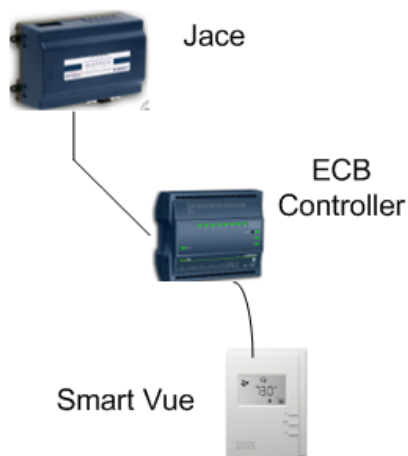


BACnet IP to MSTP Adapter install tech tip

If you are connecting the BACnet IP/MSTP Adapter to a Smart Vue

BACnet IP-MSTP

Portable IP – MSTP Adapter



Note;
Goofy wire color
Red = negative
White = Positive

17. BACnet Network Access from the Sensor

To temporarily access the BACnet MS/TP LAN for commissioning and maintenance purposes, connect a portable router to the audio plug port located on the lower edge of the EC-Smart-Vue. Wire a standard three-conductor 3.5 mm (1/8") stereo jack as shown below.

 The BACnet MS/TP router must have an electrically-isolated RS-485 port. Otherwise a ground path from the BACnet network will be made through the computer that will disrupt BACnet network communications.

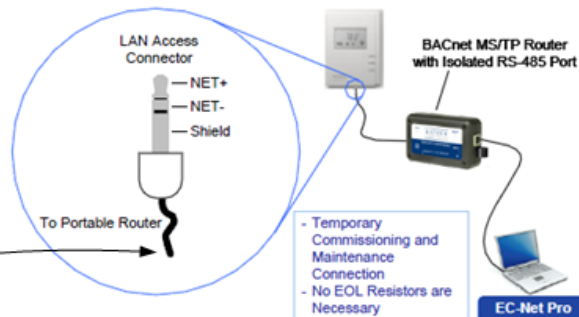


Figure 17-1: 3.5mm Stereo Jack Connection for a Portable Router

Louis Simon has received many support calls on this

16. Set the LAN Type

Set the BAC/LON jumper for the type LAN in use: BAC for a BACnet network, LON for a LonWORKS network.

