# TP-LINK®

## **User Guide**

## **TL-WN823N**

## 300Mbps Mini Wireless N USB Adapter



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## **FCC STATEMENT**

## FC

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 communications. 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 the receiver is connected.
- Consult the dealer or an experienced radio/ TV technician for help.

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.
- 2) This device must accept any interference received, including interference that may cause undesired operation.

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

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.

## FCC RF Radiation Exposure Statement:

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. End users must follow the specific operating instructions for satisfying RF exposure compliance. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter. This equipment has been SAR-evaluated for use in hand. SAR measurements are based on a 5mm spacing from the body and that compliance is achieved at that distance.

## **CE Mark Warning**

## **CE1588**

## **RF Exposure Information**

This device meets the EU requirements (1999/5/EC Article 3.1a) on the limitation of exposure of the general public to electromagnetic fields by way of health protection.

This device has been tested and meets the ICNIRP exposure guidelines and the European Standard EN 62209-2. SAR is measured with this device at a separation of 0.5 cm to the body, while transmitting at the highest certified output power level in all frequency bands of this device. Carry this device at least 0.5 cm away from your body to ensure exposure levels remain at or below the as-tested levels.

## **Canadian Compliance Statement**

This device complies with Industry Canada license-exempt RSSs. Operation is subject to the following two conditions:

- 3) This device may not cause interference, and
- 4) This device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes :

- 5) l'appareil ne doit pas produire de brouillage;
- 6) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, meme si le brouillage est susceptible d'en compromettre le fonctionnement.

## Radiation Exposure Statement:

This equipment complies with IC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

## Déclaration d'exposition aux radiations:

Cet équipement est conforme aux limites d'exposition aux rayonnements IC établies pour un environnement non contrôlé. Cet équipement doit être installé et utilisé avec un minimum de 20 cm de distance entre la source de rayonnement et votre corps.

## **Industry Canada Statement**

CAN ICES-3 (B)/NMB-3(B)

## **Korea Warning Statements**

당해 무선설비는 운용중 전파혼신 가능성이 있음.

## **NCC Notice**

注意!

依據 低功率電波輻射性電機管理辦法

第十二條 經型式認證合格之低功率射頻電機,非經許可,公司、商號或使用者均不得擅自變 更頻率、加大功率或變更原設計之特性或功能。

第十四條 低功率射頻電機之使用不得影響飛航安全及干擾合法通行; 經發現有干擾 現象時,應立即停用,並改善至無干擾時方得繼續使用。前項合法通信,指依電信規定作業 之無線電信。低功率射頻電機需忍受合法通信或工業、科學以及醫療用電波輻射性電機設備 之干擾。

減少電磁波影響,請妥適使用。

## **BSMI** Notice

安全諮詢及注意事項

- 請使用原裝電源供應器或只能按照本產品注明的電源類型使用本產品。
- 清潔本產品之前請先拔掉電源線。請勿使用液體、噴霧清潔劑或濕布進行清潔。
- 注意防潮,請勿將水或其他液體潑灑到本產品上。
- 插槽與開口供通風使用,以確保本產品的操作可靠並防止過熱,請勿堵塞或覆蓋開口。
- 請勿將本產品置放於靠近熱源的地方。除非有正常的通風,否則不可放在密閉位置中。
- 請不要私自打開機殼,不要嘗試自行維修本產品,請由授權的專業人士進行此項工作。



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# EHC

## **Safety Information**

- When product has power button, the power button is one of the way to shut off the product; when there is no power button, the only way to completely shut off power is to disconnect the product or the power adapter from the power source.
- Don't disassemble the product, or make repairs yourself. You run the risk of electric shock and voiding the limited warranty. If you need service, please contact us.
- Avoid water and wet locations.

	-
Symbol	Explanation
	DC voltage
	RECYCLING This product bears the selective sorting symbol for Waste electrical and electronic equipment (WEEE). This means that this product must be handled pursuant to European directive 2012/19/EU in order to be recycled or dismantled to minimize its impact on the environment. User has the choice to give his product to a competent recycling organization or to the retailer when he buys a new electrical or electronic equipment.

