is “Personal”:



9). Click “Next” again.

10). Click “Finish”

Now the certificate is provisioned in Windows, and you can use Edge, Explorer, or Chrome to navigate to the <https://yum.128technology.com/isos> web page, and download the desired ISO.