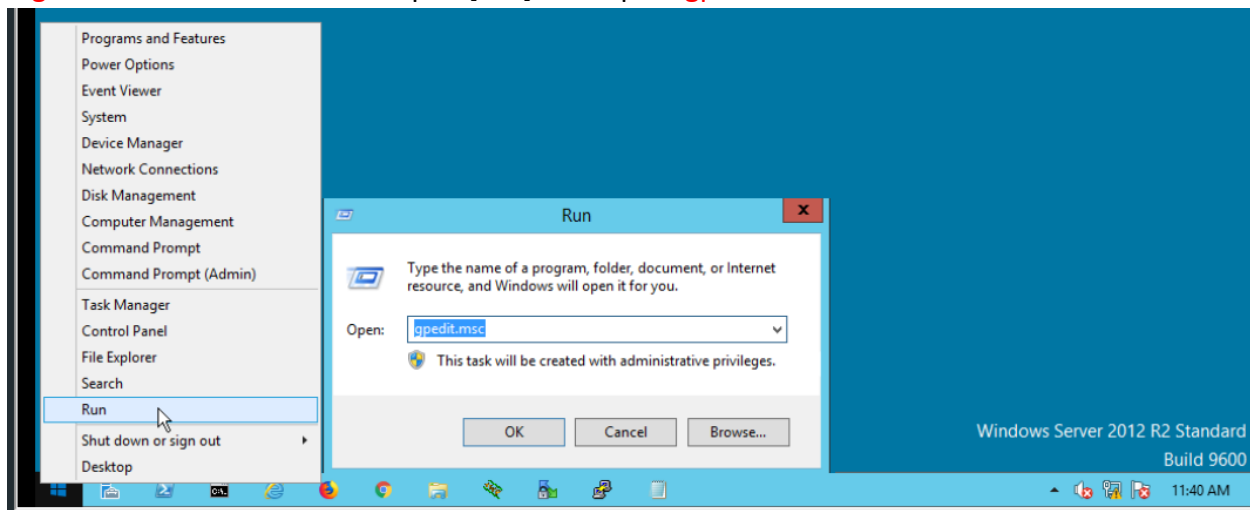
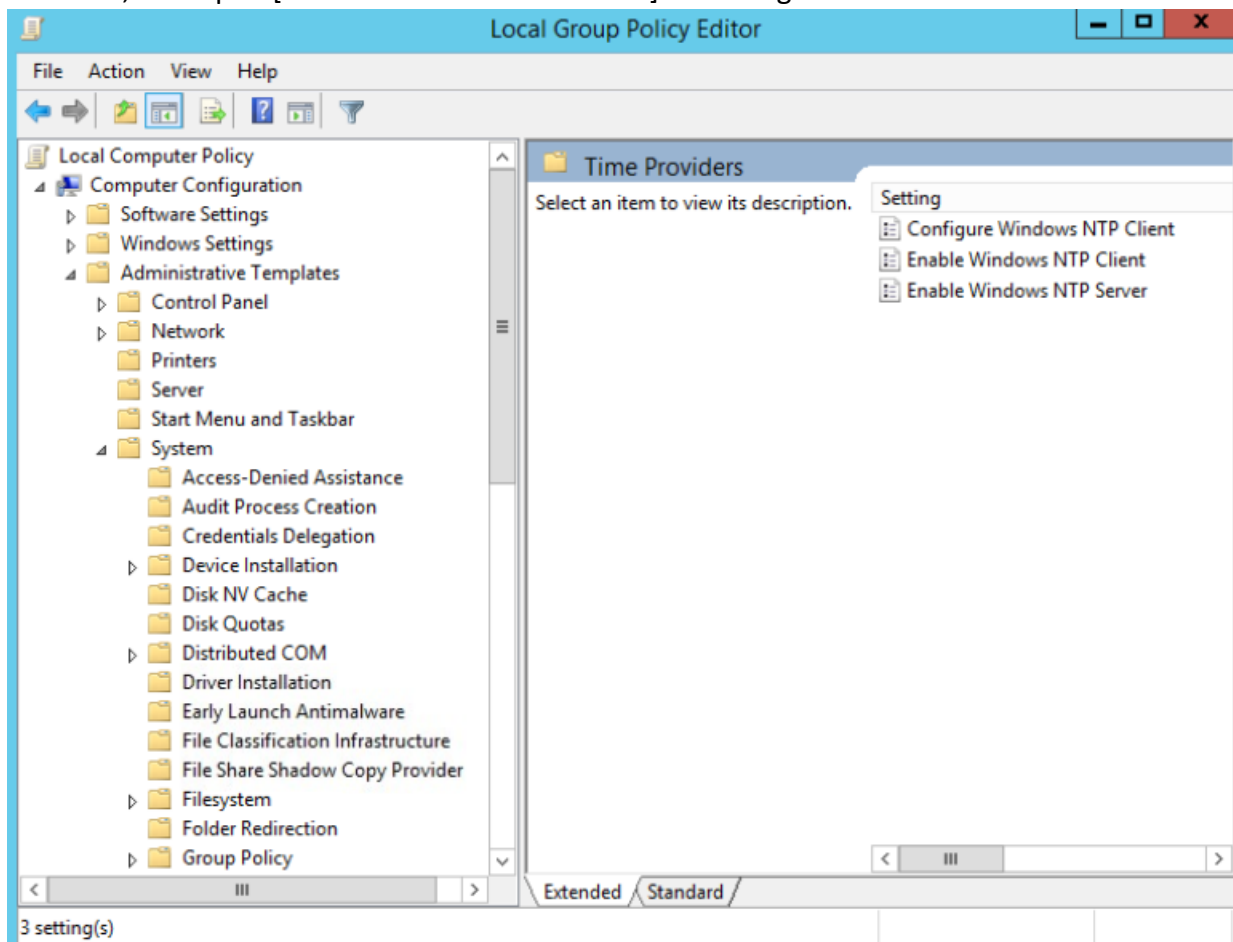


