

IEEE802.11n draft 2.0 WIRELESS PCI Adapter

User's Manual

FCC Warning

This equipment has been tested and found to comply with the limits for a Class B digital device,

pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communication. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which
- Consult the dealer or an experienced radio/TV technician for help. the receiver is connected.

FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

IMPORTANT NOTE:

FCC Radiation Exposure Statement:

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of about eight inches (20cm) between the radiator and your body.

This transmitter must not be co-located or operated in conjunction with any other antenna or transmitter.

IMPORTANT NOTE:

In the event that these conditions cannot be met (for example certain laptop configurations or co-location with another transmitter), then the FCC authorization is no longer considered valid and the FCC ID cannot be used on the final product. In these circumstances, the OEM integrator will be responsible for re-evaluating the end product (including the transmitter) and obtaining a separate FCC authorization.

End Product Manual Information:

The user manual for end users must include the following information in a prominent location “IMPORTANT NOTE: To comply with FCC RF exposure compliance requirements, the antenna used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitters”.

CE Mark Warning

This is a Class B product. In a domestic environment, this product may cause radio interference, in which case the user may be required to take adequate measures.

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Revision History

Revision History

V1.0 First release

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1. Introduction

This is a mini-PCI interfaced WLAN card that fully complies with IEEE802.11n draft 2.0 and IEEE802.11 b/g standards and operate in 2.4GHz bands. Its maximum data transfer rate up to 300 Mbps. It delivers unrivaled wireless performance for your Notebook or Wireless gateway (Wireless ADSL router, Wireless broadband router or Access point) and also provides peer-to-peer communication among any compatible wireless users and no Access Point required. With this card, you can easily upgrade your desktop computer wireless connectivity. Once connected, access your network high-speed Internet connection while sharing photos, files, music, video, printers, and storage. Get a better Internet experience with a faster wireless connection so you can enjoy smooth digital phone calls, gaming, downloading, and video streaming.

It provides up to a 64/128-bit level of WEP and also support WPA, WPA2 security to your wireless data transfers. The wireless MINI-PCI adapter comes with software drivers for the most popular Microsoft Windows operating systems and can be integrated into a larger network, running Windows Vista/XP/2000/ME/98SE in either Ad-Hoc mode (without an access point or router) or Infrastructure mode (with an access point or router), the configuration of your working environment, or the capabilities or limitations of your computer systems.

1.1 Features

IEEE802.11n draft 2.0 compatible and backward compatible with IEEE802.11 b/g

Up to 300Mbps data transfer rates

Reverse Direction Data Flow and Frame Aggregation

Supports 64/128-bit WEP data encryption function for high level of security

Supports WPA and WPA2 advanced WLAN security

QoS, WMM, WMM-PS

Wake on Wireless LAN

Multiple BSSID support

International Regulation - 802.1d + h

Low power with Advanced power management

Bluetooth Co-existence

Driver support Win 98SE/ME/2000/XP/Vista/Linux

1.2 LED Indicator

LED	Light Status	Description
ACT / LINK	Flashing	Wireless LAN has Activity (ACT) data being sent.
	On	Wireless LAN has been activated.

1.3 Package Contents

- One Wireless Cardbus adapter
- One CD includes driver and user's manual

1.4 Before you start

You must have the requirements as follow,

- A laptop computer with an available 32-bit Cardbus slot
- At least a 300MHz processor and 32MB memory
- Windows 98SE/ME/2000/XP/XP-64bit/Vista 32bit/Vista 64bit support
- A CD-ROM drive
- Cardbus controller properly installed
- An IEEE802.11g or IEEE802.11b Access Point (for Infrastructure mode) or another IEEE802.11g or IEEE802.11b wireless adapter (for Ad-Hoc Networking Mode)

2. Installation Procedure

Note: If you have installed the Wireless Adapter LAN driver & utility before, please uninstall the old version first.

