SMC®
Networks

User Guide

EZ Connect™ N
2.4GHz 300Mbps Wireless PCI Adapter

SMCWPCI-N5

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.

NATIONAL RESTRICTIONS

This device is intended for home and office use in all EU countries (and other countries following the EU directive 1999/5/EC) without any limitation except for the countries mentioned below:

Country	Restriction	Reason/Remark
Bulgaria	None	General authorization required for outdoor use and public service
France	Outdoor use limited to 10 mW e.i.r.p. within the band 2454-2483.5 MHz	Military Radiolocation use. Refarming of the 2.4 GHz band has been ongoing in recent years to allow current relaxed regulation. Full implementation planned 2012
italy	None	If used outside of own premises, general authorization is required
Luxembourg	None	General authorization required for network and service supply(not for spectrum)
Norway	Implemented	This subsection does not apply for the geographical area within a radius of 20 km from the centre of Ny-Ålesund
Russian Federation	None	Only for indoor applications

NOTE: The manufacturer is not responsible for any radio or TV interference caused by unauthorized modifications to this equipment. Such modifications could void the user's authority to operate the equipment.

IMPORTANT NOTE:

FCC RADIATION EXPOSURE STATEMENT

This equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled environment. This device and its antenna must not be co-located or operating in conjunction with any other antenna or transmitter.

CANADIAN COMPLIANCES STATEMENT

This device complies with Industry Canada license-exempt RSS standard(s). Operation is subject to the following two conditions:

(1) This device may not cause interference, and

(2) This device must accept any interference, including interference that may cause undesired operation of the device.

Cet appareil est conforme aux norms CNR exemptes de licence d'Industrie Canada. Le fonctionnement est soumis aux deux conditions suivantes:

(1) cet appareil ne doit pas provoquer d'interférences et

(2) cet appareil doit accepter toute interférence, y compris celles susceptibles de provoquer un fonctionnement non souhaité de l'appareil.

INDUSTRY CANADA STATEMENT

Complies with the Canadian ICES-003 Class B specifications.

Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

This device complies with RSS 210 of Industry Canada. This Class B device meets all the requirements of the Canadian interference-causing equipment regulations.

Cet appareil numérique de la Classe B respecte toutes les exigences du Règlement sur le matériel brouilleur du Canada.

CE

Declaration of Conformity (DoC) can be obtained from www.smc.com -> support -> download

EUROPE - EU DECLARATION OF CONFORMITY

This device complies with the essential requirements of the R&TTE Directive 1999/5/EC. The following test methods have been applied in order to prove presumption of conformity with the essential requirements of the R&TTE Directive 1999/5/EC:

- EN 60950-1:2006 + A11: 2009+A1:2010 + A12:2011 Safety of Information Technology Equipment.
- EN 300 328 V1.7.1: 2006-10 Electromagnetic compatibility and Radio spectrum Matters (ERM); Wideband transmission systems; Data transmission equipment operating in the 2,4 GHz ISM band and using wide band modulation techniques; Harmonized EN covering essential requirements under article 3.2 of the R&TTE Directive.
- EN 301 489-1 V1.9.2/ 2011-09 E N 301 489-17 V2.1.1/ 2009-05 Electromagnetic compatibility and Radio spectrum Matters (ERM); Electromagnetic Compatibility (EMC) standard for radio equipment and services; Part 17: Specific conditions for 2.4 GHz wideband transmission systems and 5 GHz high performance RLAN equipment.
- EN 62311: 2008Assessment of electronic and electrical equipment related to human exposure restrictions for electromagnetic fields (0 Hz - 300 GHz).

This device is a 2.4 GHz wideband transmission system (transceiver), intended for use in all EU member states and EFTA countries, except in France and Italy where restrictive use applies.

In Italy the end-user should apply for a license at the national spectrum authorities in order to obtain authorization to use the device for setting up outdoor radio links and/or for supplying public access to telecommunications and/or network services.

This device may not be used for setting up outdoor radio links in France and in some areas the RF output power may be limited to 10 mW EIRP in the frequency range of 2454 - 2483.5 MHz. For detailed information the end-user should contact the national spectrum authority in France.

This equipment may be operated in:

The official CE certificate of conformity can be downloaded by selecting the relevant model/ part number from www.smc.com -> support -> download.

Bulgarian Български	С настоящето, SMC Networks декларира, че това безжично устройство е в съответствие със съществените изисквания и другите приложими разпоредби на Директива 1999/5/ЕС.
Czech Česky	SMC Networks tímto prohlašuje, že tento Radio LAN device je ve shodě se základními požadavky a dalšími příslušnými ustanoveními směrnice 1999/5/ES.
Danish Dansk	Undertegnede SMC Networks erklærer herved, at følgende udstyr Radio LAN device overholder de væsentlige krav og øvrige relevante krav i direktiv 1999/5/EF
Dutch Nederlands	Hierbij verklaart SMC Networks dat het toestel Radio LAN device in overeenstemming is met de essentiële eisen en de andere relevante bepalingen van richtlijn 1999/5/EG Bij deze SMC Networks dat deze Radio LAN device voldoet aan de essentiële eisen en aan de overige relevante bepalingen van Richtlijn 1999/5/EC.
English	Hereby, SMC Networks, declares that this Radio LAN device is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC.
Estonian Eesti	Käesolevaga kinnitab SMC Networks seadme Radio LAN device vastavust direktiivi 1999/5/EÜ põhinõuetele ja nimetatud direktiivist tulenevatele teistele asjakohastele sätetele.
Finnish Suomi	Valmistaja SMC Networks vakuuttaa täten että Radio LAN device tyyppinen laite on direktiivin 1999/5/EY oleellisten vaatimusten ja sitä koskevien direktiivin muiden ehtojen mukainen.

French Français	Par la présente SMC Networks déclare que l'appareil Radio LAN device est conforme aux exigences essentielles et aux autres dispositions pertinentes de la directive 1999/5/CE
German Deutsch	Hiermit erklärt SMC Networks, dass sich dieser/diese/dieses Radio LAN device in Übereinstimmung mit den grundlegenden Anforderungen und den anderen relevanten Vorschriften der Richtlinie 1999/5/EG befindet". (BMWi) Hiermit erklärt SMC Networks die Übereinstimmung des Gerätes Radio LAN device mit den grundlegenden Anforderungen und den anderen relevanten Festlegungen der Richtlinie 1999/5/EG. (Wien)
Greek Ελληνική	με την παρουσα SMC Networks δηλωνει οτι radio LAN device συμμορφωνεται προσ τισ ουσιωδεισ απαιτησεισ και τισ λοιπεσ σχετικεσ διαταξεισ τησ οδηγιασ 1999/5/εκ.
Hungarian Magyar	Alulírott, SMC Networks nyilatkozom, hogy a Radio LAN device megfelel a vonatkozó alapvetõ követelményeknek és az 1999/5/EC irányelv egyéb elõírásainak.
Italian Italiano	Con la presente SMC Networks dichiara che questo Radio LAN device è conforme ai requisiti essenziali ed alle altre disposizioni pertinenti stabilite dalla direttiva 1999/5/CE.
Latvian Latviski	Ar šo SMC Networks deklarē, ka Radio LAN device atbilst Direktīvas 1999/5/EK būtiskajām prasībām un citiem ar to saistītajiem noteikumiem.
Lithuanian Lietuvių	Šiuo SMC Networks deklaruoja, kad šis Radio LAN device atitinka esminius reikalavimus ir kitas 1999/5/EB Direktyvos nuostatas.
Maltese Malti	Hawnhekk, SMC Networks, jiddikjara li dan Radio LAN device jikkonforma mal-ħtiġijiet essenzjali u ma provvedimenti oħrajn relevanti li hemm fid-Dirrettiva 1999/5/EC.
Polish Polski	Niniejszym SMC Networks oświadcza, że Radio LAN device jest zgodny z zasadniczymi wymogami oraz pozostałymi stosownymi postanowieniami Dyrektywy 1999/5/EC.
Portuguese Português	SMC Networks declara que este Radio LAN device está conforme com os requisitos essenciais e outras disposições da Directiva 1999/5/CE.
Romanian Română	SMC Networks declară că acest dispozitiv fără fir respectă cerinţele esenţiale precum şi alte dispoziţii relevante ale Directivei 1999/5/EC.
Slovak Slovensky	SMC Networks týmto vyhlasuje, že Radio LAN device spĺňa základné požiadavky a všetky príslušné ustanovenia Smernice 1999/5/ES.
Slovenian Slovensko	SMC Networks izjavlja, da je ta radio LAN device v skladu z bistvenimi zahtevami in ostalimi relevantnimi določili direktive 1999/5/ES.

Spanish Español	Por medio de la presente SMC Networks declara que el Radio LAN device cumple con los requisitos esenciales y cualesquiera otras disposiciones aplicables o exigibles de la Directiva 1999/5/CE
Swedish Svenska	Härmed intygar SMC Networks att denna Radio LAN device står I överensstämmelse med de väsentliga egenskapskrav och övriga relevanta bestämmelser som framgår av direktiv 1999/5/EG.
Turkish Turk	SMC Networks bu kablosuz cihazın temel gereksinimleri ve 1999/5/EC yonergesindeki ilgili koşulları karşıladığını beyan eder.

CONTENTS

Package Contents **1**

Chapter 1 Product Overview **2**

1.1 Introduction 2

1.2 Features 2

1.3 Hardware Overview 2

Chapter 2 Installation **3**

2.1 Hardware Installation 3

2.2 Software Installation 3

Chapter 3 Connect to a Wireless Network **8**

3.1 To connect using SMC Wireless Configuration Utility 8

3.2 To connect using WPS 11

3.2.1 PBC (Push Button Configuration) method 11

3.2.2 PIN method 13

3.3 To connect using Windows built-in wireless utility 15

3.3.1 In Windows XP 15

Chapter 4 Management **18**

4.1 Profile 18

4.1.1 Add a profile 18

4.1.2 Modify a profile 20

4.1.3 Delete a profile 21

4.2 Advanced 21

4.3 About 22

Chapter 5 AP Mode (For Windows 7 only) **23**

5.1 SoftAP mode 23

Chapter 6 Uninstall Software **26**

6.1 Uninstall the utility software from your PC 26

6.2 Uninstall the driver software from your PC 27

Appendix A: Specifications **29**

Appendix B: Glossary **31**

Package Contents

The following items should be found in your package:

- One SMCWPCI-N5 300M Wireless N PCI Adapter
- Two detachable omnidirectional antennas
- One low-profile bracket
- Quick Installation Guide
- SMC Warranty Card
- EZ Installation Wizard & Document CD, including:
  - SMC Wireless Configuration Utility
  - User Guide
  - Other Helpful Information

☞ **Note:**

Make sure that the package contains the above items. If any of the listed items are damaged or missing, please contact with your distributor.

Conventions:

The ‘Adapter’ mentioned in this user guide stands for SMCWPCI-N5 300M Wireless N PCI Adapter without any explanations.

Chapter 1 Product Overview

1.1 Introduction

The adapter is an 802.11n client device designed to deliver a high-speed and unrivaled wireless performance for your desktop. With a faster wireless connection, you can get a better Internet experience, such as downloading, gaming, video streaming.

With the 802.11n technology, higher throughput improvements using MIMO (multiple input, multiple output antennas), the SMCWPCI-N5's auto-sensing capability allows high packet transfer rate of up to 300Mbps for maximum throughput. It has good capability on anti-jamming, and it can also interoperate with other wireless (802.11b) products. The adapter supports WEP, WPA and WPA2 encryption to prevent outside intrusion and protect your personal information from being exposed.

The adapter is easy to install and manage with the Quick Setup Wizard guiding you step-by-step through the installation process and the SMC Wireless Configuration Utility instructing you to quickly set up a wireless connection.

With unmatched wireless performance, reception, and security protection, the SMCWPCI-N5 is the best choice for easily adding or upgrading wireless connectivity to your desktop.

1.2 Features

- Complies with IEEE 802.11n, IEEE 802.11g, IEEE 802.11b standards
- Supports WPA/WPA2 data security, TKIP/AES encryption
- Supports high rate of up to 300Mbps for maximum throughput, supports automatically adjust to lower speeds due to distance or other operating limitations
- Provides 32-bit PCI interface
- Supports Ad Hoc and Infrastructure modes
- Good capability on anti-jamming
- Supports roaming between access points when configured under Infrastructure mode
- Easy to configure and provides monitoring information
- Supports Windows XP, Windows Vista and Windows 7
- Two antennas which are listed in a format of 2x2 for two receivers and two transmitters

1.3 Hardware Overview

LED status:

Status	Working Status
Off	The driver has not been installed; The adapter's radio has been disabled.
Flashing Slowly	The driver has been installed but no data is being transmitted or received.
Flashing Quickly	Data is being transmitted or received.

Chapter 2 Installation

Please install the PCI adapter into your computer before installing the driver software from the Resource CD.

2.1 Hardware Installation

1. Turn off your computer and unplug the power cord from the computer.
2. Open the case and locate an available PCI slot. Remove the metal slot cover on the back of the PC. Keep the screws. Turn to your computer manufacturer for instructions if needed.
3. Insert the PCI adapter into the PCI slot. Make sure that all of its pins have touched the slot's contacts. Once the adapter has been firmly inserted, screw its fastening tab. Then, close your PC case.
4. Insert the power cable back into the computer and turn on your computer.

When the **Found New Hardware** wizard appears, click **Cancel**.

2.2 Software Installation

The adapter's Setup Wizard will guide you through the installation procedures for Windows 7, Windows Vista, and Windows XP. The procedures in different systems are quite similar, therefore the procedures in Windows XP are shown here as an example.

1. Insert the Resource CD into your CD-ROM drive, and open the folder named SMCWPCI-N5. Double-click **Setup.exe** to start the installation, and then the following screen for preparing setup will appear.

Figure 2-1

2. The **InstallShield Wizard** window will appear. Click **Next** to continue.

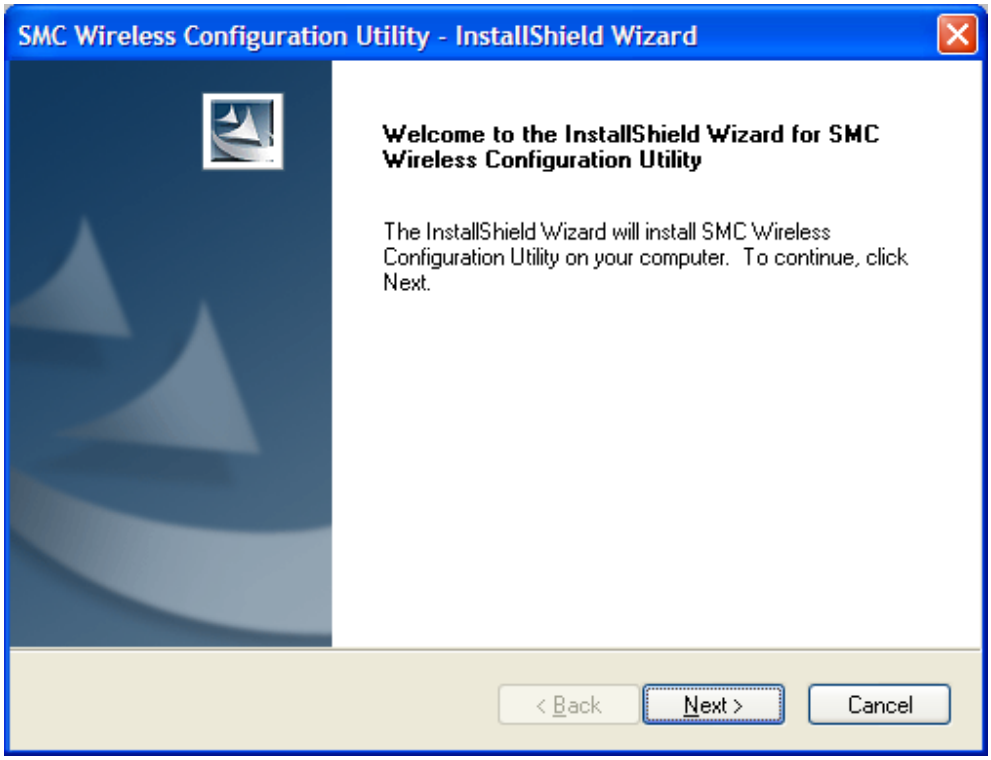

Figure 2-2

3. Choose a setup type. It is recommended to select **Install SMC Wireless Configuration Utility and Driver**. Selecting **Install Driver Only** will only install driver. Click **Next** to continue.