Windows 2012 NTP Server:

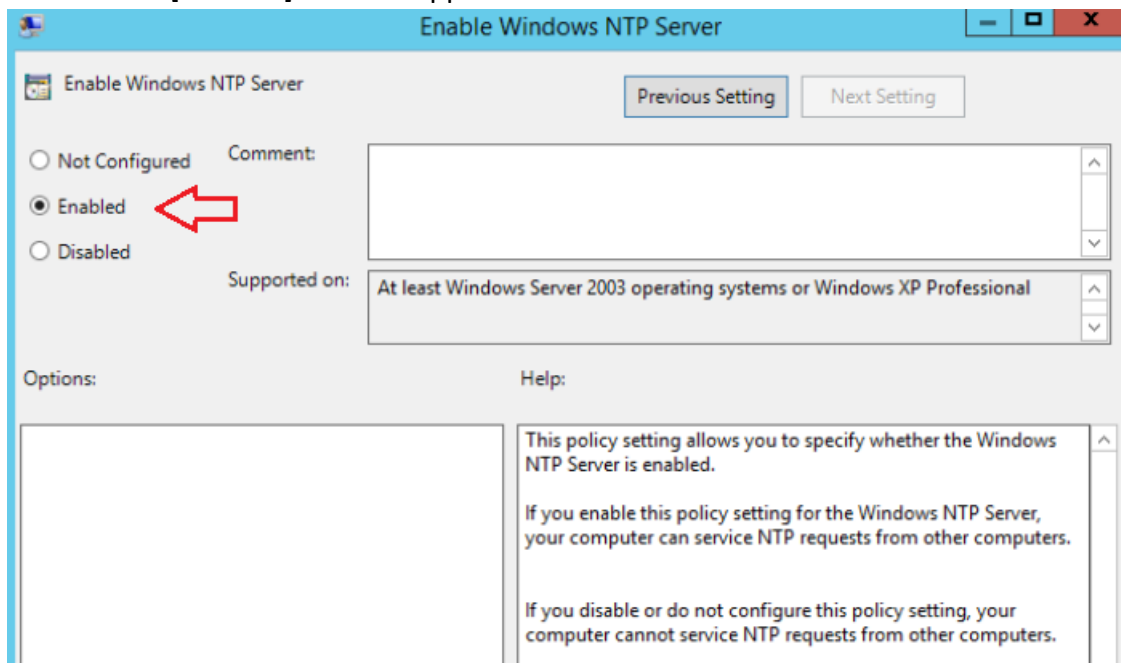
Right-click Windows icon and open [run] and input "**gpedit.msc**" like follows.



