

TROUBLESHOOTING

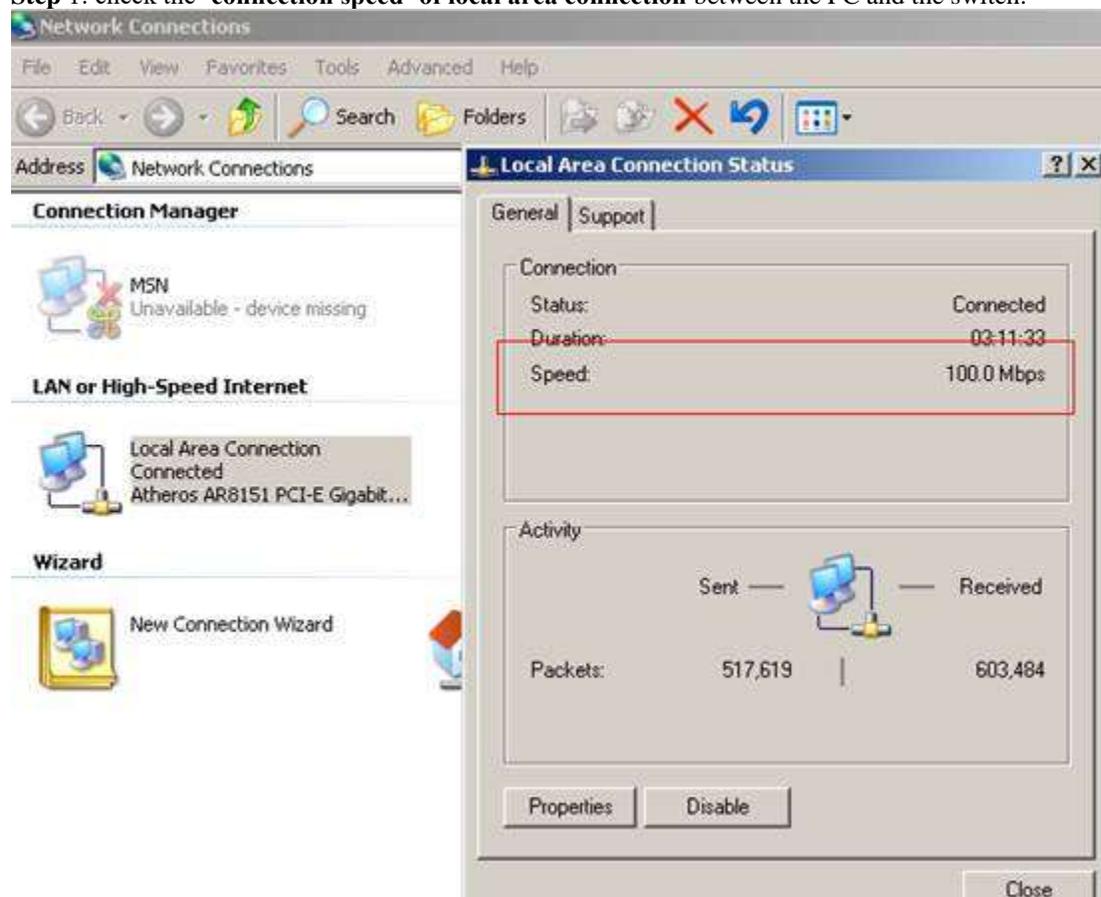
What can I do if the speed is slow when the PC is connected to the unmanaged switch?

Note: The following case is based on the condition that the PC can get normal download speed when it's connected to the router directly without using the switch.

The reasons why this happens are usually as below: the router and the switch or the switch and the Ethernet card in the PC don't communicate well ; there are some special settings in the router ; the switch is not working fine ; nonstandard cables.

Please refer to the following to troubleshoot step by one step.

