

Setup Devices IP Address

Method 1 – Adjust reality to match the config

1. Set ACC to 192.168.1.18 Node=3 Port 10001
2. Set Laptop to 192.168.1.201 (See notes labelled “Windows 10 - Change IP Address for demo” at the end of this doc.)
3. Connect gateway, ACC and laptop to router
4. Browse to gateway by typing IP address into chrome address bar : 192.168.1.168
5. View, connection overview, we expect stats for msgs Rx and Tx on the Hunter connection. If these do not count up call for help (See step 5 of method 2)
6. Browse to demo by typing IP address into chrome address bar : 192.168.1.168/hunter.html

Method 2 – Adjust the config to match reality

1. Note the following from the 2 line display on the Hunter ACC Controller

ACC-Com-LAN Address : Example – 3

Lan IP : Example 192.168.1.168

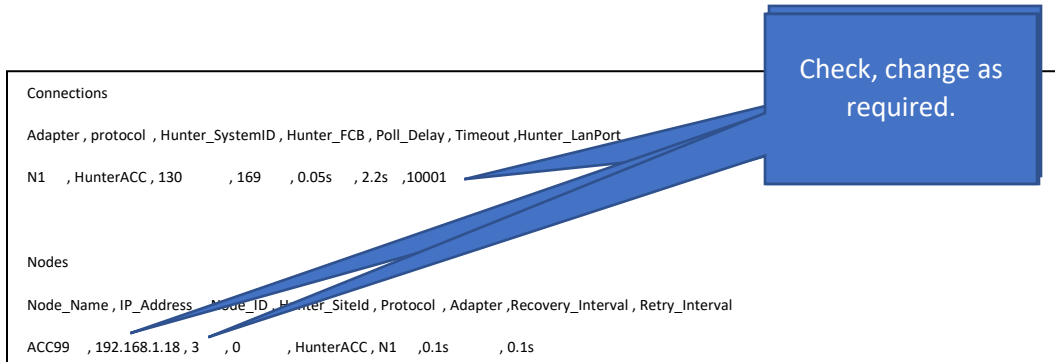
Lan Port : Example 1001

If you wish to change these follow the procedures provided by Hunter Industries.

2. Upload the configuration from the Gateway

Procedure provided in ‘Simplified Support for Gateways - Chipkin 2019 October.pdf’

3. Edit the configuration. It is better to use notepad than Excel.



The image shows a screenshot of a configuration table with a blue callout box pointing to a specific row. The table has two sections: 'Connections' and 'Nodes'. The 'Connections' section has a header row: 'Adapter , protocol , Hunter_SystemID , Hunter_FCB , Poll_Delay , Timeout , Hunter_LanPort'. Below it is a row: 'N1 , HunterACC , 130 , 169 , 0.05s , 2.2s , 10001'. The 'Nodes' section has a header row: 'Node_Name , IP_Address , Node_ID , Hunter_SiteId , Protocol , Adapter , Recovery_Interval , Retry_Interval'. Below it is a row: 'ACC99 , 192.168.1.18 , 3 , 0 , HunterACC , N1 , 0.1s , 0.1s'. A blue callout box with the text 'Check, change as required.' points to the '10001' value in the 'Connections' row.

Connections							
Adapter	protocol	Hunter_SystemID	Hunter_FCB	Poll_Delay	Timeout	Hunter_LanPort	
N1	HunterACC	130	169	0.05s	2.2s	10001	

Nodes							
Node_Name	IP_Address	Node_ID	Hunter_SiteId	Protocol	Adapter	Recovery_Interval	Retry_Interval
ACC99	192.168.1.18	3	0	HunterACC	N1	0.1s	0.1s

4. Download the edited configuration file to the gateway, restart the gateway to give effect to the changes.

Procedure provided in 'Simplified Support for Gateways - Chipkin 2019 October.pdf'

5. Browse to the Gateway

View the connections – You should see messages counting up on the Hunter connection.