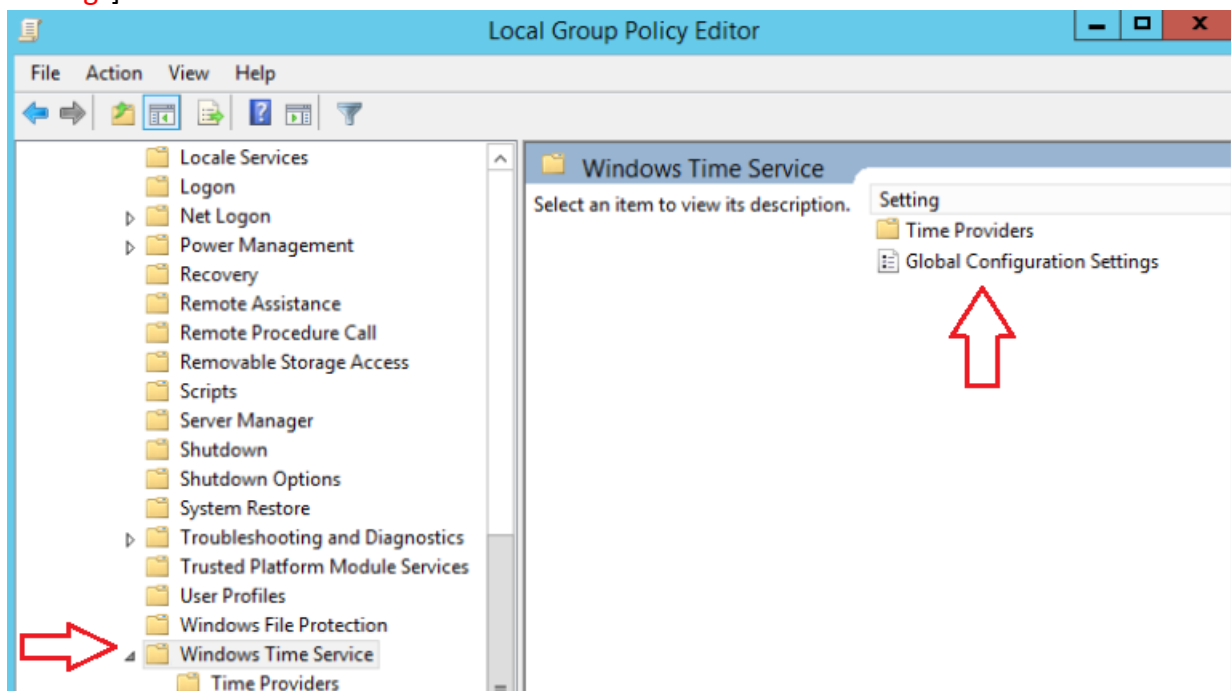
Select [**Administrative template**] - [**System**] - [**Windows Time Service**] [**Time Providers**] on the left Pane, and Open [**Enable Windows NTP Server**] on the right Pane.



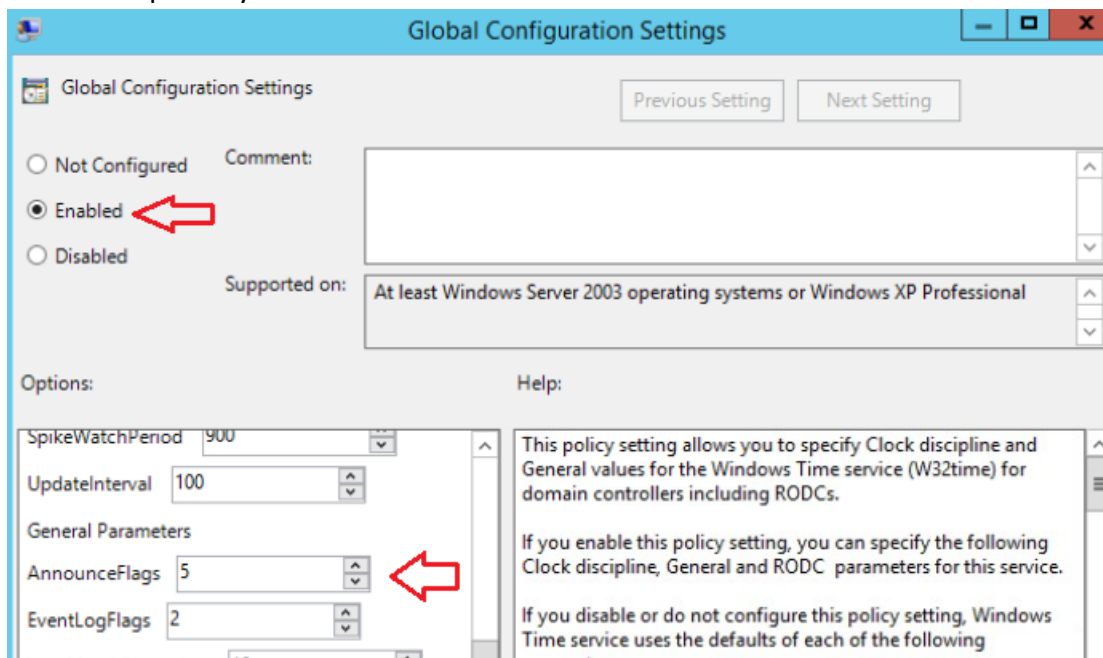
Check a box [Enabled] which is upper-left like follows.



