Setup External Network Card on a 2012 Server

June 14, 2013

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Who Uses Static TCP/IP Addresses?

- Organizations that no longer use peer to peer networks and move to server client set-ups will use IP addresses that match the computer name.
- Static IP is best for name resolution such as for DNS servers, where having the machine change it's IP address at each startup would be inefficient.



Bigorganization.com

Setting Static IPs in Server 2012

To access the window to change from Dynamic Host Configuration Protocol (DHCP) to Static IP, we right click on the Network and Sharing Center icon on the right side of the Task Bar and we choose Open Network and Sharing Center from the menu.





The Network and Sharing Center Window

In the Network and Sharing Center window, we can see the Tasks listings on the left side of the dialogue box. We now pick the Change Adapter Settings hyperlink.

¥	Network and Sharing Center	_ D X	
🔄 💿 🝷 🕇 🚆 « Network and	Internet Network and Sharing Center	Search Control Panel	
Control Panel Home	View your basic network information and set up connections		
Change adapter settings	View your active networks		
Change advanced sharing settings	Network Public network	Access type: Internet Connections: 🖗 Ethernet	
	Change your networking settings		
	Set up a new connection or network Set up a broadband, dial-up, or VPN connection; or set up a router or access point.		
	Troubleshoot problems Diagnose and repair network problems,	or get troubleshooting information.	
See also			
Internet Options			
Windows Firewall			

Local Area Connection

We next double click on the Ethernet hyperlink.



The Local Area Connection Status Window

The Local Area Connection Status dialogue box gives the technician real-time data about the IPv4 connectivity, how long the link has been in progress and the speed of transmission. On the bottom of the utility, we can observe the sent and received number of Bytes.

To change from DHCP to Static IP, we double click on the Properties command button.

Ethernet Status x General Connection IPv4 Connectivity: Internet IPv6 Connectivity: No Internet access Media State: Enabled Duration: 22:42:16 100.0 Mbps Speed: Details... Activity Sent Received Bytes: 1,566,240 63,715,101 🔒 Disable 🔒 Properties Diagnose Close

Local Area Connection Properties

As highlighted in blue, we double click on the Internet Protocol Version 4 (TCP/IPv4) phrase in the connection list box.

Ethernet Properties	x		
Networking			
Connect using:			
Broadcom NetLink (TM) Gigabit Ethemet			
<u>C</u> onfigure			
This connection uses the following items:			
 Client for Microsoft Networks QoS Packet Scheduler File and Printer Sharing for Microsoft Networks Microsoft Network Adapter Multiplexor Protocol Link-Layer Topology Discovery Mapper I/O Driver Link-Layer Topology Discovery Responder Internet Protocol Version 6 (TCP/IPv6) Internet Protocol Version 4 (TCP/IPv4) 			
Install Uninstall Properties			
Description Transmission Control Protocol/Internet Protocol. The default wide area network protocol that provides communication across diverse interconnected networks.			
OK Cancel			

Internet Protocol Version 4 (TCP/IPv4) Properties

We first select the "Use the following IP address:" radial button.

For the IP address, we retrieve that information from our Local Area Network (LAN) diagram. In this example, our computer is 192.168.10.235.

This is a standard Class C network, so we will use 255.255.255.0 for the Subnet mask.

The Default Gateway is our router's IP address , which is 192.168.10.1 and is the first address on the network.

The Preferred and Alternate DNS Server addresses are obtained typically from the ISP.

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 . 010 . 235		
Subnet mask:	255.255.255.0		
Default gateway:	192.168.010.1		
Obtain DNS server address automatically			
• Us <u>e</u> the following DNS server addresses:			
Preferred DNS server:	209.018.047.061		
Alternate DNS server:	209 . 018 . 047 . 062		
Vaļidate settings upon exit	Ad <u>v</u> anced		
	OK Cancel		

Close and Save Setting

To close and save the Settings, press the OK button on the Internet Protocol Version 4 (TCP/IPv4) Properties window.

We press OK on the Local Area Connection Status window.



Rename the Network Connection

Now that we have set the IP Address for the external Network Interface Card (NIC), we need to rename the connection. We right click on the description text and choose Rename form the list.



Enter the New Connection Name

We will type "External WAN Connection" for the new description and press Enter to save the change.



Close and Verify the Functionality

We close the Local Area Connection Status dialogue box and the Local Area Connection window.

To quickly check your connection, we can Ping the router and then we visit the World Class CAD website on the Internet to check the Static IP setup.