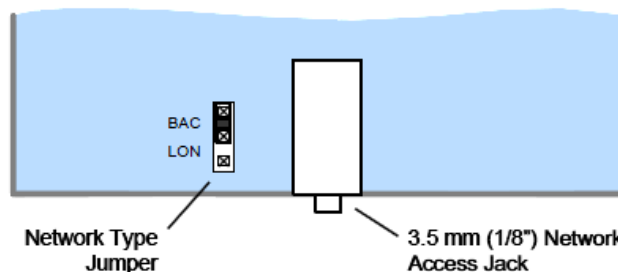


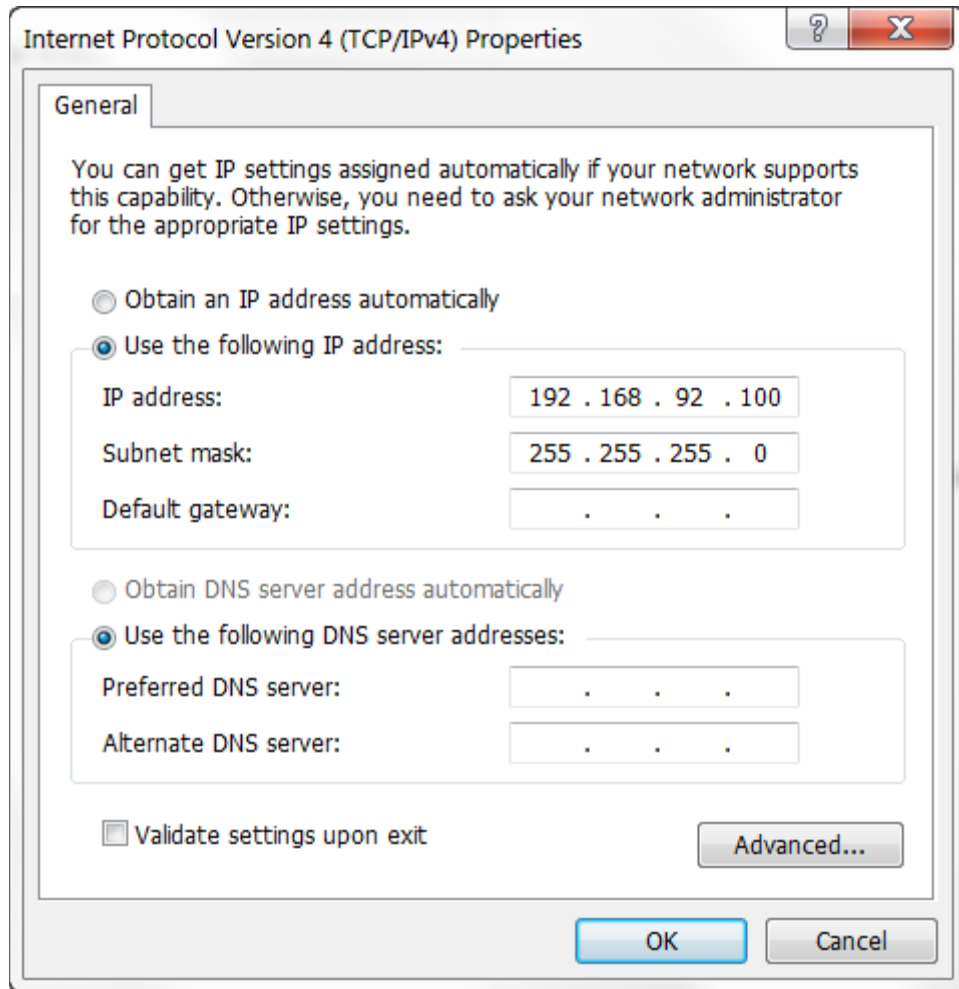
Figure 16-1: BAC/LON Jumper Set to the BAC (BACnet) Position

Setup the IP settings on your tech tool laptop

Open Network settings for your laptop

Enter manual IP address – same domain as BACnet/IP Adapter

(last octet can NOT be 68) (which is the adapter default)



Internet Protocol Version 4 (TCP/IPv4) Properties

General

You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings.

☐ Obtain an IP address automatically

☒ Use the following IP address:

IP address: 192 . 168 . 92 . 100

Subnet mask: 255 . 255 . 255 . 0

Default gateway: . . .

☐ Obtain DNS server address automatically

☒ Use the following DNS server addresses:

Preferred DNS server: . . .

Alternate DNS server: . . .

☐ Validate settings upon exit

Advanced...

OK Cancel

Open browser, enter url 192.168.92.68



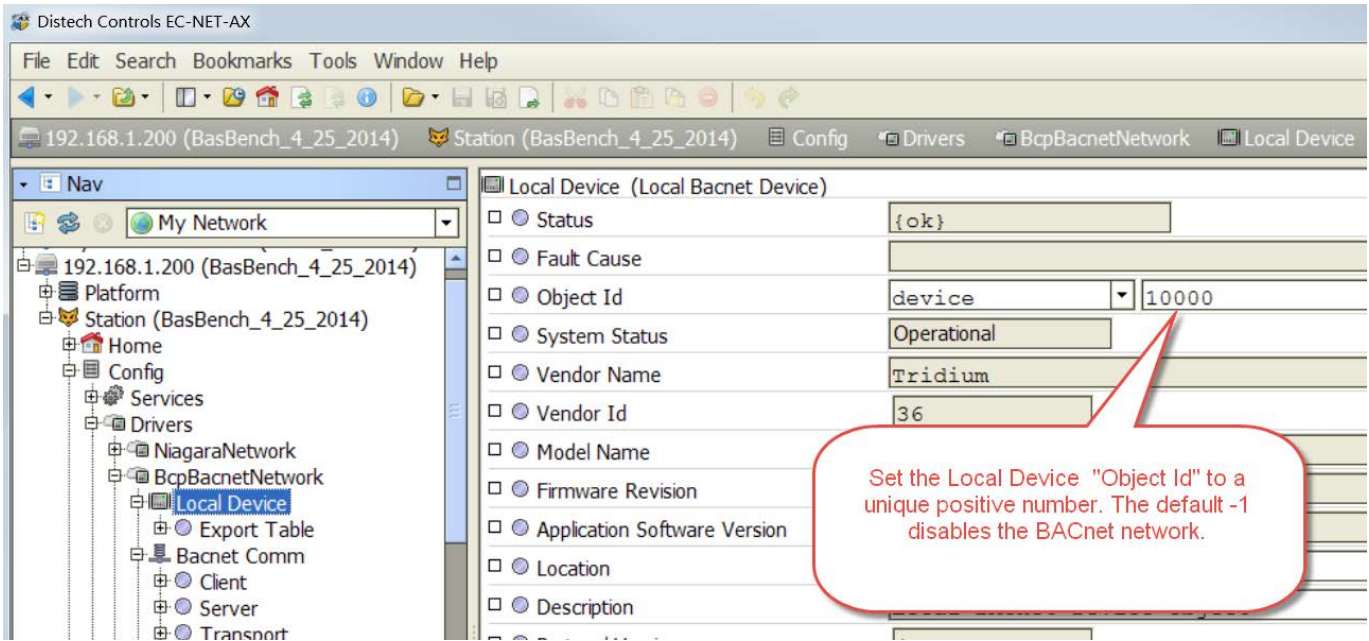
Figure 10 — Router Configuration Page with Default Values

