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Network Address Translation (NAT) is often used to translate from private IPv4 address to public IPv4 addresses allowing more devices to communicate on the internet. One popular form of NAT is Port Address Translation (PAT). PAT allows multiple devices to communicate on the internet under one public IPv4 address. There are four main types of addresses: Inside Local, Inside Global, Outside Local, and Outside Global. Inside Local addresses are private addresses that are seen as host addresses from inside the LAN. Inside Global addresses are the source addresses seen by devices not in the LAN. Outside Local addresses are the addresses of internet hosts as seen from inside the LAN. Outside Global addresses are the addresses of the internet hosts as seen from outside the LAN. PAT assigns a port to each separate host within the LAN while using the same public address. This allows many devices to communicate under the same public address - using PAT each public address can support up to 4,000 private hosts. A private address range of 192.168.15.2 - 192.168.15.5 could communicate in the internet under the public address of 10.12.12.16. Each address in the range would be assigned a specific port number which would match the port number on the public address. So 192.168.15.2:1 (assigned port 1 with ':1') would have the corresponding public address 10.12.12.16:1 while 192.168.15.3:2 would be 10.12.12.16:2 and so on so forth. This allows numerous devices to connect to the internet under a single public IP address. Overall, PAT is extremely effective in conserving public IPv4 addresses and increases the flexibility of connections.