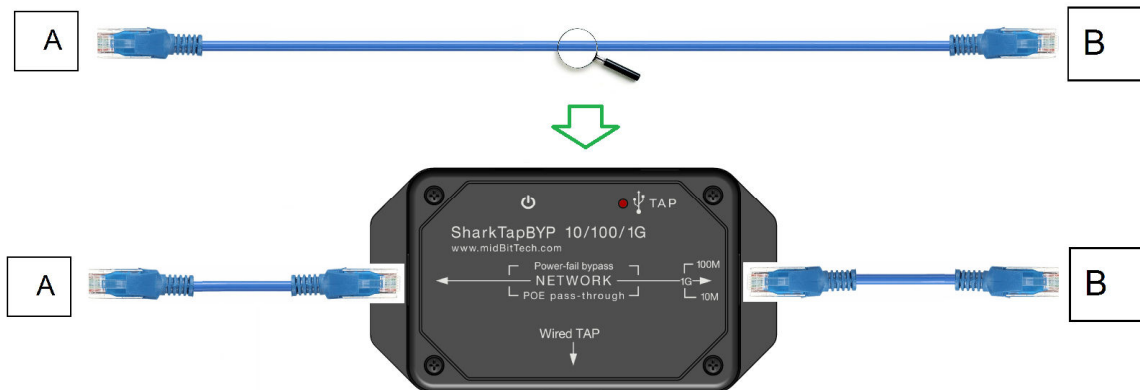# Quick Start Guide

SharkTapBYP 10/100/1G
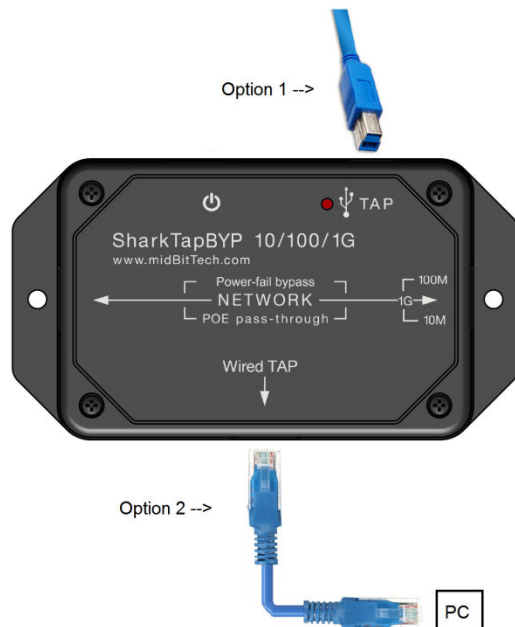
There are 3 steps to installing the SharkTapBYP, and can be carried out in any order:

Connect the link to be monitored: ---

Connect TAP port(s): --

The are two TAPs (Test Access Port) on the SharkTap. Option 1, the USB3 connection on the top, creates a virtual ethernet device on your PC which will receive the copies of the NETWORK packets.

For option 2, connect a CAT-5 (or better) cable to the RJ45 jack on the bottom to receive packets over the Wired-TAP port.

If the Wired-TAP is connected (link up) it takes priority over the USB TAP port. The USB TAP will still receive packets if the Wired-TAP port is running at 1Gbit/sec.

Connect Power: ---

If you are using the USB TAP port (option 1 above), that also supplies power, so you are ready to go.

If you're using the Wired TAP (option 2) you can use the left side USB connector to avoid creating a USB ethernet device on your PC. You can use the supplied cable or a USB2 cable.

You can also use any 'wall wart' type of supply with a USB A connector for power. You can connect to both USB jacks to provide backup power.

Indicators ---

The Red LED glows when power is applied, from either or both cords. The SharkTap uses the standard 5V power from a USB port, and draws about 200 - 400mA, depending on port speeds.

