

# NTP

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# Configuring w32time As NTP Client

## Step 1: Stop the time service

```
net stop w32time
```

## Step 2: Set the manual peer list of external servers

```
w32tm /config /syncfromflags:manual /manualpeerlist:"[server1],0x8 [server2],0x8"
```

## Step 3: Set the connection as reliable

```
w32tm /config /reliable:yes
```

## Step 4: Start the time service

```
net start w32time
```

## Step 5: Test the configuration

```
w32tm /query /configuration
```

or

```
w32tm /query /status
```

or

```
w32tm /query /peers
```

# Configure NTP Server in AD

## Option 1 - Via GPO

Setup GPO for NTP Server and apply it to the Domain Controller.

Computer Configuration (Enabled)			hide
Policies			hide
Administrative Templates			hide
Policy definitions (ADMX files) retrieved from the local computer.			
System/Windows Time Service/Time Providers			hide
Policy	Setting	Comment	
Configure Windows NTP Client	Enabled		
NtpServer	10.1.1.1,0x9		
Type	NTP		
CrossSiteSyncFlags	2		
ResolvePeerBackoffMinutes	15		
ResolvePeerBackoffMaxTimes	7		
SpecialPollInterval	1024		
EventLogFlags	0		
Policy	Setting	Comment	
Enable Windows NTP Client	Enabled		
Enable Windows NTP Server	Enabled		

Setup GPO for NTP Client for Member Server

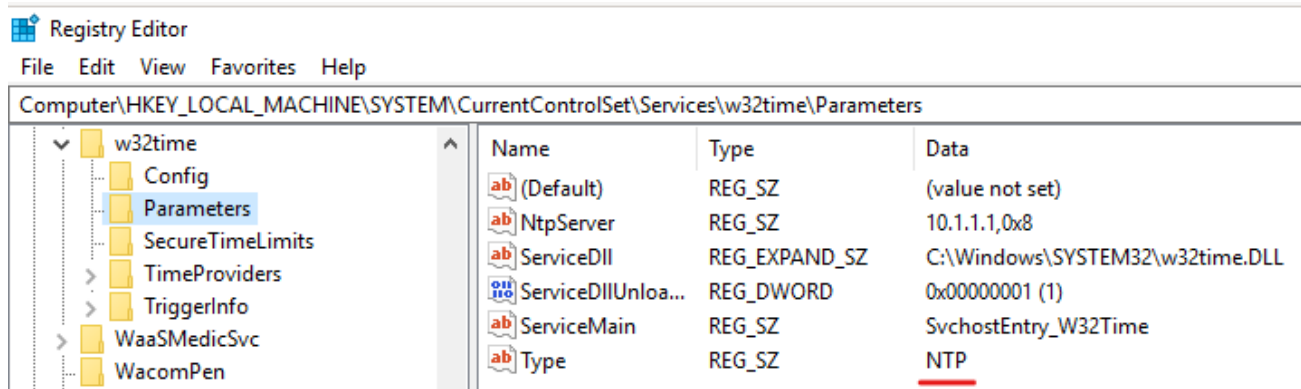
Computer Configuration (Enabled)			hide
Policies			hide
Administrative Templates			hide
Policy definitions (ADMX files) retrieved from the local computer.			
System/Windows Time Service/Time Providers			hide
Policy	Setting	Comment	
Configure Windows NTP Client	Enabled		
NtpServer		lab-dc1.homelab.local	
Type		NTP	
CrossSiteSyncFlags		2	
ResolvePeerBackoffMinutes		15	
ResolvePeerBackoffMaxTimes		7	
SpecialPollInterval		1024	
EventLogFlags		0	
Policy	Setting	Comment	
Enable Windows NTP Client	Enabled		

## Option 2 - Manually via Regedit

Enable NTP Server in Domain Controller.

1. Change the server type to NTP. To do this, follow these steps:

1. Select **Start > Run**, type *regedit*, and then select **OK**.
2. Locate and then select the following registry subkey:  
HKEY\_LOCAL\_MACHINE\SYSTEM\CurrentControlSet\Services\W32Time\Parameters
3. In the pane on the right, right-click **Type**, and then select **Modify**.
4. In **Edit Value**, type *NTP* in the **Value data** box, and then select **OK**.
5. Example:

