DHCP

— *2017/01/13 13:06*

RHEL / CentOS

```
[root@pxe ~]# yum install dhcp dhcp-commo
```

Debian / Ubuntu

```
[root@pxe ~]# yum install dhcp dhcp-commo
```

```
# dhcpd.conf
#

allow booting;
allow bootp;
option option-128 code 128 = string;
option option-129 code 129 = text;

option domain-name-servers 8.8.8.8, 168.126.63.1;
default-lease-time 600;
max-lease-time 7200;
authoritative;
log-facility local7;

subnet 192.168.222.0 netmask 255.255.255.0 {
  range dynamic-bootp 192.168.222.101 192.168.222.200;
  next-server 192.168.222.254;
  filename "pxelinux.0";
}
```

```
ddns-update-style none ;
// DDNS        DHCP

ad-hoc : DHCP  Failover                DDNS
DHCP 2.x       ad-hoc                  DDNS

interim : DHCP  Failover                      DDNS
DHCP 3.x       interim           DDNS
```

```
none : DHCP  DNS                      Only DHCP

default-lease-time 10800 ; //DHCP   IP
max-lease-time 32400 ; //DHCP   IP
authoritative ;
//IP              DHCP Server              IP
DHCP Server  DHCPNAK Message

log-facility local7 ;
//syslogd           log        (Man Page    )

shared-network "NDOCS-NET" {
    //shared-network       DHCP                       Subnet            IP

                Interface[NIC]              Subnet

           ::          shared-network "NDOCS-NET" {        DHCP
     Subnet                "NDOCS-NET"
     shared-network ["              " ]
     DHCP                   {           }
     dhcpd_interface = "hme0" ;
     //DHCP          NIC                  ::
     dhcpd_interface = "hme0" ;         DHCP          NIC  hme0        NIC

                dhcpd_interface = [ NIC ]
     DHCP          NIC
     subnet 58.72.95.128 netmask 255.255.255.128 {
         range 58.72.95.210 58.72.95.220 ;
         option domain-name "ndocs.com" ;
         option domain-name-servers 58.92.95.222 ;
         option routers 58.72.95.129 ;
     option broadcast-address 58.72.95.255 ; }
     subnet 61.40.66.64 netmask 255.255.255.192 {
         range dynamic-bootp 61.40.66.77 61.40.66.87 ;
         option domain-name-servers ns.ndocs.com ;
         option routers 61.40.66.100 ;
     option broadcast-address 61.40.66.127 ; }
     //DHCP    61.40.65.64 / 255.255.255.192 Subnet
     61.40.65.77 ~ 87 IP        BOOTP
     DHCP    BOOTP              DHCP                 inetd    bootp

     subnet 192.168.102.0 netmask 255.255.255.0 {
         range dynamic-bootp 192.168.102.2 192.168.102.100 ;
         option domain-name-servers 203.248.252.2 ;
         option routers 192.168.102.254 ;
     option broadcast-address 192.168.102.255 ; }
     //DHCP    192.168.102.0 / 255.255.255.0 Subnet  192.168.102.2~ 100
     IP       BOOTP
     subnet 203.248.252.0 netmask 255.255.255.128 {
         range 203.248.252.10 203.248.252.120 ;
         option domain-name-servers 203.248.252.70 ;
```

```
            option routers 203.248.252.100 ;
            option broadcast-address 203.248.252.127 ;
            default-lease-time 600 ;
        max-lease-time 7200 ; }
        //DHCP    203.248.252.0 / 255.255.255.128 Subnet
        203.248.252.10 ~ 120 IP
        class "foo" {
        match if substring (option vendor-class-identifier, 0, 4) = "SUNW";
}
        subnet 10.17.224.0 netmask 255.255.255.0 {
        option routers gw.ndocs.com ; }
        subnet 10.0.29.0 netmask 255.255.255.0 {
        option routers gw1.ndocs.com ; }
        pool {
            allow members of "foo" ;
        range 10.17.224.10 10.17.224.250 ; }
        pool {
            deny members of "foo";
        range 10.0.29.10 10.0.29.230 ; }
        //DHCP     "SUNW"                    Hardware   DHCP
                    IP        10.12.224.10 ~ 250 IP              "foo"
Class
        "SUNW"                         DHCP                    IP
        10.0.25.10 ~ 230 IP
        //class         DHCP    IP                DHCP            Class

        class "foo" { match if substring (option vendor-class-identifier,
0, 4) = "SUNW"; }
        DHCP     "SUNW"                    Hardware   DHCP
"foo"
        Class
        class "[Class]" {match if substring (option vendor-class-
identifier,[     ])="[     ]";}

        //pool       class                                  ::
        pool { allow members of "foo" ; range 10.17.224.10 10.17.224.250 ; }
          Class
          foo class                            DHCP           IP
        10.17.224.10 ~ 250 IP
        pool { allow members of "[Class]" ; range [IP        ] ; }
        //pool { deny members of "foo" ; range 10.0.29.10 10.0.29.230 ; }
        Class
          foo class                            DHCP           IP       10.0.29.10
~
        230 IP                              pool { deny members of "[Class]"
; range [IP
            ] ; }
        DHCP Server    Class           DHCP Client          DHCP Server

        ISC-DHCP              .     DHCP Client  DHCP Agent  ISC-DHCP  DHCP
        Agent          DHCP Agent              DHCP Server    Class
    .
```

```
        group "one" {
            subnet 192.168.1.0 netmask 255.255.255.0 {
                range 192.168.1.110 192.168.1.250 ;
                option routers 192.168.1.254 ;
                option subnet-mask 255.255.255.0 ;
                option domain-name "blanco.net" ;
                option domain-name-servers 192.168.1.1 ;
            option broadcast-address 192.168.1.255 ; }
        }
        //group        DHCP      IP                      DHCP
  ::
            group "one" { subnet , netmask, range, option routers, option
subnet-mask, .. }
            DHCP      IP                      DHCP              192.168.1.110 ~ 250 IP

             DHCP              "one"
        group "[      ]" { subnet , netmask, range, option routers, .. }

        host windowsxp { <--
            hardware ethernet 00:07:e9:06:85:07 ;
            fixed-address 192.168.102.50 ;
        option host-name "windowsxp.ndocs.com" ; }
        host linuxboot {
            hardware ethernet 0:0:c0:5d:bd:95 ;
            server-name "linux.ndocs.com" ;
            filename "/tmp/vmunix.boot" ;
        }
    }
    //BOOTP          /tmp                    vmunix.boot Kernel
    Booting
    //DHCP  BOOTP            DHCP
    Booing          Disk              Booting       Kernel  BOOTP

        tftp Daemon
} //
```