IPv4-compatible addresses

IPv4-compatible addresses, derived from IPv4 public addresses, provide a method for connecting IPv6 hosts or sites over the existing IPv4 Internet infrastructure. IPv6 traffic, when used with IPv4-compatible addresses, does not require the addition of IPv6 routers. Its traffic is encapsulated with an IPv4 header.

The automatic tunneling mechanism uses "IPv4-compatible" address. An IPv4-compatible address is identified by an all-zeros 96-bit prefix, and holds an IPv4 address in the low-order 32-bits. IPv4-compatible addresses are structured as follows:

0:0:0:0:0:0	IPv4 address
96 bits	32 bits

Therefore, an IPv4 address of **10.67.0.2** will be written as **::10.67.0.2** or **0:0:0:0:0:0:10.67.0.2** or **::0A43:0002** (with 10[decimal] = 0A[hexa] ; 67[decimal] = 43[hexa] ; 0[hexa] = 0[decimal] ; 2[hexa] = 2[decimal])