

Synchronize a Windows 2008 Server with an External Time Source

June 13, 2011

Synchronizing Time

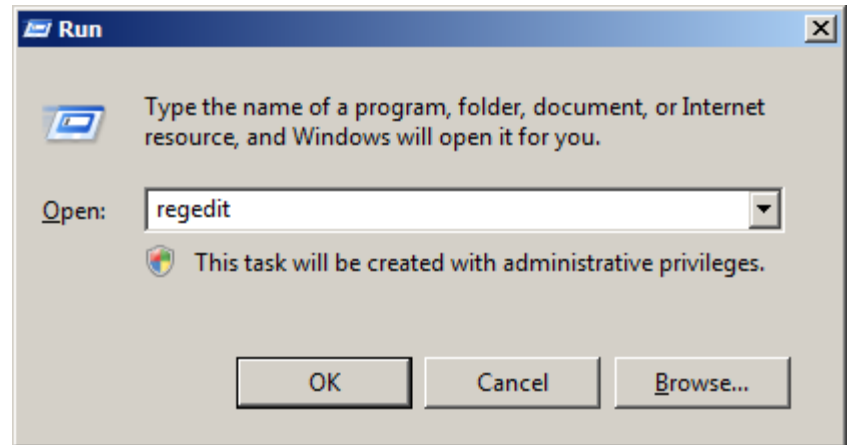
Servers and computers need to synchronize their time with an outside source to maintain the correct time. In this lesson, we will converge our Windows 2008 Server with the US Navy's NTP Server.

We have the opportunity to navigate through the System Registry and safely make changes. The skills we will learn here will help us troubleshoot the Server errors on later dates when the Microsoft Workaround procedures prompt us to check or change a registry setting.



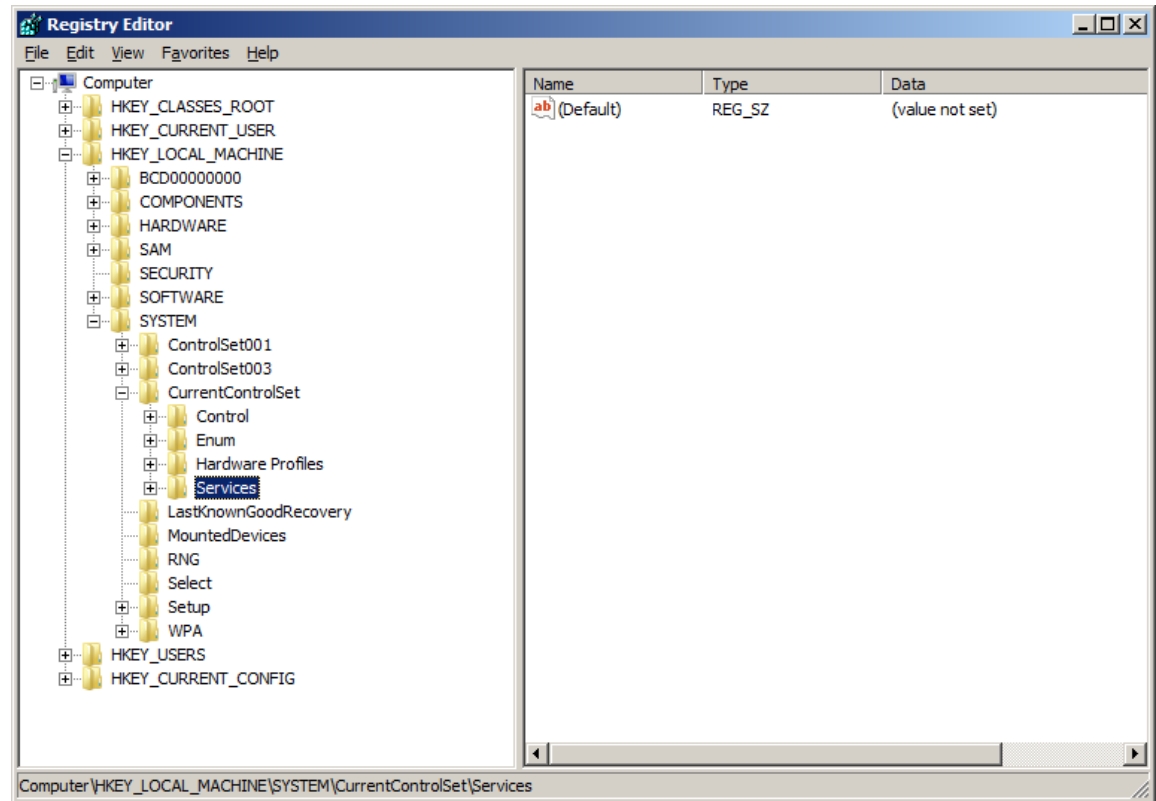
Run Registry Edit (Regedit)

