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On April 15, 2011, APNIC ran out of IPv4 addresses to distribute. APNIC was the first regional Internet Registry to run out of IPv4 addresses. Though this occurred in 2011, industry professionals predicted this to occur especially with the exponential growth of the internet. In response to that growing fear of lack of IPv4 addresses for internet devices the industry developed version 6 of the Internet Protocol (IPv6) and also developed private addresses for a way for devices that are not IPv6 compatible to still communicate through and to the internet. Network Address Translation is the primary method of translating one type of address to another. NAT64 facilitates communication between IPv6 and IPv4 networks. NAT is also used to convert private addresses to global addresses. There are 3 main forms of NAT used: Static, Dynamic, and PAT. Static NAT statically pairs up a local IP address to a global IP address. Dynamic NAT dynamically pairs a local IP to a global IP through the use of a server providing automatic pairing. And PAT, the most commonly used, pairs multiple local IP to a global IP with the use of ports. PAT has many benefits especially allowing multiple devices to work under one public IP address. Overall, NAT has many uses from IPv6 to IPv4 translation as well as public to private address translation.