The screenshot shows the Sierra Monitor web interface. On the left is a navigation menu with 'Connections' selected. The main area displays a table of connections with the following data:

Index	Name	Tx Msg	Rx Msg	Tx Char	Rx Char	Errors
0	N1 - HunterACC	451	450	8,924	98,410	0
1	N1 - CAS_TOOLN1	78	0	0	0	0
2	N1 - Modbus/TCP	0	0	0	0	0
3	N1 - Dnp3_Ethernet	0	0	0	0	0

A blue callout box with an arrow pointing to the 'Rx Msg' column of the 'N1 - Dnp3_Ethernet' row contains the text: "Check that messages are being exchanged."

At the bottom of the interface, there are buttons for 'Home', 'HELP (F1)', 'Contact Us', and 'Reset Statistics'.

Points List

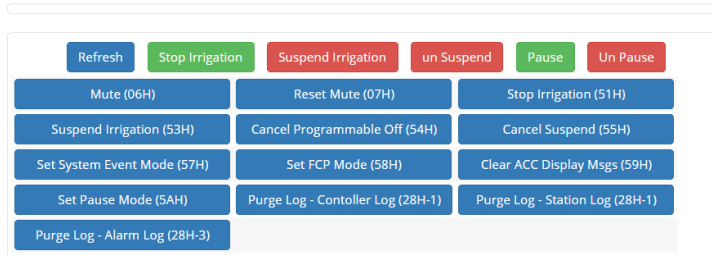
Hunter ACC 8705-33 Driver - DNP3 BACnet Modbus Points List.xlsx

Google it to find it.

Testing Using WEB demo

Browse to the page hunter.html on the gateway. If you get a 404 error then email support@chipkin.com . They will provide you with the Hunter Web Demo files

192.168.1.168/hunter.html



Installing the demo

Make a folder called temp on your C Drive

Copy the zip file to c:\temp

Unzip the files in C:\temp

Start a DOS Window (Hold windows key and push the R key, Type CMD and click OK)

Change folder by typing : cd\temp<Enter>

If 1.2.3.4 is the IP Address of the gateway then type

ACC_sendtogateway 1.2.3.4 <Enter>

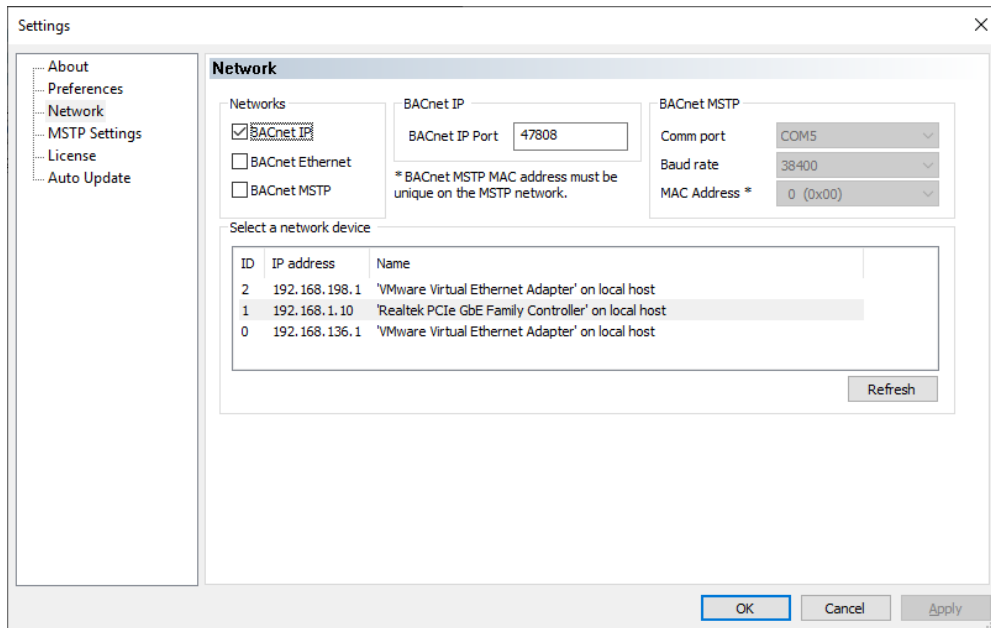
No restart is required. Should work immediately.