At the Start menu, we select Run and we should type “regedit” in the textbox and press the OK command button.



How to Navigate the Registry Editor

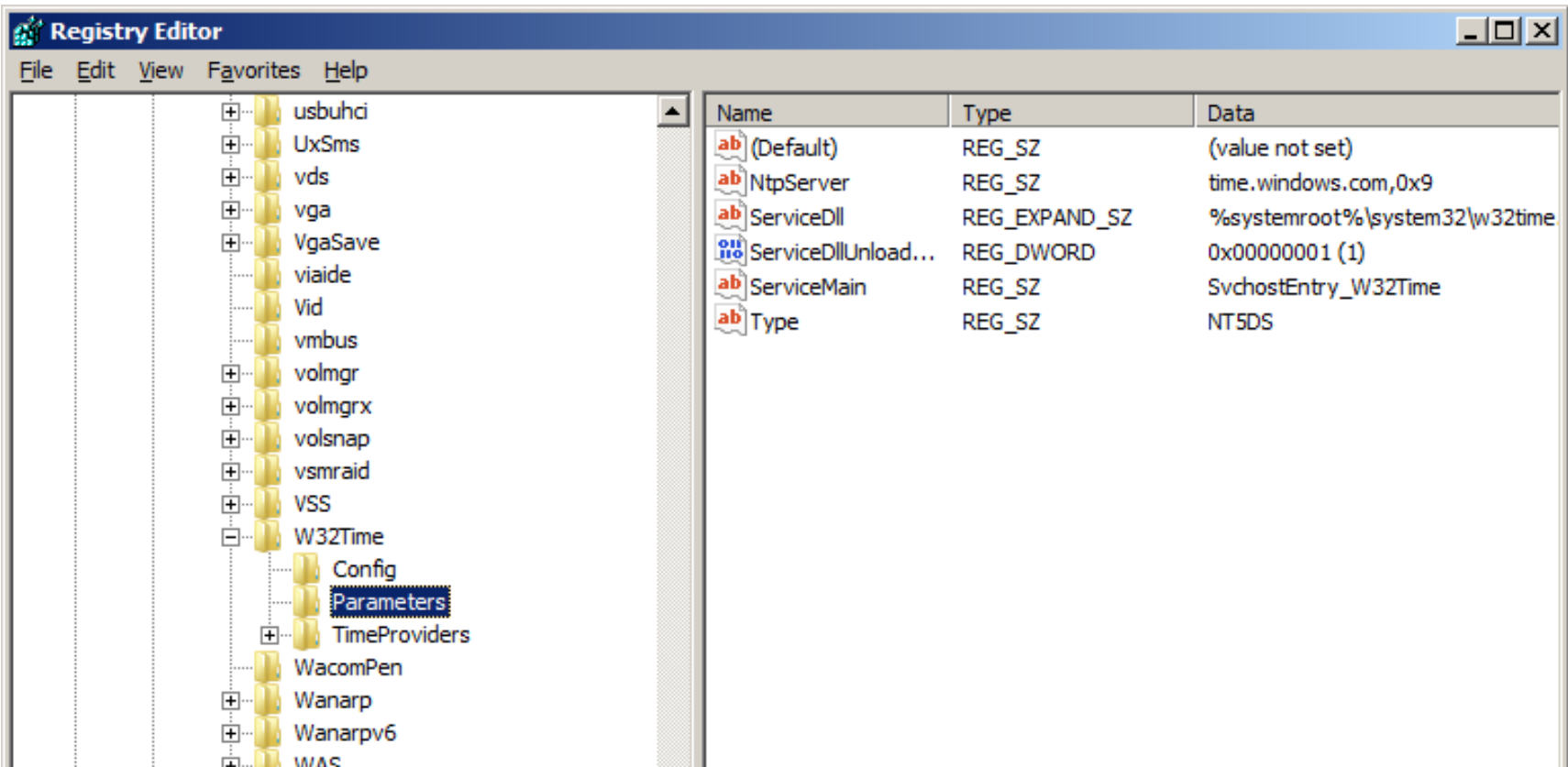
The Registry Edit window will come into view on our desktop and we need to come across HKEY_LOCAL_MACHINE under My Computer. We can press the plus symbol on the left and the folder tree will expand. We can inflate the System folder, and the Current Control Set folder. When we are in the System Registry, we need to be careful to be in the correct location when making changes.