2.1 Install the Driver & Utility

Note: The following installation was operated under Windows XP. (Procedures will be same for Windows 2000 / Windows ME / Windows 98SE)

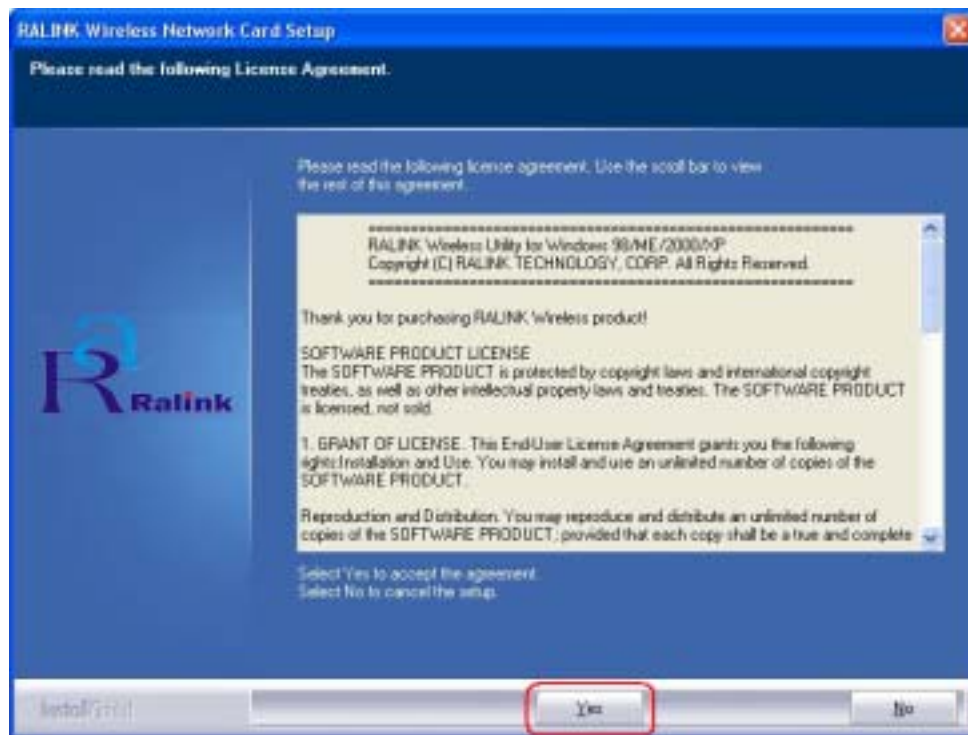
STEP1: Found New Hardware Wizard is displayed after the adapter is installed and the computer is restarted. Please click **Cancel** to continue.



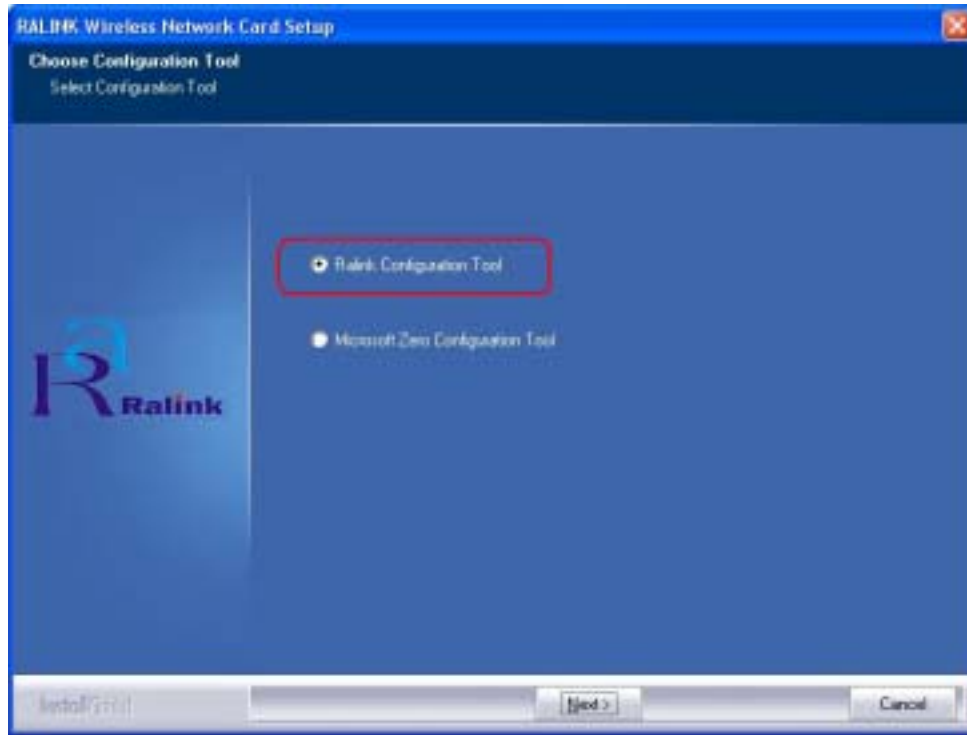
STEP2: Insert Installation CD into CD-ROM drive then windows below will appear. Click **Install Driver** to begin device driver installation.