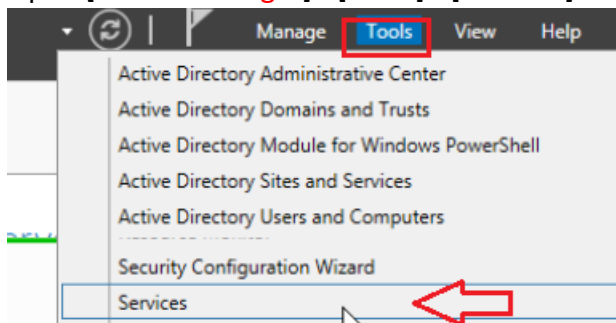
Back to [Windows Time Service] on the left Pane, and click to Open [Global Configuration Settings].



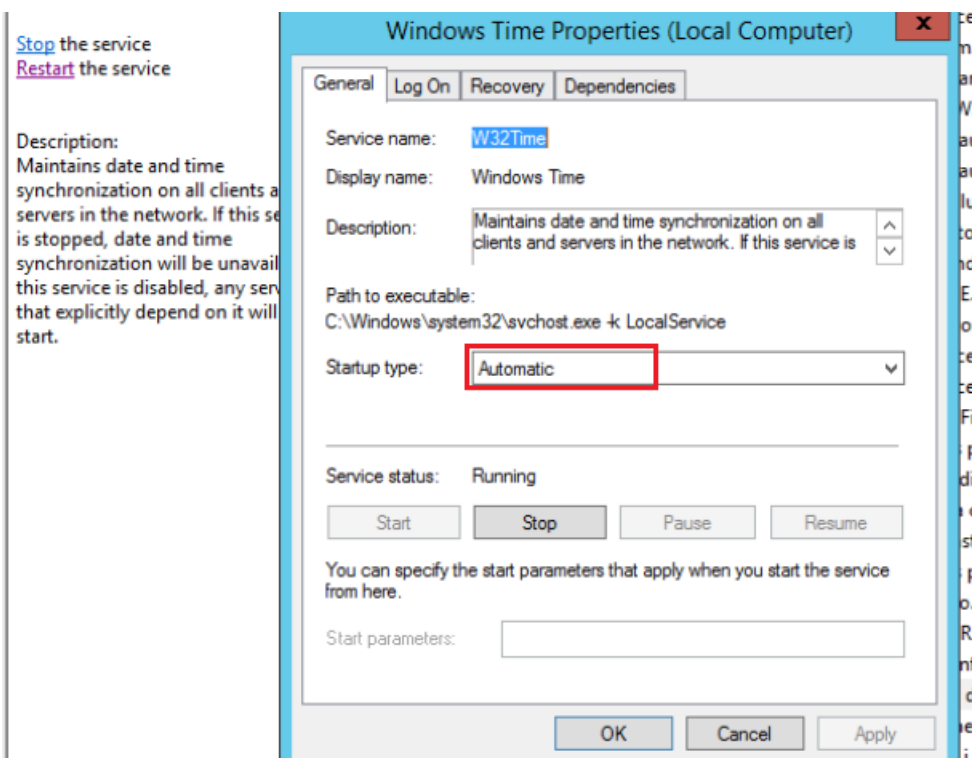
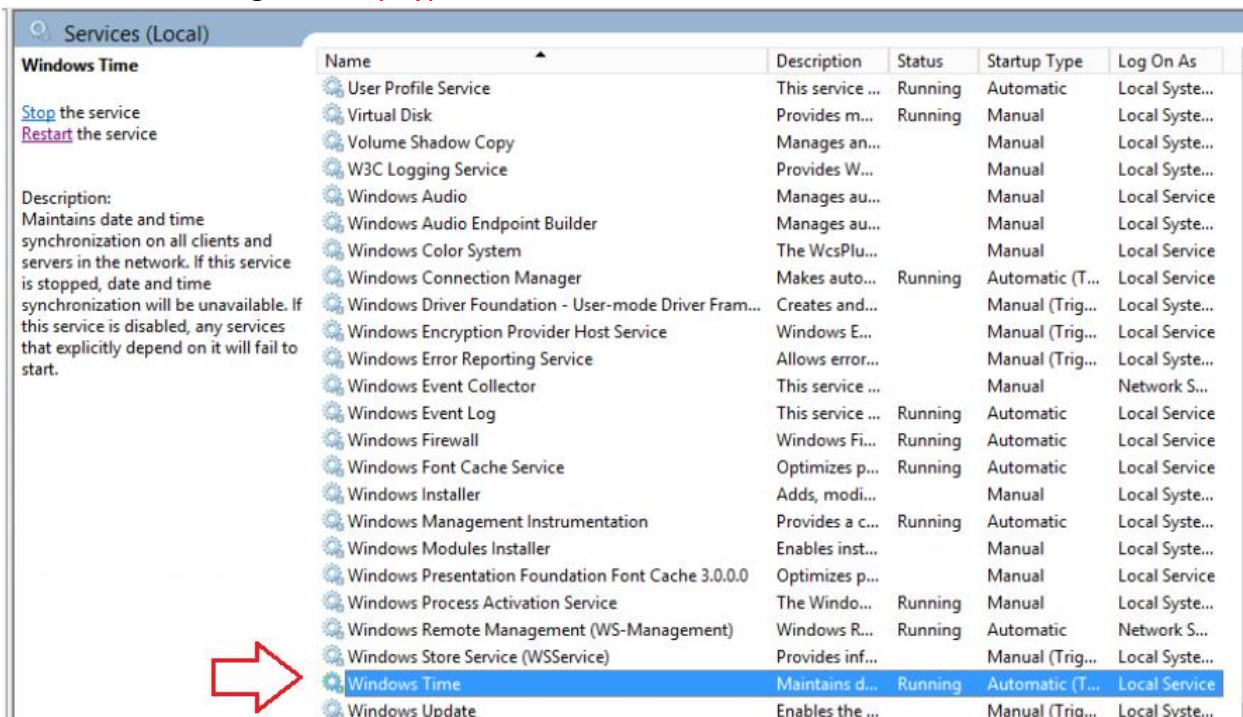
Check a box [Enabled] which is upper-left and change [AnnounceFlag] to [5] like follows. Then Close Group-Policy-Editor.