Many time network administrators and technicians will see the registry path written is this format to save space: HKLM\SYSTEM\CCS\Services\W32Time\Parameters

System Settings on a Folder

We follow the path to HKLM\SYSTEM\CCS\Services\W32Time\Parameters and we find that there are five system settings inside the Parameters folder.

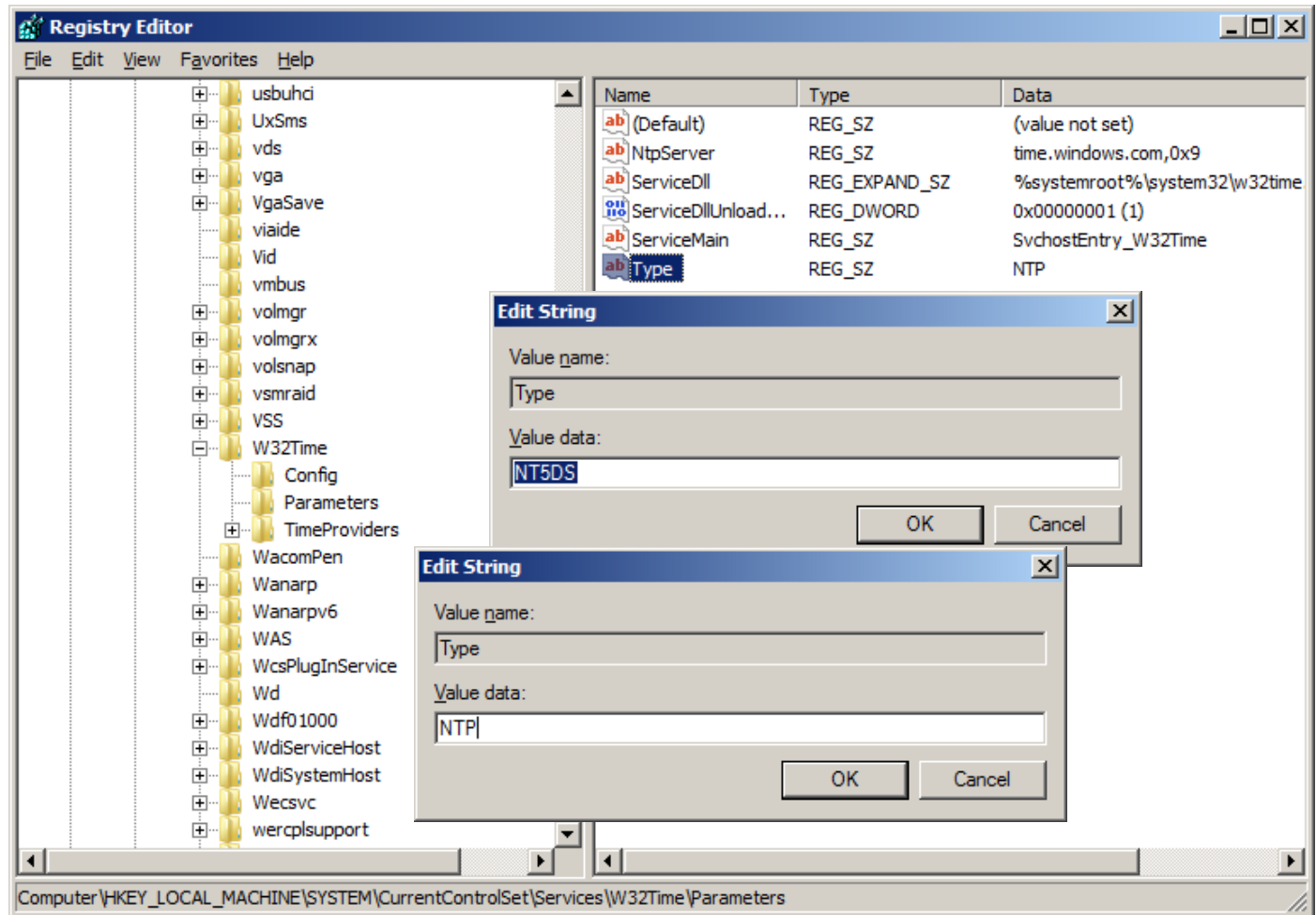


The screenshot shows the Windows Registry Editor window. The left pane displays the tree view of the registry, with the path `HKLM\SYSTEM\CCS\Services\W32Time\Parameters` selected. The right pane displays a table of registry values.

Name	Type	Data
(Default)	REG_SZ	(value not set)
NtpServer	REG_SZ	time.windows.com,0x9
ServiceDll	REG_EXPAND_SZ	%systemroot%\system32\w32time
ServiceDllUnload...	REG_DWORD	0x00000001 (1)
ServiceMain	REG_SZ	SvchostEntry_W32Time
Type	REG_SZ	NT5DS