## Explanation of the symbols on the product label

### **DECLARATION OF CONFORMITY**

For the following equipment:

Product Description: 300Mbps Mini Wireless N USB Adapter

Model No.: TL-WN823N

Trademark: TP-LINK

We declare under our own responsibility that the above products satisfy all the technical regulations applicable to the product within the scope of Council Directives: Directive 1999/5/EC, Directive 2011/65/EU The above product is in conformity with the following standards or other normative documents EN 300328 V1.9.1 EN 301489-1 V1.9.2 & EN 301489-17 V2.2.1 EN 55022: 2010+AC: 2011 EN 55024: 2010 EN 60950-1: 2006 + A11: 2009 + A1: 2010 + A12: 2011 +A2: 2013 EN 50566: 2013/AC:2014 EN 62311: 2008 EN 62209-2: 2010 EN 62209-2: 2010 EN 50581: 2012

The product carries the CE Mark:



Person responsible for making this declaration:

12-3

Huang Jing Regulatory Compliance Manager

Date of issue: 2016-03-21

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## **Chapter 1 Product Overview**

## 1.1 Introduction

The TP-LINK TL-WN823N 300Mbps Mini Wireless N USB Adapter connects your notebook or desktop computer over Wi-Fi to an 11n or other network for applications such as lag-free video streaming, online gaming, and secure Internet surfing.

### 1.2 Features

- Complies with IEEE 802.11n, IEEE 802.11g, IEEE 802.11b standards
- Supports WPA/WPA2 data security, IEEE802.1x authentication, TKIP/AES encryption, WEP 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 USB 2.0 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
- Provides internal antennas
- Supports Windows 8.1/8/7/XP 32/64bit, Mac OS X 10.7 10.10, Linux

### 1.3 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.		

#### Note:

When the card failed to connect to a wireless network, the LED may be off. Please choose your network and try to connect again.

## **Chapter 2 Connect to a Computer**

- 1. Locate an available USB interface on your computer.
- 2. Connect the adapter and your computer with the USB Adapter.



## Note:

 In Windows XP, a Found New Hardware Wizard window will appear when the adapter is detected. Please click Cancel.

After connecting your adapter to the computer, please follow the instructions in the appropriate chapter for your operating system: <u>Windows</u>, <u>Mac OS X</u>, <u>Linux</u>.

## **Chapter 3 Windows**

#### 3.1 Install Driver and Utility

The Setup Wizard will guide you through the installation procedures. We use the procedures in Windows 7 as an example - the procedures may vary slightly for other versions of Windows.

1. Insert the resource CD into your CD drive and run the **Autorun.exe** from the pop-up AutoPlay window. Select **TL-WN823N** and click **Install Driver and Utility** to begin.



## Note:

- The CD is included in the package. If your CD does not work or your computer doesn't support the CD, you can also download the driver and utility from the TP-LINK website (www.tp-link.com).
- In some operating systems, the CD screen will pop up automatically. Otherwise, run the CD manually.
- 2. The InstallShield Wizard window displays. Click Next to continue.



3. Choose a setup type. It is recommended to select **Install TP-LINK Wireless Configuration Utility and Driver**. Click **Next**.

TP-LINK Wireless Configuration Utility and Driver - InstallShi	ield Wizard
Setup Type Select the setup type that best suits your needs.	TP-LINK
Click the type of setup you prefer.	
Install Driver Only	Description
Install TP-LINK Wireless Configuration Utility and Driver	Choose this option to install TP-LINK Wireless Configuration Utility and driver. This is the recommended option.
InstallShield	ck Next > Cancel

4. If you want to change install location, click **Change** to specify the location for the software installation. Or you can leave it default. Click **Next**.