Testing Using BACnet

Download CAS BACnet Explorer from this page: <https://store.chipkin.com/products/tools/cas-bacnet-explorer>

Activate – Insert the Green key in your laptop (there is another better way to install permanently on your laptop)

CHANGE SETTINGS – select your network card, turn on BACnet IP



CHANGE SETTING – The object list index is too big to fit in one packet

Settings

- About
- Preferences**
- Network
- MSTP Settings
- License
- Auto Update

Preferences

Object index method - Polls a device for each of its objects in a single message. If a device has a lot of object it will not be able to return a complete list of object in a single packet and the object index method will be required. This method is slower than requesting the object list in a single packet but is supported by more devices.
Default: True

Read property multiple - Some BACnet devices do not support the service "Read property multiple". You can disable this utility from using this service by un-checking this option. It will take longer to discover properties of devices and objects without service enabled.
Default: True

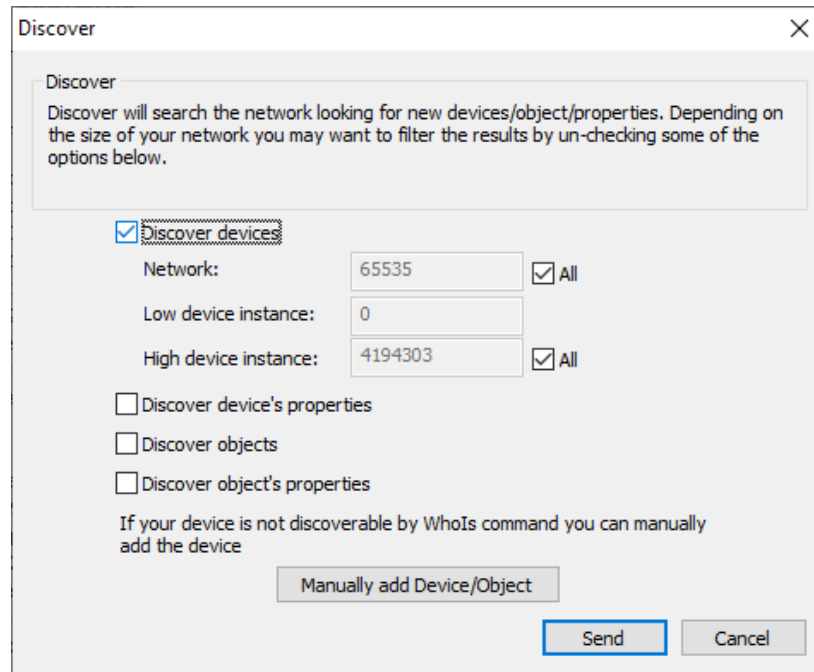
Enabled FYI Messages

FYI	Message
<input checked="" type="checkbox"/> 1	FYI #001 - No Networks are enabled.
<input checked="" type="checkbox"/> 2	FYI #002 - Reading the object list from this device with object index m...
<input checked="" type="checkbox"/> 3	FYI #003 - Object index method is disabled.
<input checked="" type="checkbox"/> 4	FYI #004 - A newer version of this utility is available.
<input checked="" type="checkbox"/> 5	FYI #005 - Error in connecting to Chipkin.com
<input checked="" type="checkbox"/> 6	FYI #006 - No Devices found
<input checked="" type="checkbox"/> 7	FYI #007 - Local area network

