វិទ្យាស្ថានបច្ចេកវិទ្យាកម្ពុជា

INSTITUTE OF TECHNOLOY OF CAMBODIA

ដេប៉ាតឺម៉ង់ទេពកោសល្យព័ត៌មានវិទ្យានិងទំនាក់ទំនង

Department of Information and ommunication

System Administration – Prof.Heng Rathpisey

Lab 02

Prepare by:

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2023 - 2024

```
  GNU nano 4.8                          /etc/ntp.conf
# Leap seconds definition provided by tzdata
leapfile /usr/share/zoneinfo/leap-seconds.list

# Enable this if you want statistics to be logged.
#statsdir /var/log/ntpstats/

statistics loopstats peerstats clockstats
filegen loopstats file loopstats type day enable
filegen peerstats file peerstats type day enable
filegen clockstats file clockstats type day enable

# Specify one or more NTP servers.

# Use servers from the NTP Pool Project. Approved by Ubuntu Technical Board
# on 2011-02-08 (LP: #104525). See http://www.pool.ntp.org/join.html for
# more information.
server 0.asia.pool.ntp.org
server 1.asia.pool.ntp.org
server 2.asia.pool.ntp.org
server 3.asia.pool.ntp.org

# Use Ubuntu's ntp server as a fallback.
pool ntp.ubuntu.com

^G Get Help    ^O Write Out   ^W Where Is    ^K Cut Text    ^J Justify     ^C Cur Pos     M-U Undo
^X Exit        ^R Read File   ^\ Replace     ^U Paste Text  ^T To Spell    ^_ Go To Line  M-E Redo
```

```
vendara@vendara:~$ sudo systemctl status ntp
● ntp.service - Network Time Service
     Loaded: loaded (/lib/systemd/system/ntp.service; enabled; vendor preset: enabled)
     Active: active (running) since Thu 2024-06-06 07:50:39 UTC; 43s ago
       Docs: man:ntpd(8)
    Process: 6223 ExecStart=/usr/lib/ntp/ntp-systemd-wrapper (code=exited, status=0/SUCCESS)
   Main PID: 6251 (ntpd)
      Tasks: 2 (limit: 4556)
     Memory: 1.7M
     CGroup: /system.slice/ntp.service
             └─6251 /usr/sbin/ntpd -p /var/run/ntpd.pid -g -u 114:118

Jun 06 07:50:39 vendara ntpd[6251]: Listen normally on 6 ens33 [fe80::20c:29ff:fe2b:e6ac%2]:123
Jun 06 07:50:39 vendara ntpd[6251]: Listen normally on 7 ens37 [fe80::20c:29ff:fe2b:e6b6%3]:123
Jun 06 07:50:39 vendara ntpd[6251]: Listening on routing socket on fd #24 for interface updates
Jun 06 07:50:39 vendara ntpd[6251]: kernel reports TIME_ERROR: 0x2041: Clock Unsynchronized
Jun 06 07:50:39 vendara ntpd[6251]: kernel reports TIME_ERROR: 0x2041: Clock Unsynchronized
Jun 06 07:50:40 vendara ntpd[6251]: Soliciting pool server 185.125.190.58
Jun 06 07:50:41 vendara ntpd[6251]: Soliciting pool server 185.125.190.57
Jun 06 07:50:42 vendara ntpd[6251]: Soliciting pool server 91.189.91.157
Jun 06 07:50:43 vendara ntpd[6251]: Soliciting pool server 185.125.190.56
Jun 06 07:50:44 vendara ntpd[6251]: Soliciting pool server 2620:2d:4000:1::3f
vendara@vendara:~$
```

```
  GNU nano 4.8                                    /etc/default/isc-dhcp-s
# Defaults for isc-dhcp-server (sourced by /etc/init.d/isc-dhcp-server)

# Path to dhcpd's config file (default: /etc/dhcp/dhcpd.conf).
#DHCPDv4_CONF=/etc/dhcp/dhcpd.conf
#DHCPDv6_CONF=/etc/dhcp/dhcpd6.conf

# Path to dhcpd's PID file (default: /var/run/dhcpd.pid).
#DHCPDv4_PID=/var/run/dhcpd.pid
#DHCPDv6_PID=/var/run/dhcpd6.pid

# Additional options to start dhcpd with.
#       Don't use options -cf or -pf here; use DHCPD_CONF/ DHCPD_PID instead
#OPTIONS=""

# On what interfaces should the DHCP server (dhcpd) serve DHCP requests?
#       Separate multiple interfaces with spaces, e.g. "eth0 eth1".
INTERFACESv4="ens37"
INTERFACESv6=""
```

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```
vendara@vendara:~$ sudo systemctl status isc-dhcp-server
● isc-dhcp-server.service - ISC DHCP IPv4 server
     Loaded: loaded (/lib/systemd/system/isc-dhcp-server.service; enabled; vendor preset: enabled)
     Active: active (running) since Thu 2024-06-06 07:58:22 UTC; 21s ago
       Docs: man:dhcpd(8)
   Main PID: 7108 (dhcpd)
      Tasks: 4 (limit: 4556)
     Memory: 4.8M
     CGroup: /system.slice/isc-dhcp-server.service
             └─7108 dhcpd -user dhcpd -group dhcpd -f -4 -pf /run/dhcp-server/dhcpd.pid -cf /etc/dhcp/dhcpd.conf ens37

Jun 06 07:58:22 vendara dhcpd[7108]: PID file: /run/dhcp-server/dhcpd.pid
Jun 06 07:58:22 vendara dhcpd[7108]: Wrote 0 leases to leases file.
Jun 06 07:58:22 vendara sh[7108]: Wrote 0 leases to leases file.
Jun 06 07:58:22 vendara dhcpd[7108]: Listening on LPF/ens37/00:0c:29:2b:e6:b6/192.168.11.0/24
Jun 06 07:58:22 vendara sh[7108]: Listening on LPF/ens37/00:0c:29:2b:e6:b6/192.168.11.0/24
Jun 06 07:58:22 vendara sh[7108]: Sending on   LPF/ens37/00:0c:29:2b:e6:b6/192.168.11.0/24
Jun 06 07:58:22 vendara sh[7108]: Sending on   Socket/fallback/fallback-net
Jun 06 07:58:22 vendara dhcpd[7108]: Sending on   LPF/ens37/00:0c:29:2b:e6:b6/192.168.11.0/24
Jun 06 07:58:22 vendara dhcpd[7108]: Sending on   Socket/fallback/fallback-net
Jun 06 07:58:22 vendara dhcpd[7108]: Server starting service.
vendara@vendara:~$
```

Network

Wired   +

Profile 1 ✓   ⚙

                    IPv4 Address 192.168.11.100
                    IPv6 Address fe80::4820:91e8:6983:56f9
                 Hardware Address 00:0C:29:5F:0D:AE
                    Default Route 192.168.11.10
                             DNS 8.8.8.8

Profile 2   ⚙