

How to do a Wireshark Trace on Both Sides of a Router or NAT Connection

This procedure will provide Ethernet traces directly from a DeviceMaster to help determine why a DeviceMaster may not be operational.

Required hardware at Remote Location:

DeviceMaster - Laptop or PC (with Wireshark installed) - Network Hub (not a switch) - 2 Ethernet Patch cords

Provided are some links for downloading instructional files and utilities:

Here is a link to a pdf file that provides detailed setup and capture instructions for Wireshark.

ftp://ftp.comtrol.com/contribs/devicemaster/help_files/tracing/wireshark_version2_usage.pdf

Here is a link to download Wireshark:

<http://www.wireshark.org/download.html>

Here is a pdf file showing how to use Putty (included in PortVision DX) to capture the 4607 port to a file.

ftp://ftp.comtrol.com/contribs/devicemaster/help_files/tracing/diagnostic_port_4607_capture_using_putty.pdf

Be sure to be using the current driver on the Server and the current firmware in the DeviceMaster.

Here are the instructions for getting Wireshark traces from the PC and the DeviceMaster on both sides of the network.

In a text file Provide:

- the IP address of the DeviceMaster
- the MAC address of the DeviceMaster
- the IP address of the Server where the driver is installed
- the IP address used in the DeviceMaster driver

On the Server side (PC the driver is installed in with Wireshark installed)

Disable the DeviceMaster driver

Using Driver Management Console right click on the DeviceMaster in question and select 'Disable'

Set up PortVision DX to not do polling

Tools drop down menu > Options > Set Polling option to '0' and click OK

On the DeviceMaster (remote) side

Get an Ethernet HUB (not a switch! a switch in mirror mode has been seen to provide incomplete data)

Attach the DeviceMaster and laptop (or PC) to the hub using the 2 Ethernet patch cords.

Connect the Ethernet HUB to the local switch or router.

On the laptop start Wireshark using the instructions in the pdf file downloaded above

On the laptop telnet to the DeviceMaster port 4607 (the diagnostic port of the DeviceMaster)

Using Putty (included in PortVision DX) see the instructions in the pdf file above

Using Windows telnet: telnet -f capture.txt [IP_address_of_the_DeviceMaster] 4607
(without brackets) and press enter

On the Server side

Start Wireshark using the instructions in the pdf file downloaded above

Once Wireshark is running on the local (server) and on the remote (DeviceMaster) side, go to PortVision DX and Refresh the DeviceMaster in question

Wait 30 seconds

Using Driver Management Console right click on the DeviceMaster in question and select 'Enable'

Finalize

Let things run until the error is encountered

Stop both copies of Wireshark and Putty (or windows telnet)

Save the Wireshark files with names to indicate the server and remote

Send the 3 result files and the txt file of the IP addresses and MAC information to your Technical Support Representative