

Configuring Address-Assignment Pools

The address-assignment pool feature supports subscriber management functionality by enabling you to create address pools that can be shared by different client applications.



NOTE: You cannot use address-assignment pools with the J-series DHCP server. Also, address-assignment pools are completely separate from L2TP address pools, which you create with the **address-pool** statement at the **[edit access]** hierarchy level, and NAT pools, which you create with the **pool** statement at the **[edit services nat]** hierarchy level.

To configure an address-assignment pool, include the **address-assignment** statement at the **[edit access]** hierarchy level. Include the **dhcp-attributes** statement to enable DHCP support and include configuration options in the address lease for the address-assignment pool.

```
[edit access]
address-assignment {
  pool pool-name family inet {
    network address-or-prefix</subnet-mask>;
    range range-name {
      low lower-limit high upper-limit;
    }
    host hostname {
      hardware-address mac-address;
      ip-address ip-address;
    }
    dhcp-attributes {
      [protocol-specific attributes]
    }
  }
}
```

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Configuring an Address-Assignment Pool Name and Network Address

To configure an address-assignment pool, include the following mandatory statements at the **[edit access]** hierarchy level:

```
[edit access]
address-assignment {
  pool pool-name family inet {
    network address-or-prefix</subnet-mask>;
```

```
}
```

The address-assignment pool definition must include the pool name and the **network** statement. The **network** statement specifies the network address and prefix length for the addresses in the pool.

The following is an example of an address-assignment pool definition:

```
[edit access]
address-assignment {
  pool isp_1 family inet {
    network 192.168.0.0/16;
```

Configuring a Named Address Range for Dynamic Address Assignment

You can optionally configure multiple named subsets of addresses within an address-assignment pool. During dynamic address assignment, a client can be assigned an address from a specific named range. To create a named range, use the **range** statement at the **[edit access address-assignment pool *pool-name* family inet]** hierarchy level to identify the range and configure the lower and upper address boundaries of the range:

```
  range name {
    low lower-limit high upper-limit;
  }
```

Configuring Static Address Assignment

You can optionally create a static binding by reserving a specific address for a particular client. When you reserve an address, that address is removed from the address-assignment pool so that it is not assigned to another client. To configure a static address assignment, use the **host** statement at the **[edit access address-assignment pool *pool-name* family inet]** hierarchy level to identify the client and create a binding between the client MAC address and the assigned IP address:

```
  host hostname {
    hardware-address mac-address;
    ip-address ip-address;
  }
```

The following is an example of a static binding configuration. This configuration specifies that the client with MAC address 90:00:00:01:00:01 is always assigned IP address 192.168.44.12.

```
  host svale6.boston.net {
    hardware-address 90:00:00:01:00:01;
    ip-address 192.168.44.12;
  }
```

Configuring DHCP Client-Specific Attributes

Use the address-assignment pool feature to include application-specific attributes when clients obtain an address. The client application, such as DHCP, uses the

attributes to determine how addresses are assigned, and to also provide optional application-specific characteristics to the client. For example, the DHCP application might specify that a client that matches certain prerequisite information is dynamically assigned an address from a particular named range. Based on which named range is used, DHCP specifies additional DHCP attributes such as the boot-file that the client uses, the lease grace period, and the maximum lease time.

Use the `dhcp-attributes` statement at the `[edit access address-assignment pool pool-name family inet]` hierarchy level to configure client-specific attributes for DHCP clients. DHCP Attributes Table describes the DHCP attributes.

```
dhcp-attributes {
  option-match {
    option-82 {
      circuit-id value range named-range;
      remote-id value range named-range;
    }
  }
  boot-file filename;
  boot-server (address | hostname);
  domain-name domain-name;
  grace-period seconds;
  maximum-lease-time seconds;
  name-server [ server-list ];
  netbios-node-type node-type;
  option {
    [ (id-number option-type option-value)
      (id-number array option-type option-value) ];
  }
  router [ router-list ];
  tftp-server address;
  wins-server [ server-list ];
}
```

- Related Topics**
- DHCP Attributes Table
 - License Requirements for Address-Assignment Pools
 - Example: Configuring an Address-Assignment Pool