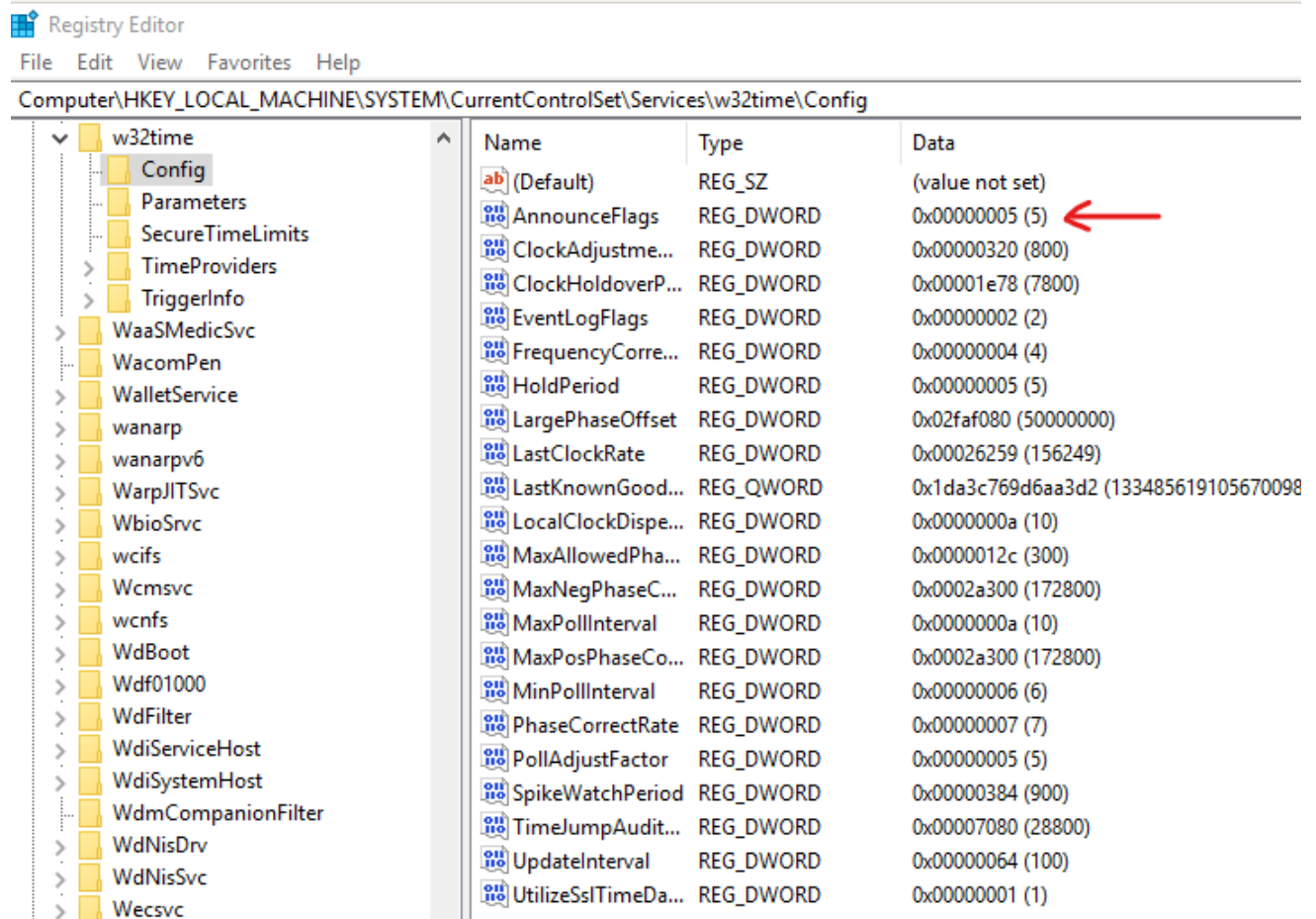


2. Set **AnnounceFlags** to 5. To do this, follow these steps:

1. Locate and then select the following registry subkey:  
HKEY\_LOCAL\_MACHINE\SYSTEM\CurrentControlSet\Services\W32Time\Config
2. In the pane on the right, right-click **AnnounceFlags**, and then select **Modify**.