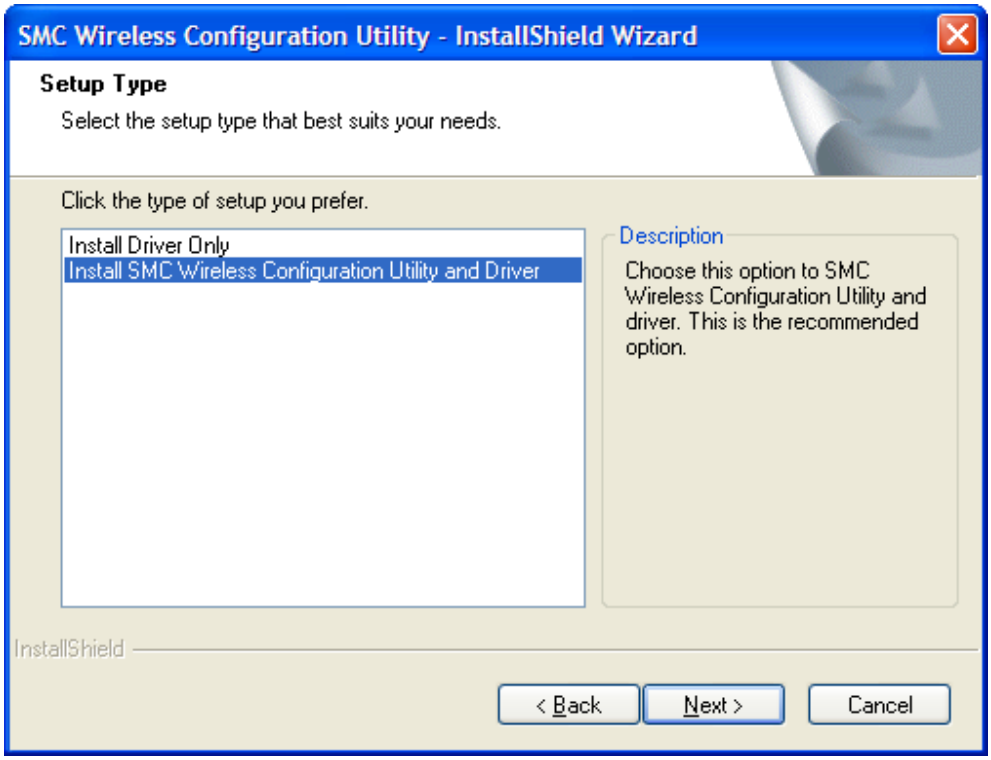

Figure 2-3

4. Click **Change** to specify the destination location for the software or you can leave it default. Click **Next** in the screen below to continue.

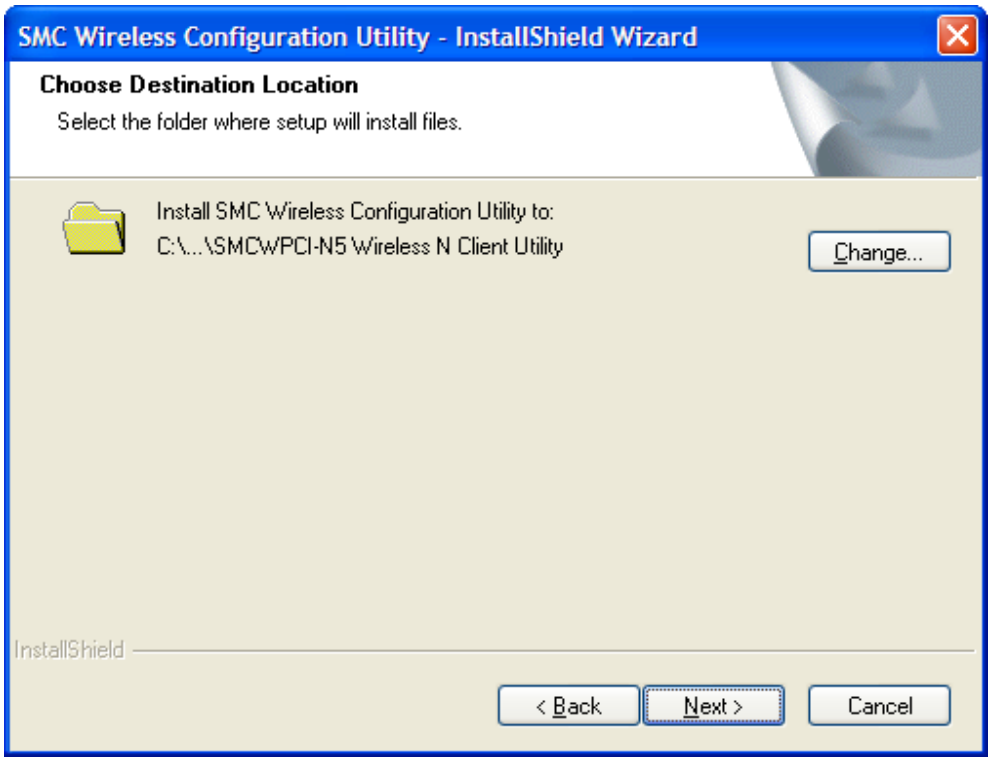

Figure 2-4

5. Click **Install** to continue the setup.

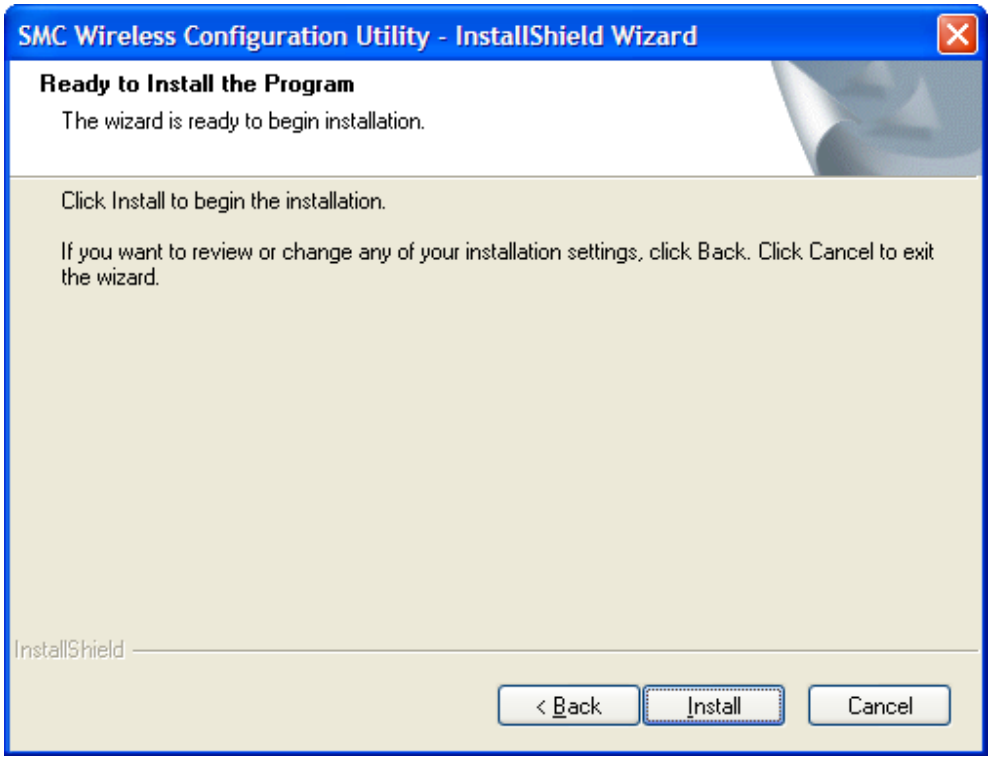

Figure 2-5

6. The utility and drivers will install. This may take 1~2 minutes.

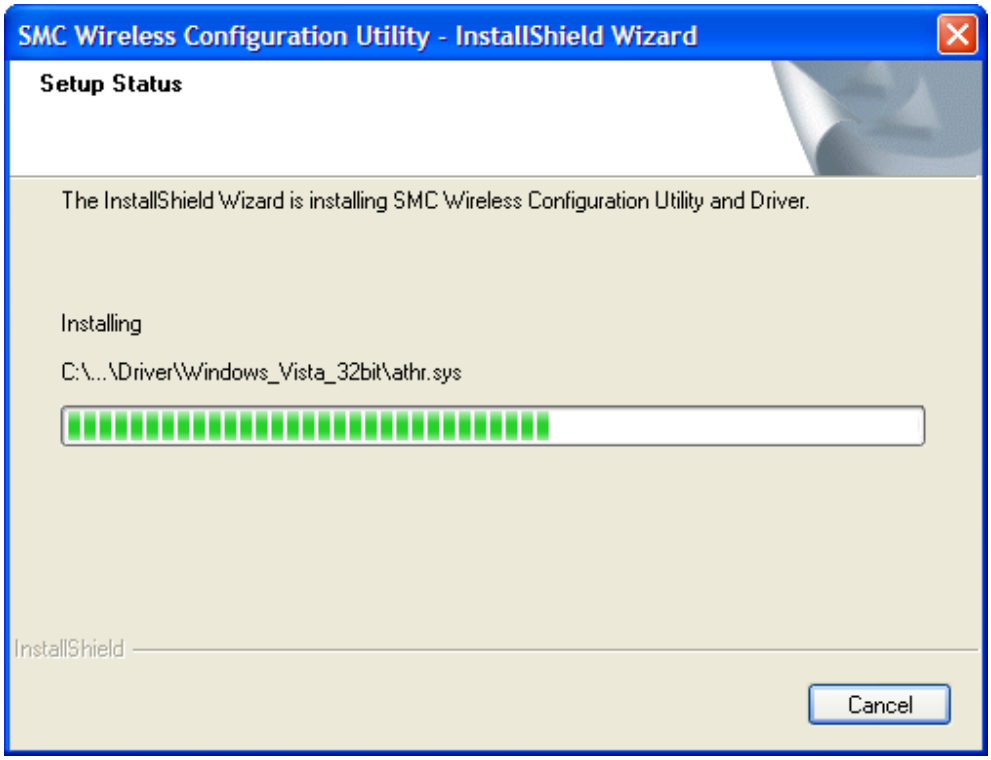

Figure 2-6

7. If Windows XP warns about Windows Logo testing, click **Continue Anyway** to continue the installation.

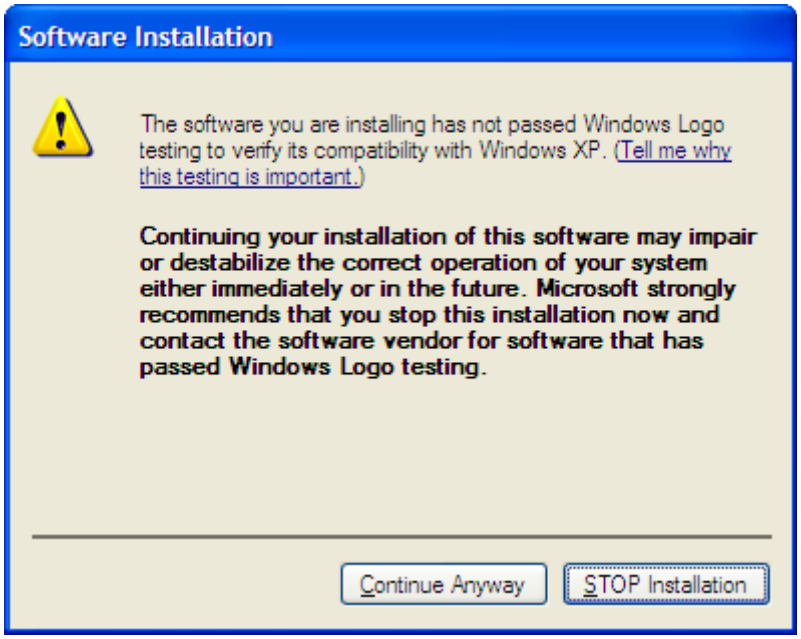

Figure 2-7

8. After all the steps above, you will see the screen below. Click **Finish** to complete the setup.

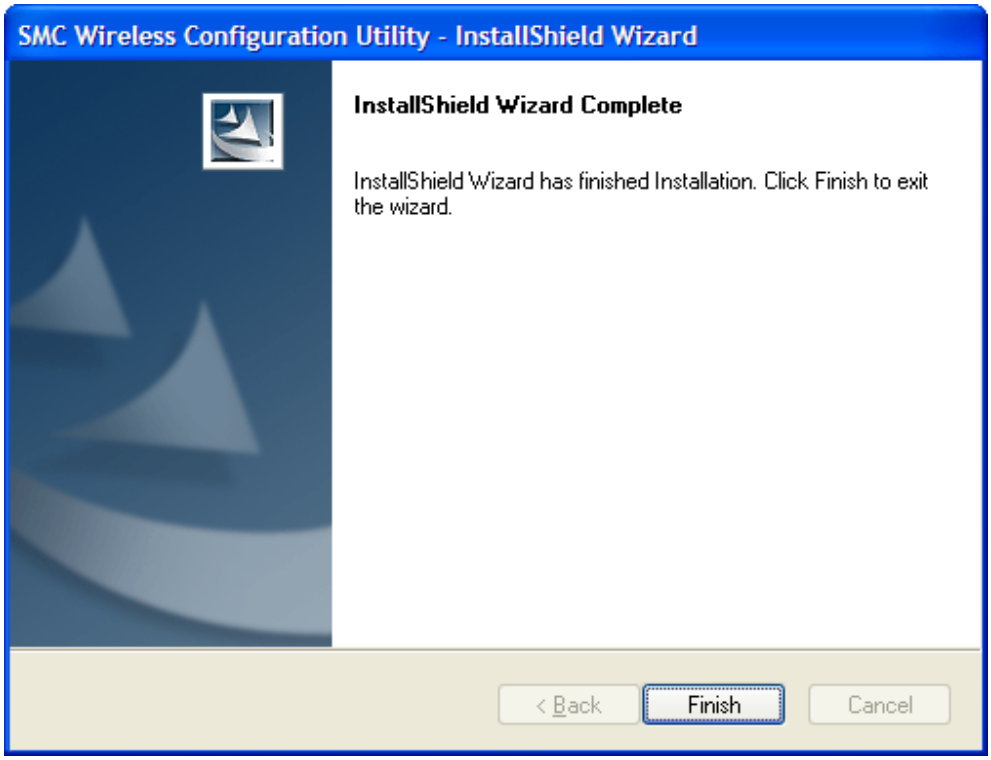

Figure 2-8

9. After installation, the utility configuration page will automatically pop up as shown in the following figure and the icon will appear in your system tray. To connect to a network, please refer to Chapter 3 Connect to a Wireless Network.

