

# Windows PXE Server

Updated: 2016-09-26 | 17:44 EDT

## Synopsis

There are a few Windows PXE server options available, two popular options being [Serva](#) and [CCboot](#). These products have a free version with a limitation on the number of clients or a paid version with unlimited clients and additional features. However, if you are looking for something simple and free with unlimited amount of clients, check out this tutorial.

## Prerequisites

You will need the following:

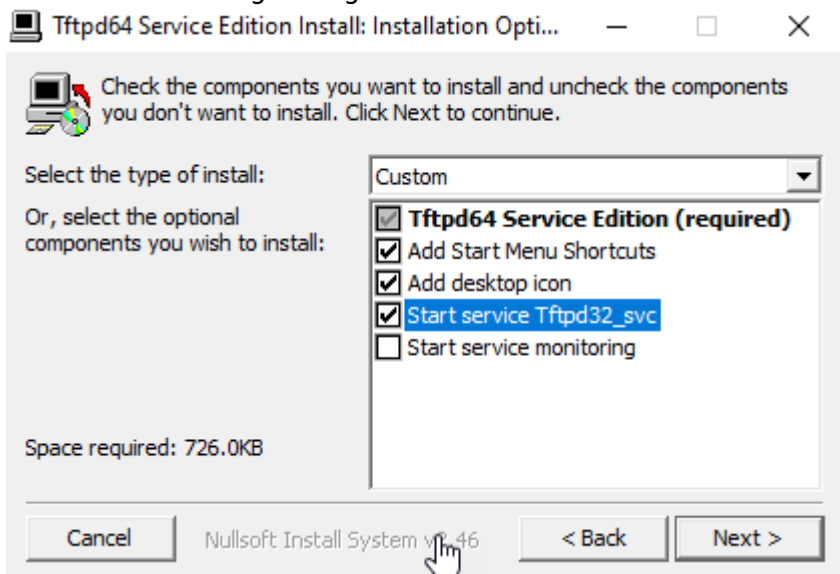
- [TFTP Server](#)
- [DHCP Server](#)
- [Syslinux Files](#)

Native Windows TFTP and DHCP can be used but for simplicity, I am using [TFTPD64](#) which can be used for both. If you compare TFTP and Serva they have an eerily similar graphical interface.

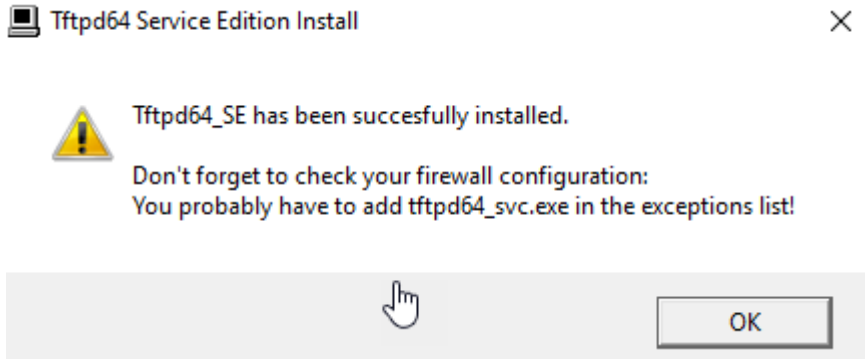
## Install TFTP and DHCP

Download and Install TFTPD. I am using [tftpd64 service edition](#)

Select the following during installation

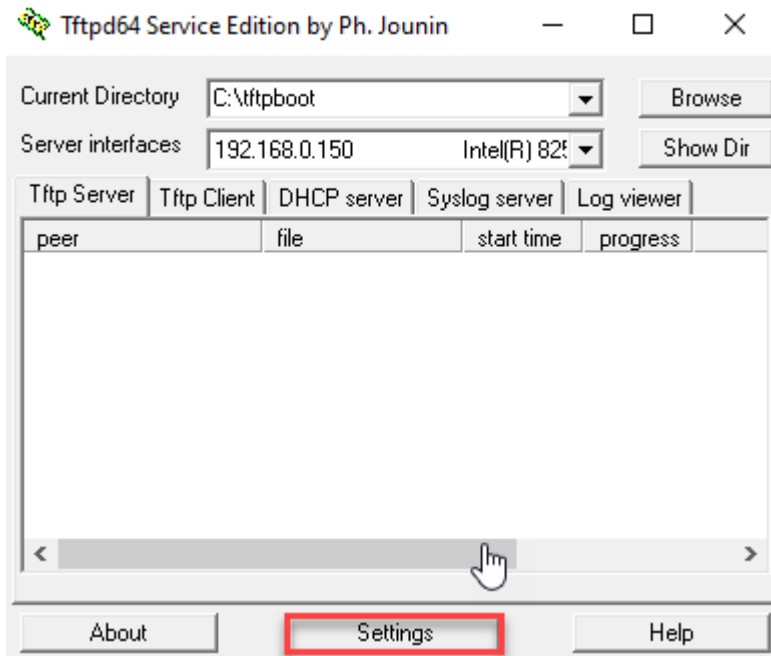


When the installation is complete you will see this message. Be sure to allow the application through the firewall