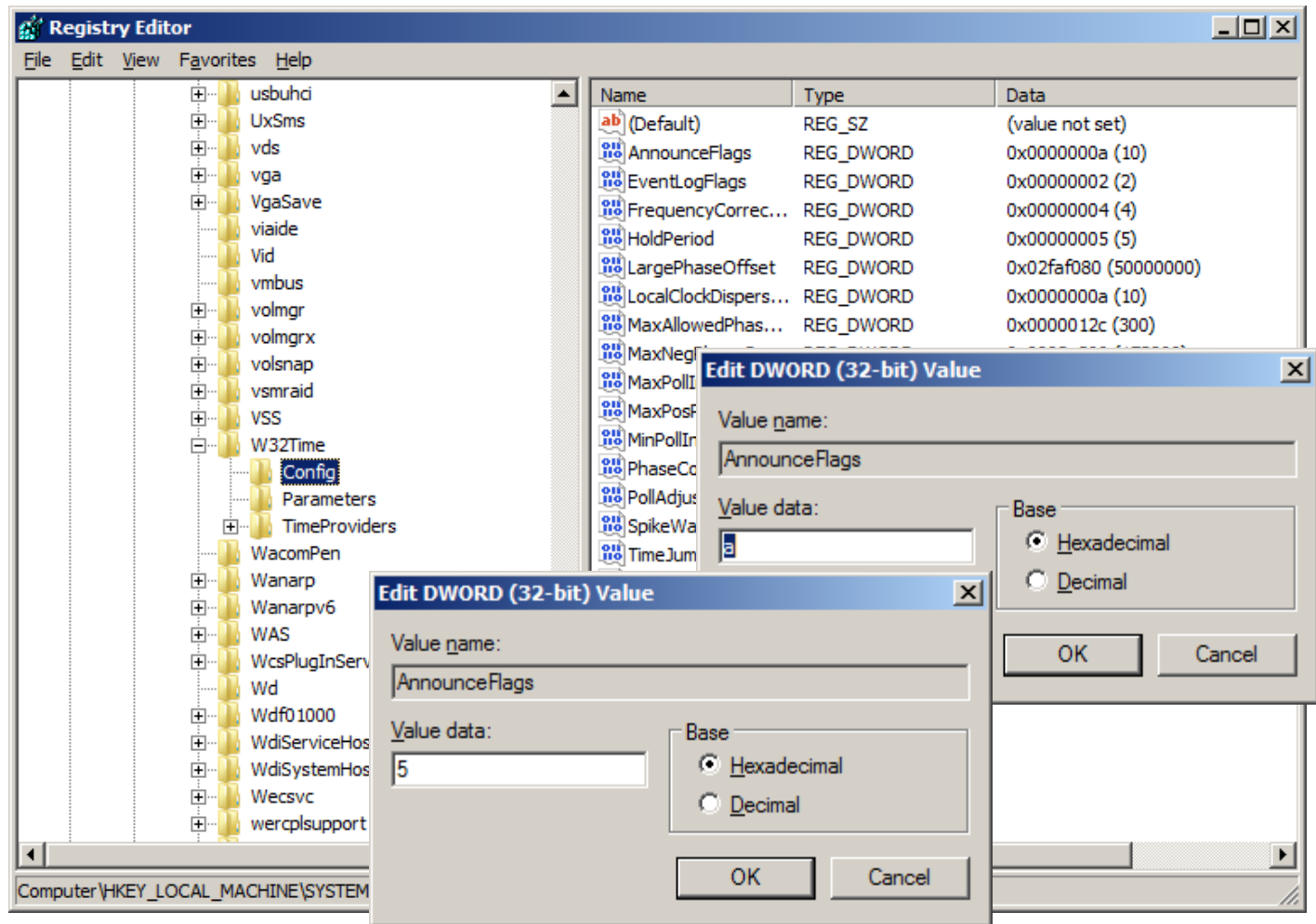
Changing the Type Setting

With the Parameters folder highlighted, we double click on Type and the Edit String window will appear. Change NT5DS to NTP. We should press the OK button to save the change.