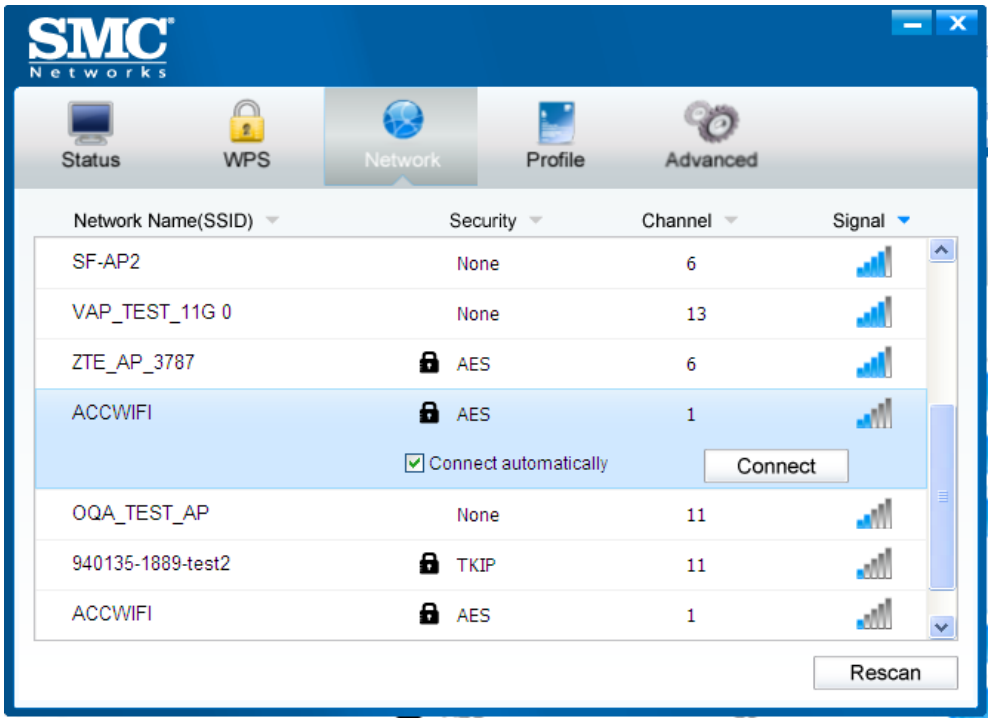

Figure 2-9

Chapter 3 Connect to a Wireless Network

With both the hardware and software successfully installed into your computer, you can quickly connect to a wireless network using one of the following methods.

- Method One:

To connect using SMC Wireless Configuration Utility

SMCWPCI-N5 uses the SMC Wireless Configuration Utility as the management software. The utility provides you an easy interface to connect to a network and to change any settings related to the wireless adapter.

- Method Two:

To connect using QSS

By this method, you can connect to your network quickly on the condition that your router or access point supports QSS or WPS as is called by some other brands.

- Method Three:

To connect using Windows built-in wireless utility

Windows users may use the built-in wireless utility to connect to a wireless network. For specific operations, please go to To connect using Windows built-in wireless utility.

3.1 To connect using SMC Wireless Configuration Utility

1. After installation, the utility configuration page will automatically pop up on the screen. If the utility page does not pop up, you can also launch the utility by double-clicking on the icon on your desktop or the icon in your system tray.

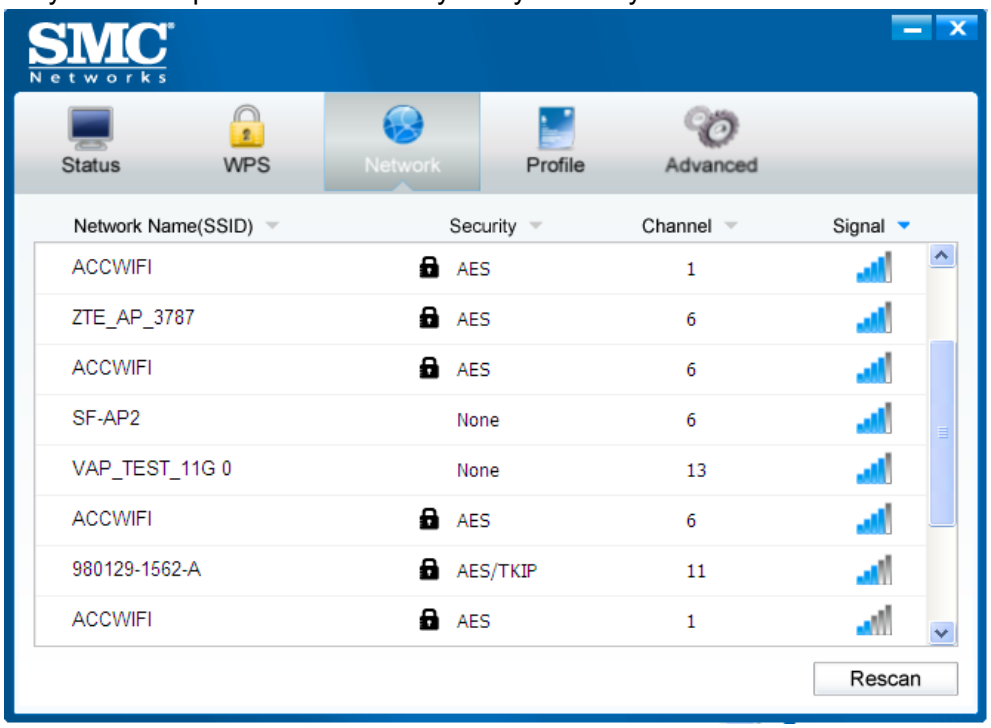

Figure 3-1

2. The **Network** page will display all wireless networks that are available in your area. To connect to a network, simply highlight the wireless network name and click **Connect**.
   SSID (Service Set Identifier) is the name of the wireless network. The adapter will automatically connect to your target network next time if you tick **Connect automatically**.

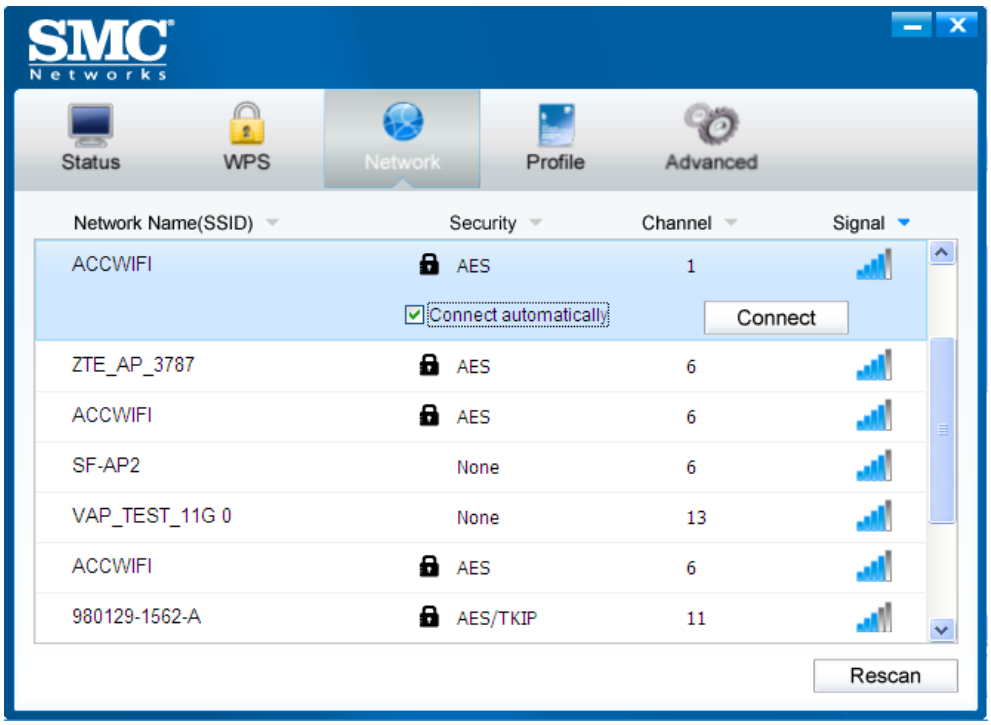

Figure 3-2

3. If word **None** appears behind the SSID, this means the network to be connected is not security-enabled and you can connect to the network without entering a key. To prevent outside intrusion and safeguard your network, it is strongly recommended to set a password to your router or access point.

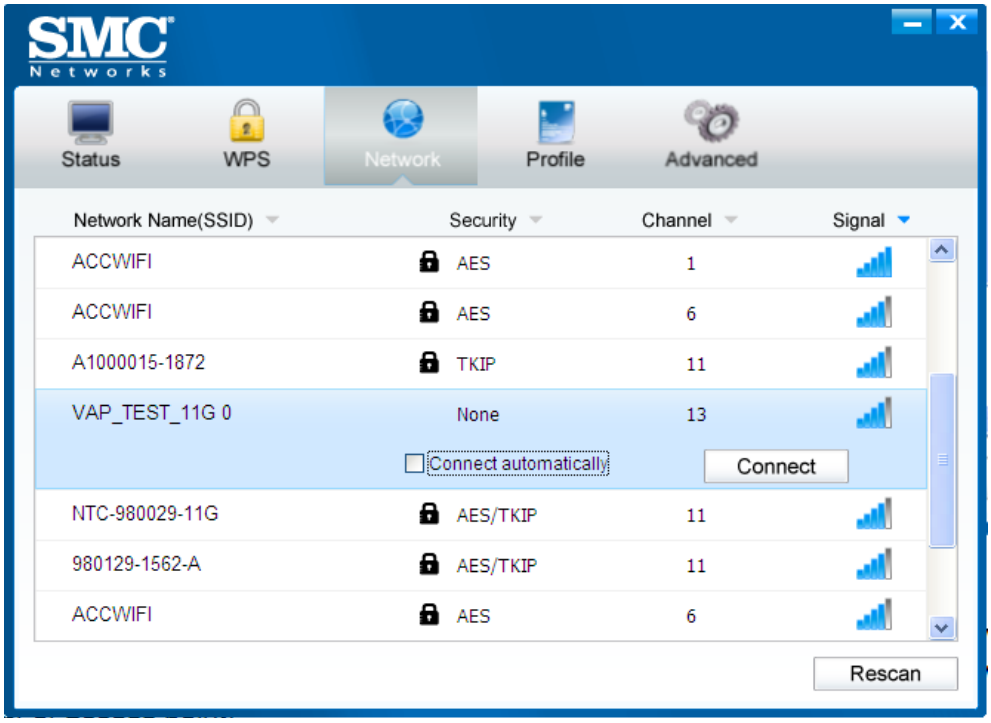

Figure 3-3

If there is a “lock” icon behind the SSID, this means the wireless network is secure and the corresponding security type will display. You must know the encryption key/security settings to connect.

Input the password which can be found on the configuration page of your router or access point, then click **OK** to continue. Or push the QSS/WPS button on your router if your router features the QSS/WPS function to quickly build a connection without having to enter a key.

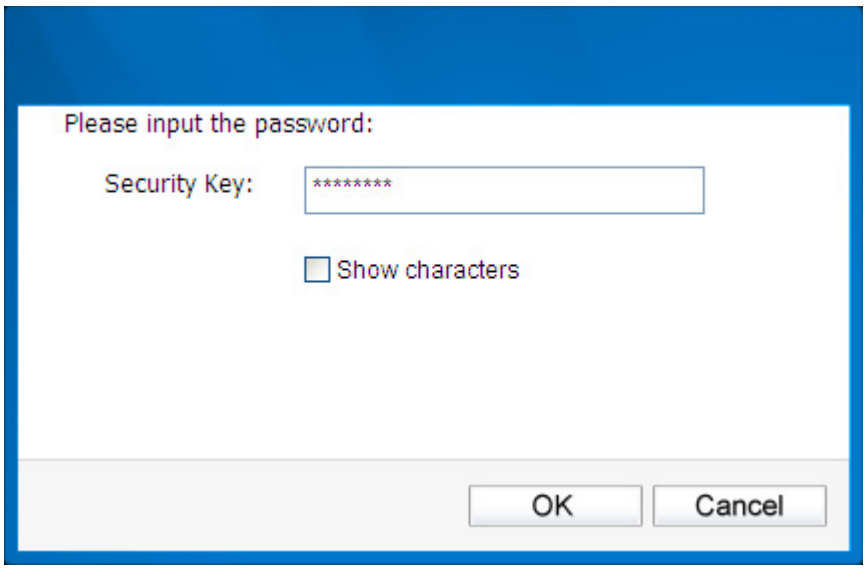

Figure 3-4

4. You have now successfully connected to your network. Click **Close** to enjoy the Internet.

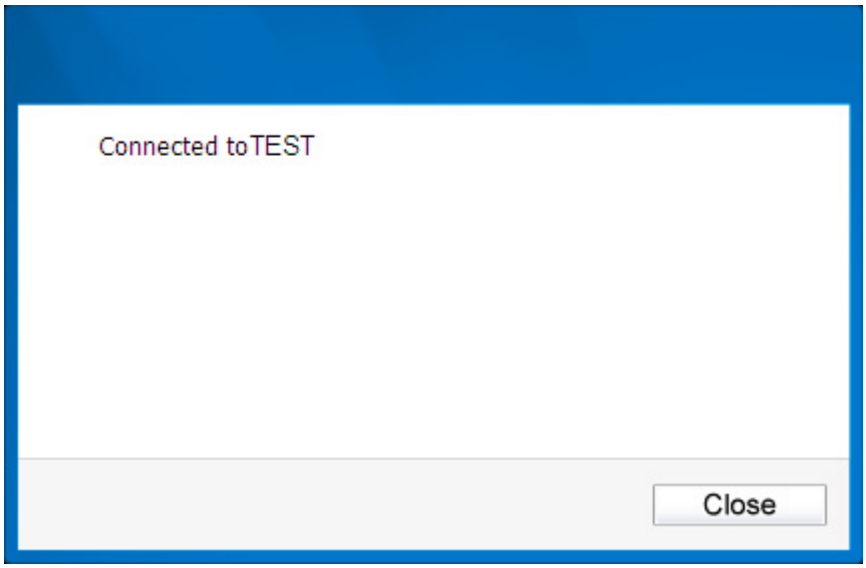

Figure 3-5

5. To view more information about the network currently connected, click **Status** in the tools section and the page will display information such as the network type, link quality and wireless mode.

