How to Give Your Wireless LAN Priority

USERS GUIDE #09

Connecting to your Computer, Camera, Tablet & Internet

Wireless Priority over Wired LAN Setup

A simple, fast easy way *(But not the only way)* to set up fotoShout is to have a router connected to the laptop by Ethernet cable. The iPads connect to the computer through the router. The camera connects to the computer through the same router. This portion of setup is a private network. The event computer is connected to the internet through its built in wireless connection. Simple, clean, easy, versatile, powerful connection.

This configuration allows your computer to connect wirelessly to the internet. You will be able to use all Wi-Fi connections available to you at your event locations; the events Wi-Fi service, phone hot spots, mi-fi, etc. *(This ensures if you're paying the hot spot service per megabyte, you're only paying for images being uploaded to the social media sites, not the images being transferred from camera to computer, and computer to iPads.)* In the above scenario the built in wireless **must have assigned priority** over the LAN adapter to connect to the internet since both are being used at the same time.

Follow the instructions below to give priority to the laptops built in Wi-Fi connection.

Windows 7 and Windows 8

In Windows networks are assigned a specific metric value. The network with the lowest metric value has priority to connect to the internet. Windows by default automatically assigns a metric value based on the network connections rated speed. To force Windows to use a specific network connection you must assign a metric value to each one, giving the lowest value to the desired connection. We want the built in Wi-Fi to have the lowest metric value so it has priority connecting to the internet over the LAN adapter. (It's easy to do)

A) Setting "**Built-in Wireless Network Connection**" Priority *(It's easy but you must complete all parts **A, B, C, & D**)*

1) Press the "**Windows Key"** and the letter "**R**" at the same time
2) A dialog box will open, type in **ncpa.cpl** press enter
3) This will take you to control Panel/network connections
4) Right Click - **Wireless Network Connection in** (Win7**)** or **Wi-Fi** (Win 8.x)
5) Click- P**roperties**
6) Click - **Internet Protocol Version 4 (TCP/IPv4)**
7) Click- **Properties**
8) Click – **Advanced**
9) Un-check "**Automatic Metric**"

10) **Enter a number** between 1 and 9999 for the "**Interface Metric**" (I use 10). The number must be lower than the LAN connection. *(the Lower number has priority)*
11) Click **OK**

B) Setting "**Local Area Connection**" Priority *(router connected by Ethernet cable)*

1) Press the "**Windows Key"** and the letter **"R"** at the same time
2) A dialog box will open, type **ncpa.cpl** press enter
2) This will take you to control Panel/network connections
3) Right Click – **Local Area Connection** in (Win7) **Ethernet** (Win8 or 8.1)
4) Click- **Properties**
5) Click - **Internet Protocol Version 4 (TCP/IPv4)**
6) Click- **Properties**
7) Click – **Advanced**
8) Un-check "**Automatic Metric**"
Enter a number between 1 and 9999 for the **"Interface Metric**" (I use 250). The number must be higher the Wireless connection.
9) Click **OK**

C) After Changing the interface metric, you must change the adapter Binding

1) Press "**Windows Key" and the "R"** key at the same time
2) A dialog Box will open, type in **ncpa.cpl** press enter
3) Click on "**Advanced**" in the menu bar – you may have to press the Alt key to show the menu bar
4) Select **"Advanced Settings**"
5) Select the **"adapter and bindings**" tab
6) Click on "**Wireless Network Connection**," in (Win 7) or "**Wi-Fi**" (Win 8 or 8.1) toggle the Wireless Network Connection above "**Local Area Connection**." in (Win 7) or toggle the **Wi-Fi** above the "**Ethernet**" connection (Win 8 or 8.1)
7) Click **OK**

D) Change Power Management Settings

1) Press "**Windows Key" and the "R"** key at the same time
2) A dialog Box will open, type in "**Control Panel**"
3) Select **Category View,** Click "**System and Security**"
4) Under **System**, Click "**Device Manager**"
5) Double Click on "**Network Adapters,**" to open.
6) Double Click on your "**Wireless**" adapter
7) Select the **Power Management** Tab
8) Un-Check Box – **"Allow this computer to turn off this device to save power" – Click "OK"**
9) Do the same for **Local Area Connection** in Win 7 or **Ethernet Controller** in Win 8 or 8.1
10) ****See FYI below

FYI-

If you would like to view the current metric number of your active routers;

1) Press the "**Windows Key" and the "R"** key at the same time
2) A dialog Box will open\ type in **cmd** press enter
3) Type in "**netstat –r**" (without the quotes)
4) You will be able to view the interface with the metric number next to it.

In regards to section D) "Change Power Management Settings"

- The wireless connection for my Toshiba was named **Intel® Centrino® Wireless – N2230**
- The Ethernet controller for my Toshiba was named – **Qualcom Atheras AR8161 PCI-E Gigabit Ethernet Controller**
- We successfully ran the private network with the router connected by LAN, and the internal wireless adapter connected to the internet without changing the power adapter for a short time during intensive use on both our Sony Vaio (Win7) and Toshiba Qosmio (Win8) Intel I-7 computers. But when we used the setup under **event** conditions **without** changing the power management settings we lost internet connection (it worked for a while then stopped, we had to restart the computer) It was determined that the wireless adapter was automatically turning off to save power as directed by Windows "Power Management." Other brands of laptops or wireless adapters may not cause you this inconvenience, but ours did. Fortunately it is very simple to adjust the power management settings once you know how.