Purpose of an IPv4 Address

The IPv4 Address

*Host needs this to*

Participate on the internet and almost all LANs today

*Its a*

**Logical network address that identifies a particular host**

It must be properly configured and unique within the LAN, for local communication

This address is assigned to the network interface connection for a host

This connection is usually a network interface card (NIC) installed in the device

Examples of end-user devices with network interfaces include workstations, servers, network printers, and IP phones

Some servers can have more than one NIC and each of these hos its own IPv4 address

**Every packet sent across the internet has a source and destination IPv4 address**

This information is required by networking devices to ensure the information gets to the destination and any replies are returned to the source

Octets and dotted-decimal notation

IPv4 addresses are 32 bits in length 11010001101001011100100000000001

Notice how difficult this is to read

For this the 32 bits are grouped into 4 8-bit bytes called octets

11010001.10100101.11001000.00000001

Its still difficult to read. that’s why we convert each octet into its decimal value,

Separated by a “.”

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