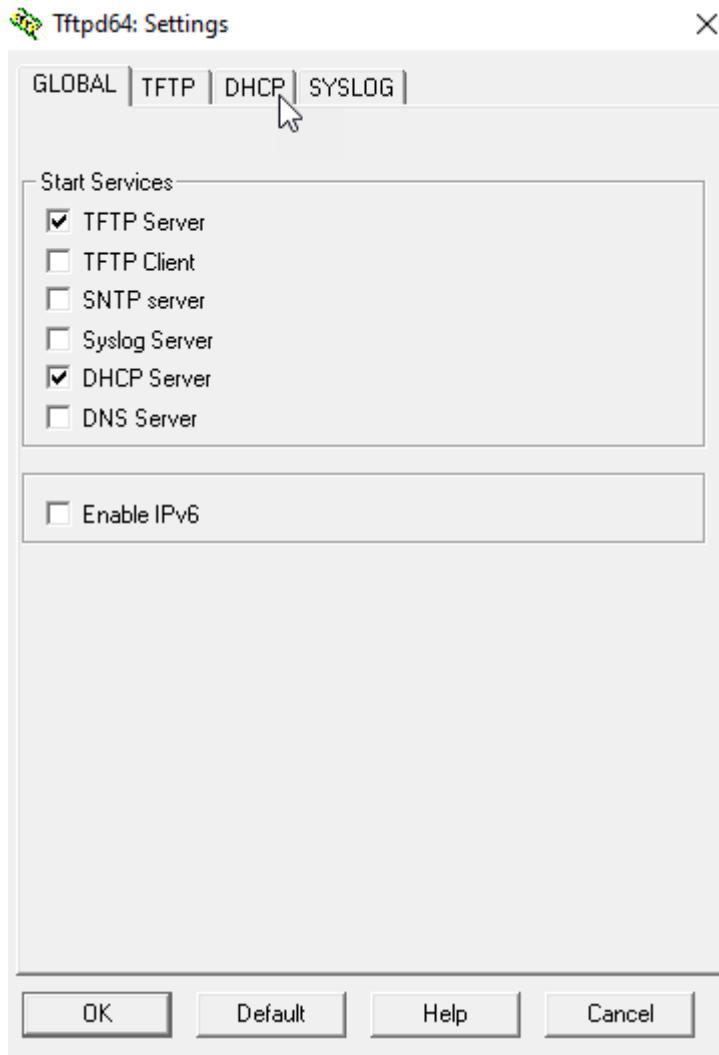


## Configure TFTP and DHCP

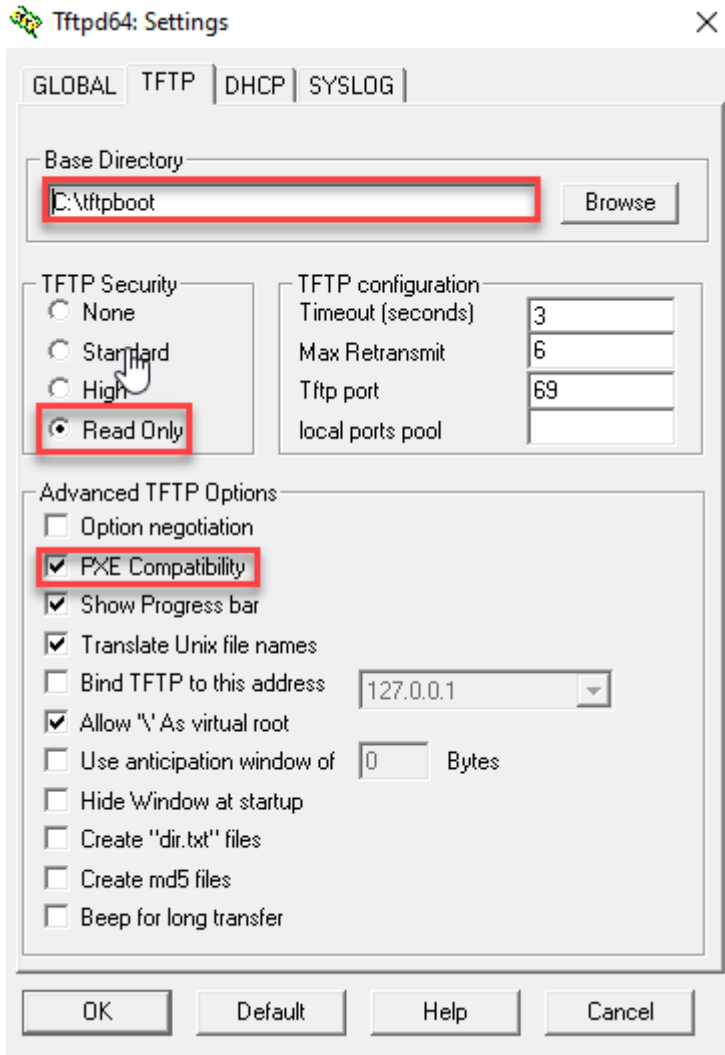
Go to Start and begin typing "tftpd". Open "Tftpd64\_SE Admin" and Select Settings