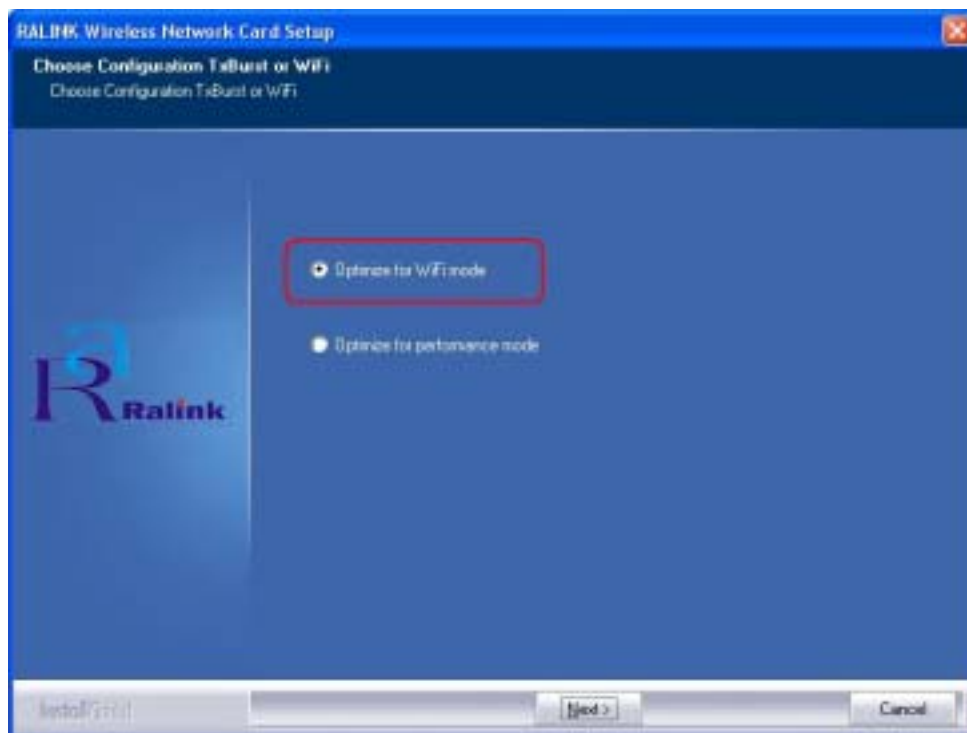
STEP3: Please read the following license agreement. Use the scroll bar to view the rest of this agreement. Click **Yes** to accept the agreement.



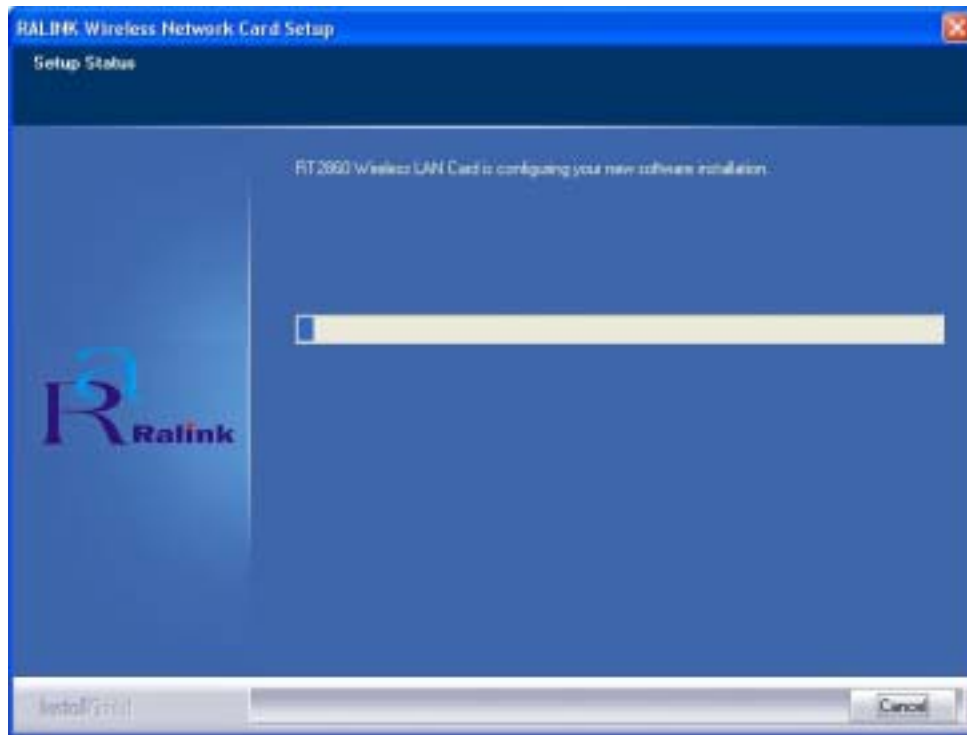
STEP4: In Windows XP, there is a **Windows Zero Configuration Tool** for you to setup wireless adapter. You can choose to configure the adapter through the **Microsoft Zero Configuration Tool** or the **Ralink Configuration Tool**. It is recommended to choose the **Ralink Configuration Tool** for the adapter. Click **Next** to continue.



