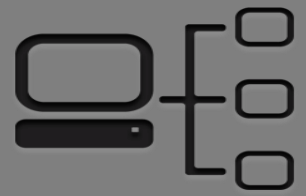
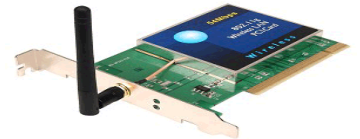


MAC Addresses

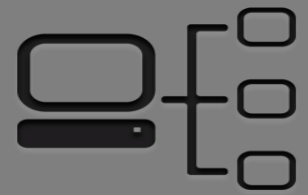


- **Media Access Control (MAC)**
 - Physical address of the network adapter card
 - OSI Layer 2 (Data Link) Layer **Address**
 - TCP/IP Layer 1 (Network Interface) Layer **Address**
- Six bytes (48 bits), Usually Represented Hexadecimal
 - First three bytes (24 bits) are assigned by the IEEE to the manufacturer
 - OUI assigned by IEEE – Organizationally Unique Identifier (ex: Dell or HP)
 - Last three bytes (24 bits) are usually assigned sequentially:
 - Allows for uniqueness; Duplications are rare.
 - **00:21:70:6f:06:f2** **00-21-70-6F-06-F2**

$2^{24} = \sim 16.7$ Million Unique Addresses



Determining Your MAC Address



```
C:\Windows\system32\cmd.exe
Microsoft Windows [Version 6.1.7601]
Copyright (c) 2009 Microsoft Corporation. All rights reserved.

C:\Users\Alton>ipconfig /all

Windows IP Configuration

Host Name . . . . . : Alton-Win7
Primary Dns Suffix . . . . . :
Node Type . . . . . : Broadcast
IP Routing Enabled. . . . . : No
WINS Proxy Enabled. . . . . : No

Wireless LAN adapter Wireless Network Connection:

Connection-specific DNS Suffix . :
Description . . . . . : 802.11n Wireless LAN Card
Physical Address. . . . . : 00-02-6F-93-FA-9D
DHCP Enabled. . . . . : Yes
Autoconfiguration Enabled . . . . : Yes
Link-local IPv6 Address . . . . . : fe80::3855:12ef:2175:1a8d%12(Preferred)
IPv4 Address. . . . . : 192.168.1.69(Preferred)
Subnet Mask . . . . . : 255.255.255.0
Lease Obtained. . . . . : Wednesday, September 14, 2011 5:47:19 PM
Lease Expires . . . . . : Wednesday, September 14, 2011 7:47:20 PM
Default Gateway . . . . . : 192.168.1.254
DHCP Server . . . . . : 192.168.1.254
DHCPv6 IAID . . . . . : 419431023
DHCPv6 Client DUID. . . . . : 00-01-00-01-14-9A-1E-73-B8-AC-6F-DF-71-4A

DNS Servers . . . . . : 192.168.1.254
NetBIOS over Tcpip. . . . . : Enabled

Ethernet adapter Local Area Connection:
```