Provide a synchronous time service to our PDC clients

joe@dc1:/etc$ sudo vi ntp.conf
# Local clock (Note: This is not the localhost address!)
server 127.127.1.0
fudge 127.127.1.0 stratum 10

# The source, where we are receiving the time from
server 0.pool.ntp.org iburst prefer
driftfile /var/lib/ntp/ntp.drift
logfile /var/log/ntp
ntpsigndsocket /usr/local/samba/var/lib/ntp_signd/

# Access control
# Default restriction: Only allow querying time (incl. ms-sntp) from this machine
restrict default kod nomodify notrap nopeer ms-sntp

# Allow everything from localhost
restrict 127.0.0.1

# Allow that our time source can only provide time and do nothing else
restrict 0.pool.ntp.org mask 255.255.255.255 nomodify notrap nopeer noquery

"ntp.conf" 20L, 677C written
# Local clock (Note: This is not the localhost address!)
server 127.127.1.0
fudge 127.127.1.0 stratum 10

# The source, where we are receiving the time from
server 0.pool.ntp.org iburst prefer
driftfile /var/lib/ntp/ntp.drift
logfile /var/log/ntp
ntpsignedsocket /usr/local/samba/var/lib/ntp_signd/
nntpsignedsocket /var/lib/samba/ntp_signd/

# Access control
# Default restriction: Only allow querying time (incl. ms-sntp) from this machine
restrict default kod nomodify notrap nopeer ms_sntp

# Allow everything from localhost
restrict 127.0.0.1

# Allow that our time source can only provide time and do nothing else
restrict 0.pool.ntp.org mask 255.255.255.255 nomodify notrap nopeer noquery

"ntp.conf" 21L, 721C written
joe@dc1:/etc$ sudo chown root:ntp /var/lib/samba/ntp_signd/
joe@dc1:/etc$ sudo chmod 750 /var/lib/samba/ntp_signd/
adwxr-x--- 2 root ntp  4096 Feb 17 09:37 /var/lib/samba/ntp_signd/
joe@dc1:/etc$ less ntp.conf
joe@dc1:/etc$ sudo vi ntp.conf

[1]+ Stopped sudo vi ntp.conf
joe@dc1:/etc$ ls /var/lib/ntp
ntp.drift
joe@dc1:/etc$ fg
sudo vi ntp.conf

joe@dc1:/etc$ sudo service ntp restart
  * Stopping NTP server ntpd
  * Starting NTP server ntpd
[ OK ]

joe@dc1:/etc$ ps aux | grep ntp
ntp  2294  0.0  0.2  37768  2232 ?  Ss  14:21  0:00 /usr/sbin/ntpd -p /var/run/ntpd.pid -g -u 105:112
joe  2300  0.0  0.0  10464  916 pts/1  S+  14:21  0:00 grep --color=auto ntp

joe@dc1:/etc$
joe@linux-samba-client:~$ echo "Configure ntp on linux client to get from ntp server"
Configure ntp on linux client to get from ntp server
joe@linux-samba-client:~$ sudo vi /etc/ntp.conf


restrict DC1.samdom.example.com mask 255.255.255.255 nomodify notrap nopeer noquery

For further information about ntpd access control, see http://support.ntp.org/bin/view/Support/AccessRestrictions

Configuring time synchronisation on Windows clients

Per default, Windows clients in an Active Directory, automatically synchronize their time with the DC, owning the PDC emulator role. If you don’t want to use a different source or to configure multiple time server, etc. you don’t have to take any action.

Setting user defined time source(s) and options

If you require your Windows clients to synchronize time with a different server than your DC owning the PDC role, you can configure this via Group Policies. Using the following way, you can define multiple time servers and adjust time synchronisation related options:

Create a new Group Policy Object in the Group Policy Management Console (part of the Remote Server Administration Tools)
# Local clock (this is not the localhost address!)
server 127.127.1.0
fudge 127.127.1.0 stratum 10

# The source, where we are receiving the time from
server pdc.zero.cs.dixie.edu iburst prefer

driftfile /var/lib/ntp/ntp.drift
logfile /var/log/ntp

# Access control
# Default restriction
restrict default ignore

# Allow everything from localhost
restrict 127.0.0.1

# Allow that our time source can only provide time and do nothing else
restrict pdc.zero.cs.dixie.edu mask 255.255.255.255 nomodify notrap nopeer noquery

"/etc/ntp.conf" 19L, 534C written
joe@linux-samba-client:~$ sudo service ntp stop
* Stopping NTP server ntpd
joe@linux-samba-client:~$ sudo ntpdate -B pdc.zero.cs.dixie.edu
17 Feb 14:27:19 ntpdate[17085]: adjust time server 144.38.220.203 offset 0.000641 sec
joe@linux-samba-client:~$ sudo service ntp start
* Starting NTP server ntpd
joe@linux-samba-client:~$
C:\Windows\system32>\w32tm /config /syncfromflags:domhier /update
The command completed successfully.

C:\Windows\system32>\net stop w32time
The Windows Time service is stopping.
The Windows Time service was stopped successfully.

C:\Windows\system32>\net start w32time
The Windows Time service is starting.
The Windows Time service was started successfully.

C:\Windows\system32>