Open [Server Manager] - [Tools] - [Services].



Select [**Windows Time**] Service and click [**Start the service**] or [**Restart the service**].
Furthermore, Change [**Startup type**] to [**Automatic**] if it is not the value.



If Windows Firewall is enabled, **allow 123/UDP**.

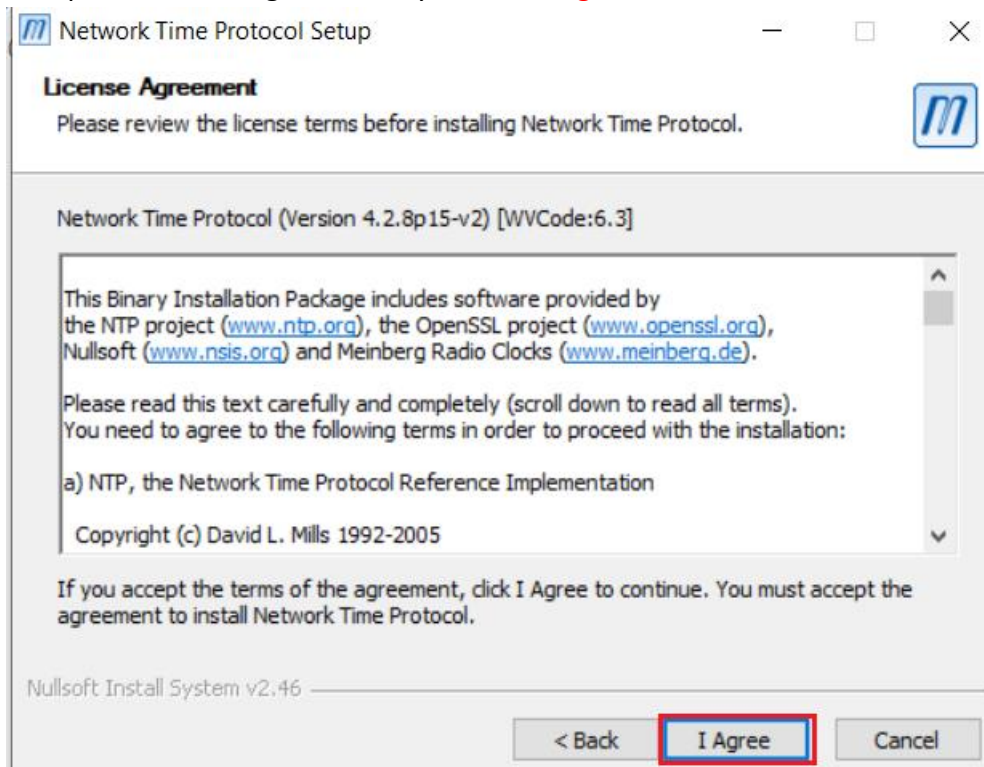
NTP Server Software:

Go to this link <https://www.meinbergglobal.com/english/sw/ntp.htm> download NTP Server application **ntp-4.2.8p15-v2-win32-setup.exe** to your system. Click to start installation.

