

# Windows Server

All about Windows Server.

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# Windows Server 22 - Reset Trial License

Windows Server 2022 Evaluation has an activation period of 180 days, and if you want to extend the activation period, you can reset the activation status with the following command:

```
slmgr.vbs /rearm
```

This command allows you to restart the 180-day activation period, but only 6 times, which means you can extend the activation period by up to 1080 days. If you have already used the reset command 6 times, you cannot activate the Windows Server 2022 Evaluation edition again, and you will need to purchase a product key for the official version to activate the system.

# Guide for Configuring NTP Time Synchronization on a Windows Domain Controller

## Introduction

This guide provides step-by-step instructions to configure a Windows Server domain controller to use NTP for time synchronization. It includes configuring Group Policy settings and necessary firewall rules to ensure proper synchronization with NTP servers.

## Steps to Configure NTP Time Synchronization

### Step 1: Open Group Policy Management Console (GPMC)

1. Log in to the Domain Controller.
2. Open Group Policy Management Console:
  - Press `Win + R`, type `gpmc.msc`, and press Enter.

### Step 2: Edit the Default Domain Controllers Policy

1. Navigate to the Appropriate Policy:
  - In the left pane, expand `Forest: YourDomain` > `Domains` > `YourDomain`.
  - Select `Default Domain Controllers Policy`.
2. Edit the Policy:
  - Right-click on `Default Domain Controllers Policy` and select `Edit`.

### Step 3: Configure Windows NTP Client in Group Policy

1. Navigate to the Time Service Settings:
  - Go to `Computer Configuration > Administrative Templates > System > Windows Time Service > Time Providers`.
1. Configure Windows NTP Client:
  - Double-click on `Configure Windows NTP Client`.
  - Set it to `Enabled`.
  - In the `NtpServer` field, enter the following NTP servers:

0.pool.ntp.org,0x1 1.pool.ntp.org,0x1 2.pool.ntp.org,0x1 3.pool.ntp.org,0x1 time.google.com,0x1  
time.windows.com,0x1 time.nist.gov,0x1

- Ensure the `Type` is set to `NTP`.
- Click `Apply` and `OK`.

**Configure Windows NTP Client**

Previous Setting   Next Setting

☐ Not Configured   Comment:

☒ **Enabled**

☐ Disabled

Supported on: At least Windows Server 2003 operating systems or Windows XP Professional

Options:

NtpServer: 0.pool.ntp.org,0.1 1.pool.ntp.org

Type: **NTP**

CrossSiteSyncFlags: 2

ResolvePeerBackoffMinutes: 15

ResolvePeerBackoffMaxTimes: 7

SpecialPollInterval: 1024

EventLogFlags: 0

Help:

This policy setting specifies a set of parameters for controlling the Windows NTP Client.

If you enable this policy setting, you can specify the following parameters for the Windows NTP Client.

If you disable or do not configure this policy setting, the Windows NTP Client uses the defaults of each of the following parameters.

**NtpServer**  
The Domain Name System (DNS) name or IP address of an NTP time source. This value is in the form of ""dnsName,flags"" where ""flags"" is a hexadecimal bitmask of the flags for that host. For more information, see the NTP Client Group Policy Settings Associated with Windows Time section of the Windows Time Service Group Policy Settings. The default value is ""time.windows.com,0x09"".

**Type**  
This value controls the authentication that W32time uses. The

OK   Cancel   **Apply**

#### Step 4: Force Group Policy Update and Resynchronize

1. Open Command Prompt or PowerShell as Administrator:
  - Press `Win + X`, then select `Windows PowerShell (Admin)` or `Command Prompt (Admin)`.
2. Force Group Policy Update:

```
gpupdate /force
```

3. Restart the Windows Time Service:

```
Restart-Service w32time
```

#### 4. Force Resynchronization:

```
w32tm /resync
```

#### Step 5: Verify the Configuration and Synchronization Status

##### 1. Query the Current Configuration:

```
w32tm /query /configuration
```

##### 2. Check the Synchronization Status:

```
w32tm /query /status
```

#### Step 6: Configure Firewall Rules (if necessary)

##### 1. Open Windows Defender Firewall with Advanced Security:

- Press `Win + R`, type `wf.msc`, and press Enter.

##### 2. Create a New Inbound Rule for NTP:

- Click on `Inbound Rules` in the left pane.
- Click `New Rule...` in the right pane.
- Select `Port` and click `Next`.
- Select `UDP` and enter `123` in the `Specific local ports` field. Click `Next`.
- Select `Allow the connection` and click `Next`.
- Select the profiles this rule applies to (Domain, Private, Public). Click `Next`.
- Name the rule (e.g., `Allow NTP`) and click `Finish`.

##### 3. Create a New Outbound Rule for NTP:

- Click on `Outbound Rules` in the left pane.
- Repeat the steps above to create a rule that allows outbound UDP traffic on port 123

#### Summary

By following these steps, you can configure a Windows Server domain controller to synchronize time using NTP servers. This configuration ensures accurate timekeeping across your domain, which is essential for security, logging, and system coordination.

Feel free to adjust the NTP server list based on your organization's preferences and requirements.

#### Example Commands for Reference

```
# Force Group Policy update  
gpupdate /force
```

```
# Restart the Windows Time service
```

```
Restart-Service w32time
```

```
# Force resynchronization
```

```
w32tm /resync
```

```
# Query the configuration to verify settings
```

```
w32tm /query /configuration
```

```
# Check the synchronization status
```

```
w32tm /query /status
```

This guide ensures that your domain controllers maintain accurate time synchronization, eliminating the need for manual time setting and improving overall system reliability.