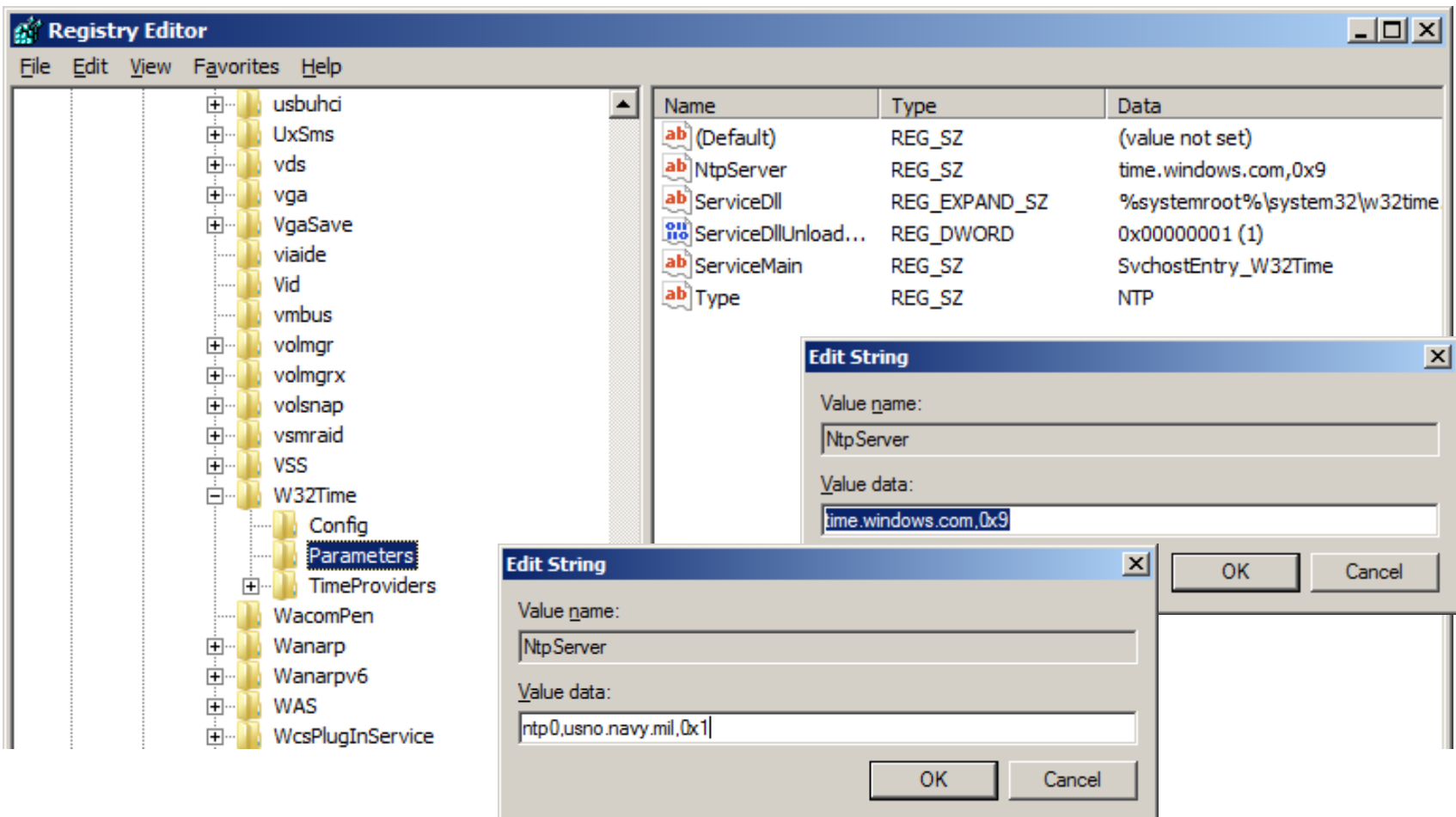
Changing the AnnounceFlags Setting

Next, with the Config folder highlighted, we double click on AnnounceFlags and the Edit DWORD Value window will appear. Change "a" to "5". We should press the OK button to save the change.



Changing the NtpServer Setting