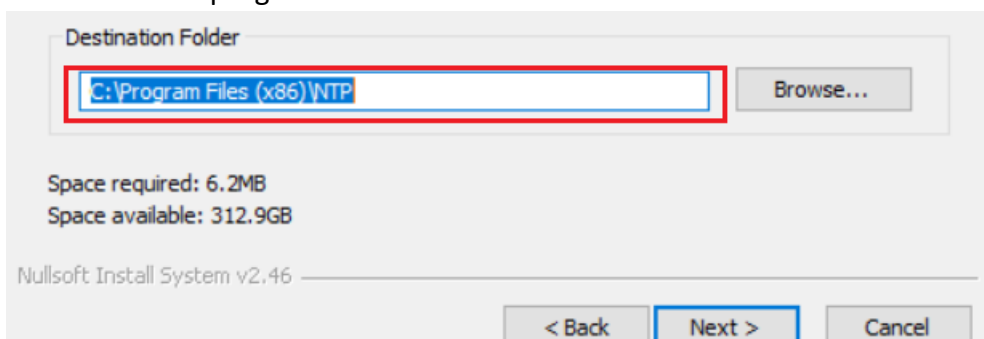
It is explicitly recommended to upgrade earlier installations to this version.



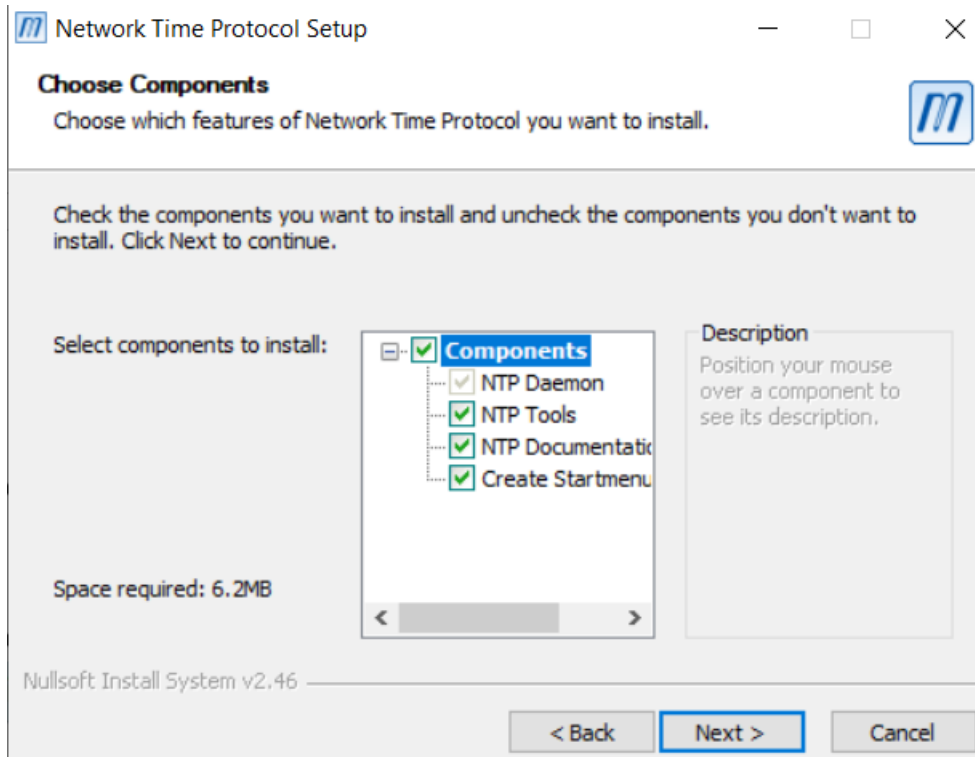
Accept the license agreement by click on **I Agree** button.