Step 1: check the 'connection speed' of local area connection between the PC and the switch:



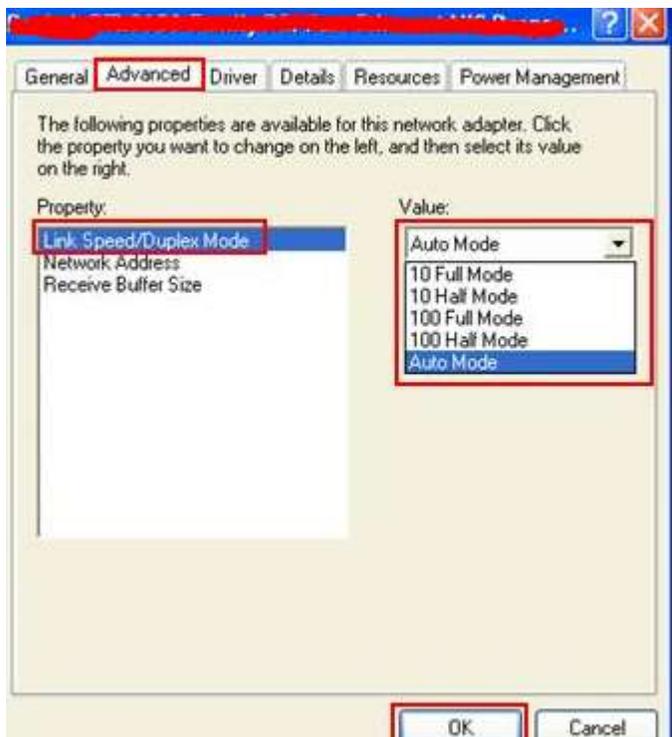
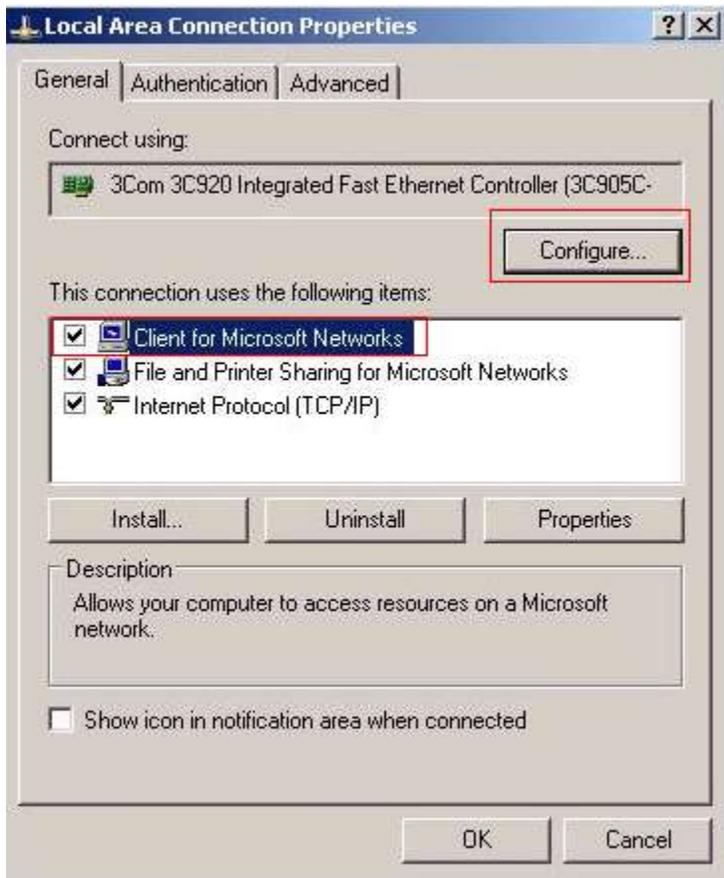
If the **'connection speed'** is quite **normal** (pretty the same compared to what the PC gets when connected to the router directly), **then please go to [step 2](#)**.

If the **'connection speed'** is **poor** (for example, it only has **100Mbps** while the Ethernet card and the switch are both **Gigabit devices**), then the switch and the router or switch and the PC are not communicating well.

Suggestion: as our unmanaged switches are auto-negotiation in speed, it's usually recommended that the router and the PC's **NIC(Network Interface Card)** are also set up 'auto-negotiation' in speed and a EIA/TIA-568EIA/TIA-568 standard cable is needed.

1) the **'connection speed'** is usually unchangeable in a router(contact the router's company to see if you can change the speed to 'auto-negotiation' or force the speed to a higher value).