Device instance	55001	must be unique number on the network
Ethernet Network	0	
BACnet/IP UDP Port 1	BAC0	do not modify
BACnet IP Network	1000	
IP Address	192.168.92.68	(default) IP Subnet 24
IP Gateway	192.168.92.1	
MS/TP MAC	1	set to 1
MSTP Network	1	
Baudrate	38400	
Tolerance	Lenient	

MUST REBOOT THE ADAPTER AFTER CHANGES

Setup the BACnet IP/MSTP adapter in Niagara AX

Enter the Local Device / Object ID



The screenshot shows the Distech Controls EC-NET-AX software interface. The left pane displays a tree view of the network configuration, with the 'Local Device' under the 'BcpBacnetNetwork' driver selected. The right pane shows the configuration fields for the 'Local Device (Local Bacnet Device)'. The 'Object Id' field is set to 'device' and '10000'. A red callout bubble points to the 'Object Id' field with the text: 'Set the Local Device "Object Id" to a unique positive number. The default -1 disables the BACnet network.'

Field	Value
Status	{ok}
Fault Cause	
Object Id	device 10000
System Status	Operational
Vendor Name	Tridium
Vendor Id	36
Model Name	
Firmware Revision	
Application Software Version	
Location	
Description	

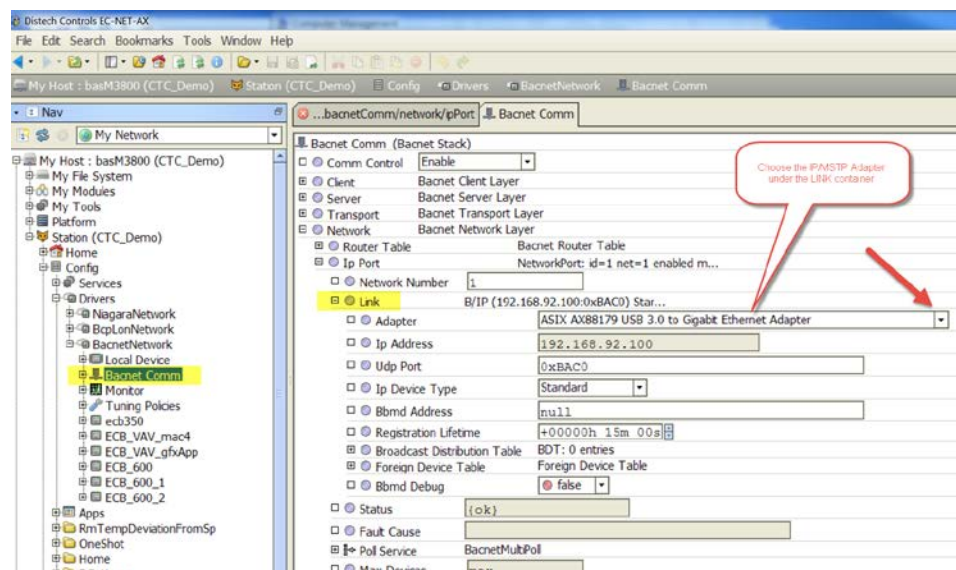
BACnet IP / MSTP Adapter direct to BACnet controller;

Must setup BACnet IP network in your laptop Host Station;

