

The Dynamic Host Configuration Protocol

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The **Dynamic Host Configuration Protocol** (DHCP) is a client/server protocol which automatically provides an Internet protocol(IP) host with it's IP address and other configurations such as subnet mask and default gateway. A DHCP server can maintain TCP/IP settings for devices on a network, by automatically or dynamically assigning Internet Protocol (IP) addresses to the devices.

DHCP is an extension of an earlier network IP management protocol, Bootstrap Protocol (BOOTP). DHCP is more advanced, and DHCP servers can handle BOOTP client requests if any BOOTP clients remain on a network segment.

DHCP is not a routable protocol. It is limited to a specific local area network .If network administrators want a given DHCP server to provide addressing to multiple subnets on a given network, they must configure DHCP relay services on the routers DHCP requests have to cross.

DHCP minimizes configuration errors caused by manual IP address configuration, such as typographical errors, as well as address conflicts caused by a currently assigned IP address accidentally being reissued to another computer.