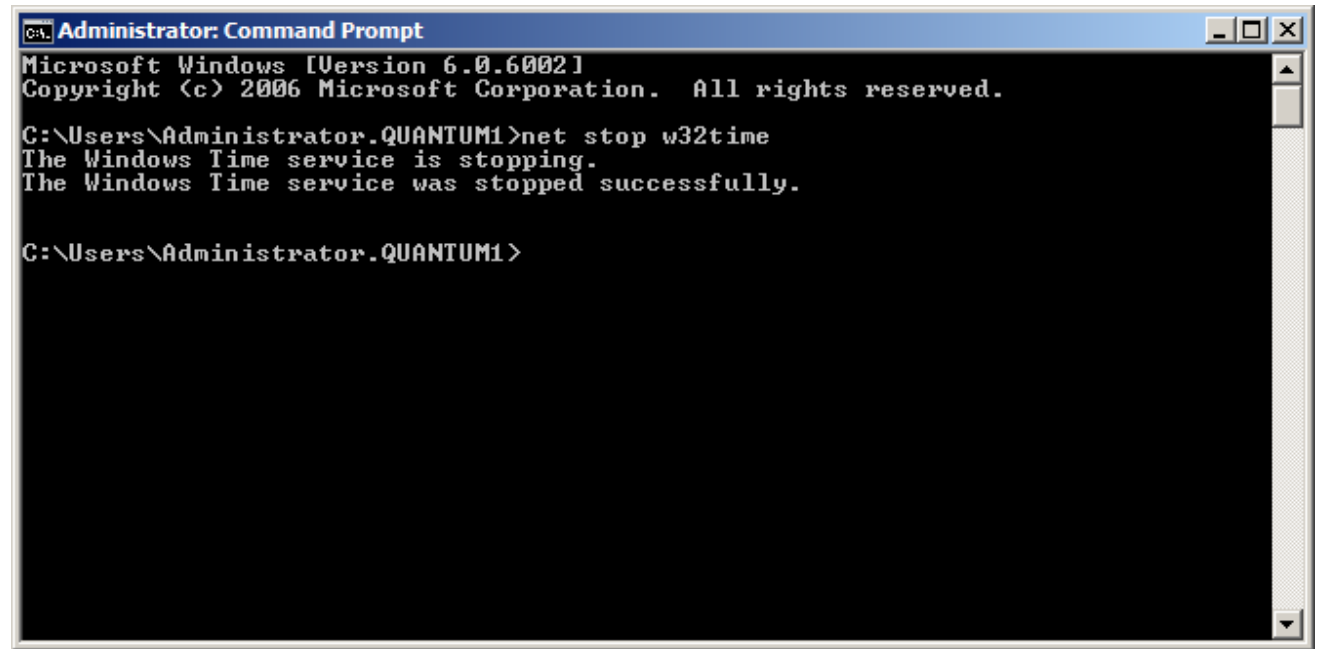
Return to the Parameters folder and we double click on NtpServer and the Edit String window will appear. Change “time.windows.com,0x1” to “ntp0.usno.navy.mil,0x1”. We should press the OK button to save the change. We now can close the Registry Editor.