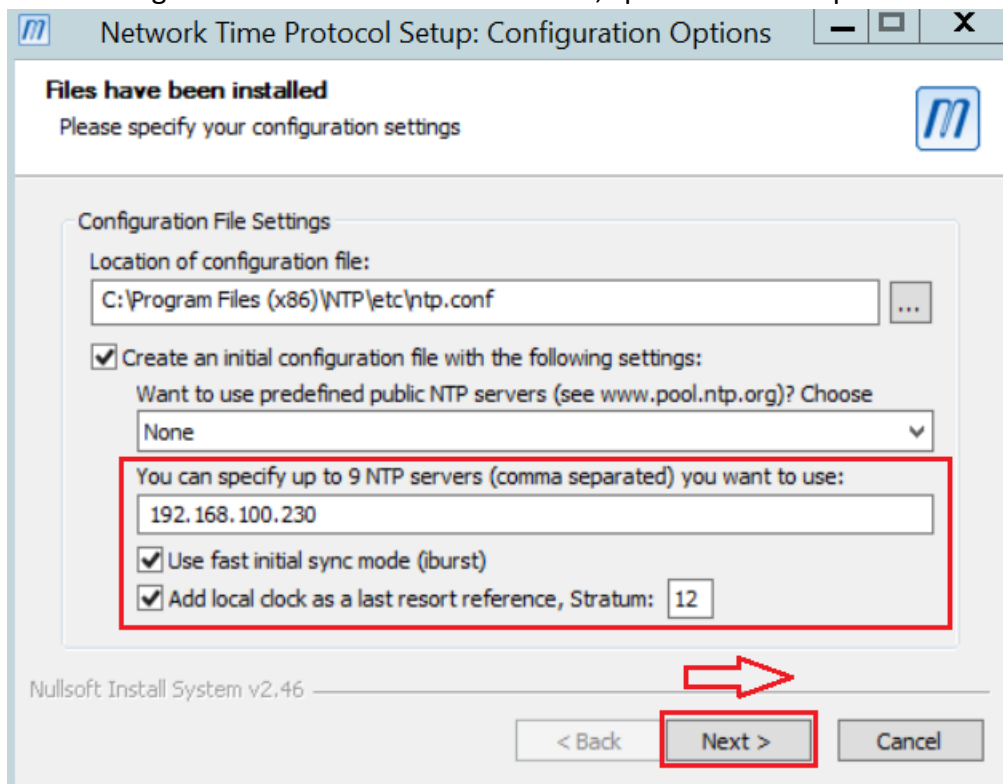
Select the local program folder.



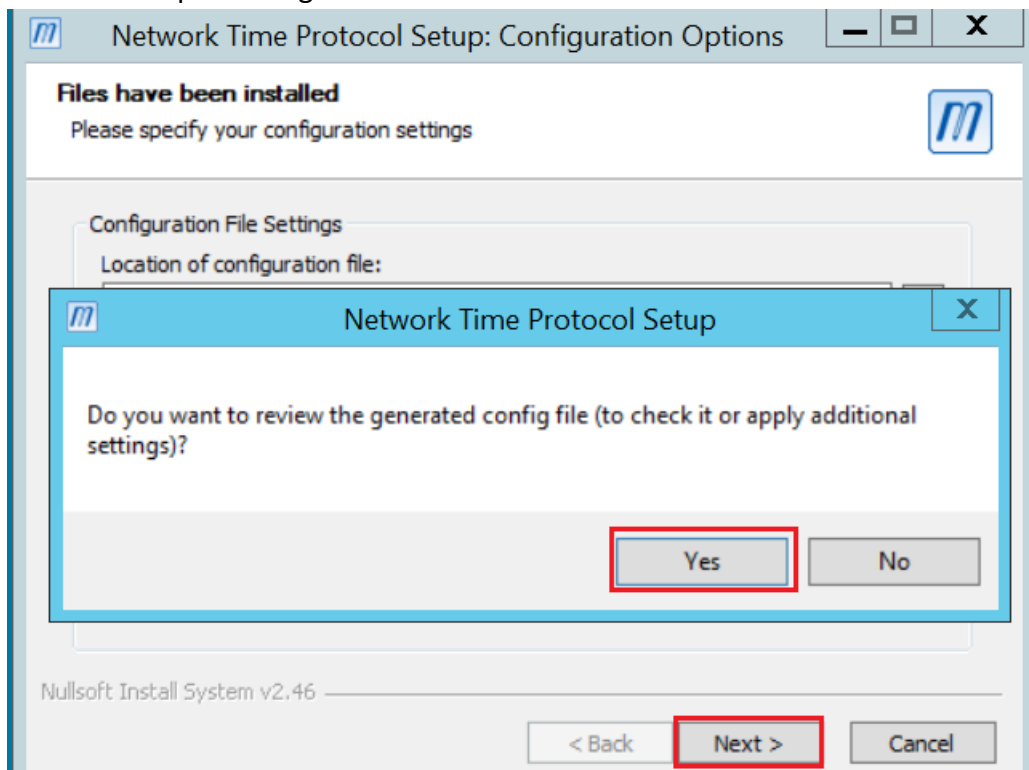
Select the **components** to be installed.