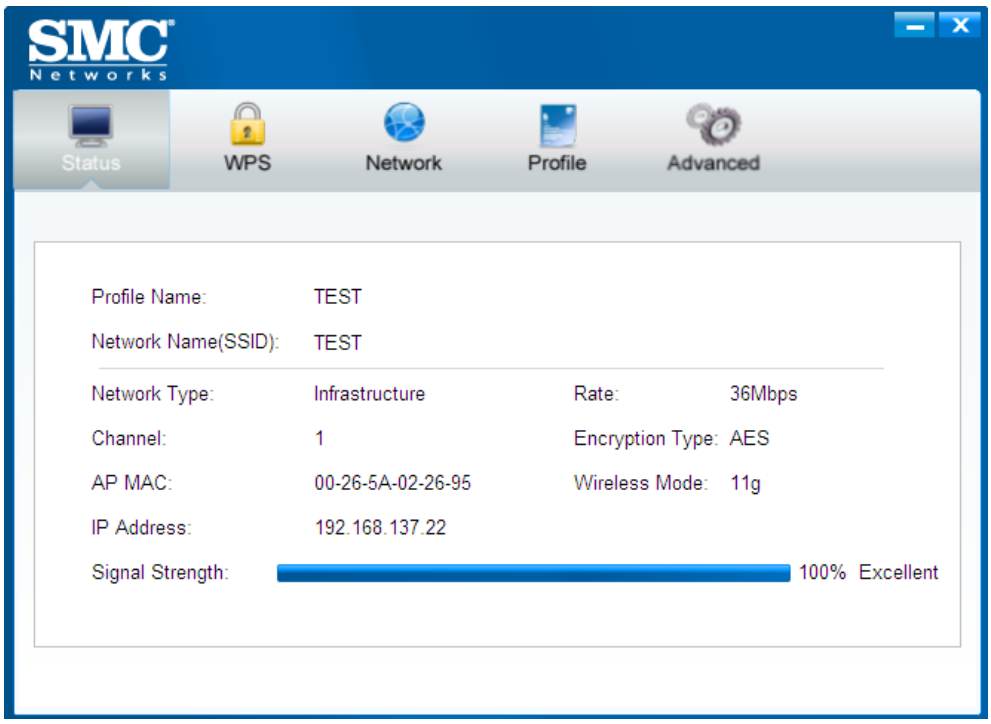

Figure 3-6

3.2 To connect using WPS

WPS (Wi-Fi Protected Setup) function allows you to add a new wireless device to an existing network quickly.

If the wireless router supports Wi-Fi Protected Setup (WPS) or QSS, you can establish a wireless connection between wireless card and router using either Push Button Configuration (PBC) method or PIN method. Three WPS connection methods are listed in the following parts while the third method is only supported in Windows XP and Windows Vista.

3.2.1 PBC (Push Button Configuration) method

1. Press the WPS/QSS button on the back panel of the router.
2. Open SMC WIRELESS CONFIGURATION UTILITY and click **WPS** tab. Select **Push the button on my access point or wireless router** and then click **Connect**.

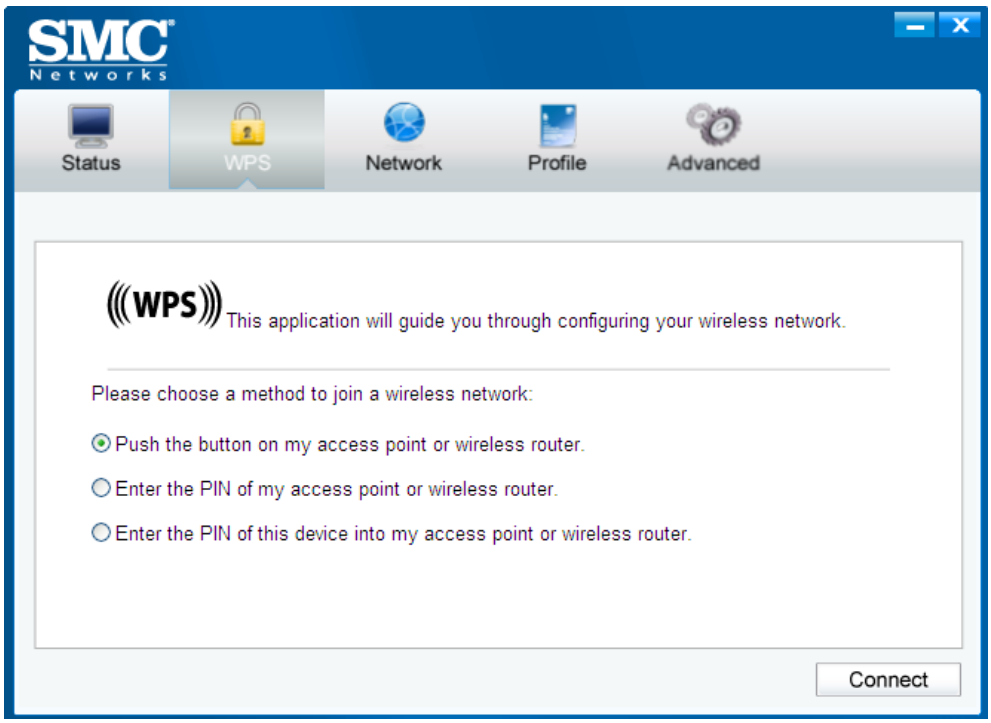

Figure 3-7

3. The adapter will be connecting to the target network.

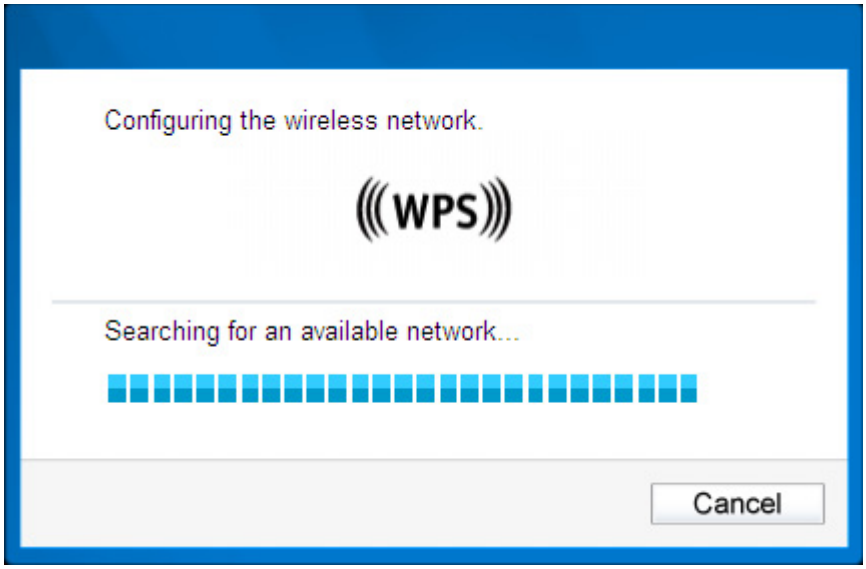

Figure 3-8

4. When the following window appears, you have successfully connected to the network.

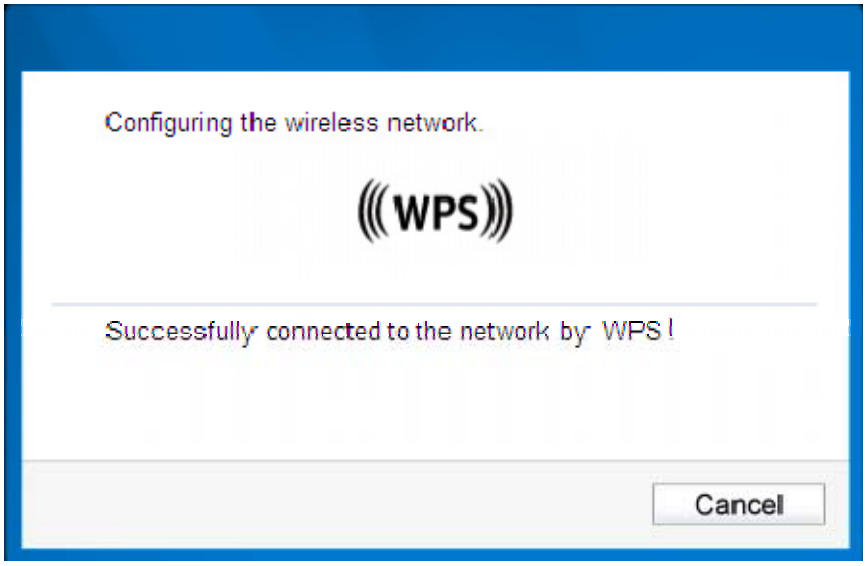

Figure 3-9

3.2.2 PIN method

There are two ways to configure the QSS by PIN method:

1) Enter the PIN from your AP device.
2) Enter a PIN into your AP device.

Following are detailed configuration procedures of each way.

3.2.2.1. Enter the PIN from your AP device

1. Open SMC WIRELESS CONFIGURATION UTILITY and click **WPS** tab. Select **Enter the PIN of my access point or wireless router**. In the empty field beside PIN, enter the PIN labeled on the bottom of the router (here takes 13492564 for example). If you have generated a new PIN code for your router, please enter the new one instead. Click **Connect** to continue.

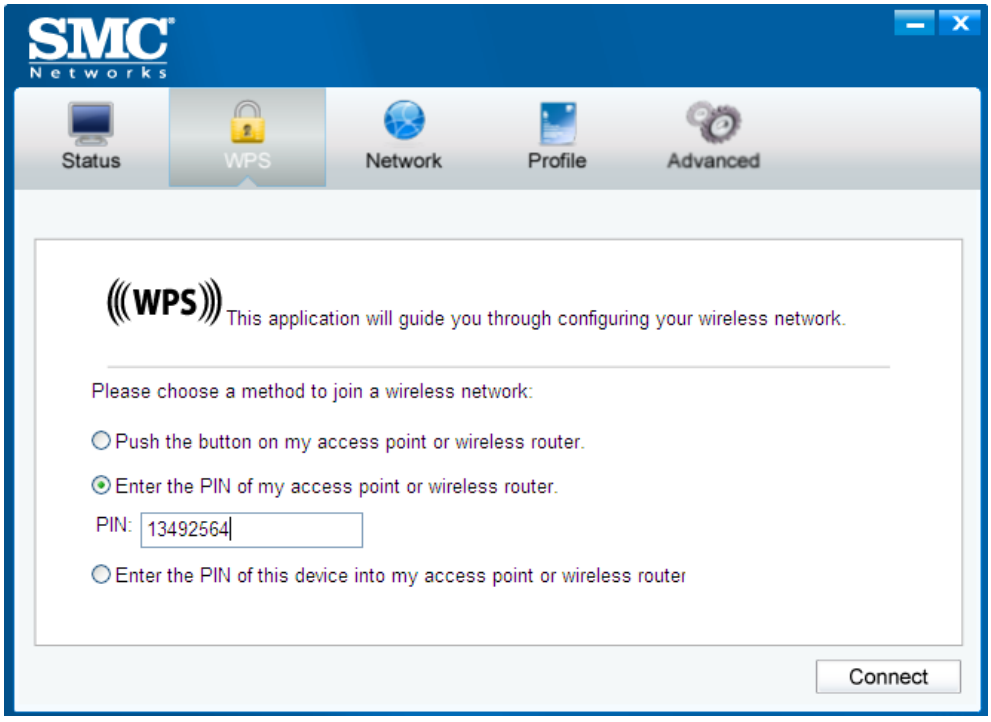

Figure 3-10

2. The adapter will be connecting to the target network.

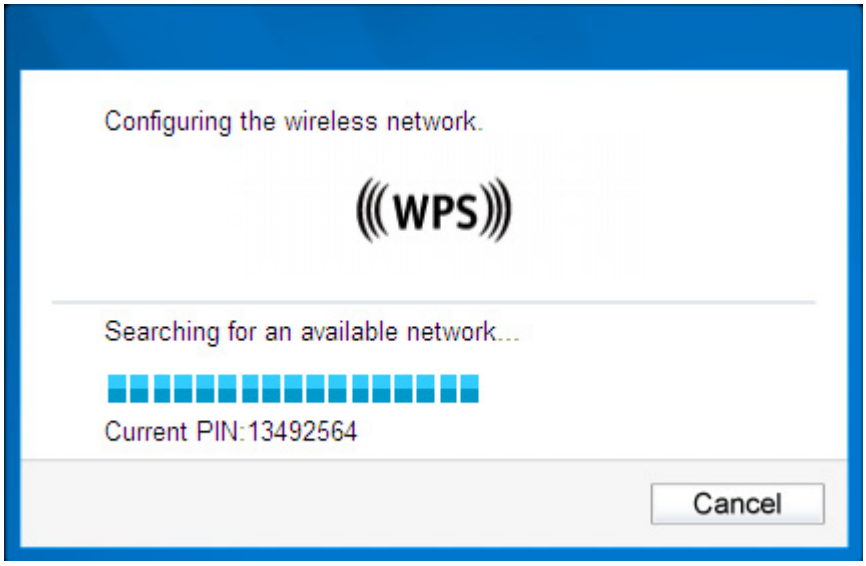

Figure 3-11

3. When Figure 3-9 appears, you have successfully connected to the network.

3.2.2.2. Enter a PIN into your AP device

This method is only available in Windows XP and Windows Vista.

1. Open SMC WIRELESS CONFIGURATION UTILITY and click **WPS** tab. Select **Enter the PIN of this device into my access point or wireless router**. In the field beside PIN, you will see the PIN value of the adapter which is randomly generated. Click **Connect** to continue.

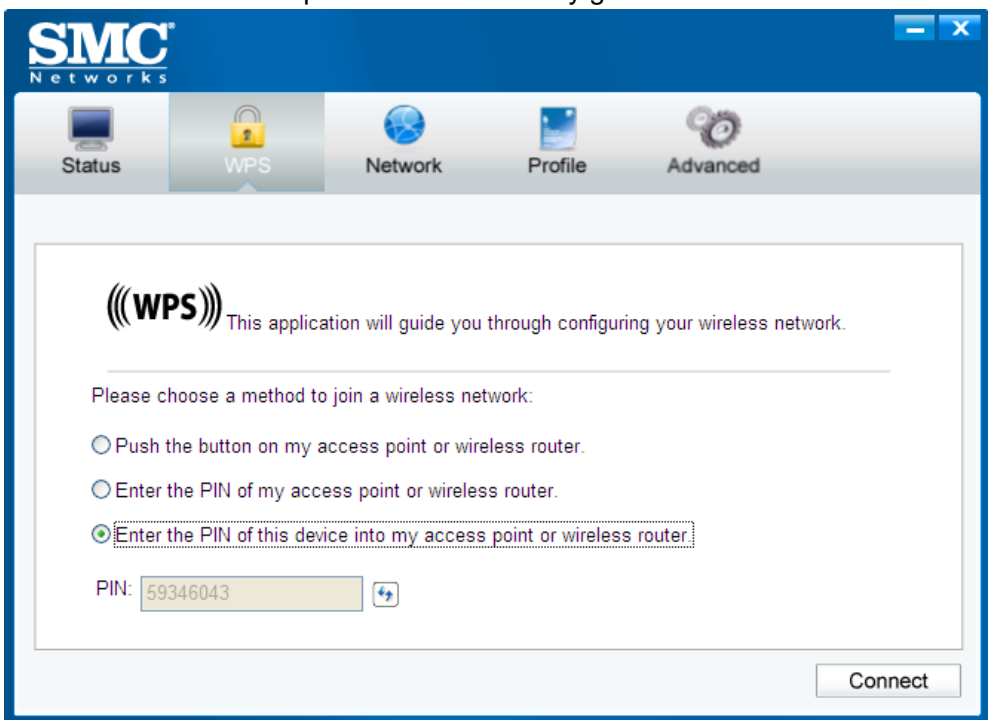

Figure 3-12

2. Open your router's Web-based Utility and click WPS/QSS link on the left of the main menu. Then click **Add device** and the following figure will appear. Enter the PIN value of the adapter in the empty field beside PIN and then click **Connect**.
3. When **Connect successfully** appears on the screen, the WPS configuration is complete. Or you can view the adapter's utility page to see whether the connection has been successful as shown in Figure 3-15.

