[HOW TO INSTALL AND CONFIGURE NTP SERVER ON WINDWS SERVER 2022](https://blog.foldersecurityviewer.com/how-to-install-and-configure-ntp-server-on-windws-server-2022/" \o "Permanent Link: How to install and configure NTP Server on Windws Server 2022)

NTP, or Network Time Protocol, is a service that has access to highly precise atomic clocks. As a result, the NTP service provides consistent timekeeping on client and server resources and ensures accurate data logging. The purpose of this is to streamline global communications.

Below, we’ll discuss the process of installing, configuring, and querying an NTP server on Windows Server 2022.

INSTALL AND CONFIGURE AN NTP SERVER ON WINDOWS SERVER 2022

Follow the straightforward steps below to configure an NTP server on Windows Server 2022.

CONFIRM NTP SERVICE IS AUTOMATIC

Open the Run dialogue (Windows key + R) and type “services.msc” (without the quotation marks) and click OK or hit Enter.

Graphical user interface, text, application

Description automatically generated

Locate “Windows Time” under the Services. Right-click the service and select Properties.

Graphical user interface, text, application, email

Description automatically generated

Change the Startup type to “Automatic”.

Graphical user interface, text, application, email

Description automatically generated

Once Startup type is confirmed, click “OK”.

NTP SERVER REGISTRY CONFIGURATION

Open the Run dialogue (Windows key + R) and type “regedit” (without the quotation marks) and click OK or hit Enter.

Graphical user interface, application

Description automatically generated

The registry editor will open as below.

Text, table

Description automatically generated with medium confidence

Navigate to the below location:

Computer\HKEY\_LOCAL\_MACHINE\SYSTEM\CurrentControlSet\Services\W32Time\TimeProviders\NtpServer

In the pane on the right-hand side, double-click on the entry titled “Enabled”.

Graphical user interface, table

Description automatically generated with medium confidence

Change the DWORD value to “1”, leave the Base as Hexidecimal, and click “OK”

Graphical user interface, application, Word

Description automatically generated

Now browse to the below location:

Computer>HKEY\_LOCAL\_MACHINE>SYSTEM>CurrentControlSet>Services>W32Time>Config

In the right-hand pane, locate the “Announce Flags” entry.

Table

Description automatically generated with low confidence

Change the DWORD value data to “5”, leave the Base as Hexidecimal, and click “OK”

Graphical user interface, text, application

Description automatically generated

Return to the “services.msc”, locate the “Windows Time” service again, right-click on it and restart the service.

Graphical user interface, text, application, email

Description automatically generated

CONFIGURE NTP WITH POWERSHELL

Launch an administrator PowerShell session and run the below:

Set-ItemProperty -Path “HKLM:\SYSTEM\CurrentControlSet\Services\w32time\TimeProviders\NtpServer” -Name “Enabled” -Value 1

Configure Announce Flags value:

Set-ItemProperty -Path “HKLM:\SYSTEM\CurrentControlSet\services\W32Time\Config” -Name “AnnounceFlags” -Value 5

Restart the NTP server:

Restart-Service w32Time

Text

Description automatically generated

**Note**: NTP requires UDP port 123 open for Windows Server 2022 to be able to reach the clocks. If the servers are unreachable, please check your firewall configuration.

USEFUL COMMANDS

**Check NTP Configuration:**

w32tm /query /configuration

**Check NTP server list:**

w32tm /query /peers

**Force NTP server synchronization:**

w32tm /resync /nowait

**Show the source of the NTP time:**

w32tm /query /source

**Show status of NTP service:**

w32tm /query /status

CONCLUSION

Windows Server 2022 is now configured to synchronize with pool.ntp.org. Therefore, all infrastructure should now be synchronized with the local NTP server.  
Should NTP be configured on a virtual machine, ensure that the machine is set to only sync from the time service and not with the host machine.