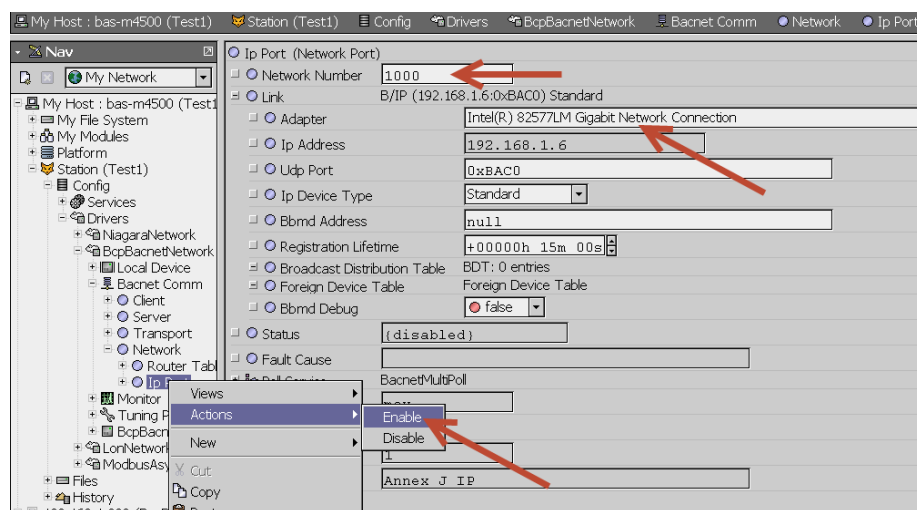
IP Port (double click) set Network Number