TP-LINK Wire	less Configuration Utility and Driver - InstallShield Wizard	X
Select the	e folder where setup will install files.	TP-LINK
	Install TP-LINK Wireless Configuration Utility and Driver to:	
	C\\TP-LINK\TP-LINK Wireless Configuration Utility	Change
InstallShield -		
	< Back Next >	Cancel

5. Click Install. After a few minutes, the installation completes. Click Finish.

TP-LINK Wireless Configuration Utility and Driver - InstallShield Wizard	x
Ready to Install the Program	
The wizard is ready to begin installation.	
Click Install to begin the installation.	
If you want to review or change any of your installation settings, click Back. Click Cancel to exit the wizard.	
InstallShield	
< Back Install Cancel	

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TP-LINK Wireless Configuration U	tility and Driver - InstallShield Wizard		
	InstallShield Wizard Complete		
	InstallShield(R) Wizard has finished Installation. Click Finish to exit the wizard.		
	< Back Finish Cancel		

6. TP-LINK utility pops up after installation. Its icon appears on the desktop as and in the Windows system tray as . You can use the TP-LINK utility to join a Wi-Fi network with your adapter. For more guidance, please refer to <u>Join a Wireless Network</u>.

TP-LIN The Reliable Choice	К				-	x
Status	WPS	Network	Profile	Advanced		
Network Nam	ne(SSID) 👻	Secu	rity 👻	Channel 👻	Signal 🤜	
TP-LINK_7CA	4926	None		4 (2.4G)	at l	^
TP-LINK_Net	work	WPA2-	Personal	13 (2.4G)	1000	
TP-LINK_130	969	None		6 (2.4G)		=
TP-LINK_BF	134C	🖬 WPAA	VPA2-Enterprise	4 (2.4G)	at l	
TP-LINK_130	919	None		7 (2.4G)	100	
TP-LINK_104	I3C2	WPA/V	WPA2-Personal	11 (2.4G)	1000	
TPLINK_DAT	A_TRANS	WPA-F	ersonal	11 (2.4G)	1000	
TP-LINK_D94	4F73	S WEP		7 (2.4G)	at l	-
					Rescan	

#### 3.2 Join a Wireless Network

There are three options of using the adapter to join a Wi-Fi network.

#### Option 1: TP-LINK Utility

TP-LINK Utility lets you easily connect the adapter to a Wi-Fi network and manage the adapter.

#### Option 2: WPS (Wi-Fi Protected Setup)

WPS (Wi-Fi Protected Setup) is a network security standard for easily adding computers and other devices to a home network. Use this method if your wireless router or access point supports WPS.

#### **Option 3: Windows Wireless Utility**

You can use the Windows WLAN Autoconfig service (for Windows 8.1/8/7) and the Wireless Zero Configuration service (for Windows XP) to join a Wi-Fi network.

#### 3.2.1 TP-LINK Utility

1. Double-click *(TP-LINK Utility icon)*. The **Network** screen displays.

Т	P-LIN ne Reliable Choice	<				=	x
	Status	WPS	Netwo	ork Profile	Advanced		
	Network Name	e(SSID) –		Security 👻	Channel 👻	Signal 🥆	
	TP-LINK_7CAS	926		None	4 (2.4G)		^
	TP-LINK_Netw	ork	6	WPA2-Personal	13 (2.4G)		
	TP-LINK_1309	69		None	6 (2.4G)		=
	TP-LINK_BF13	34C	6	WPA/WPA2-Enterpri	se 4 (2.4G)		
	TP-LINK_1309	19		None	7 (2.4G)		
	TP-LINK_1043	C2	6	WPA/WPA2-Persona	l 11 (2.4G)	1000	
	TPLINK_DATA	_TRANS	6	WPA-Personal	11 (2.4G)	-11	
	TP-LINK_D94F	73	6	WEP	7 (2.4G)	.atl	Ŧ
						Rescan	

Select the network you want to join from the list on this screen and click Connect. If you
want the adapter to automatically connect to the network next time, select the Connect
automatically checkbox. Enter your Wi-Fi password when prompted.

Т	P-LIN	К				=	x
	Status	WPS	Network	Profile	Advanced		
	Network Nam	ne(SSID) 👻	Sec	curity 👻	Channel 👻	Signal 🔻	
	TP-LINK_7CA	4926	Non	e	4 (2.4G)	at l	^
	TP-LINK_Net	work	🖬 WPA	2-Personal	9 (2.4G)		
			Conn	ect automatically	Con	nect	E
	TP-LINK_130	969	Non	e	6 (2.4G)	-11	
	TP-LINK_BF1	134C	🔒 WPA	WPA2-Enterpr	ise 4 (2.4G)	.etf	
	TP-LINK_130	919	Non	e	7 (2.4G)	100	
	TP-LINK_104	3C2	🔒 WP/	WPA2-Person	al 11 (2.4G)	100	
	TPLINK_DAT	A_TRANS	🖬 WPA	A-Personal	11 (2.4G)	100	-
						Rescan	

## Note:

If your Wi-Fi network is not displayed in the list, you can try to join it by <u>WPS</u> or by adding a profile in the <u>Profile</u> screen.