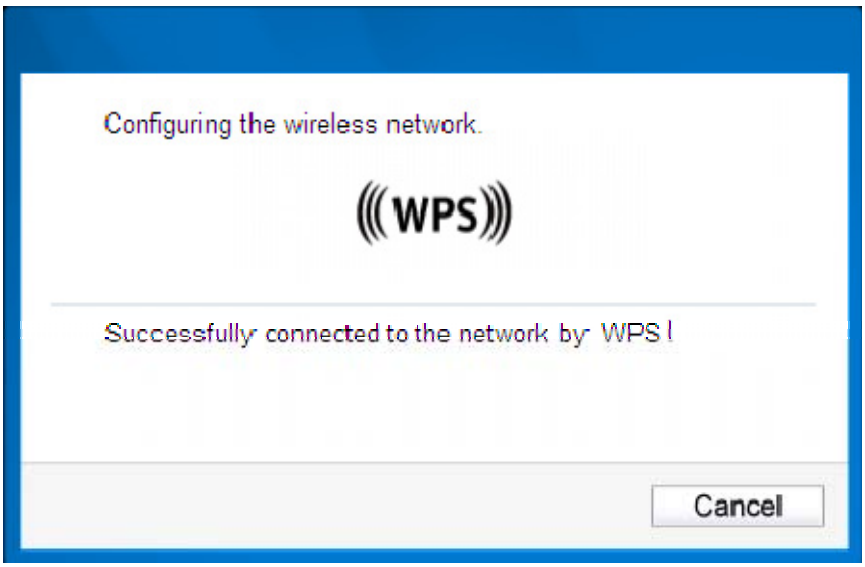

Figure 3-13

3.3 To connect using Windows built-in wireless utility

The steps are similar for all Microsoft Windows systems. The interface for Windows XP is described in this user guide.

3.3.1 In Windows XP

Windows XP users may use the built-in wireless utility. Follow the steps below.

1. Right-click on the utility icon in your system tray (lower-right corner). Select **Switch to SMC Wireless N Client Utility**.

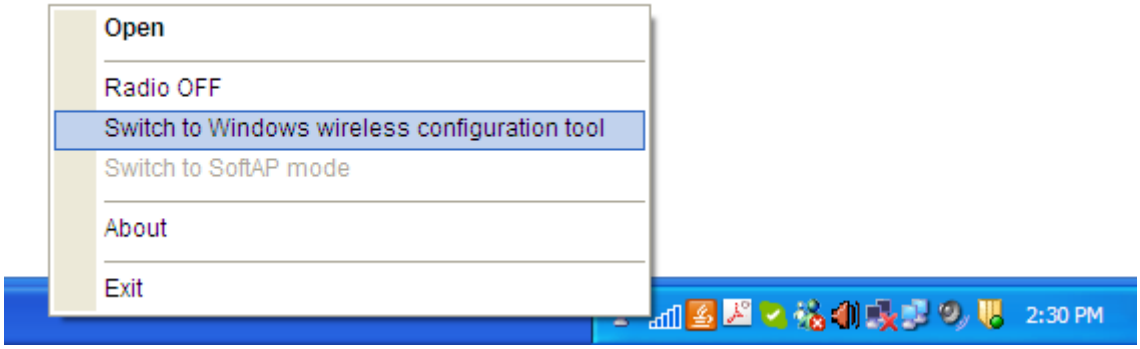

Figure 3-14

Or double-click the utility icon to load the utility configuration page. Click **Advanced** in the tools section and then select **Use Windows wireless configuration tool** in the figure shown below. Click **OK** when Figure 3-25 appears to continue.

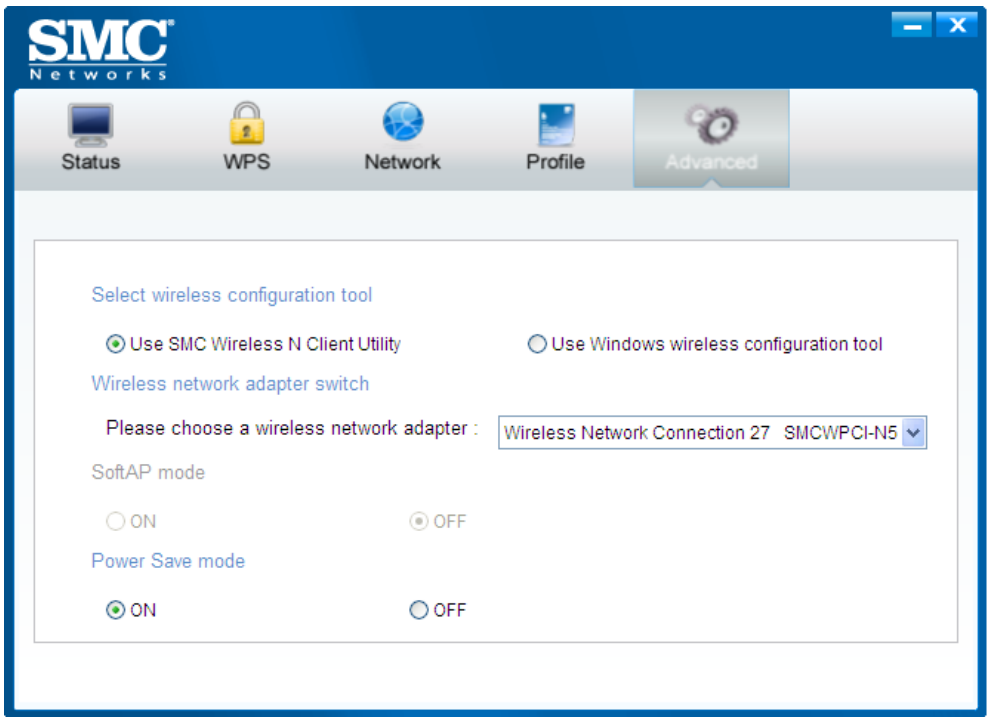

Figure 3-15

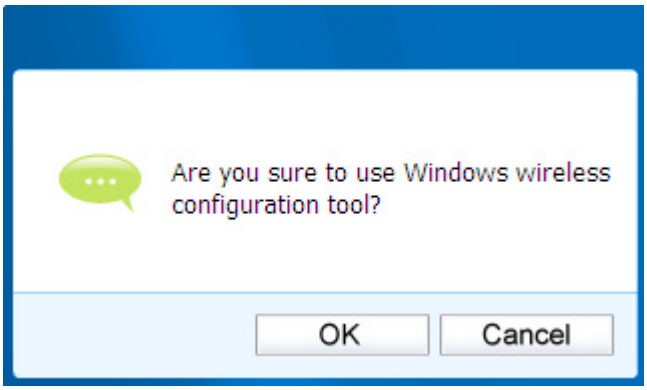

Figure 3-16

2. Right-click on the wireless computer icon in your system tray (lower-right corner). Select **View Available Wireless Networks**.

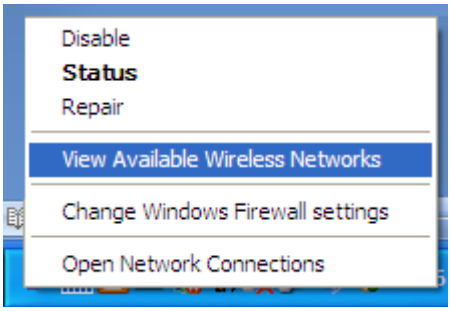

Figure 3-17

3. The utility will display any available wireless networks in your area. Click on a network (displayed using the SSID) and click the **Connect** button.

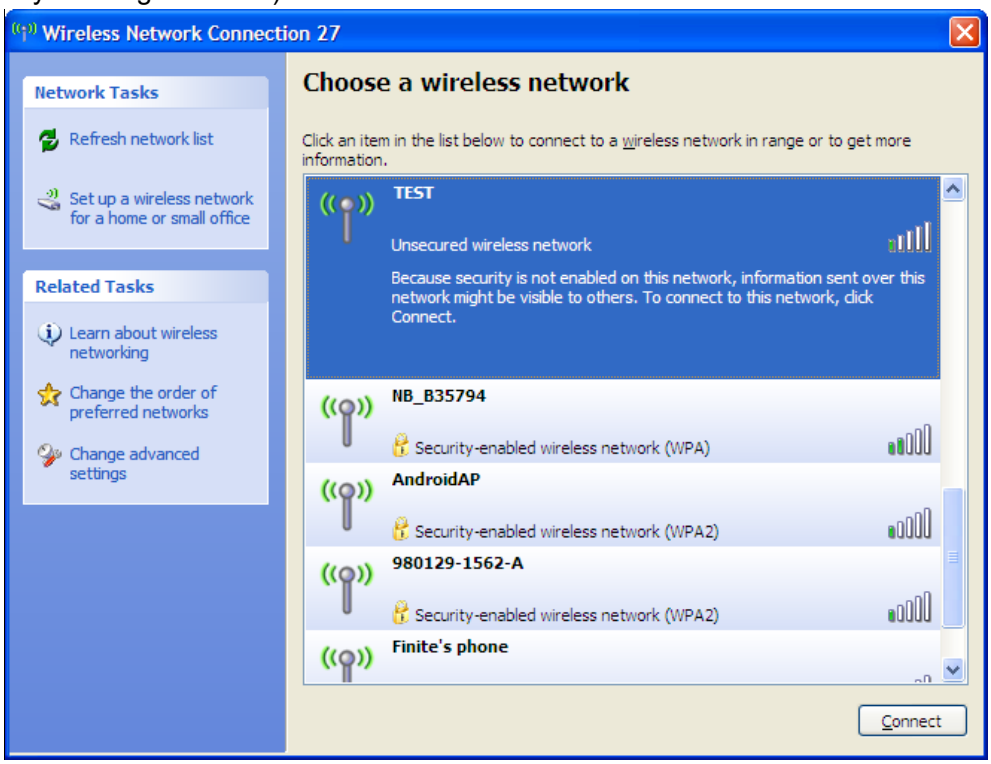

Figure 3-18

4. If the network is security-enabled, you will be prompted to enter the key as shown below. If not, you will connect to the network directly without entering a key.

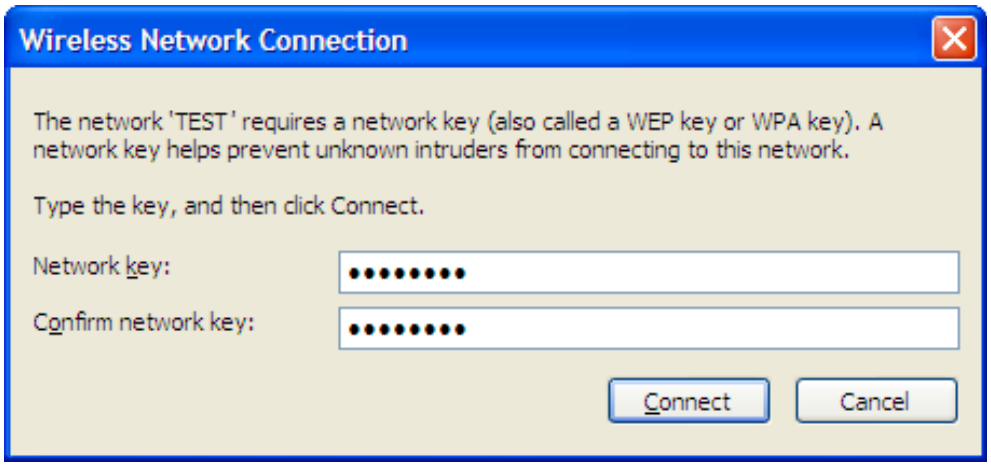

Figure 3-19

Chapter 4 Management

This section will show you how to configure your SMCWPCI-N5 adapter using the SMC Wireless Configuration Utility.

The SMCWPCI-N5 adapter uses the SMC Wireless Configuration Utility as the management software. The utility provides users with an easy interface to change any settings related to the adapter. Double-clicking on the  icon on your desktop will start the utility.

4.1 Profile

Your wireless networks may vary in different places like home, office or coffee shop. With **Profile** management, you can easily save and manage various networks to be connected, saving you the trouble of having to repeat the same configurations. Click **Profile** in the tools section, the following page will appear.

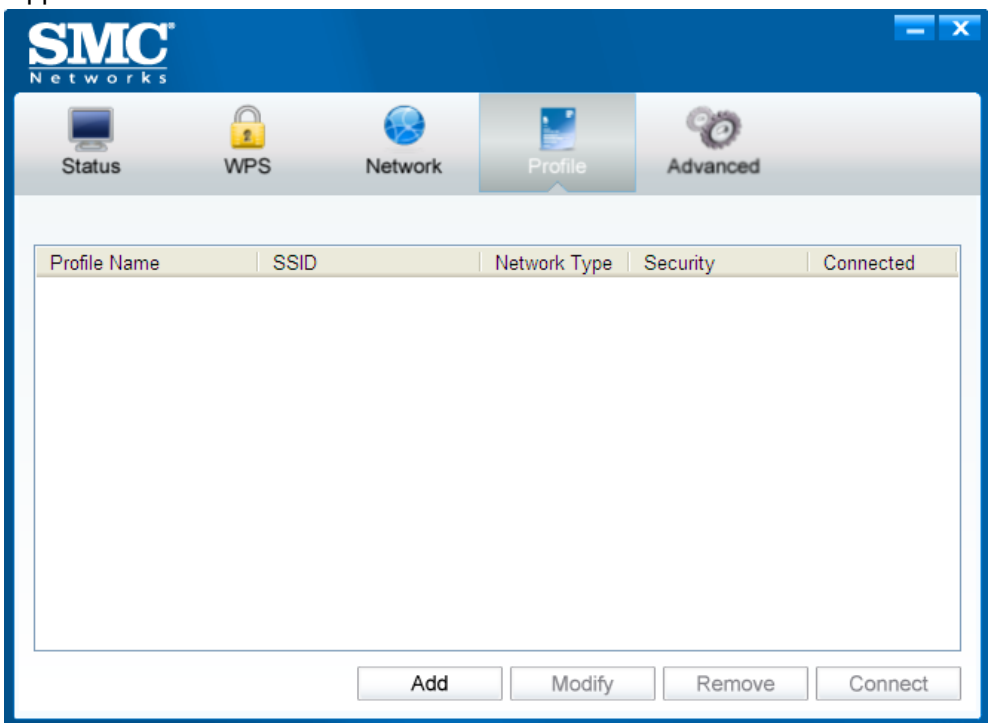

Figure 4-1

4.1.1 Add a profile

To add a profile, click the **Add** button on the bottom of the screen. Then the configuration window will appear.