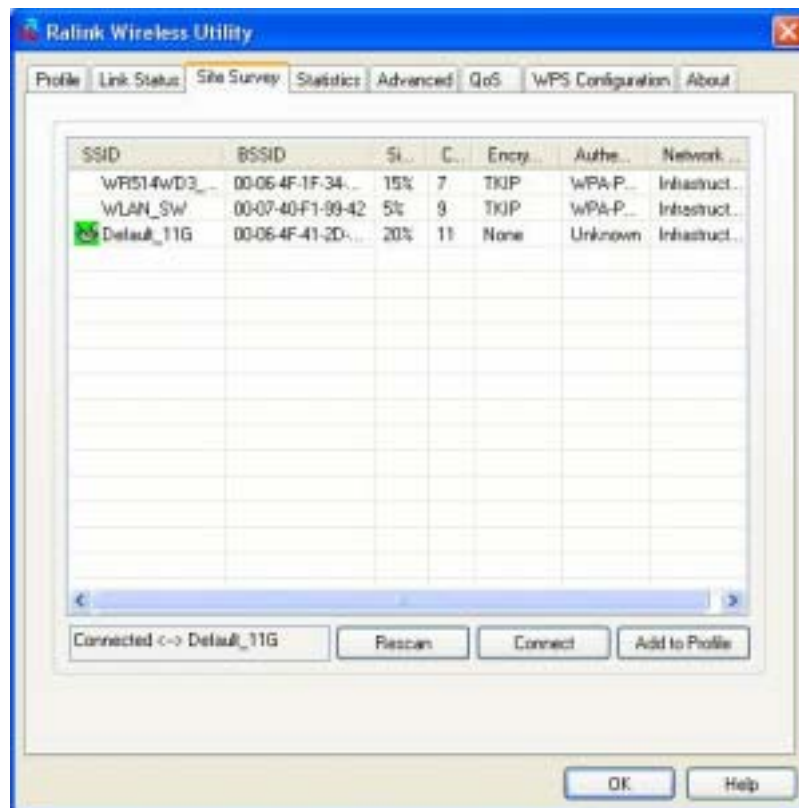
STEP5: If you need the adapter to operate with better performance, place choose **Optimize for performance mode** to enable the **Tx Burst mode**. Or you can choose **Optimize for WiFi mode** to run in standard wireless network.