Stop Windows Time Service

Now, we open the command prompt window and to stop the Windows Time Service we type:

Net stop w32time



```
Administrator: Command Prompt
Microsoft Windows [Version 6.0.6002]
Copyright (c) 2006 Microsoft Corporation. All rights reserved.

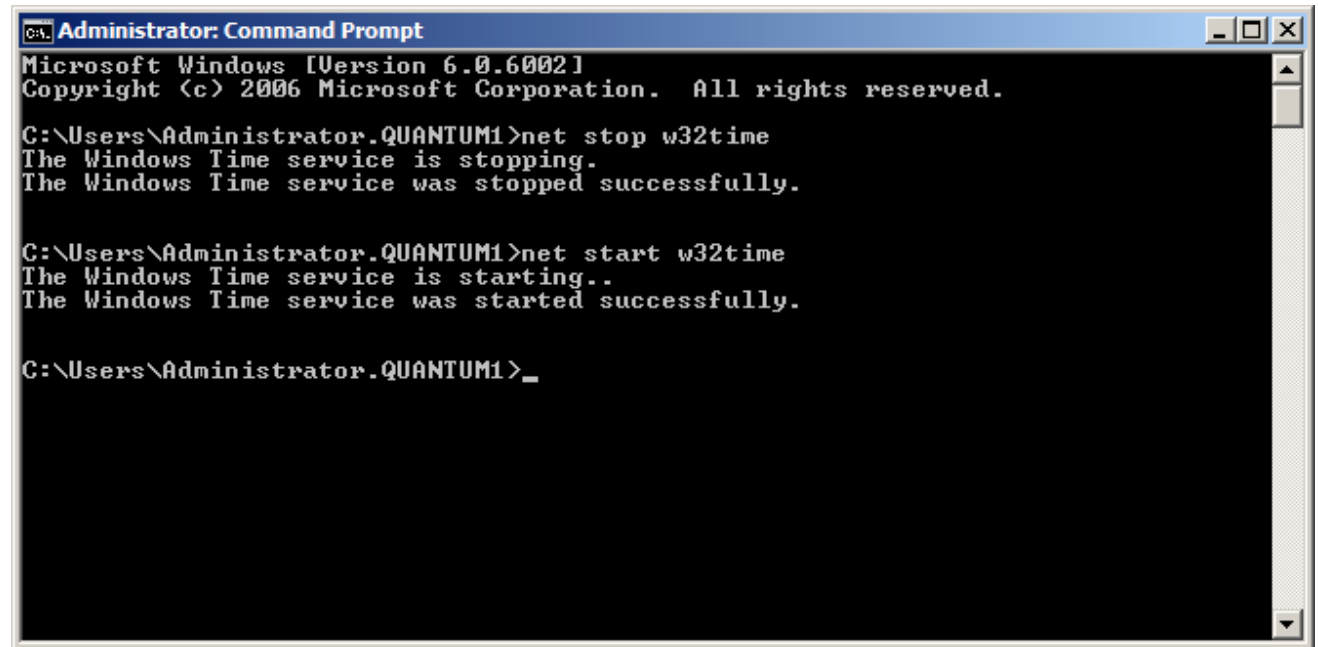
C:\Users\Administrator.QUANTUM1>net stop w32time
The Windows Time service is stopping.
The Windows Time service was stopped successfully.

C:\Users\Administrator.QUANTUM1>
```

Start Windows Time Service

To start the
Windows Time
Service we type:

