



Mawlana Bhashani Science and Technology University
Santosh, Tangail-1902.

Lab Report

Department of Information and Communication
Technology

Report No: 01

Report Name: Laboratory on Linux Basics.

Course Title: Network Planning and Design Lab.

Course Code: ICT-3208

Submitted By	Submitted To
Name: S.M. Hazrat Ali ID: IT-17016 Session: 2016-17 3 rd Year 2 nd Semester Dept. of Information & Communication Technology, MBSTU.	Nazrul Islam Assistant Professor Dept. of Information & Communication Technology, MBSTU.

Theory: Because 1 byte is equal to 8 bit is most accepted standard on Internet and with 8 bits you can't write number more than 255 in binary. Binary is number system made from 0s and 1s so maximum binary 8 bit number is 11111111

To convert in to decimal

$$2^0 + 2^1 + \dots + 2^7 = 255$$

So that you can't have more than 255.

As, 255 is reserved as broadcast address so you can say that you can't have ip bigger than 254 on your system .

IP & MAC address :

IP address: For most of us who are everyday computer users, our IP addresses are provided by an Internet Service Provider (ISP), typically a cable company such as Cox Communications, Time-Warner Cable or a phone company such as AT&T. Once you set up an account with an ISP, they will automatically assign you a unique IP address.

MAC address : A MAC address is given to a network adapter when it is manufactured. It is hardwired or hard-coded onto your computer's network interface card (NIC) and is unique to it.

My laptop having this address:

IPv4 address:	192.168.0.102
IPv4 DNS servers:	192.168.0.1
Manufacturer:	Realtek Semiconductor Corp.
Description:	Realtek RTL8723BE Wireless LAN 802.11n PCI-E NIC
Driver version:	2023.70.213.2018
Physical address (MAC):	A8-A7-95-8B-0D-CB

New Interface: ip address 192.168.32.2 net mask 255.255.255.0 result is null.

