

DHCP and IPv6

Networks Administration

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THE ROLE OF DHCP IN IPv6

- ▶ There are a couple of options for network autoconfiguration in an IPv6 setting.
- ▶ DHCP is one option, and it works in basically the same way as it does in IPv4.
- ▶ Pros (relative to other IPv6 configuration options):
 - ▶ We can exercise explicit control over how hosts are configured.
 - ▶ We can distribute more items of information than other options allow.
- ▶ Cons:
 - ▶ We must explicitly configure and manage it (But no more than we have to for IPv4).

EXAMPLE CONFIGURATION

```
default-lease-time 600;
max-lease-time 7200;

subnet6 2001:db8:0:1::/64 {
    # Range for clients
    range6 2001:db8:0:1::129 2001:db8:0:1::254;
    # Additional options
    option dhcp6.name-servers fec0:0:0:1::1;
    option dhcp6.domain-search "domain.example";

    # Example for a fixed host address
    host specialclient {
        host-identifier option dhcp6.client-id 00:01:00:01:4a:1f
        fixed-address6 2001:db8:0:1::127;
    }
}
```

COMBINING IPv4 AND IPv6

- ▶ We can run two instances of `dhcpcd` side-by-side on the same server.
- ▶ Create two configuration files, e.g. `/etc/dhcpcd.conf` and `/etc/dhcpcd6.conf`
- ▶ Start the IPv4 version normally.
- ▶ Start the IPv6 version with the `-6` option and direct it to use the alternate configuration file.

Questions?