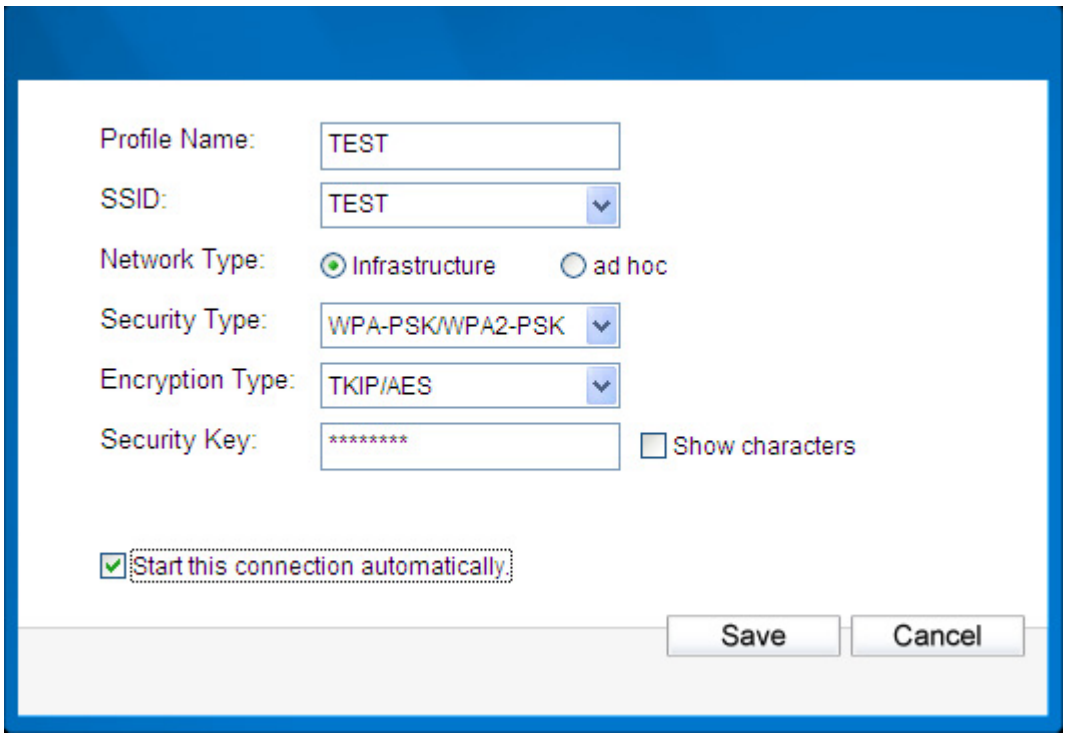

Figure 4-2

The following items can be found on the screen.

- **Profile Name:** Enter a name for your profile (e.g. Home, Office, CoffeeShop). The same name is not allowed. Please also note that no space is allowed between words.
- **SSID:** Select the target network from the drop-down list.
- **Network Type:** Select the network type. If you are connecting to a wireless router or access point, select **Infrastructure**. If you are connecting to another wireless client such as an adapter, select **ad-hoc**.
- **Security Type:** Select the security type from the list. Three options are available: **WPA-PSK/WPA2-PSK**, **WEP** and **None**. The security type should be the same as on your router or access point, otherwise, you will not be able to build a successful connection.
  WPA-PSK/WPA2-PSK uses a passphrase or key to authenticate your wireless connection. The key must be the exact same key entered on your wireless router or access point. None stands for no security. It is recommended to enable WPA-PSK/WPA2-PSK on your wireless router or access point before configuring your wireless adapter.
- **Encryption Type:** From the drop-down menu, select the encryption type that is the same as on your router or access point.
- **Security Key:** Enter the passphrase exactly as it is on your wireless router or access point. Click the **Show characters** box to see the passphrase. Unchecking it will hide it.
- **Start this connection automatically:** check this box to automatically connect to this network next time.
- **Save:** Click **Save** to save your settings.

Complete the above settings, the Profile page should look like the following figure. To connect to a desired network, just highlight the network you would like to connect to and click the **Connect** button on the bottom of the window.

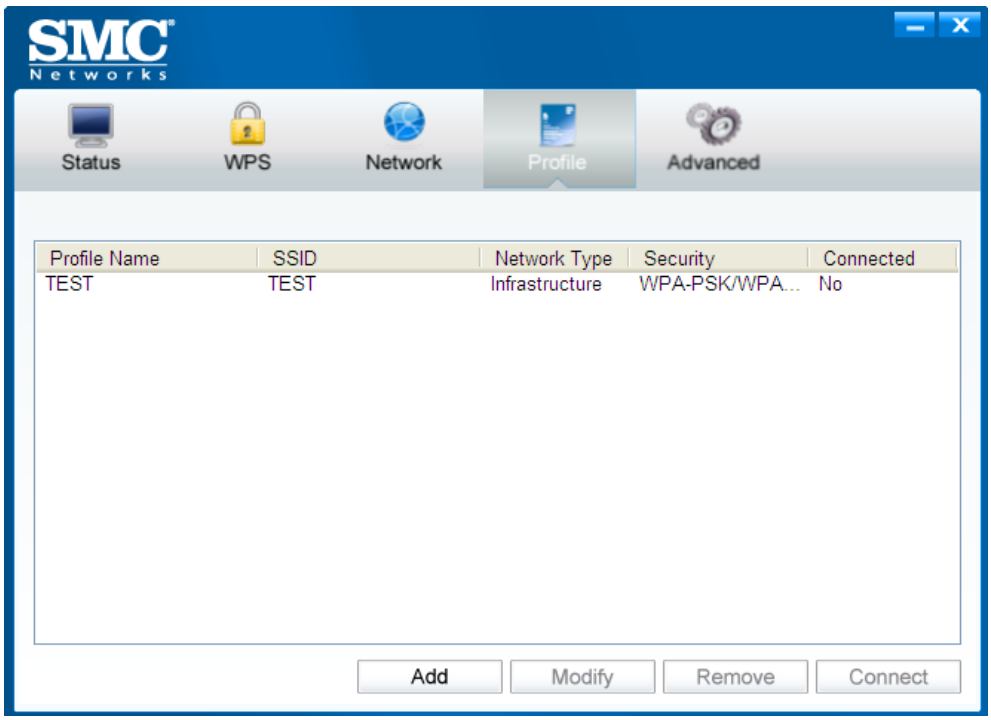

Figure 4-3

4.1.2 Modify a profile

You may edit an existing profile by clicking the **Modify** button from the Profile page. For instance, you may like to change the profile name from test to test1 or you may want to specify another SSID for profile Home. After all the changes, click **Save** to make the changes take effect.

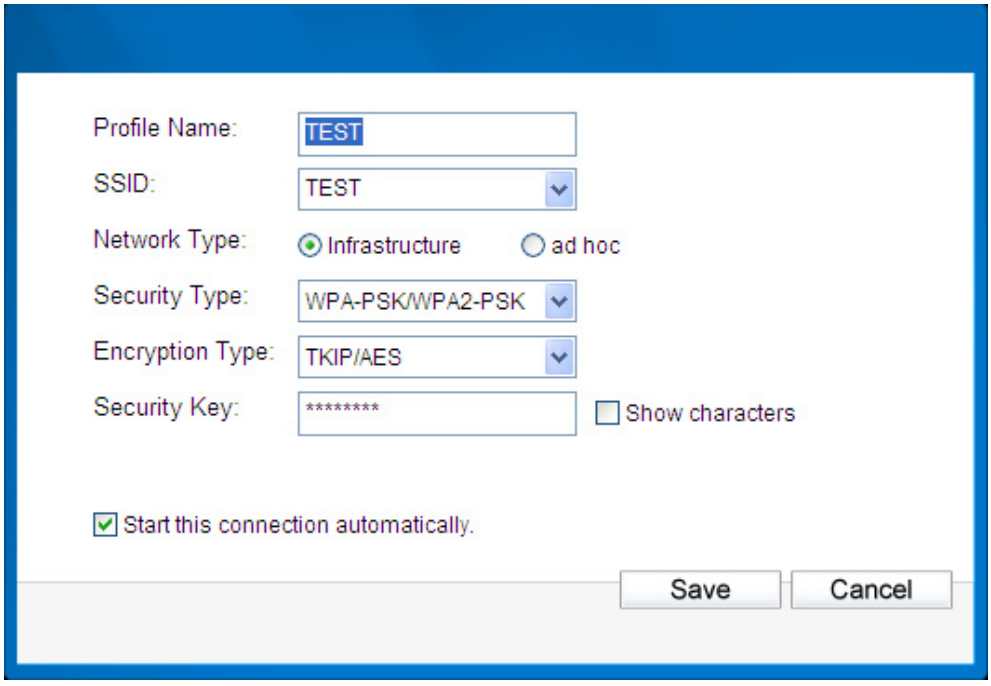

Figure 4-4

4.1.3 Delete a profile

To delete an existing profile, highlight the profile name and click **Remove** on the bottom of the screen or press the Delete button on your keyboard. When the following figure appears, click **OK** to continue.

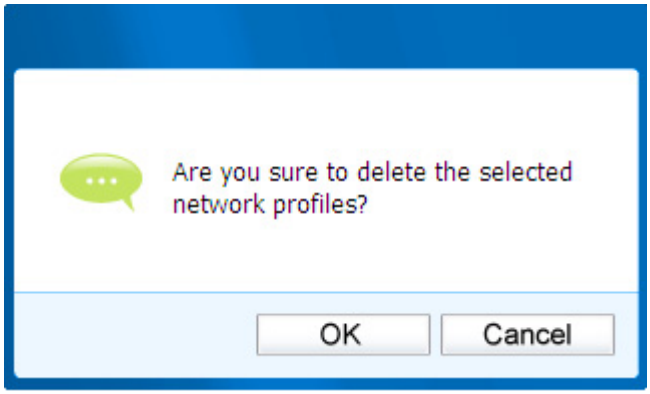

Figure 4-5

4.2 Advanced

The following configurations can be made on the **Advanced** page:

1) To select wireless configuration tool.
   Here you can decide which tool to use, either the SMC WIRELESS CONFIGURATION UTILITY or the Windows wireless configuration tool. This option is available only in Windows XP.
2) To switch to another wireless network adapter.
   Here you can switch to another adapter installed in your computer. The adapters successfully installed in your computer will be listed in the drop-down menu if the adapters are supported by this utility.
3) To switch to SoftAP mode.
   Once enabled, the adapter will be able to work as an AP. This option is only available in Windows 7.
4) To change the power save mode. The default option is **ON**.

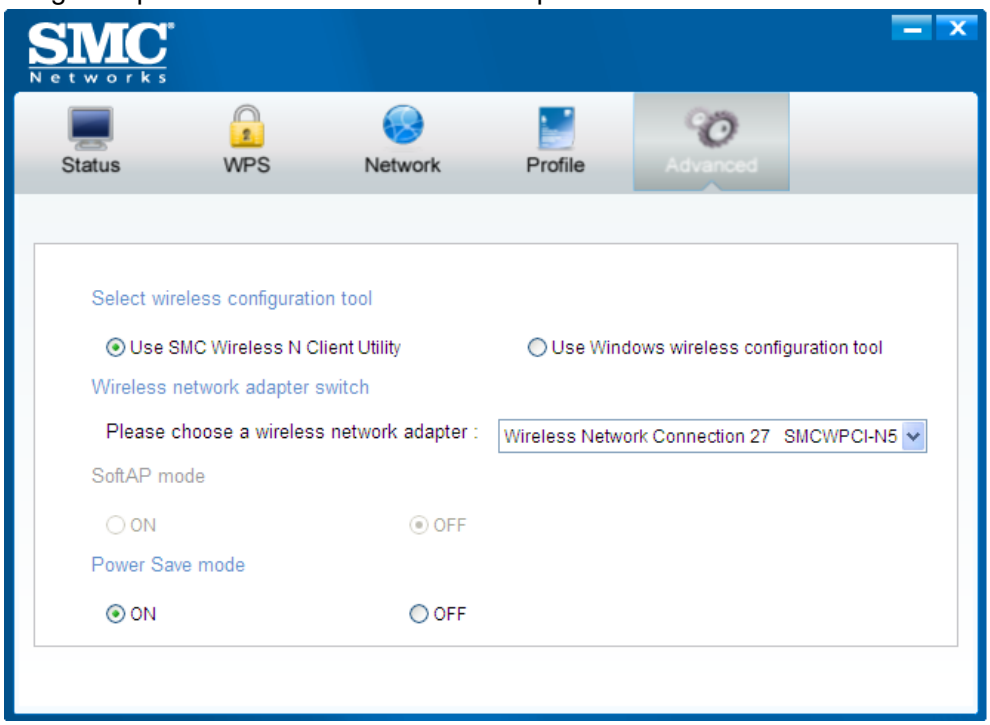

Figure 4-6

4.3 About

The About screen gives you information about the Driver and Utility versions of the adapter. Right-click on the icon in your system tray and select **About** from the list.

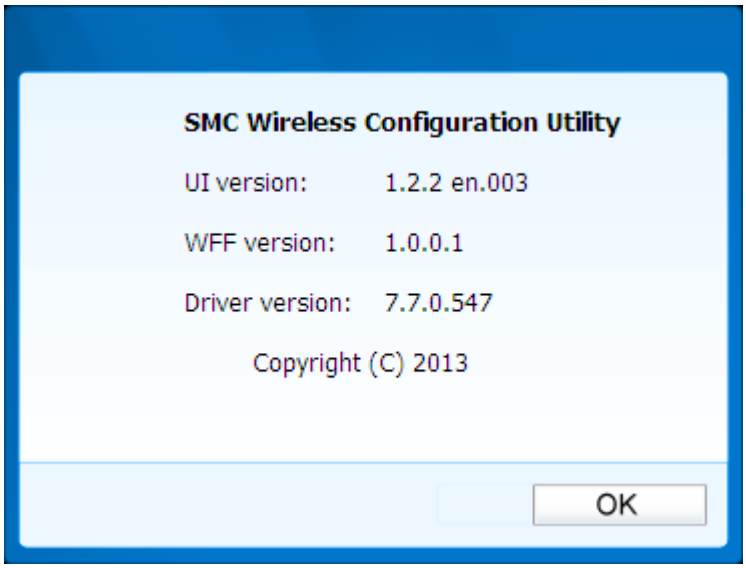

Figure 4-7

Chapter 5 AP Mode (For Windows 7 only)

In Soft AP mode, the adapter will work as an AP. This function is available only in Windows 7. Suppose that only one computer in your house can access the Internet for various reasons like only one WLAN port is available on your wired broadband router, however, other wireless-capable devices also want to share the Internet. Then the adapter can be configured as an AP under the Soft AP mode, saving you the trouble of having to get a separate access point or a router.
With this feature, a computer can use a single physical wireless adapter to connect as a client to a hardware access point while at the same time acting as a software AP allowing other wireless-capable devices to connect to it.

5.1 SoftAP mode

To switch to this mode, right-click on the utility icon in your system tray and select **Switch to SoftAP mode**.

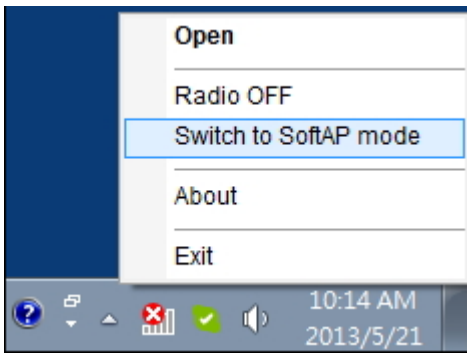

Figure 5-1

Or from the **Advanced** page of the utility, tick **ON** under the SoftAP mode as shown in the following figure. Click **OK** when prompted to confirm the setting.