#### 3.2.2 WPS (Wi-Fi Protected Setup)

WPS can be activated via PBC (Push Button Configuration) and PIN code. Please refer to <u>PBC</u> or <u>PIN</u> below.

#### > PBC

#### Option 1

1. Press the **WPS/QSS** button on your router or AP. Within 2 minutes, press and hold the **WPS** button on the adapter until the following screen appears.



2. The following screen indicates a successful connection by WPS. Click **OK**.



#### Option 2

1. Press the **WPS/QSS** button on your router or AP.



2. Open TP-LINK Utility and click **WPS** tab. Select **Push the button on my access point or wireless router** and click **Connect**.

TP-LIN The Reliable Choice	к				- *
	WPS				
Status	WPS	Network	Profile	Advanced	
((WPS) Please cho Push the Enter the Enter the	This applica ose a method to e button on my ar a PIN of my acce a PIN of this devi	tion will guide you th join a wireless netw ccess point or wirele ss point or wireless ce into my access p	rough configuring rork: ess router. router. point or wireless n	g your wireless networ outer.	k. Connect

3. The following screen indicates a successful connection by WPS. Click **OK**.

Configuring the wireless network.
<b>(((WPS)))</b>
Successfully connected to the network by WPS !
OK

#### > PIN

#### **Option 1**

1. Open TP-LINK Utility and click **WPS** tab. Select **Enter the PIN of my access point or wireless router**. Enter the PIN of your router or AP. Click **Connect**.

TP-LINK The Reliable Choice	C				
Status	WPS	Network	Profile	Advanced	
	<u>.</u>				
(((WPS)))	This applica	tion will guide you th	rough configuring	g your wireless network	
Please choo	se a method to	ioin a wireless netw	ork:		
Push the	button on my a	ccess point or wirele	ss router.		
Enter the	PIN of my acce	ss point or wireless	router.		
PIN: 13492	564				
Enter the	PIN of this devi	ce into my access p	oint or wireless r	router	
					Connect

## Note:

The default PIN of your router or AP is printed on the product label of your router or AP. If you generated a new PIN for your router, please enter the new one.

2. The following screen indicates a successful connection by WPS. Click **OK**.

Configuring the wireless network.
Successfully connected to the network by WPS !

#### Option 2

1. Open TP-LINK Utility and click **WPS** tab. Select **Enter the PIN of this device into my access point or wireless router**. The screen displays a PIN of the adapter, which is generated randomly. Click **Connect**.

TP-LIN The Reliable Choice	К				- *
			2		
Status	WPS	Network	Profile	Advanced	
(((WPS) Please cho © Push th © Enter th © Enter th	This applicat nose a method to j e button on my ac e PIN of my acces e PIN of this devic	on will guide you th oin a wireless netw cess point or wirele ss point or wireless e into my access p	rough configuring ork: iss router. router. oint or wireless ro	g your wireless netwo	rk.
PIN: 1934	12306	<b>*</b> 2			
					Connect

- 2. Log into the Web Management page of your router or AP. Go to the **WPS** page, enter the PIN of the adapter in the corresponding field and click **Connect**.
- 3. The following screen indicates a successful connection by WPS. Click **OK**.



#### 3.2.3 Windows Wireless Utility

Follow the instructions in the appropriate section below to use your computer system's built-in wireless utility: Windows 8.1/8/7, Windows XP.

#### Windows 8.1/8/7

1. Click and or and (Network icon) on the system tray. Select the network you want to join, and click **Connect**. Enter your Wi-Fi password when prompted.

## Note:

If you do not want to enter the Wi-Fi password, you can also join a wireless network either by pushing the WPS or QSS button on your router or AP, or entering the PIN of your router when the screen prompts you to do so, and click **Next**.