Link view property sheet

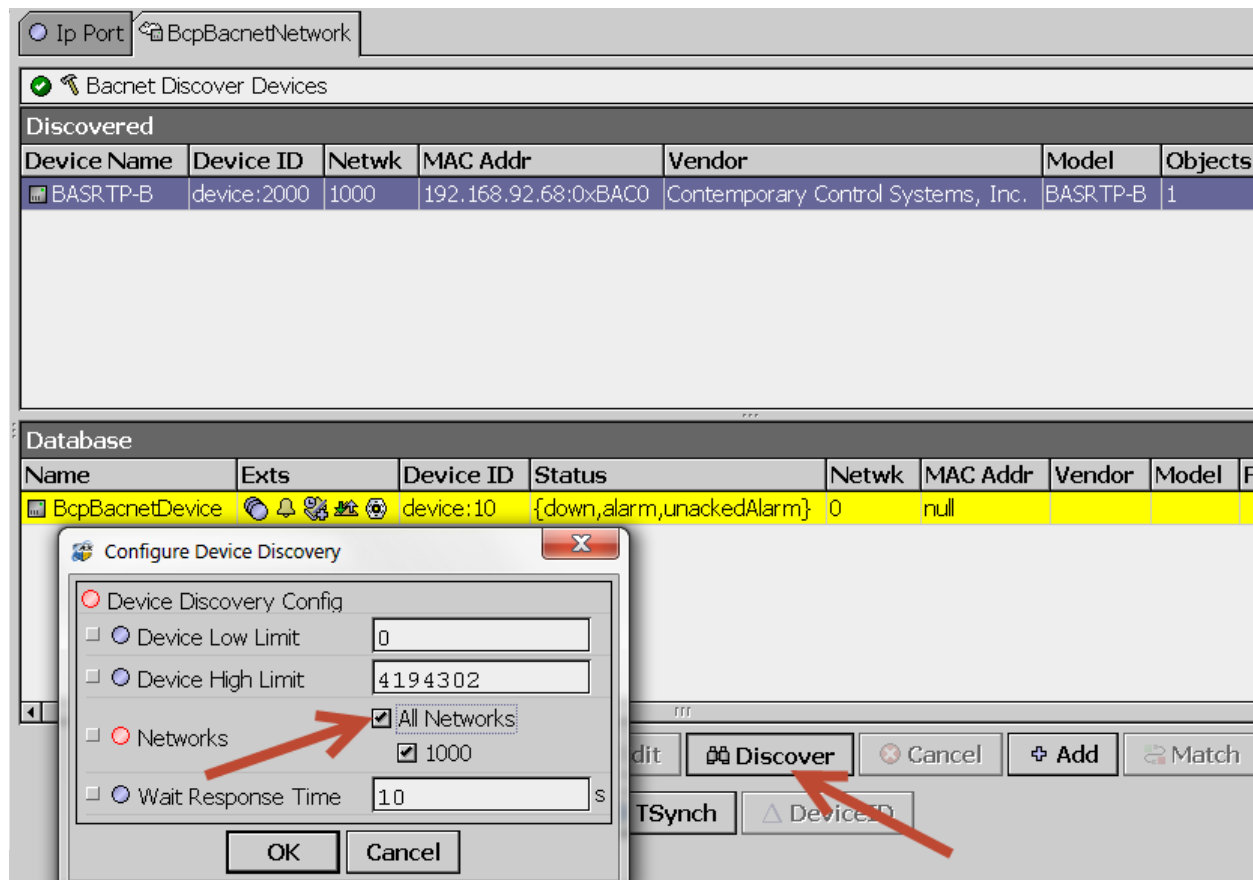
Adapter choose NIC card of your laptop



GoTo IP Port (right click) Actions Enable



Discover It's best to select All Networks



Sometimes **Debug Values** don't show up in GFX

- 1) First look at **Device ID instance** (default = 0) change to 1
- 2) PC firewall – set exception for **Port 47808**

Make sure Port 47808 is Open (not blocked)

When using the portable BACnet IP to MSTP adaptor

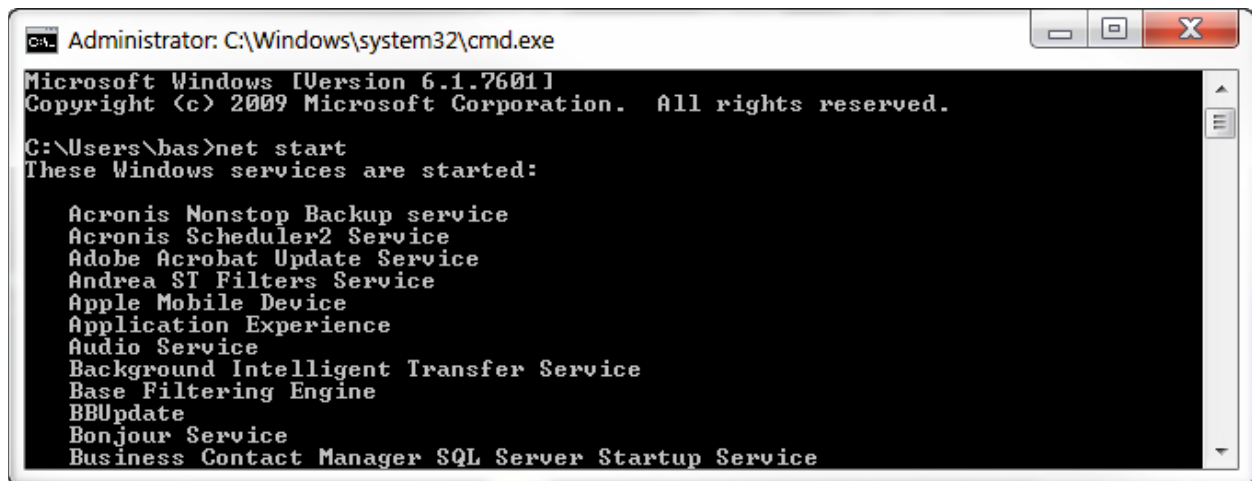
You must have an AX Station running via My Host

The station is the server for the database

Troubleshooting – if you can't discover any controllers

Need to confirm that the firewall isn't blocking the discovery process

Dos command prompt **cmd** type **net start** to see if windows firewall is running



