NTP Objectives Tasks in PDF file

NTP Objectives

1. Configure server and client to synchronize time with the NTP server **ipaserver.example.com**.

Commands: (On server.example.com and client.example.com)

yum install chrony (To install chronyd Service, it will be pre-installed but in case you need to install this)

systemctl start chronyd (To start Service)

systemctl enable chronyd (To enable chronyd service)

systemctl status chronyd (To check the status of chronyd)

chronyc sources -v **(To check if chrony source is already configured otherwise list will be empty)**

vim /etc/chrony.conf (To configure server machine as NTP client to IPA Server)

server ipaserver.example.com iburst (Use server directive to define NTP server on client, iburst can be used to make initial synchronisation faster)

:wq

systemctl restart chronyd (Restart chronyd service to make the changes effective)

chronyc sources -v (Check again chronyd sources and now you will find NTP Server – ipaserver.example.com on the list)

timedatectl (Verify the output and NTP synchronised must be yes)

Note – It can take sometimes for synchronisation and after server machine will be synchronised with NTP server , you will see '*' sign indicating server machine which is client to NTP server configured on IPA Server is in sync with NTP Server.

'^' sign indicates source is server.

'=' sign indicates source is peer.

2. Configure server and client as peer to each other.

Commands: (On server.example.com)

yum install chrony (To install chrony Service, it will be pre-installed but in case you need to install this)

systemctl start chronyd (To start Service)

systemctl enable chronyd (To enable chronyd service)

systemctl status chronyd (To check the status of chronyd)

chronyc sources -v (Check the stratum value for already configured NTP Server)

vim /etc/chrony.conf (To configure server machine as NTP peer to client Machine)

peer client.example.com (Use peer directive to define NTP peer, iburst can not be used with peer directive)

:wq

systemctl restart chronyd (Restart chronyd service to make the changes effective)

chronyc sources –v (Check if you see NTP peer in chrony sources list)

'^' sign indicates source is server.

'=' sign indicates source is peer.

'?' means unreachable , it will take time to sync with peer

Note – Machines using NTP server with same stratum value can only be defined as NTP Peer to each other)

Commands: (On client.example.com)

yum install chrony (To install chronyd Service, it will be pre-installed but in case you need to install this)

systemctl start chronyd (To start Service)

systemctl enable chronyd (To enable chronyd service)

systemctl status chronyd (To check the status of chronyd)

chronyc sources -v (Check the stratum value for already configured NTP Server)

vim /etc/chrony.conf (To configure client machine as NTP peer to Server Machine)

peer server.example.com (Use peer directive to define NTP peer, iburst can not be used with peer directive)

:wq

systemctl restart chronyd (Restart chronyd service to make the changes effective)

chronyc sources –v (Check if you see NTP peer in chronyd sources list)

'^' sign indicates source is server.

'=' sign indicates source is peer.

'?' means unreachable , it will take time to sync with peer

Note – Machines using NTP server with same stratum value can only be defined as NTP Peer to each other)

3. Check with command chronyc sources ,sources used for time sync.

Commands: (On server.example.com and client.example.com)

chronyc sources -v **(To check chronyc sources which includes both NTP Server and Peers)**

'^' sign indicates source is server.

'=' sign indicates source is peer.

'?' means unreachable , it will take time to sync with peer

4. Configure server machine as NTP server to **client2.example.com**.

Commands: (On server.example.com)

yum install chrony (To install chrony Service, it will be pre-installed but in case you need to install this)

systemctl start chronyd (To start Service)

systemctl enable chronyd (To enable chronyd service)

systemctl status chronyd (To check the status of chronyd)

vim /etc/chrony.conf (To configure server machine as NTP Server to client2 Machine)

allow 192.168.122.0/24 (To allow 192.168.122.0/24 hosts to use the NTP service configured on Server Machine)

:wq

systemctl restart chronyd (Restart chronyd service to make the changes effective)

firewall-cmd --add-service=ntp --permanent (To configure firewall to accept inbound ntp traffic)

firewall-cmd --reload (To reload the firewall to make the changes effective)

Commands: (On client2.example.com)

yum install chrony (To install chrony Service, it will be pre-installed but in case you need to install this)

systemctl start chronyd (To start Service)

systemctl enable chronyd (To enable chronyd service)

systemctl status chronyd (To check the status of chronyd)

chronyc sources -v (To check if chronyd sources is already configured otherwise list will be empty)

vim /etc/chrony.conf (To configure client2 machine as NTP client to Server Machine)

server server.example.com iburst (Use server directive to define NTP server, iburst can be used to make initial synchronisation faster)

:wq

systemctl restart chronyd (Restart chronyd service to make the changes effective)

chronyc sources -v (Check again chronyd sources and now you will find NTP Server – server.example.com on the list)

'^' sign indicates source is server.

'=' sign indicates source is peer.

'?' means unreachable , it will take time to sync with peer