Select the Global tab and check TFTP Server and DHCP Server



Select the TFTP tab and add the following configuration



Select the DHCP tab and add the following configuration

Tftpd64: Settings

GLOBAL | TFTP | DHCP | SYSLOG

DHCP Pool definition

IP pool start address: 192.168.0.150

Size of pool: 0

Lease (minutes): 2880

Boot File: pxelinux.0

DHCP Options

Def. router (Opt 3): 192.168.0.1

Mask (Opt 1): 255.255.255.0

DNS Servers (Opt 6):

WINS server (Opt 44):

NTP server (Opt 42):

SIP server (Opt 120):

Domain Name (15):

Additional Option: 0

DHCP Settings

Ping address before assignment

Persistent leases

Double answer if relay detected

Bind DHCP to this address: 127.0.0.1

OK Default Help Cancel

## Install Syslinux Files

Download and extract the latest Syslinux zip file from [here](#)

Locate the following files and place in the C:\tftpboot\ directory

```
copy %USERPROFILE%\Downloads\syslinux-4.04\core\pxelinux.0 C:\tftpboot
copy %USERPROFILE%\Downloads\syslinux-4.04\com32\menu\menu.c32 C:\tftpboot
mkdir C:\tftpboot\pxelinux.cfg\
notepad C:\tftpboot\pxelinux.cfg\default
```

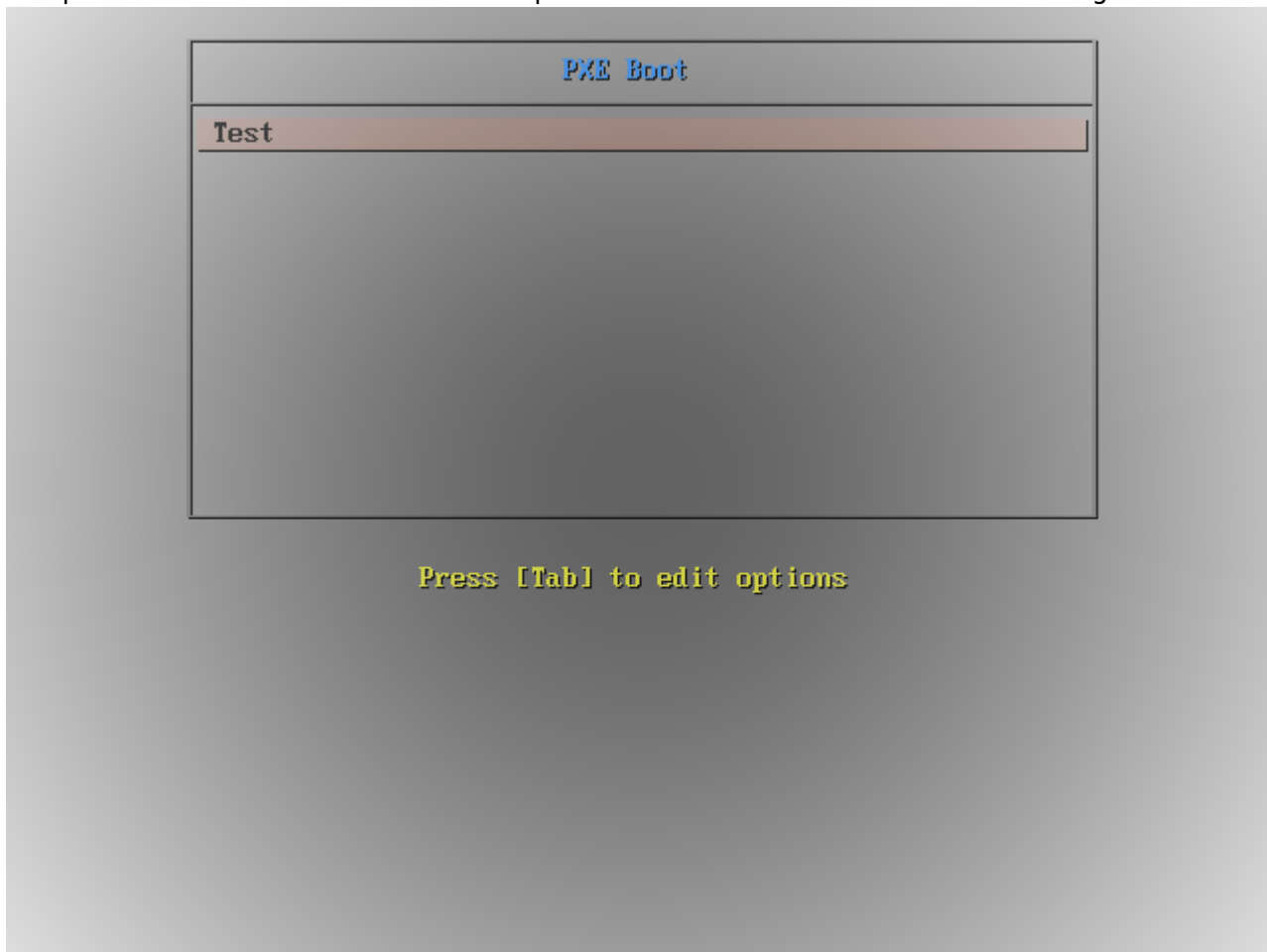
The last command will open up a notepad. Enter the following and save:

```
DEFAULT menu.c32
PROMPT 0

MENU TITLE PXE Boot
```