Each port jack has two LEDs. At least one LED is on when there is a valid link connection. (Note that the SharkTap has a feature called MDIX, meaning that it will automatically crossover Tx and Rx pairs, so no crossover cable is ever needed.) The Yellow LED (only) is on if the link is 10Base-T. The Green LED (only) is on if the link is 100Base-T. Both LEDs are on if the connection is 1000Base-T. The LED(s) will blink when there are packets sent or received on that port.
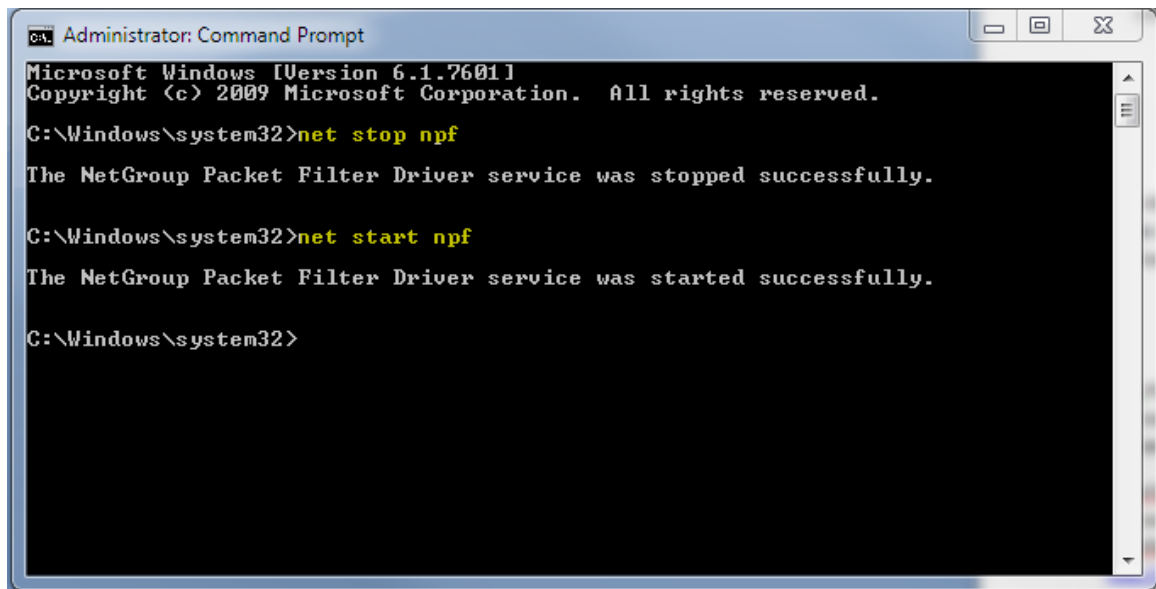
2
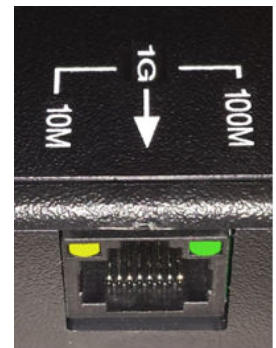
USB Device Driver:

When using option 1, the USB TAP, the SharkTap will show up on your PC as a new Network Adaptor. Driver support should be automatic with any recent Windows or Linux version. The SharkTap uses industry standard Microchip LAN7801 Gigabit Ethernet Adapter chip.

Once the driver is installed, configuring the SharkTap is identical to configuring a built-in Ethernet port. You don't need to assign an IP address or other network configuration. Our website, http://www.midbittech.com/usb/ provides expert tips for setting up your network adapter for the cleanest WireShark experience. Wireshark or other capture software will set the network port to capture all packets, so any protocol settings are irrelevant.

 For recent **Linux** distributions, the SharkTap will "just work" and show up as usbx, or enx283613cxxxxx if you have 'predictable interface naming'. You do not need to configure an IP address, and probably don't want to.

(Note: Any packets generated by your PC will not actually be routed to the NETWORK ports).

WinPCap Driver: Wireshark, on Windows, includes a software driver called WinPCap that may not recognize the SharkTap until the PC is restarted. You can avoid doing a restart as follows: Open a Command Prompt with supervisor privileges (right click on the command prompt icon, select 'Run as Administrator'), and type 'net stop npf'<enter> then 'net start npf' You should only need to do this the first time the SharkTap is plugged into your PC.

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Administrator: Command Prompt

Microsoft Windows [Version 6.1.7601]
Copyright (c) 2009 Microsoft Corporation.  All rights reserved.

C:\Windows\system32>net stop npf

The NetGroup Packet Filter Driver service was stopped successfully.


C:\Windows\system32>net start npf

The NetGroup Packet Filter Driver service was started successfully.


C:\Windows\system32>
```

More Information: --

Speed Matching: The SharkTap must have both Network ports running at the same speed. The SharkTap will automatically match the lower speed on NETWORK ports A or B. Disconnecting both Network cables will reset the speed matching logic.

 The USB TAP port always runs at 1Gb/sec and the Wired-TAP port will always connect at the maximum speed supported by the link partner.

Powerfail bypass : The SharkTap includes relays which provide a physical bypass path for the NETWORK A/B ports if power is removed. You will get a link through A/B without power. There is no setup for this, it 'just works'.

PoE pass through: The SharkTap passes Power over Ethernet voltages through the NETWORK A/B ports at all times. There is no setup, the PoE power is always passed through.

Non-standard data: The SharkTap will pass 'bad' data to the TAP – non-IP packets, runt packets, bad FCS, etc. For the Wired TAP port, you will need a NIC configured to receive such packets. The USB TAP hardware supports bad packets, but standard drivers do not. Contact us for information on modifying the linux driver to pass bad packets. We don't directly support this, but can tell you the changes that must be made (fairly simple).

Questions? Send us an email at support@midbittech.com

www.midbittech.com

Warranty Information: We do not warrant SharkTap performance or suitability for any purpose. You are given 30 days from purchase, during which time you can return the SharkTap for any reason. Evaluate the SharkTap: If you like what it does, keep it. If not, return the SharkTap for a refund. If, during the first year, the SharkTap stops doing what it used to do, due to defect in materials or workmanship, we will replace it for free.