

NTP Server Side Configuration

Usual commands

```
ntpdate -du ntpserver # to sync NTP server itself
service ntpd start    # to start NTP Server and Client
ntpdate -u ntpserver  # to sync NTP clients
chkconfig --level 345 ntpd on # add ntp daemon at boot
```

ntp.conf on NTP Server

1. Step one

```
# Permit time synchronization with our time source, but do not
# permit the source to query or modify the service on this system.
restrict default kod nomodify notrap nopeer noquery
restrict -6 default kod nomodify notrap nopeer noquery

# Permit all access over the loopback interface. This could
# be tightened as well, but to do so would effect some of
# the administrative functions.
restrict 127.0.0.1
restrict -6 ::1

# Hosts on local network are less restricted.
restrict 172.24.128.0 mask 255.255.255.0 nomodify notrap

# Use public servers from the pool.ntp.org project.
# Please consider joining the pool (http://www.pool.ntp.org/join.html).
# Since this Server LAN does not have WAN connection these server must be
removed the NTP Server will be itself
#server 0.rhel.pool.ntp.org
#server 1.rhel.pool.ntp.org
#server 2.rhel.pool.ntp.org

#broadcast 192.168.1.255 key 42          # broadcast server
#broadcastclient                        # broadcast client
#broadcast 224.0.1.1 key 42             # multicast server
#multicastclient 224.0.1.1              # multicast client
#manycastserver 239.255.254.254         # manycast server
#manycastclient 239.255.254.254 key 42  # manycast client

# Undisciplined Local Clock. This is a fake driver intended for backup
# and when no outside source of synchronized time is available.
server 127.127.1.0 # local clock
fudge 127.127.1.0 stratum 10

# Drift file. Put this in a directory which the daemon can write to.
# No symbolic links allowed, either, since the daemon updates the file
```

*# by creating a temporary in the same directory and then rename()'ing
it to the file.*

driftfile /var/lib/ntp/drift

*# Key file containing the keys and key identifiers used when operating
with symmetric key cryptography.*

keys /etc/ntp/keys

Specify the key identifiers which are trusted.

#trustedkey 4 8 42

Specify the key identifier to use with the ntpdc utility.

#requestkey 8

Specify the key identifier to use with the ntpq utility.

#controlkey 8

2. Step two

Start / Restart NTP Daemon

service ntpd start/restart

Wait for about 5 minutes so NTP can sync to itself

ntpdate -du ntpserver # to sync NTP server itself

Troubleshooting

When running this command either -du o -u parameter

#ntpdate -du ntpserver

you can get message

no suitable server for synchronization found

depends on your network speed or load you have to wait some time to sync
server itself or NTP Clients

<http://kbase.redhat.com/faq/docs/DOC-2148>

NTP Client Configuration

1. Step 1

Point to our network's master time server

server 172.24.128.21

restrict default ignore

restrict 127.0.0.1

restrict 172.24.128.21 mask 255.255.255.255 nomodify notrap noquery

driftfile /var/lib/ntp/drift

2. Step 2

Sync client with NTP Server in fact this command forces an update run it at least 3 times or when the offset is the minimum value

```
#ntpdate -u ntpserver  
#ntpdate -u ntpserver  
#ntpdate -u ntpserver
```

Start the ntpd daemon

```
#service ntpd start
```

Sync again client against NTP Server at least 3 times

```
#ntpdate -u ntpserver  
#ntpdate -u ntpserver  
#ntpdate -u ntpserver
```

more sources

<http://blog.borngeek.com/2008/04/03/using-ntp-on-a-private-network/>

<http://www.walkernews.net/2007/03/08/configure-linux-ntp-time-synchronization/>

<http://kbase.redhat.com/faq/docs/DOC-2148>

<http://psp2.ntp.org/bin/view/Support/AccessRestrictions>