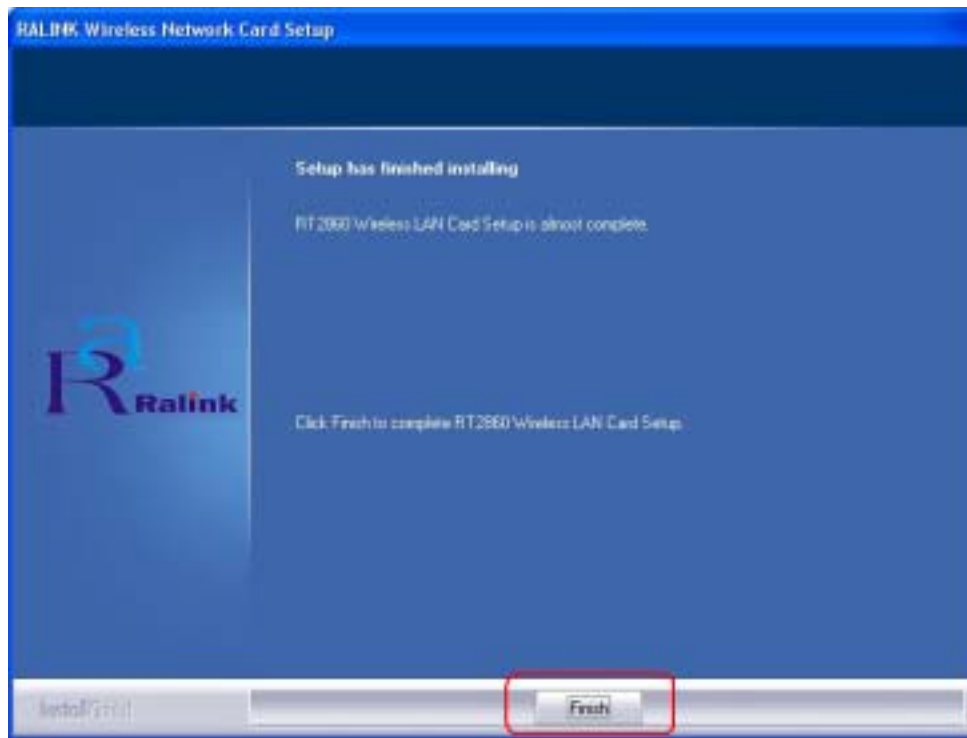
STEP6: Please wait for a while during the adapter is configuring your new software installation.



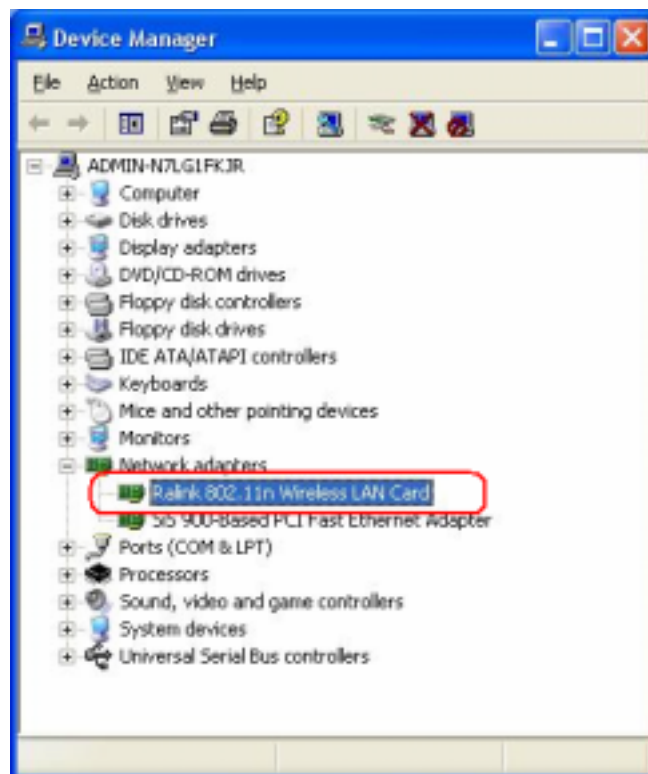
STEP7: When the adapter is installed properly, the configuration utility will be displayed automatically.




STEP8: Click **Finish** button to exit the setup wizard.



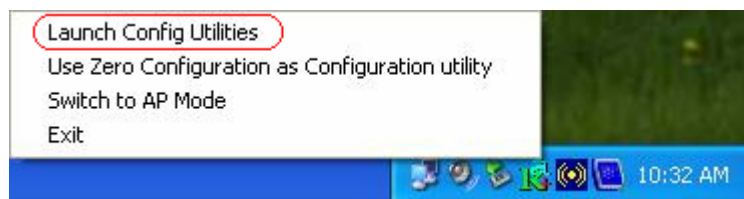
To check if the adapter is properly installed, you can right-click **My Computer** → choose **Properties** → click **Device Manager**.



The Configuration Utility appears as an icon on the system tray of Windows while the adapter is running. You can open the utility by double-click on the icon. 

Right-click the icon, there are some items for you to operate the configuration utility,

- **Launch Config Utilities** → Select this option to open the Configuration Utility tool.
- **Use Zero Configuration as Configuration utility** → Select this option to use Windows XP built-in wireless configuration utility (Windows Zero Configuration) to configure to card.
- **Switch to AP Mode**
- **Exit** → Select **Exit** to close the Configuration Utility tool.



