

## Introduction

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

- 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 <u>128T-4.1.8-1</u>, 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
-0 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
<img src="/icons/unknown.gif" alt="[
]"><a
href="128T-4.1.5-3.el7.centos.x86 64.iso">128T-4.1.5-3.el7.centos.x86
64.iso</a>2019-12-09 19:05 <td
align="right">1.2G
<img src="/icons/unknown.gif" alt="[
]"><a
href="128T-4.1.6-1.el7.centos.x86 64.iso">128T-4.1.6-1.el7.centos.x86
64.iso</a>2019-12-09 19:10 <td
align="right">1.2G
<img src="/icons/unknown.gif" alt="[
]"><a
href="128T-4.1.7-1.el7.centos.x86_64.iso">128T-4.1.7-1.el7.centos.x86
64.iso</a>2020-01-08 23:14 <td
align="right">1.2G
<img src="/icons/unknown.gif" alt="[
]"><a
href="128T-4.1.8-1.el7.centos.x86 64.iso">128T-4.1.8-1.el7.centos.x86
64.iso</a>2020-03-02 22:14 <td
align="right">1.2G
```

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



# Index of /isos/accounts/:

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

# Importing PFX file to Firefox

Select Preferences from the menu at the upper right hand corner

N	0	. 5	3	•	0	s	:	۲	Ę	
	6	Dow	nlo	ad a	fresh	copy	of F	irefox	0	
	C	Sign	in	to Sy	ync					
	0	Content Blocking							ndard	
Rew Window							ЖN			
	8	New	Pri	ivate	Wind	wol			ûжР	
		Zoor	m		_	10	0%	+	<b>⊮</b> ≉	
		Edit					*	Ֆ	ê	
	lii\	Libra	ary						>	
	-0	Logi	ns a	and	Passv	vords				
	÷	Add-ons					ዕ <mark></mark> <mark>ዘ</mark> A			
	⋫	Pref	ere	nces				H		
	!	Cust	tom	ize						
		Ope	n Fi	ile					жo	
		Save	Pa	ige A	\s				ЖS	
	-	Print	t						ЖP	
	۹	Find	in '	This	Page				₩F	
		More	е						>	
		Web	De	evelo	per				>	
	1	Help							>	

Select Privacy and Security:

- General	General
Home	Startup
Q Search	Restore previous session     Warn you when quitting the browser
Privacy & Security	Always check if Firefox is your default browser
Sync	😀 Firefox is currently your default browser
	Taba

	Certificates	
	When a server requests your personal certificate	
	Select one automatically	
	Ask you every time	
	Query OCSP responder servers to confirm the current validity of $\checkmark$	View Certificates
* Extensions & Themes	certificates	Security Devices
③ Firefox Support		

Click the 'Your Certificates' TAB:

		Certificate M	lanager			
Your	Certificat	es People	Serve	rs Auth	orities	
ou have certificate	es from th	ese organizations	that identify y	/ou		
Certificate Name	S	ecurity Device	Seri	al Number	Expires On	E
View Ba	ackup	Backup All	Import	Delete		
					OK	i.

## And then click the Import button:

Favorites	Name	Size	Kind	Date Added
Recents	loop_t2.pex	11.7 MB	Document	Yesterday at 4:39 PM
	release.pfx	4 KB	personnge file	Yesterday at 2:31 PM
Cloud Drive	🕒 release.pem	5 KB	printablarchive	Yesterday at 2:27 PM
Applications	128T-0000146.pfx	4 KB	personnge file	Oct 21, 2019 at 6:53 PM

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

2	Password Required
	Please enter the password that was used to encrypt this certificate backup:
	Cancel

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

	Your Certific	ates Peop	le Serve	ers Aut	thorities	
ou have cer	tificates from	these organization	ns that <mark>id</mark> entify	you		
Certificate	Name	Security Device	Ser	ial Number	Expires On	E
v 128 Techr	nology					
Softwa	re Enginee	Software Security	Device 00:D	5:06:E8:4B:C4	4: January 27,	
View	Backup	Backup All	Import	Delete		

# 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.

🚟 certmgr - [Certificates - Current User\Persona	al\Certificates]	<u>-</u>	×
<u>File Action View H</u> elp			
💠 🔿 🙍 📰 🗎 🗖 🗟 🖬			
<ul> <li>Certificates - Current User</li> <li>Personal</li> <li>Certificates</li> <li>Trusted Root Certification Authorities</li> <li>Enterprise Trust</li> <li>Intermediate Certification Authorities</li> <li>Active Directory User Object</li> <li>Trusted Publishers</li> <li>Untrusted Certificates</li> <li>Third-Party Root Certification Authorities</li> <li>Trusted People</li> <li>Client Authentication Issuers</li> <li>Other People</li> <li>MSIEHistoryJournal</li> <li>Certificate Enrollment Requests</li> <li>Smart Card Trusted Roots</li> </ul>	Issued To       Issue	Issued By MS-Organization-Access MS-Organization-Access 128 Technology 128 Technology	Expiratio 11/27/20 5/30/202 1/18/202 1/18/202
Personal store contains 4 certificates.			

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":

←	50	Certificate Import Wizard	
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Certifi	cate	Store
certin	care	20016

Certificate stores are system areas where certificates are kept.

Windows can automatically select a certificate store, or you can specify a location for the certificate.

O Automatically select the certificate store based on the type of certificate

Place all certificates in the following store

Certificate store:

Personal	Browse
----------	--------

Nevt Cance	Next Cance
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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 <u>https://yum.128technology.com/isos</u> web page, and download the desired ISO.