# SOP for configuring ntp client with Authentication on Linux Systems

1. Add following entries in hosts file

   172.28.124.123  ntp-appliance-colo1

   172.28.124.124 ntp-appliance-colo2

2. cp -p /etc/ntp.conf /etc/ntp.conf_ORGTIME

   check for the following entries if present in /etc/ntp.conf & if not present add the entries :

   keys /etc/ntp/keys

   trustedkey 1 2

   server ntp-appliance-colo1 key 1

   server ntp-appliance-colo2 key 2  **prefer**

**NOTE:**  *Edit /etc/ntp.conf file and update it to reflect above (adding **prefer** keyword). Now, restart the service.*

Open /etc/ntp/keys file  ( permission of file should be 600 )

   And add following entries :

   1 M x5fiatBU7Fk(Jw|pty7L
   2 M xSk?Qbhr#nms0UoiFT82

***NOTE: The existing keys have to be replaced by above mentioned new keys. Ntp service restart is required after doing this change. Without these keys time synchronization will fail. You can confirm if the keys are working as per point 4.***

3. Restart  the Ntp deamon  ( service ntpd stop, service ntpd start )

4. To check the status of NTP, run following command :

   ntpq -c peers -c associations

   Output will be like below :
   :###################################################

    remote    refid     st t when poll reach   delay   offset  jitter

   ==============================================================
   +ntp-appliance-colo1 .CDMA.        1 u  32  64 377   0.446   1.446  1.180

   *ntp-appliance-colo2 .GPS.         1 u  28  64 377   0.420   2.436  0.986

   ind assID status  conf reach auth condition  last_event cnt

1 58938  f414   yes   yes   `ok`   candidat   reachable   1

2 58939  f614   yes   yes   `ok`   sys.peer   reachable   1

###############################################################

And confirm that "auth" shows  "ok".

*Note: Make sure firewall access exists between client and NTP device on UDP 123 port.*

For any queries or support, please contact:

| SNo | Name | Landline | Extension |
|-----|------|----------|-----------|
| 1 | Mr. Avadhut Gharat | +91 22 26598100 | 21027 |
| 2 | Mr. Himanshu Sharma | +91 22 26598100 | 21025 |
| 3 | Colocation Support Team | +91 22 26598100 | 21200 |