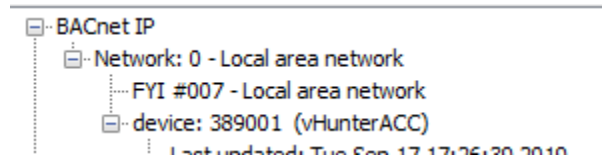
OK Cancel

Check this option

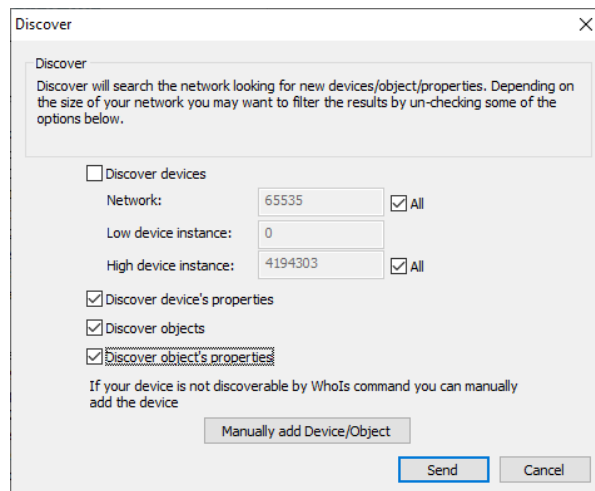
Do discovery – check devices box



You should get this.




Once the device has been discovered, select it by clicking on the device 389001, and right click to select DISCOVER again. This time check all the boxes to discover objects on the device.



Wait wait wait ... takes a FEW MINUTES

You get this tree. Explore the tree or print a report.

CAS BACnet Explorer
File Advanced Diagnostics Help



Discover Cancel Refresh Report Monitor About Settings Exit

BACnet IP

- Network: 0 - Local area network
 - FYI #007 - Local area network
 - device: 389001 (vHunterACC)
 - Last updated: Tue Sep 17 17:26:39 2019
 - IP Address: 192.168.1.170:47808
 - MAC (hex): 00-50-4E-12-47-84
 - object_identifier: device (389001)
 - object_type: device (0x8)
 - vendor_identifier: Sierra Monitor Corp. (0x25)
 - FYI #011 - Read object properties from profile.
 - apdu_timeout: 10000
 - application_software_version: V6.49c (A)
 - firmware_revision: V2.09i
 - max_apdu_length_accepted: 1458
 - model_name: FS-QS-1220
 - number_of_apdu_retries: 3
 - object_name: vHunterACC
 - protocol_services_supported: acknowledgeAlarm (0), confirmedCOVNotification (0), confirmedEventNotification (0), getAlarmSummary (0), getEnrollmentSumma
 - protocol_version: 1
 - segmentation_supported: no_segmentation (0x3)
 - system_status: non_operational (0x4)
 - vendor_name: Sierra Monitor Corporation
 - protocol_revision: 16
 - database_revision: 34
 - FYI #002 - Reading the object list from this device with object index method.
 - binary_output: 0 (SetGlbl-Trigger Write)
 - analog_output: 0 (SetGlbl-Hours)
 - analog_output: 1 (SetGlbl-Minutes)
 - analog_output: 2 (SetGlbl-Seconds)
 - analog_output: 3 (SetGlbl-Month)
 - analog_output: 4 (SetGlbl-Day)
 - analog_output: 5 (SetGlbl-Year)
 - analog_output: 6 (SetGlbl-SysDChour)
 - analog_output: 7 (SetGlbl-FcpDChour)
 - analog_output: 8 (SetGlbl-options)
 - analog_output: 9 (SetGlbl-curEtap)
 - analog_output: 10 (SetGlbl-maxEtap)
 - analog_output: 11 (SetGlbl-Response)
 - analog_output: 12 (SetGlbl-ResponseInterval)
 - analog_output: 13 (SetGlbl-GlblSeasAdj)
 - analog_output: 14 (SetGlbl-StackMode)
 - analog_output: 15 (SetGlbl-SsPrgThold)
 - analog_output: 16 (SetGlbl-SsgSsPrgThold)
 - analog_input: 0 (ReportFldCtrlGbls-Fwvrs)
 - binary_output: 24 (Mute-Trigger Command)
 - binary_output: 25 (ResetMute-Trigger Command)
 - binary_output: 26 (Report versions-Trigger Command)
 - binary_output: 2 (SetStationParams-Trigger Cmd)
 - analog_output: 65 (SetStationParams-StationID)
 - analog_output: 66 (SetStationParams-StationName)
 - analog_output: 78 (SetStationParams-PumpUsage)
 - analog_output: 79 (SetStationParams-CycleTime)

Ready...