3. Wireless Network Configuration Utility

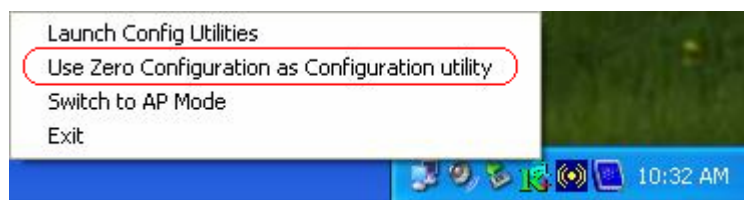
The Configuration Utility is a powerful application that helps you to configure the Wireless LAN adapter and monitor the link status and statistics during the communication process.

When the adapter is installed, the configuration utility will be displayed automatically. This adapter will auto connect to wireless device which has better signal strength and no wireless security setting.

Note: In Windows XP, there is a “**Windows Zero Configuration Tool**” for you to setup wireless clients. If you want to switch the configuration utilities, please follow one of the ways as below:

[First Way]

Right-click the icon in the system tray and select **Use Zero Configuration as Configuration utility**

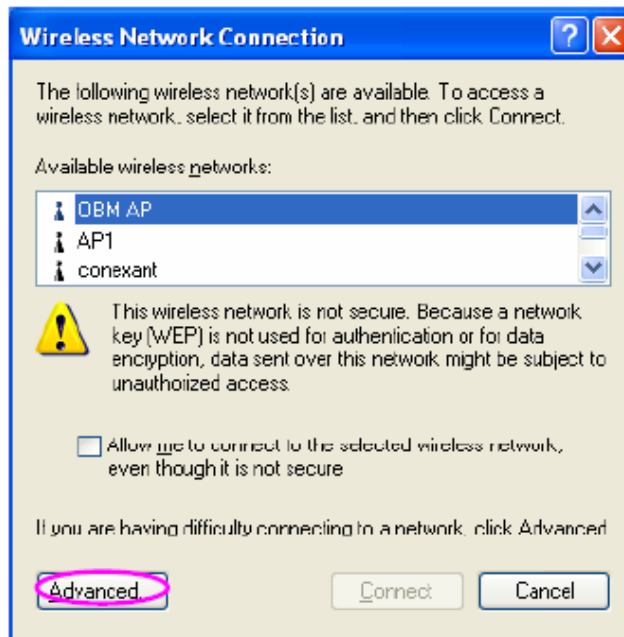


[Second Way]

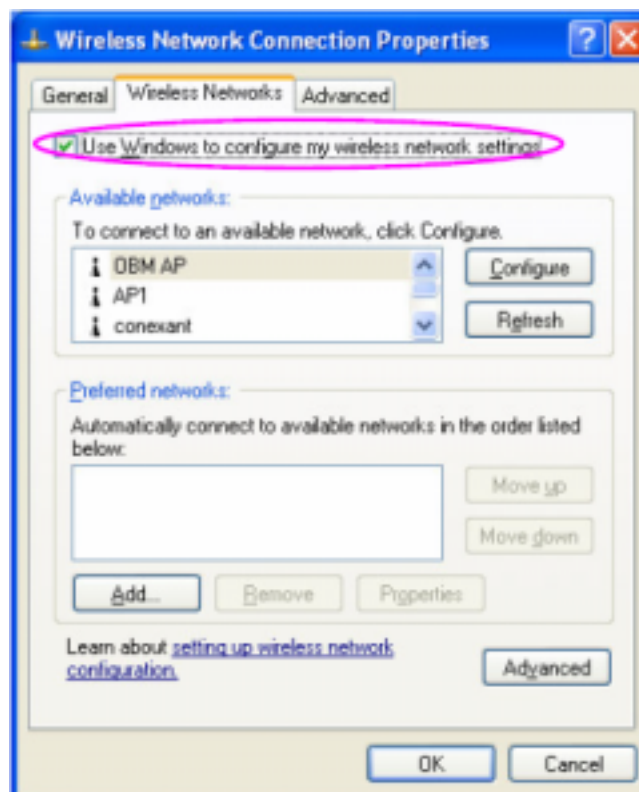
STEP1: Right-click the icon and select “**View Available Wireless Networks**”



STEP2: Click “Advanced” as below,



STEP3: Uncheck “Use Windows to configure my wireless network settings” to enable the utility for the adapter and then click **OK** to continue.



Note: If “Wireless Zero Configuration” is enabled, you can only configure the advance setting or check the link status and statistics from the configuration utility of the adapter.