

adrs = address, adrses = addresses

Dynamic Host Configuration Protocol

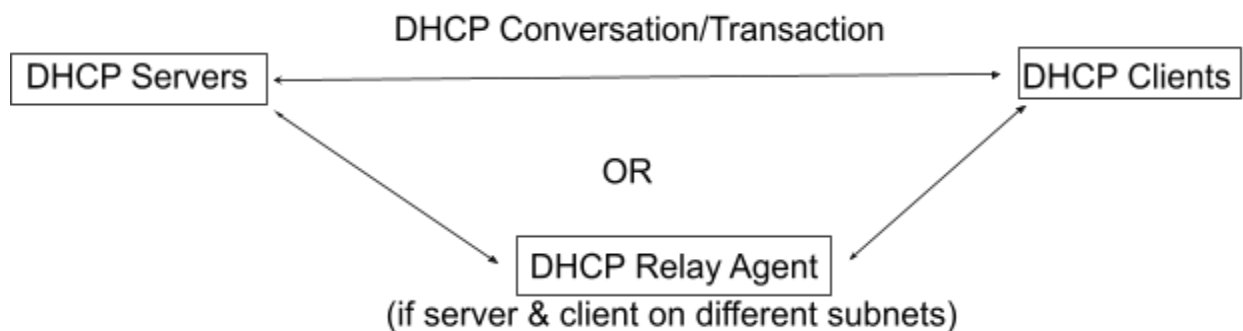
WHAT Standardised client/server network protocol for assigning IP adrses & other config info

WHY Every device on TCP/IP net needs unique unicast IP adrs. Without DHCP new devices on subnet manually configured; DHCP provides 'plug and play'. Quicker, more reliable, less config errors (e.g. adrs conflict), & helps conserve adrs space.



These dudes just got some adrses off a DHCP server

Reservations are DHCP's static adrses. Handy when device is not intended to move e.g. printers & routers. Done by associating a MAC address to an IP adrs



DHCP Conversation

1. **Discover:** New net device asks router to ask DHCP server(s) for IP adrs

2. **Offer:** If server(s) have available address in their adrs scope, they/it sends response containing IP adrs, lease time for adrs, default gateway adrs, and subnet mask.

Leases mean we don't have to rely on devices to vacate their adrs. In a café we'd use 1 day leases so adrses are quickly recycld, and in an office we'd use 100 day leases so there's not loads of net traffic from reallocations. Leases usually renewed at 50% of lease time and given same adrs again.