2. When **Connected** displays next to the network name (SSID) on the screen, it indicates a successful network connection.

#### > Windows XP

1. Right-click (TP-LINK Utility icon) on the system tray. (If you do not see the icon, click the hidden icons arrow on the system tray.) Select **Switch to Windows wireless** configuration tool.

Open		
Radio OFF		
 Switch to Windows wireless configuration tool		
Switch to SoftAP mode		
About		
Exit		
EN 🕓 🕷	1 - 22 50	2

Or you can open the TP-LINK Utility and select **Advanced** tab. Select **Use Windows wireless configuration tool** the following figure shows. Click **OK** when it prompts.

TP-LIN	К				
Status	WPS	Network	Profile	Advanced	
Status	WFG	Network	FIONE	Auvanceu	
Select wire	less configuration	n tool			
🔿 Use TF	P-LINK Wireless C	onfiguration Utility	💿 Use Windo	ws wireless configuratio	on tool
Wireless n	etwork adapter sv	witch			
*********					
Please cl	hoose a wireless	network adapter :	Wireless Netwo	rk Connection TL-WN	823N 🗸
Please cl SoftAP mo	hoose a wireless de	network adapter :	Wireless Netwo	rk Connection TL-WN	823N 🗸
Please cl SoftAP mo	hoose a wireless de	network adapter :	Wireless Netwo	rk Connection TL-WN	823N 🗸
Please cl SoftAP mo ON Power Saw	hoose a wireless de e mode	network adapter :	Wireless Netwo	rk Connection TL-WN	823N ¥



2. Right-click

(Windows XP Wireless Zero Configuration Utility icon) on the system tray,

#### and select View Available Wireless Networks.

Change Windows Firewall settings		ann,
Open Network Connections	The Asset	. P.
Repair	and south	
View Available Wireless Networks	A DATES OF THE	
EN 🔇	🕺 📶 🖉 🏌 🔍 🔟	3:12 PM

3. Select the network you want to join, and click **Connect**. Enter your Wi-Fi password when prompted.

#### 3.3 Management

TP-LINK Utility provides you with an easy way to manage your adapter. It includes the following sections:

Status - View the information of the current Wi-Fi network connection and of the adapter.

**Profile** - Save or manage various Wi-Fi network connection settings.

<u>Advanced</u> - Turn on or off the SoftAP mode and power saving mode, switch between TP-LINK Utility and Windows Wireless Utility (for Windows XP only).

<u>SoftAP</u> - Configure the settings of the network shared by your adapter, and view the IP address of your adapter when it works on SoftAP mode.

About – View your adapter's Utility version and its Driver version.

Double-click (TP-LINK Utility icon) and click the **Status**, **Profile** or **Advanced** tab to manage the corresponding section of your adapter.

#### 3.3.1 Status

You can view the IP address and MAC address of the adapter, the signal strength of the Wi-Fi network, and other information of the network status as shown in the following figure.

	C				- ×
Status	WPS	Network	Profile	Advanced	
Profile Name Network Nam	: 1 ne(SSID): 1	'P-LINK_Network 'P-LINK_Network			
Network Type	e: I	nfrastructure	Rate:	300Mbps	
Channel:	9	) (2.4G)	Encryptio	n Type: AES	
AP MAC:	(	0-55-46-50-02-01	Wireless	Mode: 802.11n	
IP Address:	1	92.168.0.101			
Signal Streng	jth:			100% Exce	ellent

#### 3.3.2 Profile

The **Profile** screen lets you save and manage different Wi-Fi network connection settings as profiles so that you can quickly and simply connect to your network. Moreover, you can join a hidden Wi-Fi network that does not broadcast its SSID by adding a profile, provided that you know its wireless settings, such as SSID, security type, and encryption type. For more details, please refer to the instructions below: <u>To add a new profile</u>, <u>To join a Wi-Fi network</u>, <u>To manage an existing profile</u>.