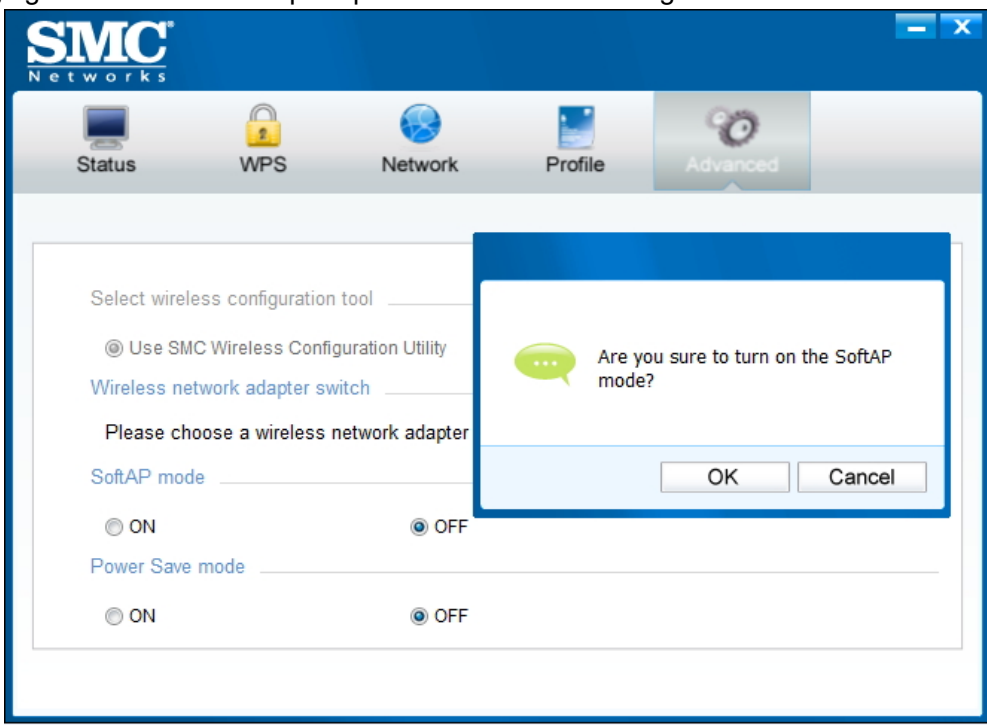

Figure 5-2

The **Soft AP** icon should then appear beside **Advanced** icon in the utility.

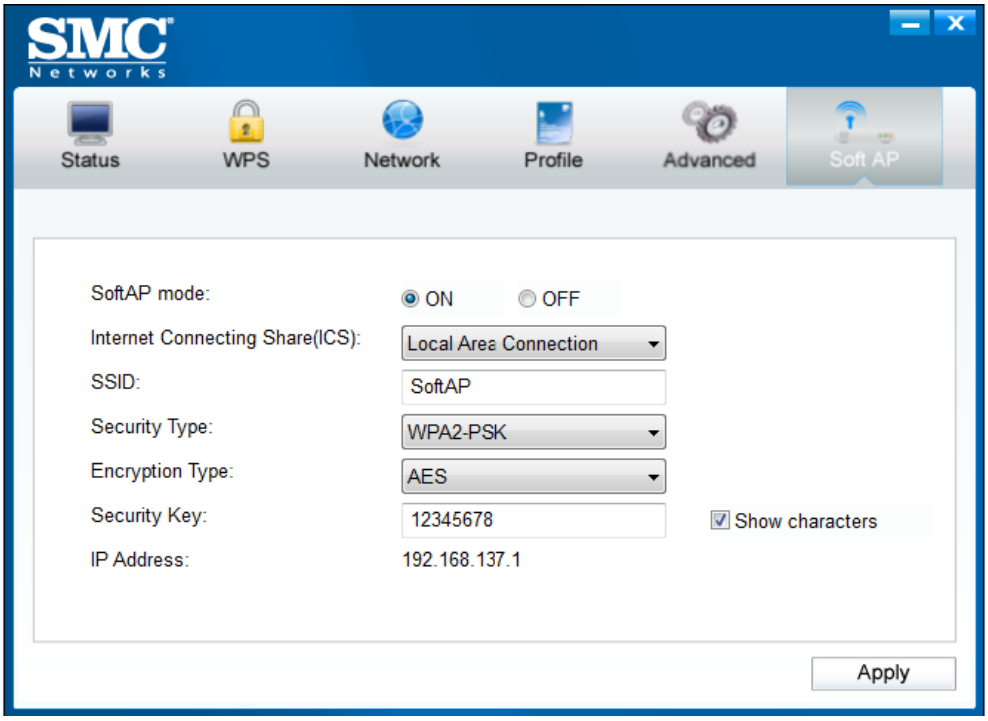

Figure 5-3

- **SoftAP mode:** Select to enable or disable the function.
- **Internet Connecting Share(ICS):** Specify a connection through which devices connected to your AP can access the Internet.
- **SSID:** Enter the name for your soft AP (for example, Jone) so that others can know which AP is yours when trying to connect to it.
- **Security Type:** The security type here is set to be WPA2-PSK which is based on 802.11i and uses Advanced Encryption Standard instead of TKIP. It was designed to improve the security features of WEP. WPA2-PSK uses a passphrase or key to authenticate your wireless connection. You needn't make any configuration here.
- **Encryption Type:** The encryption type here is set to be AES.
- **Security Key:** Enter the Key in the field to make your AP security enabled (for example 123456789). Only by entering the corresponding key can other computers establish a successful connection with your AP.
- **IP Address:** Here displays the IP address of the SoftAP.

Note: When switch to SoftAP mode, If a warning massage pops up as shown in the following figure . Please follow the steps to activate SoftAP mode.

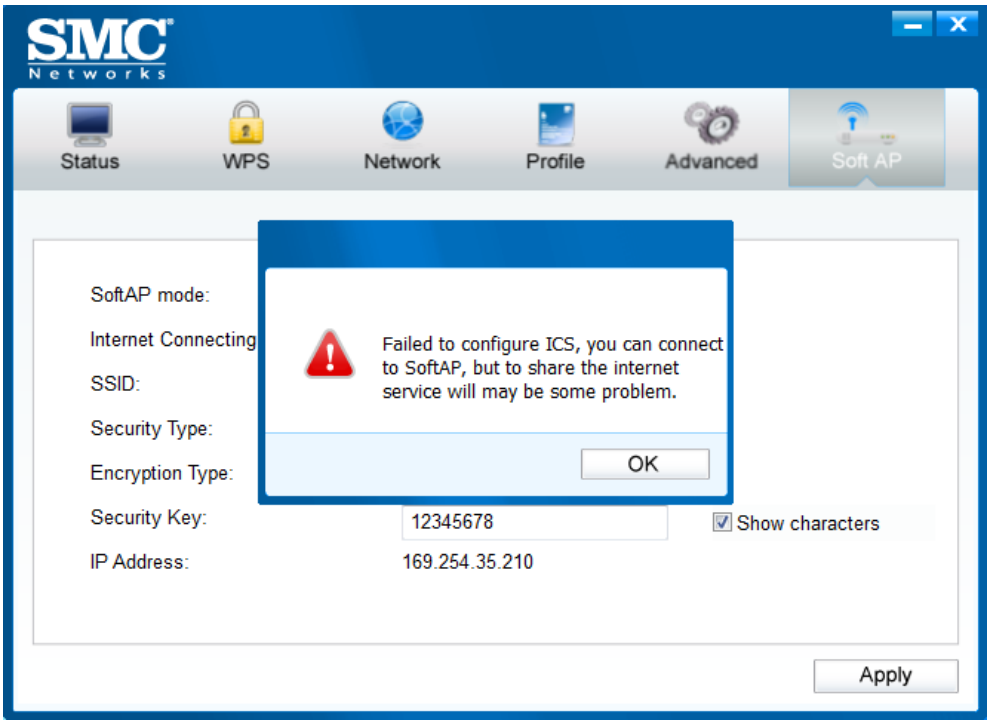

Figure 5-4

1) Go to Control Panel and select Network and Connections, double click the Local Area Connection. From the Sharing tab, choose Microsoft Virtual WiFi Miniport Adapter Wireless Network Connection.

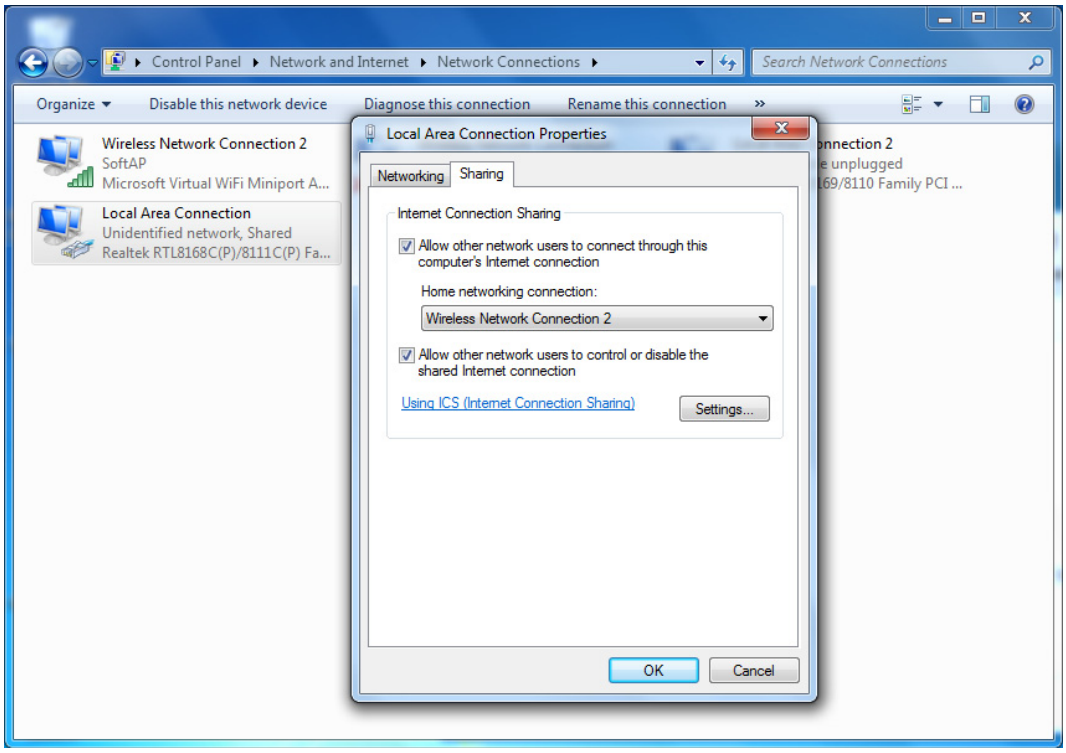

Figure 5-5

2) The IP Address will change to 192.168.137.1. Now the SoftAP mode is activated successfully..

Chapter 6 Uninstall Software

6.1 Uninstall the utility software from your PC

1. On the Windows taskbar, click the **Start** button, click **All programs→SMC**, and then click **Uninstall-SMC Wireless Configuration Utility**.

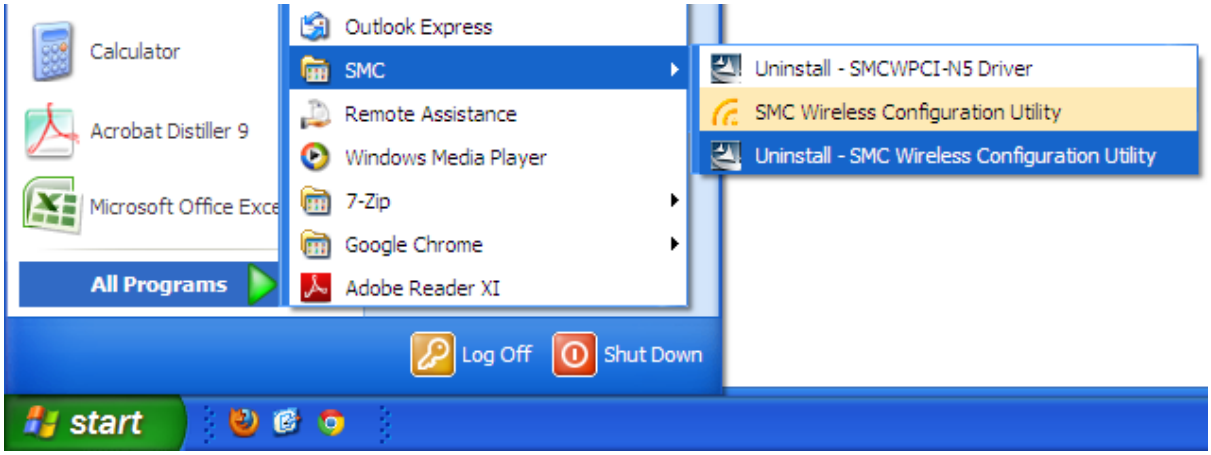

Figure 6-1 Uninstall Utility

2. Follow the Install Shield Wizard to uninstall the utility software from your PC.

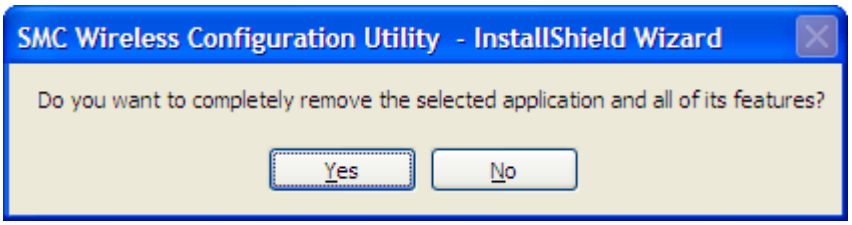

Figure 6-2

3. Click **Finish** when the figure below appears.

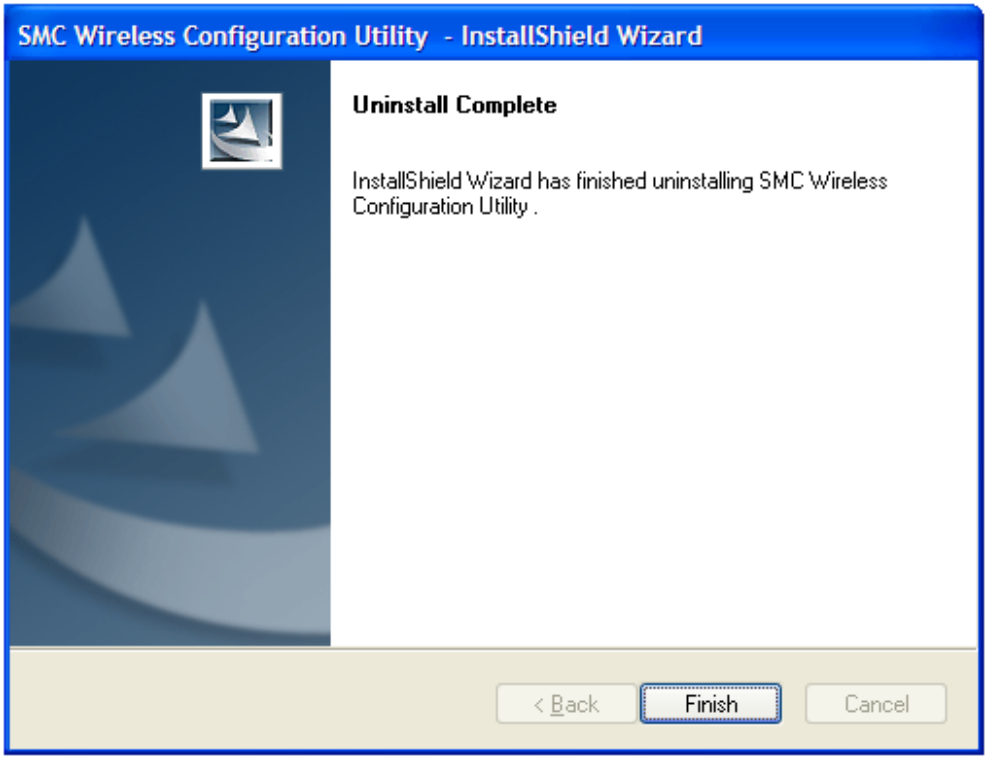

Figure 6-3

6.2 Uninstall the driver software from your PC

1. On the Windows taskbar, click the **Start** button, click **All programs→SMC**, and then click **Uninstall-SMCWPCI-N5 Driver**.

