IPv4 Address (Part 1)

IP Addresses

1. An IPv4 address is a 32-bit address that uniquely and universally defines the connection of a device (for example, a computer or a router) to the internet
2. An IPv4 address is 32 bits long
3. Two devices on the internet can never have the same address at the same time
4. The address space of IPv4 is 2^32 or 4,294,967,296 (more than 4 billion)

Notations

1. There are two prevalent notations to show an IPv4 address: binary and dottedt decimal notation
2. Binary: 01110101 10010101 00011101 00000010
3. Dotted-Decimal notation: 117.149.29.2
4. Notation of IPv4 address: a.b.c.d (only 4 octets)
5. 0 <= a,b,c,d <= 255
6. 0.0.0.0 to 255.255.255.255