2)As to the **'connection speed'** in the **NIC** of the PC, usually you can change the speed by changing the **'media type'** (**'media type'** or **'speed and duplex'** or **'link speed and duplex'**): go to 'local area connection'---right click it and go to 'properties'---'configure'--'advanced'----'media type' or 'speed and duplex' or 'link speed and duplex'- --try **'auto-detect'** or **'auto-mode'** first; if no difference, try **different speeds with different duplexes** until it gives best connection speed.



3) A **EIA/TIA-568EIA/TIA-568 standard** cable with the crystal plug and the wire cords tightly clamped is needed.

Step 2 If the ‘**connection speed**’ of your PC’s NIC is normal---then please do the following test:

1)Connect two PCs to our switch by cable and disconnect anything else from the switch.

2)Download a **file transfer software** (such as Dukto R6) on both PCs---run this software and begin to transfer a video or file between two PCs---**check the transfer speed.**

Suggestion:

If the **transfer speed** is faster than the **download speed** when the PC is connected to the router directly----then the switch is working normal---and you will need to check some info **in your main router.**

If the transfer speed is **much slower** compared with the speed when the PC is connected to the router directly, something might be wrong with the switch, pleasecontact support@tp-link.com.

What can I do if my PC is not working when it’s connected to the Unmanaged Switch by cable?

Note: This article is **on the condition** that **the Ethernet light** on the unmanaged switch is **on** when it’s connected to your PC by cable and your PC **works fine** when it’s connected to **the router directly** by cable.

If the **Ethernet light** is **not on** when the PC is connected to the switch by cable, please refer to this FAQ: [What can I do if the Ethernet LED indicators on the Unmanaged Switch are off?](#)

The reasons for this problem might be: some special settings in the router itself or the switch might not be working properly.

Let’s troubleshoot the problem **one step by one step:**

Step 1 Do the following test first:

- 1) **Connect two PCs to the switch by cable (also disconnect the PCs and the switch from anything else)----set up static IP Address for both PCs in the same local network, one as 192.168.0.2 and one as 192.168.0.3 for example(refer to FAQ 14 as to how to set up static ip address: <https://www.tp-link.com/us/article/?faqid=14>)**

Switch
/ \

PC 1 PC 2

- 2) **Disable or uninstall anti-virus software and firewall** in both PCs in case the software will interrupt our next step troubleshooting and this is just for this test; later you can enable or re-install them back----then start to **ping PC2 from PC1**(if you don't know how to do this, please **google search** ' how to ping my computer/pc').

For how to use ping command please refer to:

www.tp-link.com/en/article/?faqid=425

Ping result analysis:

- 1)If the ping result is "**Request timed out**" or '**Destination Unreachable**' etc, **please skip step 2 and contact support@tp-link.com** for further assistance.

```
C:\Documents and Settings\Administrator>ping 192.168.0.3

Pinging 192.168.0.3 with 32 bytes of data:

Request timed out.
Request timed out.
Request timed out.
Request timed out.

Ping statistics for 192.168.0.3:
    Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),
```

- 2)A successful ping will result in a response of "**Reply from**" followed by the IP address, then **please go to step 2**(you shall ping PC2's IP address, not 8.8.8.8, the picture below is just an example for 'successful ping result ')

```
Reply from 8.8.8.8: bytes=32 time=40ms TTL=44
Reply from 8.8.8.8: bytes=32 time=39ms TTL=44
Reply from 8.8.8.8: bytes=32 time=39ms TTL=44
Reply from 8.8.8.8: bytes=32 time=39ms TTL=44

Ping statistics for 8.8.8.8:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 39ms, Maximum = 40ms, Average = 39ms
```

Step 2 Connect PC1 to the switch by cable and set up a **static IP address in the same local network with router and PC2**----then disable or uninstall the anti-virus software and firewall in both PCs -----try to ping PC2 from PC1.

PC1-----Switch-----**(LAN port)**Router**(LAN port)**-----PC 2

Ping result analysis:

- 1) If the ping result is "**Request timed out**" or '**Destination Unreachable**' etc, then there might be a problem of the switch, **please contact support@tp-link.com**.
- 2) A successful ping will result in a response of "**Reply from**" followed by the IP address, which means the switch is working properly then please **contact your router's support**, cause there might be some special settings in the router that stop the communication between the switch and the PCs.