

DHCP Overview Information

The most important configuration parameter carried by DHCP is the IP address. A computer must be initially assigned a specific IP address that is appropriate to the network to which the computer is attached and that is not assigned to any other computer on that network. If you move a computer to a new network, it must be assigned a new IP address for that new network. You can use DHCP to manage these assignments automatically.

An IP client contacts a DHCP server for configuration parameters. The DHCP server is typically centrally located and operated by the network administrator. Because the server is run by a network administrator, DHCP clients can be reliably and dynamically configured with parameters appropriate to the current network architecture.

You can configure the E Series router to support the following DHCP features:

- DHCP access model
- DHCP proxy client
- DHCP relay
- DHCP relay proxy
- DHCP local server
- DHCP external server

Session and Resource Control Software

The Session and Resource Control (SRC) software, formerly the Service Deployment System (SDX) software is a component of Juniper Networks management products. The SRC software provides a Web-based interface that allows subscribers to access services, such as the Internet, an intranet, or an extranet.

When a DHCP subscriber logs in, the SRC software can authorize the address request and select the DHCP address pool on the router from which the DHCP address is selected. The SRC software can also control the number of IP addresses that are given to a particular retailer or subscriber and control the lease time of IP addresses assigned to DHCP subscribers.

The router retrieves the DSL line rate parameters from Access Node Control Protocol (ANCP) and reports this information to the SRC software with the corresponding COPS messages. If the router cannot retrieve the DSL line rate parameters from ANCP, it retrieves the DSL information in the following ways:

- **From AAA layer**—For PPP interfaces, the router retrieves the DSL line rate parameters from the AAA layer and reports this information to the SRC software.
- **From DHCP options**—For DHCP external server and DHCP local server in equal-access mode, the router retrieves the DSL line rate parameters from DHCP options and reports this information to the SRC software. To enable the DHCP external server to receive the DHCP options if the router blocks the DHCP options

on the DHCP application, you must use the **set dhcp relay preserve-trusted-client-option** command.

Related Topics set dhcp relay preserve-trusted-client-option

Published: 2009-10-07