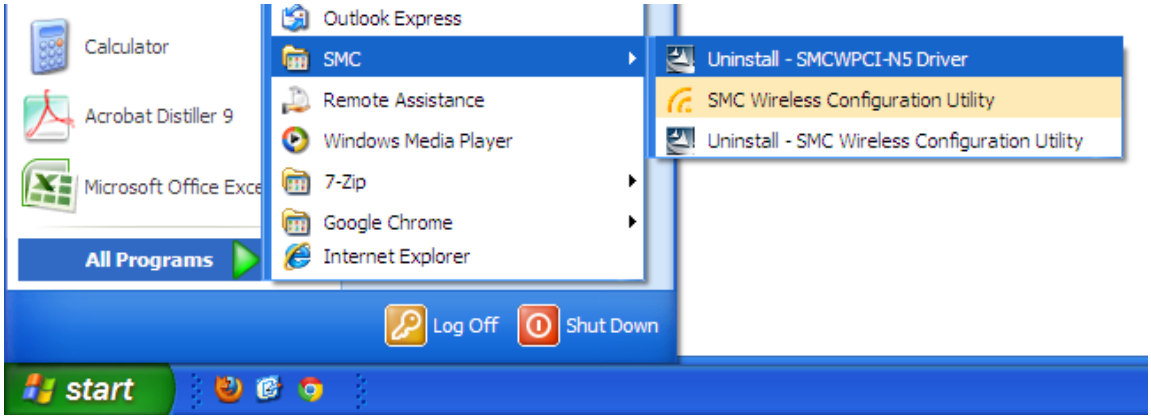

Figure 6-5 Uninstall Driver

2. Click **Yes** to start uninstalling the driver software from your PC.

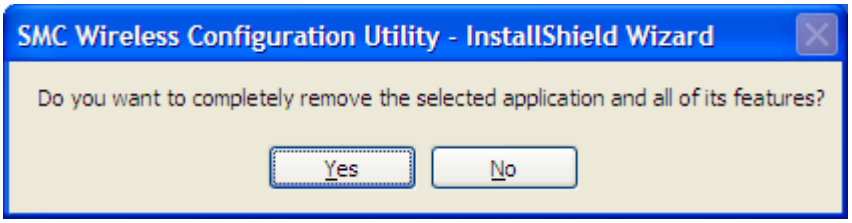

Figure 6-6

3. It may take a few minutes to undergo the whole un-installation process.

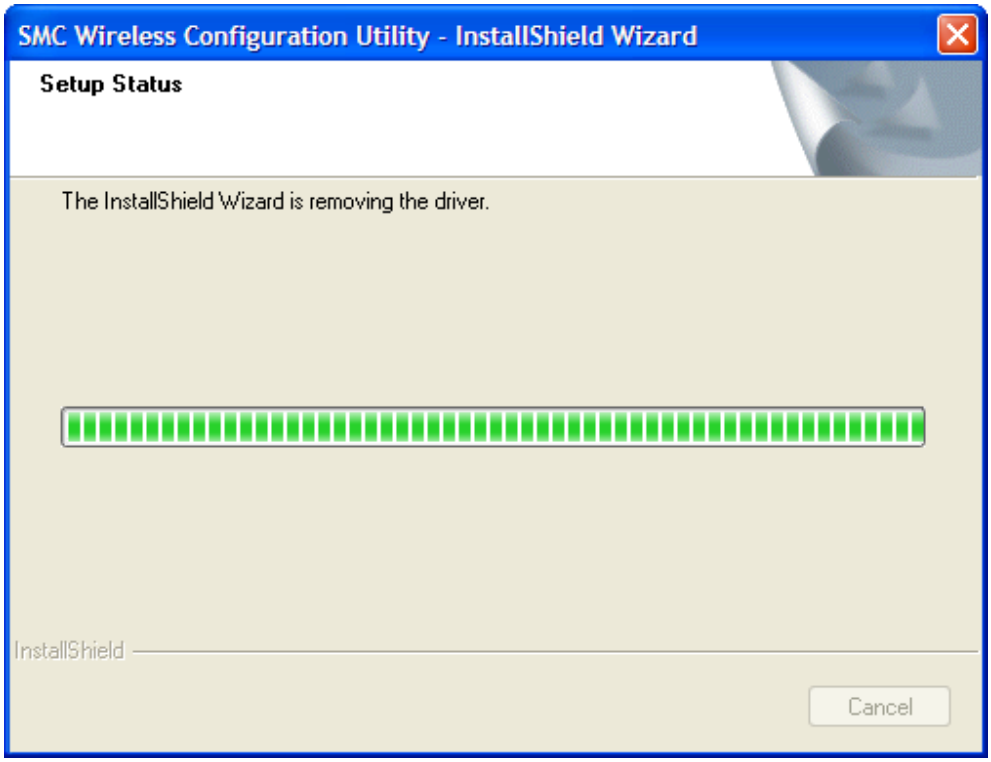

Figure 6-7

4. Click **Finish** when the figure below appears.

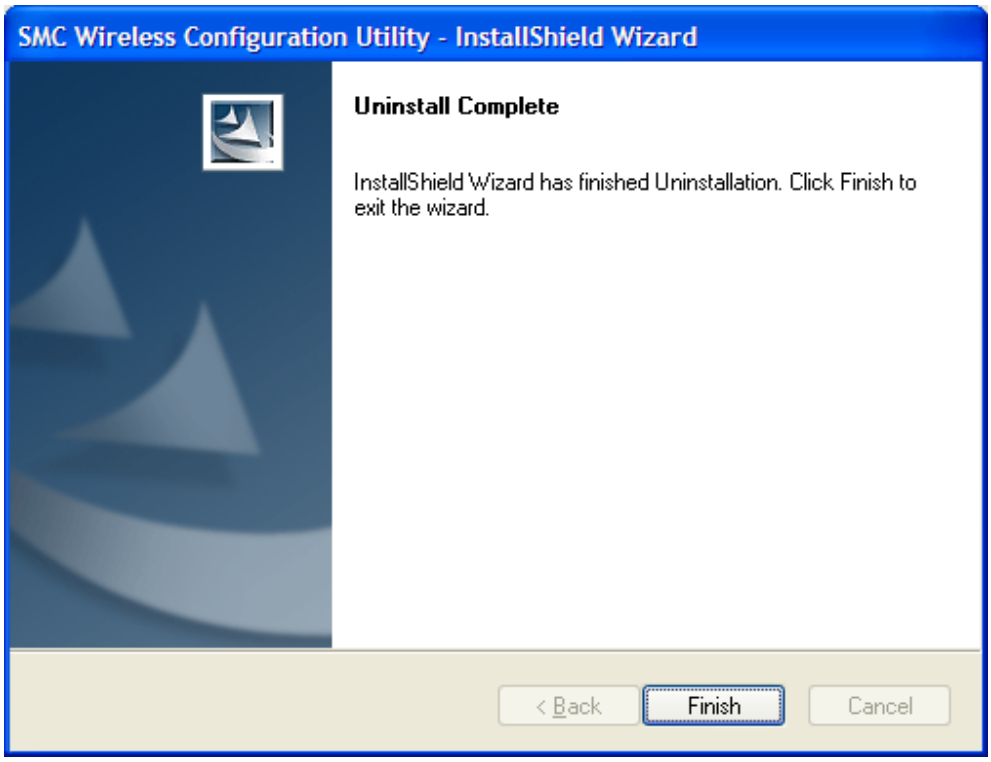

Figure 6-8

Appendix A: Specifications

Normal	
Interface	PCI 2.0, 32 bit PCI connector, Low-profile bracket included
Standards	IEEE 802.11b/g, IEEE 802.11n, IEEE 802.11i, IEEE 802.11e
Operating System	Windows XP, Windows Vista, Windows 7
Throughput	300 Mbps (maximum)
Radio Data Rate	11n: 270/243/216/162/108/81/54/27 Mbps 135/121.5/108/81/54/40.5/27/13.5 Mbps 130/117/104/78/52/39/26/13 Mbps 65/58.5/52/39/26/19.5/13/6.5 Mbps (dynamic) 11g: 108/54/48/36/24/18/12/9/6 Mbps (dynamic) 11b: 11/5.5/2/1 Mbps (dynamic)
Modulation	11b:CCK,QPSK,BPSK 11g:OFDM 11n: QPSK, BPSK, 16-QAM, 64-QAM
Media Access Protocol	CSMA/CA with ACK
Operating Channel	11 channels (US, Canada), 2412~2462 MHz 13 channels (ETSI), 2412~2472 MHz
Data Security	WPA/WPA2, WEP, TKIP/AES
RF Power	16 dBm (maximum)
Receive Sensitivity	270M: -68 dBm@10% PER 130M: -68 dBm@10% PER 108M: -68 dBm@10% PER 54M: -68 dBm@10% PER 11M: -85 dBm@8% PER 6M: -88 dBm@10% PER 1M: -90 dBm@8% PER
Antenna Gain	2 dBi
Antenna Type	Two detachable omnidirectional antennas
Dimensions	Unit: 4.8 x 4.8 x 0.78 in (122 x 121 x 19 mm) Package: 7.9 x 5.7 x 1.4 in (202 x 145 x 35 mm)
Weight	Unit: 47 g Antenna: 9 g per piece
Frequency*	2.4 ~ 2.4835GHz
Spread Spectrum	Direct Sequence Spread Spectrum (DSSS)
Safety & Emissions	FCC, CE, IC, Compliant with RoHS

Environmental and Physical	
Working Temperature	0°C ~40°C (32°F ~104°F)
Working Humidity	10% ~ 90% RH, Non-condensing
Storage Temperature	-40°C ~70°C (-40°F ~158°F)
Storage Humidity	10% ~ 90% RH, Non-condensing

* Only 2.412GHz~2.462GHz is allowed to be used in USA, which means only channel 1~11 is available for American users to choose.

Appendix B: Glossary

- **802.11b -** The 802.11b standard specifies a wireless product networking at 11 Mbps using direct-sequence spread-spectrum (DSSS) technology and operating in the unlicensed radio spectrum at 2.4GHz, and WEP encryption for security. 802.11b networks are also referred to as Wi-Fi networks.
- **802.11g -** specification for wireless networking at 54 Mbps using direct-sequence spread-spectrum (DSSS) technology, using OFDM modulation and operating in the unlicensed radio spectrum at 2.4GHz, and backward compatibility with IEEE 802.11b devices, and WEP encryption for security.
- **802.11n -** 802.11n builds upon previous 802.11 standards by adding MIMO (multiple-input multiple-output). MIMO uses multiple transmitter and receiver antennas to allow for increased data throughput via spatial multiplexing and increased range by exploiting the spatial diversity, perhaps through coding schemes like Alamouti coding. The Enhanced Wireless Consortium (EWC) was formed to help accelerate the IEEE 802.11n development process and promote a technology specification for interoperability of next-generation wireless local area networking (WLAN) products.
- **Ad hoc Network -** An ad hoc network is a group of computers, each with a Wireless Adapter, connected as an independent 802.11 wireless LAN. Ad hoc wireless computers operate on a peer-to-peer basis, communicating directly with each other without the use of an access point. Ad hoc mode is also referred to as an Independent Basic Service Set (IBSS) or as peer-to-peer mode, and is useful at a departmental scale or SOHO operation.
- **DSSS -** (**D**irect-**S**equence **S**pread **S**pectrum) **-** DSSS generates a redundant bit pattern for all data transmitted. This bit pattern is called a chip (or chipping code). Even if one or more bits in the chip are damaged during transmission, statistical techniques embedded in the receiver can recover the original data without the need of retransmission. To an unintended receiver, DSSS appears as low power wideband noise and is rejected (ignored) by most narrowband receivers. However, to an intended receiver (i.e. another wireless LAN endpoint), the DSSS signal is recognized as the only valid signal, and interference is inherently rejected (ignored).
- **FHSS -** (**F**requency **H**opping **S**pread **S**pectrum) **-** FHSS continuously changes (hops) the carrier frequency of a conventional carrier several times per second according to a pseudo-random set of channels. Because a fixed frequency is not used, and only the transmitter and receiver know the hop patterns, interception of FHSS is extremely difficult.
- **Infrastructure Network -** An infrastructure network is a group of computers or other devices, each with a Wireless Adapter, connected as an 802.11 wireless LAN. In infrastructure mode, the wireless devices communicate with each other and to a wired network by first going through an access point. An infrastructure wireless network connected to a wired network is referred to as a Basic Service Set (BSS). A set of two or more BSS in a single network is referred to as an Extended Service Set (ESS). Infrastructure mode is useful at a corporation scale, or when it is necessary to connect the wired and wireless networks.
- **Spread Spectrum -** Spread Spectrum technology is a wideband radio frequency technique developed by the military for use in reliable, secure, mission-critical communications systems. It is designed to trade off bandwidth efficiency for reliability, integrity, and security. In other words, more bandwidth is consumed than in the case of narrowband transmission, but the trade off produces a signal that is, in effect, louder and thus easier to detect, provided that the receiver knows the parameters of the spread-spectrum signal being broadcast. If a receiver is not tuned to the right frequency, a spread-spectrum signal looks like background noise.

There are two main alternatives, Direct Sequence Spread Spectrum (DSSS) and Frequency Hopping Spread Spectrum (FHSS).

- **SSID -** A **S**ervice **S**et **Id**entification is a thirty-two character (maximum) alphanumeric key identifying a wireless local area network. For the wireless devices in a network to communicate with each other, all devices must be configured with the same SSID. This is typically the configuration parameter for a wireless PC card. It corresponds to the ESSID in the wireless Access Point and to the wireless network name. *See also* Wireless Network Name and ESSID.

- **WEP -** (**W**ired **E**quivalent **P**rivacy) **-** A data privacy mechanism based on a 64-bit or 128-bit or 152-bit shared key algorithm, as described in the IEEE 802.11 standard. To gain access to a WEP network, you must know the key. The key is a string of characters that you create. When using WEP, you must determine the level of encryption. The type of encryption determines the key length. 128-bit encryption requires a longer key than 64-bit encryption. Keys are defined by entering in a string in HEX (hexadecimal - using characters 0-9, A-F) or ASCII (American Standard Code for Information Interchange – alphanumeric characters) format. ASCII format is provided so you can enter a string that is easier to remember. The ASCII string is converted to HEX for use over the network. Four keys can be defined so that you can change keys easily.

- **Wi-Fi -** A trade name for the 802.11b wireless networking standard, given by the Wireless Ethernet Compatibility Alliance (WECA, see http://www.wi-fi.net), an industry standards group promoting interoperability among 802.11b devices.

- **WLAN -** (**W**ireless **L**ocal **A**rea **N**etwork) - A group of computers and associated devices communicate with each other wirelessly, which network serving users are limited in a local area.

- **WPA -** (**W**i-Fi **P**rotected **A**ccess) **-** A wireless security protocol uses TKIP (Temporal Key Integrity Protocol) encryption, which can be used in conjunction with a RADIUS server.

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Español: En www.smc.com Ud. podrá encontrar la información relativa a servicios de soporte técnico

Français: Informations Support Technique sur www˙smc˙com

Português: Informações sobre Suporte Técnico em www.smc.com

Italiano: Le informazioni di supporto tecnico sono disponibili su www.smc.com

Svenska: Information om Teknisk Support finns tillgängligt på www.smc.com

Nederlands: Technische ondersteuningsinformatie beschikbaar op www·smc·com

Polski: Informacje o wsparciu technicznym sa dostepne na www·smc·com

Čeština: Technicka podpora je dostupna na www·smc·com

Magyar: Műszaki tamogat informacio elerhető -on www.smc.com

简体中文：技术支持讯息可通过www.smc-prc.com查询

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