3. In **Edit DWORD Value**, type 5 in the **Value data** box, and then select **OK**.

4. Example:



3. Enable NTPServer. To do this, follow these steps:

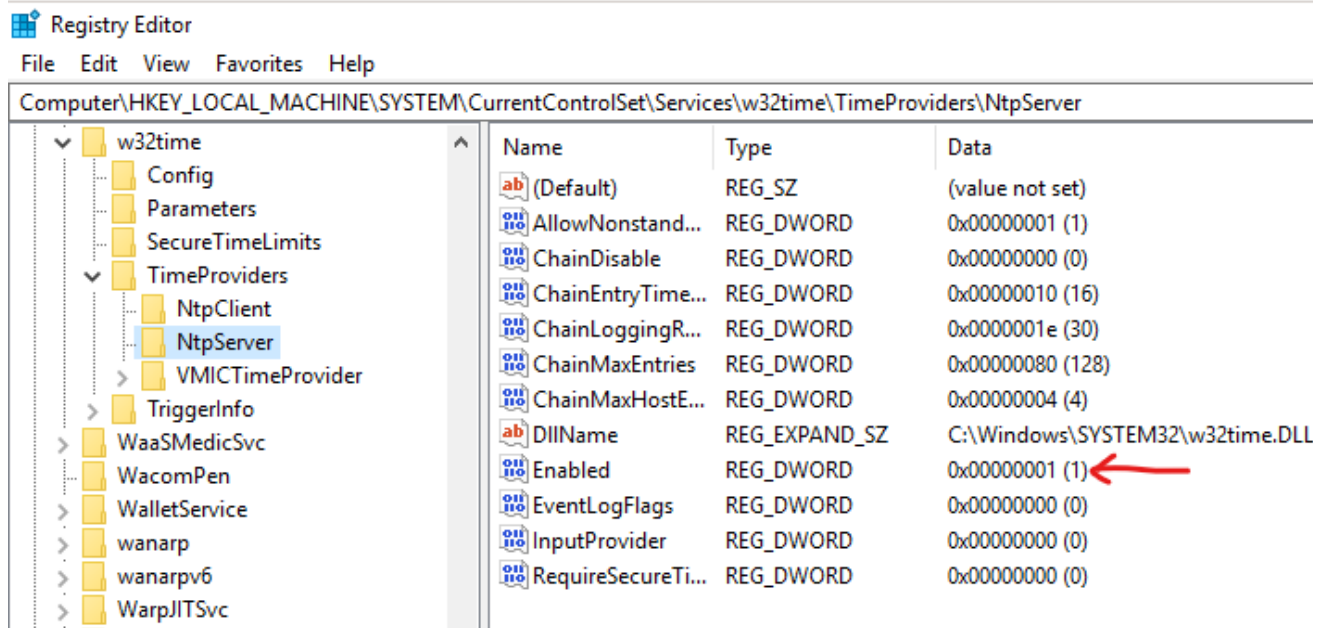
1. Locate and then select the following registry subkey:

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

2. In the pane on the right, right-click **Enabled**, and then select **Modify**.

3. In **Edit DWORD Value**, type 1 in the **Value data** box, and then select **OK**.

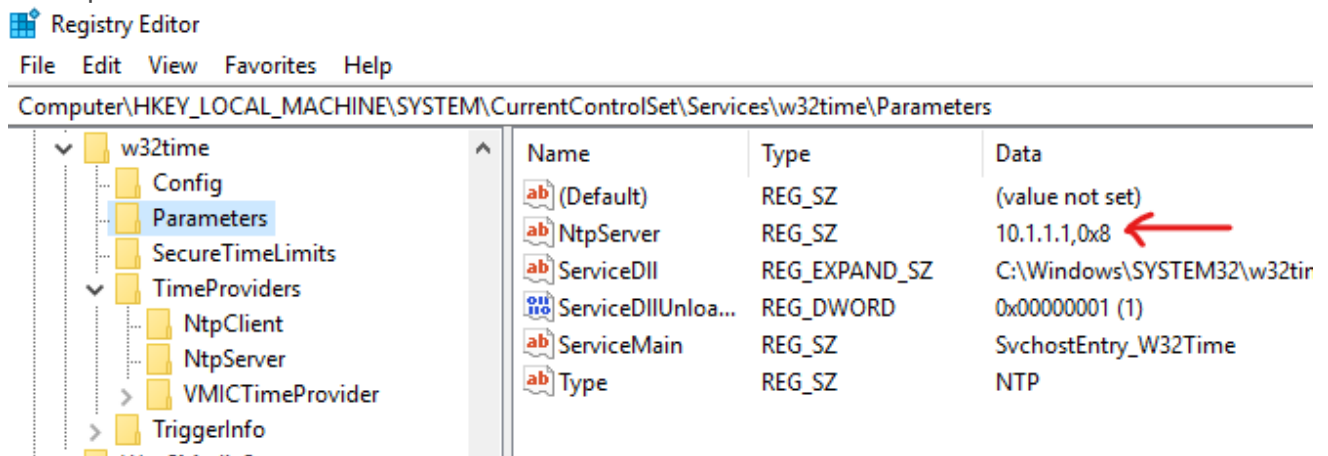
4. Example:



4. Specify the time sources. To do this, follow these steps:

1. Locate and then click the following registry subkey:  
HKEY\_LOCAL\_MACHINE\SYSTEM\CurrentControlSet\Services\W32Time\Parameters
2. In the pane on the right, right-click **NtpServer**, and then select **Modify**.
3. In **Edit Value**, type *Peers* in the **Value data** box, and then select **OK**.