Testing Using Modbus

Download MODBUS SCANNER test tool from this page:

<https://store.chipkin.com/products/tools/modbus-scanner-app>

Add a task to scan the IP Address

The NODE_ID = 1

Read Holding Registers 1-100

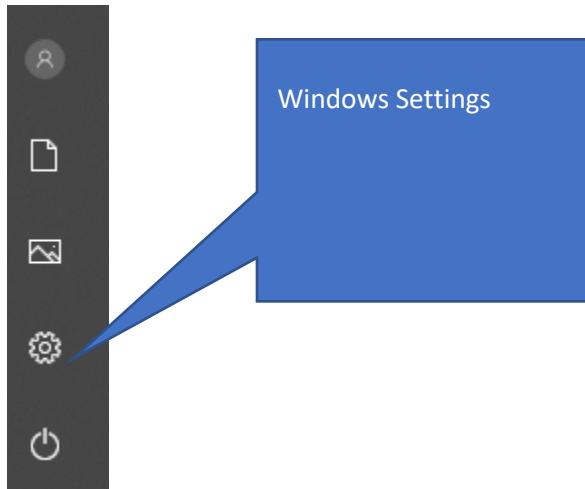
View the data

Use the XLSX points list to see which Modbus Address contains what data

Sample screen from the Modbus Scanner. Here it is reading 30001.... These correspond to Analog Inputs. To know the meaning of 30001,2,3.... You need to revert to the XLSX file. Modbus is dumb and 'meaning' cannot be found without a manual.