Initial configuration with external time server, specification of up to 9 external NTP servers.



Click **Yes** to open configuration file to edit it.



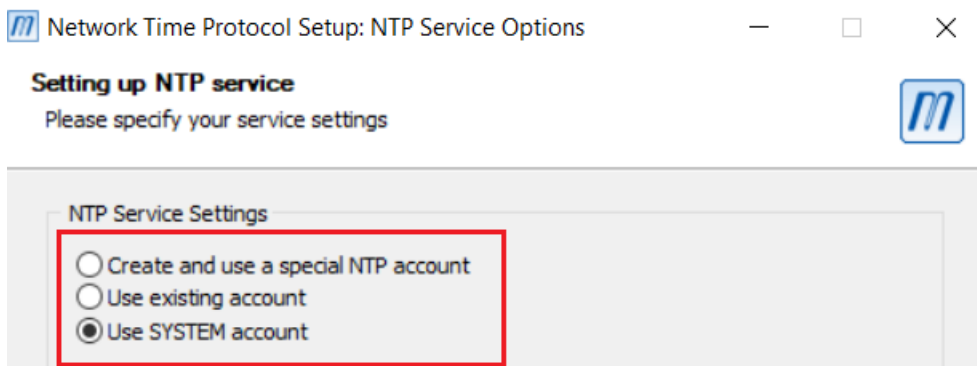
When the NTP configuration file open remove **iburst** and save the file to apply the setting.

```
# Use drift file
driftfile "C:\Program Files (x86)\NTP\etc\ntp.drift"

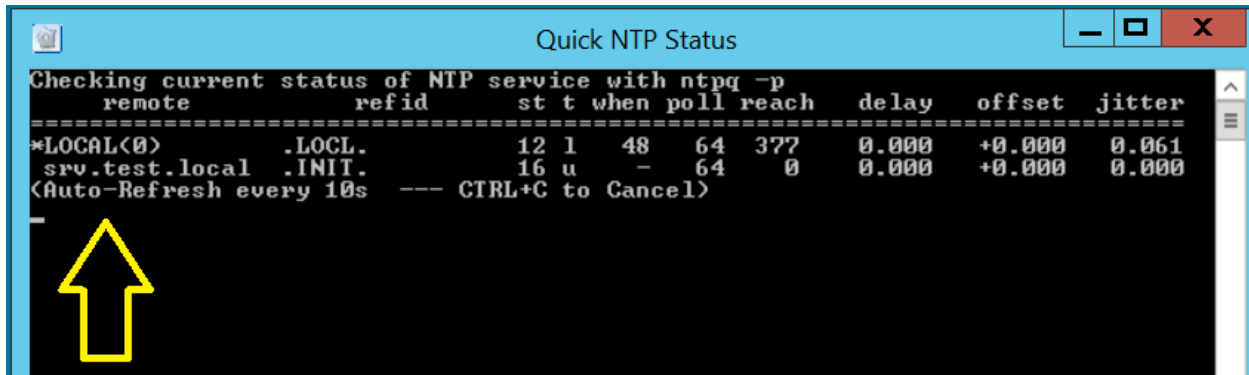
# your local system clock, should be used as a backup
# (this is only useful if you need to distribute time no matter how good or bad it is)
server 127.127.1.0
# but it operates at a high stratum level to let the clients know and force them to
# use any other timesource they may have.
fudge 127.127.1.0 stratum 12

# Use specific NTP servers
server 192.168.100.230 iburst minpoll 6 maxpoll 7
```

Select the service settings recommended "**Use System Account**".



Go to start open **NTP Status** file to verify NTP server is running and Star is in front of LOCAL.



```
Checking current status of NTP service with ntpq -p
=====
remote      refid      st t when poll reach  delay  offset  jitter
=====
*LOCAL(0)    .LOCL.     12 l  48  64  377  0.000  +0.000  0.061
srv.test.local .INIT.     16 u   -  64   0  0.000  +0.000  0.000
<Auto-Refresh every 10s --- CTRL+C to Cancel>
```

Download **NTPTool** (ntp-server-tool.exe) to verify the status as well.