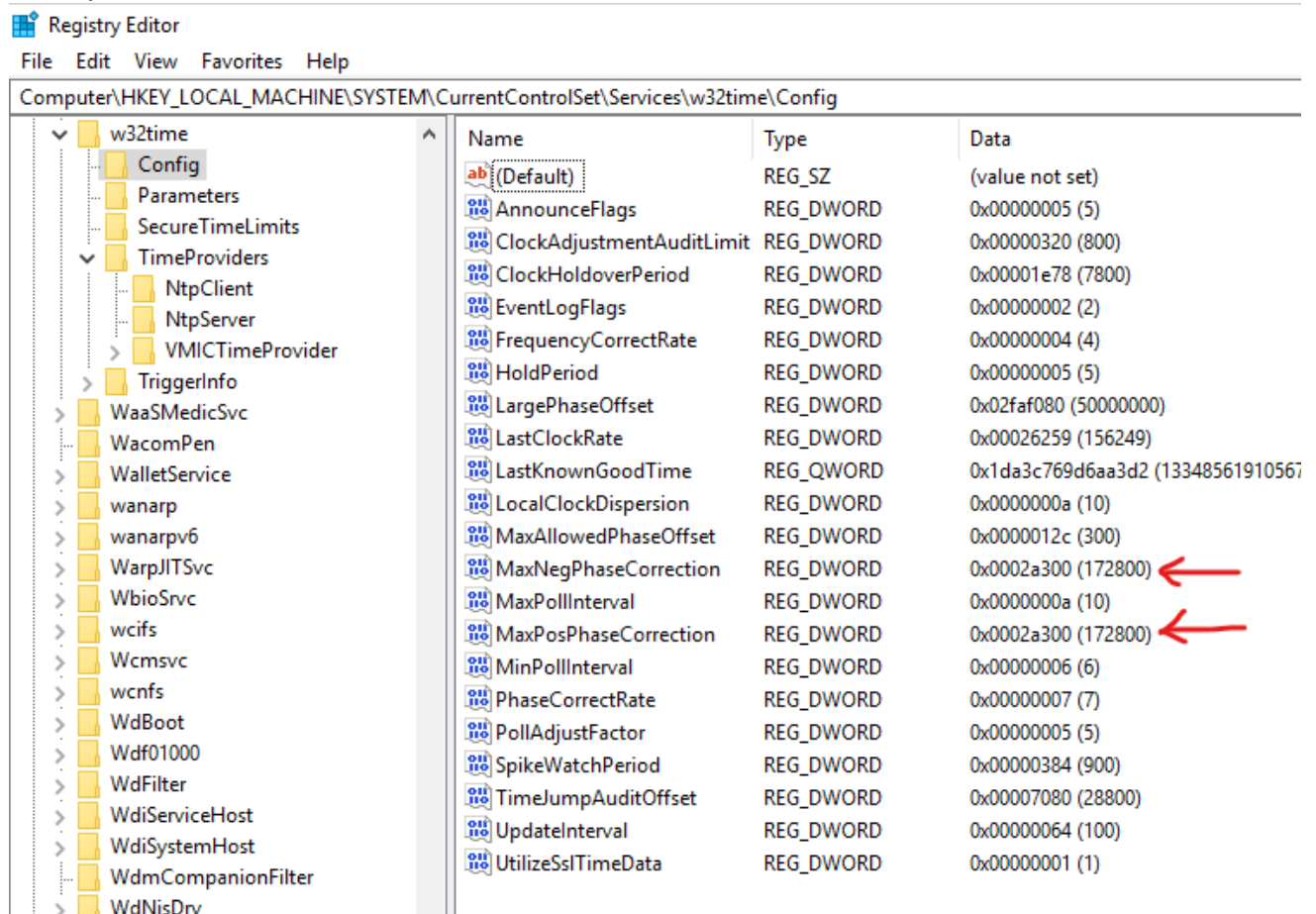
4. Example:



5. Configure the time correction settings. To do this, follow these steps:

1. Locate and then click the following registry subkey:  
HKEY\_LOCAL\_MACHINE\SYSTEM\CurrentControlSet\Services\W32Time\Config
2. In the pane on the right, right-click **MaxPosPhaseCorrection**, and then select **Modify**.
3. In **Edit DWORD Value**, click to select **Decimal** in the **Base** box.
4. In **Edit DWORD Value**, type *TimeInSeconds* in the **Value data** box, and then select **OK**.
5. Locate and then click the following registry subkey:  
HKEY\_LOCAL\_MACHINE\SYSTEM\CurrentControlSet\Services\W32Time\Config
6. In the pane on the right, right-click **MaxNegPhaseCorrection**, and then select **Modify**.

- In **Edit DWORD Value**, click to select **Decimal** in the **Base** box.
- In **Edit DWORD Value**, type *TimeInSeconds* in the **Value data** box, and then select **OK**.
- Example:



- Close Registry Editor.
- At the command prompt, type the following command to restart the Windows Time service, and then press Enter:

```
net stop w32time && net start w32time
```