Windows 10 - Change IP Address for demo

Windows 10 - Change IP Address of laptop



System

Display, sound, notifications, power



Devices

Bluetooth, printers, mouse



Phone

Link your Android



Apps

Uninstall, defaults, optional features



Accounts

Your accounts, email, sync, work, family



Time & Language

Speech, region, d



Cortana

Cortana language, permissions, notifications



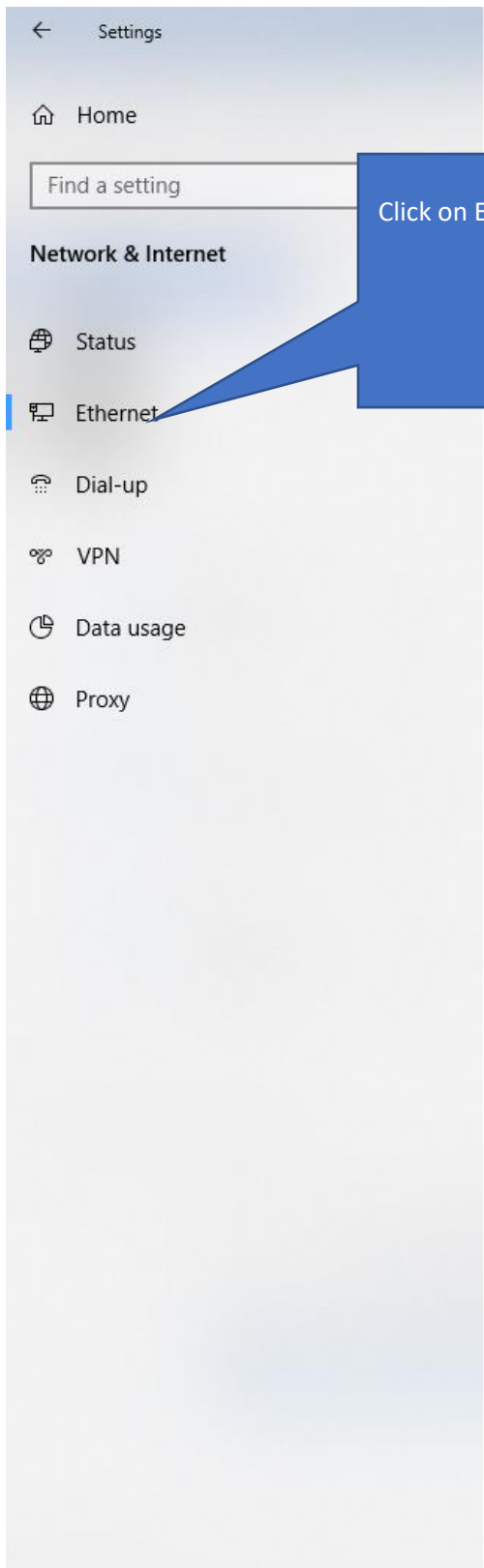
Privacy

Location, camera



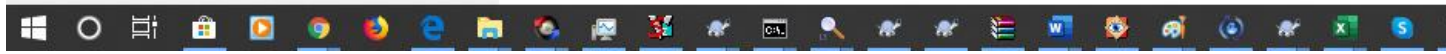
Update & Security

Windows Update, backup

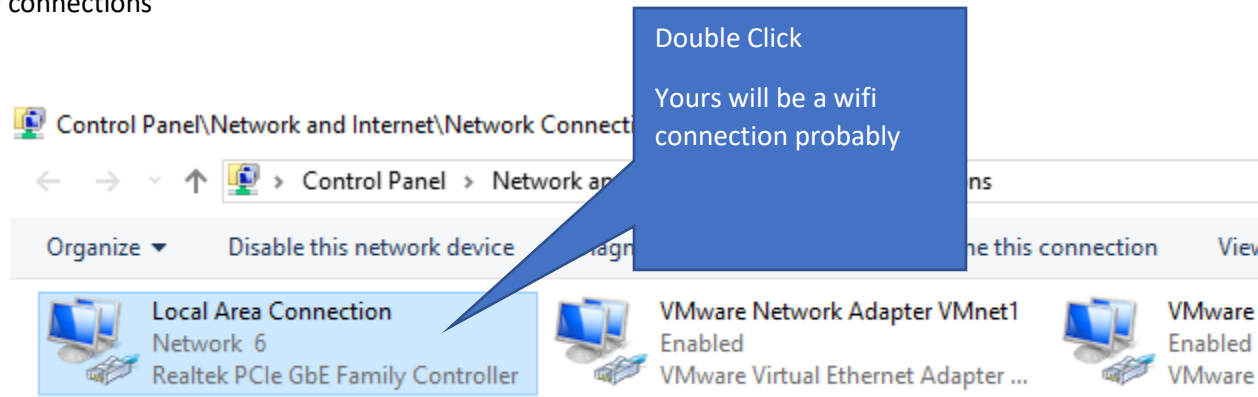