LABEL Test  
MENU LABEL Test

Time to test. Either disable the firewall or allow tftpd through(see below for details). Then turn on your computer and select the network boot option. You should then boot to the following screen:

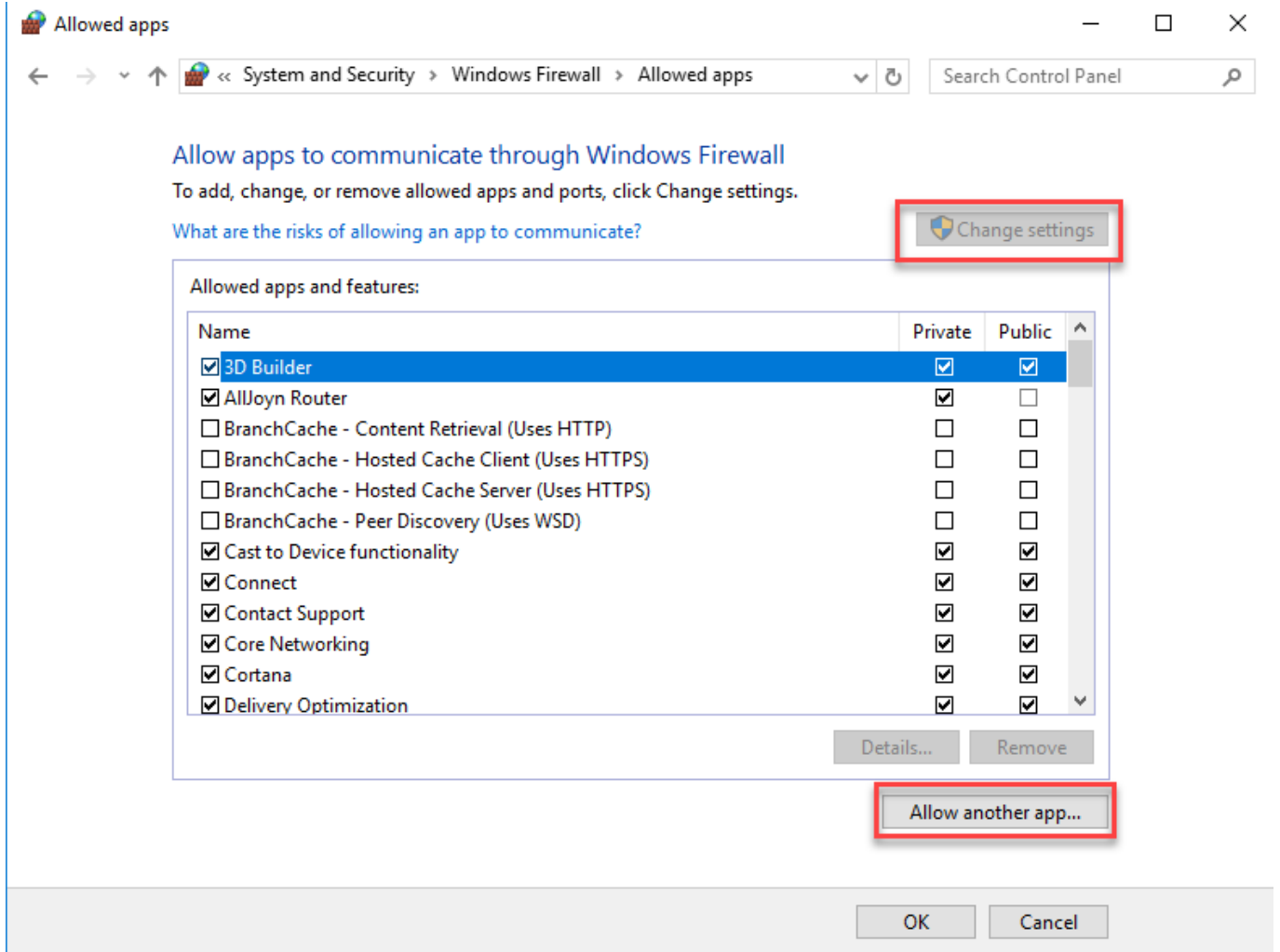


## Configure Windows Firewall

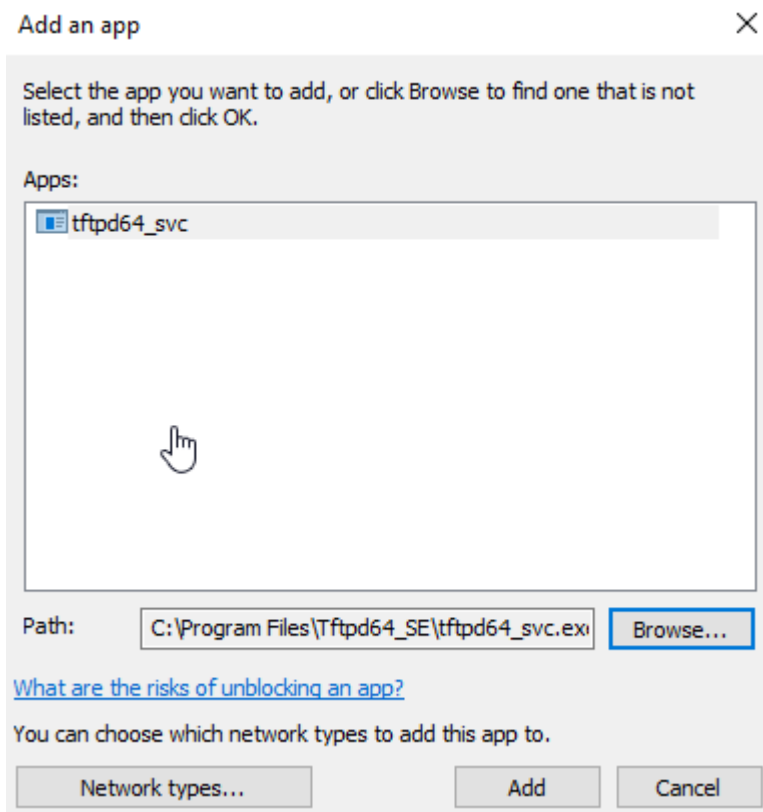
Go to Control Panel -> Firewall. Select "Allow an app or feature through Windows Firewall"



Make sure to select "Change settings" to allow you to select "Allow another app..."



Browse and insert the path to the tftpd64\_svc



### Make sure you see it the list of Allowed apps and features

Allowed apps

System and Security > Windows Firewall > Allowed apps

#### Allow apps to communicate through Windows Firewall

To add, change, or remove allowed apps and ports, click Change settings.

What are the risks of allowing an app to communicate? Change settings

Name	Private	Public
<input type="checkbox"/> SNMP Trap	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/> Store	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> Store Purchase App	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> Take a Test	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> tftpd64_svc	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/> TPM Virtual Smart Card Management	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Virtual Machine Monitoring	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/> Wi-Fi Direct Network Discovery	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/> Windows Collaboration Computer Name Registration Service	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/> Windows Default Lock Screen	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/> Windows Firewall Remote Management	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Windows Management Instrumentation (WMI)	<input type="checkbox"/>	<input type="checkbox"/>

Details... Remove

Allow another app...

OK Cancel

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