

DHCP Server Configuration Sample for Large Networks

Sample Configuration (ISC DHCP Server)

```
# /etc/dhcp/dhcpd.conf
# Global parameters
default-lease-time 600;
max-lease-time 7200;
authoritative;
# Option Definitions
option domain-name "example.com";
option domain-name-servers 10.10.10.10, 10.10.10.11;
option routers 10.10.20.1;
# Large range for large campus/office network
subnet 10.10.20.0 netmask 255.255.255.0 {
    range 10.10.20.100 10.10.20.250;
    option subnet-mask 255.255.255.0;
    option broadcast-address 10.10.20.255;
    option domain-name-servers 10.10.10.10, 10.10.10.11;
    option routers 10.10.20.1;
}
# VLAN 2 - HR department
subnet 10.10.30.0 netmask 255.255.255.0 {
    range 10.10.30.50 10.10.30.200;
    option subnet-mask 255.255.255.0;
    option broadcast-address 10.10.30.255;
    option domain-name-servers 10.10.10.10, 10.10.10.11;
    option routers 10.10.30.1;
}
# Reserved IP for a specific device
host printer01 {
    hardware ethernet 00:0C:29:99:88:77;
    fixed-address 10.10.20.15;
}
```

Configuration Notes

- **Multiple subnets** support different network segments.
- **Option parameters** (DNS, router, etc.) can be customized per subnet.
- **Static assignments** for important devices via the host stanza.
- Adjust range and subnet settings for your site's IP plan.
- Place this sample in your /etc/dhcp/dhcpd.conf or equivalent config path.