**NTP**

The Network Time Protocol (NTP) is a protocol used to help synchronize your Linux system's clock with an accurate time source. It is good practice to have at least one server on your network be the local time server for all your other devices, this makes the correlation of system events on different systems much easier.

**Server configuration:**

[ check time ]

# date

[ set time manually ]

# date --set "HH:MM:SS"

[ Check hardware clock ]

# hwclock --show

[ Reset system time to hardware time ]

# hwclock --systohc

[ check the hardware clock ]

# hwclock --show

[ check time ]

# date

[ Install ntp service ]

# yum install ntpd

[ check the ntp service status ]

# systemctl status ntpd

[ restart the ntp service ]

# systemctl restart ntpd

[ Edit the ntp configuration file ]

# vi /etc/ntp.conf

[..]

Add the below lines to the file

restrict <client IP address> mask <Netmask> nomodify notrap # this is client IP address

server 127.127.1.0 # this is local machine clock

fudge 127.127.1.0 stratum 10

:wq(save & exit)

[ Restart the ntp service ]

# systemctl restart ntpd

[ Enabling the service while boot time ]

# chkconfig ntpd on

**Client configuration:**

[ Install ntp service ]

# yum install ntpd

[ check the status of the ntp service ]

# systemctl status ntpd

[ Restart the ntp service ]

# systemctl restart ntpd

[ Edit the ntp configuration file ]

# vi /etc/ntp.conf

[..]

Add the below line to the file

server <Server IP address> iburst

comment the below lines

#server 0.centos.pool.ntp.org iburst

#server 1.centos.pool.ntp.org iburst

#server 2.centos.pool.ntp.org iburst

#server 3.centos.pool.ntp.org iburst

:wq (save and exit)

[ check time ]

# date

[ Restart the ntp service ]

# systemctl restart ntpd

[ Enabling the service while booting ]

# chkconfig ntpd on

[ check delay and offset values ]

# ntpq -p

[ Execute ntp update ]

# ntpdate –u <server IP address>

[ Now check date]

# date

Try to change the time, restart ntp service and update ntp in accordance with server IP address, the time will automatically changed to ntp server time.

For more info, <https://ntpserver.wordpress.com/2008/09/10/ntp-server-stratum-levels-explained/>

For more info, <https://community.arubanetworks.com/t5/tkb/articleprintpage/tkb-id/ControllerBasedWLANs/article-id/2220>

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* finish \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*