Net start w32time



```
Administrator: Command Prompt
Microsoft Windows [Version 6.0.6002]
Copyright (c) 2006 Microsoft Corporation. All rights reserved.

C:\Users\Administrator.QUANTUM1>net stop w32time
The Windows Time service is stopping.
The Windows Time service was stopped successfully.

C:\Users\Administrator.QUANTUM1>net start w32time
The Windows Time service is starting..
The Windows Time service was started successfully.

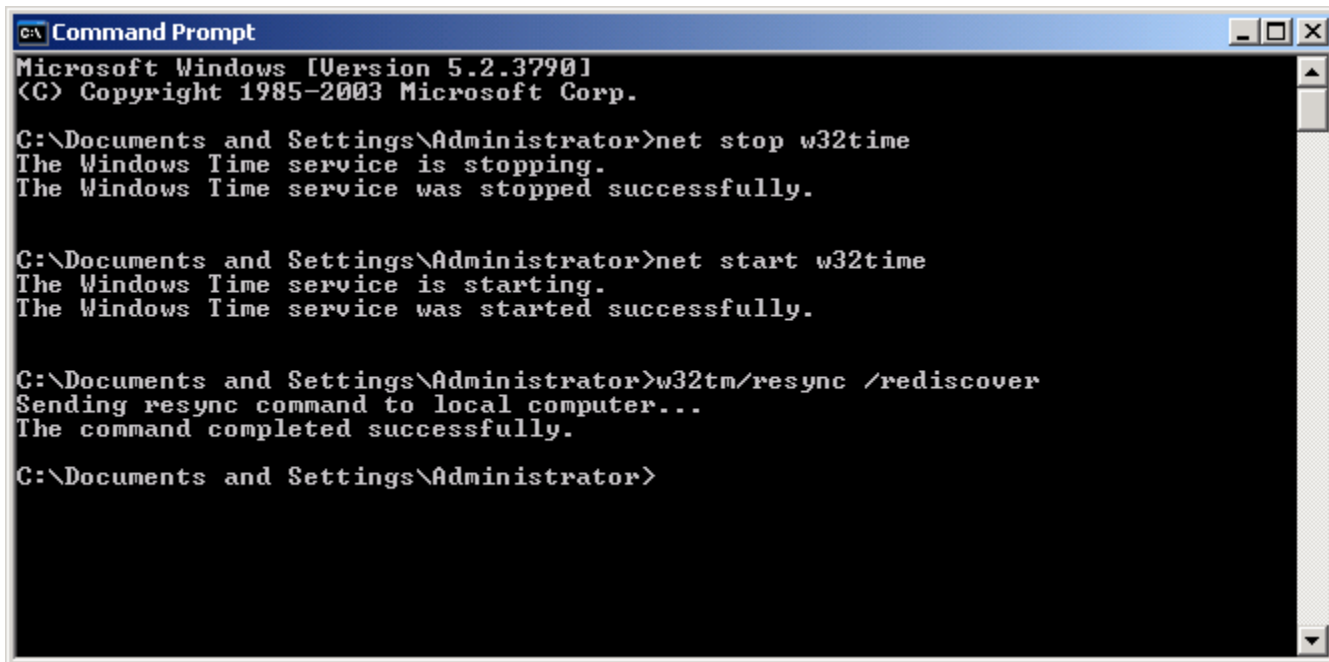
C:\Users\Administrator.QUANTUM1>_
```

Resynchronize with the Time Source

To Resynchronize with the time source, we type:

```
W32tm /resync /rediscover
```

The time will synchronize with the source and the devices on the domain will now harmonize. We have completed the lesson and successfully edited the System Registry.



```
C:\ Command Prompt
Microsoft Windows [Version 5.2.3790]
(C) Copyright 1985-2003 Microsoft Corp.

C:\Documents and Settings\Administrator>net stop w32time
The Windows Time service is stopping.
The Windows Time service was stopped successfully.

C:\Documents and Settings\Administrator>net start w32time
The Windows Time service is starting.
The Windows Time service was started successfully.

C:\Documents and Settings\Administrator>w32tm/resync /rediscover
Sending resync command to local computer...
The command completed successfully.

C:\Documents and Settings\Administrator>
```