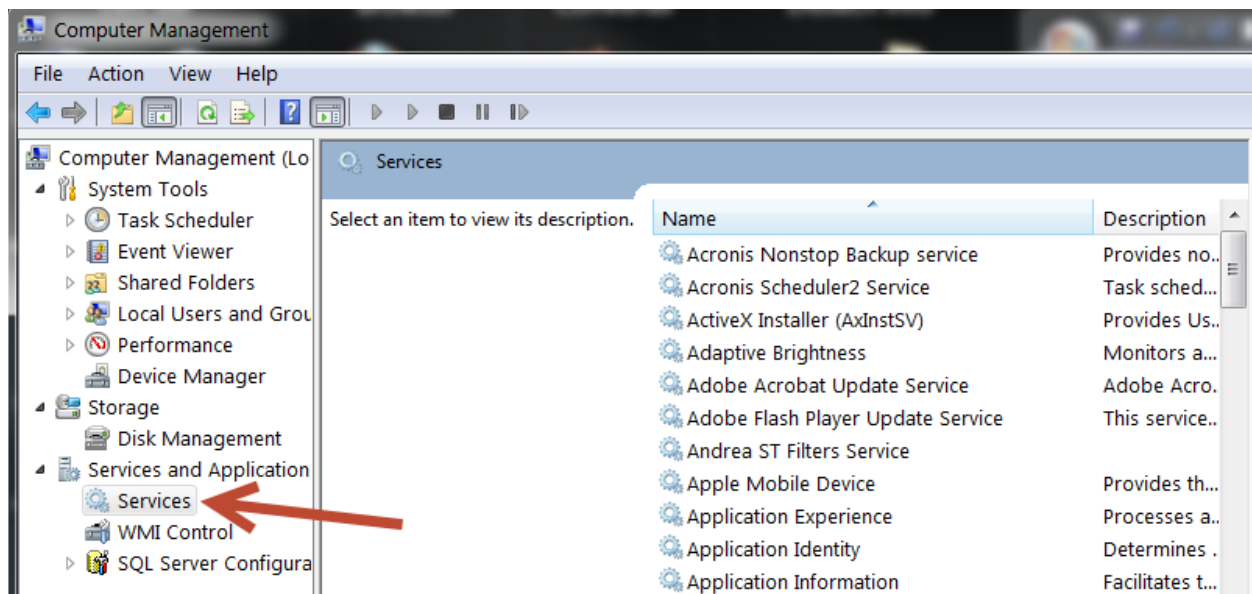
```

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

C:\Users\bas>net start
These Windows services are started:

    Acronis Nonstop Backup service
    Acronis Scheduler2 Service
    Adobe Acrobat Update Service
    Andrea ST Filters Service
    Apple Mobile Device
    Application Experience
    Audio Service
    Background Intelligent Transfer Service
    Base Filtering Engine
    BBUUpdate
    Bonjour Service
    Business Contact Manager SQL Server Startup Service
  
```

If necessary – you can shut down via services



Troubleshooting – confirm that there is not an IP address conflict

Dos command prompt **cmd**

ipconfig /all

```

Administrator: C:\Windows\system32\cmd.exe
C:\Users\bas>ipconfig /all

Windows IP Configuration

    Host Name . . . . . : bas-m4500
    Primary Dns Suffix . . . . . :
    Node Type . . . . . : Hybrid
    IP Routing Enabled. . . . . : No
    WINS Proxy Enabled. . . . . : No

Mobile Broadband adapter Mobile Broadband Connection:

    Media State . . . . . : Media disconnected
    Connection-specific DNS Suffix . . . . . :
    Description . . . . . : Dell Wireless 5620 (EU-DO-HSPA) Mobile Br
oadband Mini-Card
    Physical Address. . . . . : 00-A0-C6-00-00-00
    DHCP Enabled. . . . . : No
    Autoconfiguration Enabled . . . . . : Yes

Wireless LAN adapter Wireless Network Connection 2:

    Media State . . . . . : Media disconnected
    Connection-specific DNS Suffix . . . . . :
    Description . . . . . : Microsoft Virtual WiFi Miniport Adapter
    Physical Address. . . . . : 00-24-D7-31-3A-41
    DHCP Enabled. . . . . : Yes
    Autoconfiguration Enabled . . . . . : Yes

Wireless LAN adapter Wireless Network Connection:

    Media State . . . . . : Media disconnected
    Connection-specific DNS Suffix . . . . . :
    Description . . . . . : Intel(R) Centrino(R) Ultimate-N 6300 AGN
    Physical Address. . . . . : 00-24-D7-31-3A-40
    DHCP Enabled. . . . . : Yes
    Autoconfiguration Enabled . . . . . : Yes

Ethernet adapter Lan Connection:

    Connection-specific DNS Suffix . . . . . :
    Description . . . . . : Intel(R) 82577LM Gigabit Network Connecti
on
    Physical Address. . . . . : 00-26-B9-E3-13-CC
    DHCP Enabled. . . . . : No
    Autoconfiguration Enabled . . . . . : Yes
    Link-local IPv6 Address . . . . . : fe80::b13c:3830:89a2:eeff%10(Preferred)
    IPv4 Address. . . . . : 192.168.92.100(Preferred)
    Subnet Mask . . . . . : 255.255.255.0
    Default Gateway . . . . . :
    DHCPv6 IAID . . . . . : 234890937
    DHCPv6 Client DUID. . . . . : 00-01-00-01-13-CD-1B-06-00-26-B9-E3-13-CC

    DNS Servers . . . . . : fec0:0:0:ffff::1%1
                           fec0:0:0:ffff::2%1
                           fec0:0:0:ffff::3%1
    NetBIOS over Tcpip. . . . . : Enabled
  
```