Ethernet

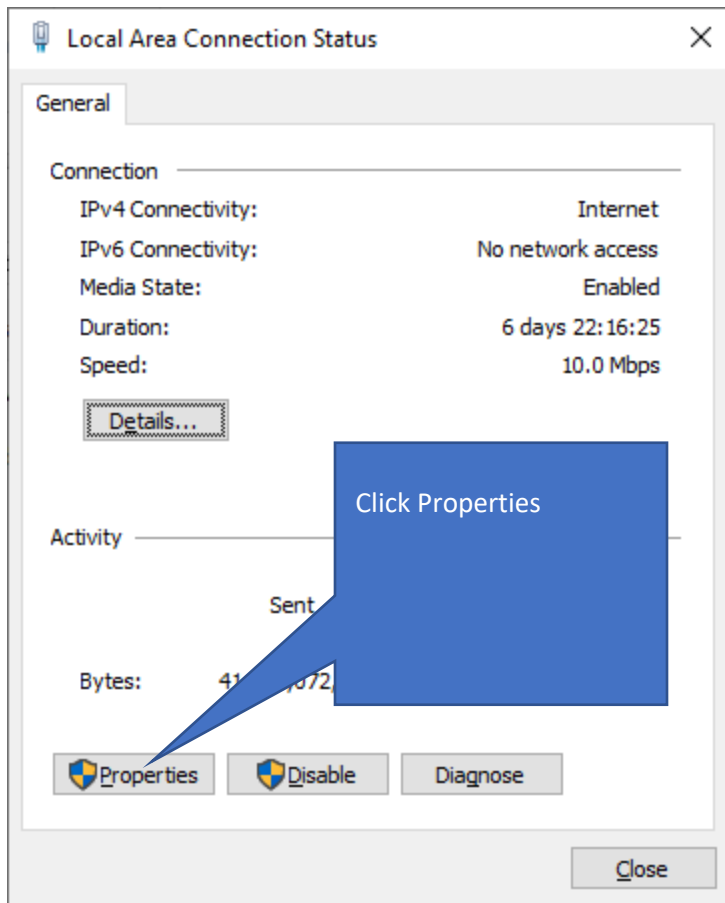
Click on Ethernet

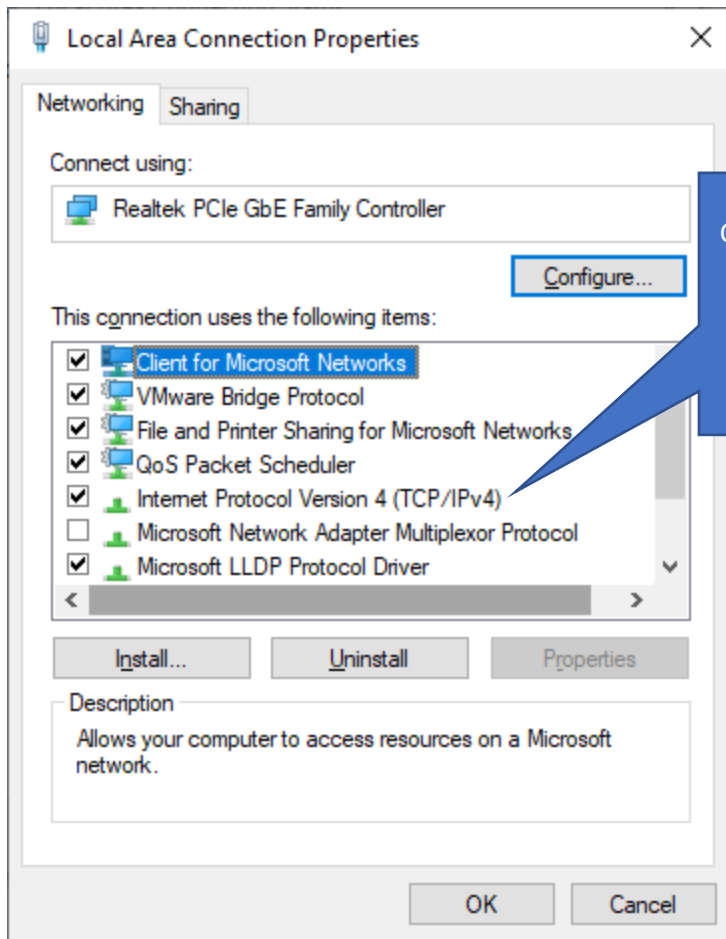


You get a list of connections



You get a dialog





Click TCP/IP IPv4

REVERT by checking this box, clicking ok and closing the various dialogs.

Internet Protocol Version 4 (TCP/IPv4) Properties

General **Alternate Configuration**

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:

Subnet mask:

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

IP=192.168.1.201
mask=255.255.255.0
gw=192.168.1.1.

, clicking ok and closing
the various dialogs.