					- *
Status	WPS N	letwork	Profile	Advanced	
Profile Name TP-LINK_Network Home	SSID TP-LINK_Netw TP-LINK_Netw	ork ork1	Network Type Infrastructure Infrastructure	Security WPA-PSK/WPA WPA-PSK/WPA	Connected Yes No
		Add	Modify	Remove	Connect

#### > To add a new profile

- 1. Click the **Add** button, and then a new window will open.
- 2. Complete the settings as shown in the following figure, and click **Save**.

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	Tiome	
SSID:	TP-LINK_Network1	*
Network Type:	Infrastructure	🔾 ad hoc
Security Type:	WPA-PSK/WPA2-PSK	~
Encryption Type:	TKIP/AES	¥
Security Key:	*******	Show character
Security Key:	***	Show characte
Ctart this connor	tion outomotically	

**Profile Name** - Enter a name for your profile, such as Home, Office, Coffeehouse. Do not enter the profile name that already exists.

**SSID** - Select your Wi-Fi network from the drop-down list or enter your Wi-Fi network name manually.

**Network Type** - Select **Infrastructure** if you want to connect to a wireless router or an access point. Select **ad hoc** if you want to connect to another wireless client, such as an adapter.

#### Infrastructure

If you select **Infrastructure**, you are asked to select or enter the corresponding wireless settings, which should be the same as those of your Wi-Fi network.

#### ad hoc

If you select **ad hoc**, you are asked to configure the wireless settings for your network, including choosing the operating frequency band, the security type, the encryption type and setting a security key.

Profile Name:	Home 2
SSID:	TP-LINK_Network2
Network Type:	Infrastructure
Security Type:	WEP 🔻
Encryption Type:	Open 👻
Key Index:	1 - ASCII_64 -
Security Key:	***** Show characters
V Start this connec	tion automatically.
	Save Cancel

## PNote:

As for Key Index, you can select ASCII or Hexadecimal format from the drop-down list.

ASCII\_64 - Please enter 5 ASCII characters.

ASCII\_128 - Please enter 13 ASCII characters.

**Hexadecimal\_64** - Please enter 10 Hexadecimal digits (any combination of 0-9, a-f, A-F, excluded space).

**Hexadecimal\_128** - Please enter 26 Hexadecimal digits (any combination of 0-9, a-f, A-F, excluded space).

#### > To join a Wi-Fi network

If you want to join a Wi-Fi network that listed in the profile screen, select the profile and click **Connect** button in the bottom corner.

#### > To manage an existing profile

If you want to change the name or the wireless settings of an existing profile, select it and click the **Modify** button in the bottom corner of the Profile screen, then you can edit the settings of this profile. If you want to delete a profile that you no longer use, select it and click the **Remove** button.

#### 3.3.3 Advanced

P-LIN e Reliable Choice	<				F
2	WPS		a la		
Status	WPS	Network	Profile	Advanced	
Select wirel	ess configuratior	tool			
I Use TP-	LINK Wireless C	onfiguration Utility	🔘 Use Windo	ws wireless configura	ation tool
Wireless ne	twork adapter sv	vitch			
Please ch	oose a wireless i	network adapter :	Wireless Netwo	rk Connection TL-W	/N823N 🗸
SoftAP mod	e				
ON (		OFF			
Power Save	mode				

**Select wireless configuration tool** - In Windows XP. You can either use TP-LINK Utility or Windows wireless configuration tool. While in other operating systems, since you can use both TP-LINK Utility and Windows wireless configuration tool at the same time, this function is disabled.

**Wireless network adapter switch** - If you've installed several adapters in your computer, you can switch to another adapter among the drop-down list.

SoftAP mode - Once ON is selected, the adapter will work as an AP.

**Power Save mode** - Once **ON** is selected, the adapter will automatically reduce its power consumption when not being used.

#### 3.3.4 SoftAP

SoftAP is short for Software enabled Access Point. When the adapter works in SoftAP mode, it allows the computer to create a wireless hotspot that other wireless devices nearby can use. To switch to SoftAP mode, right-click the utility icon ...... in the system tray and select **Switch to SoftAP mode**.



After switching to SoftAP mode, the SoftAP icon appears in the utility. Click the **SoftAP** tab, and complete the settings, then click **Apply** for the settings to take effect.

	IK				- X
Status	WPS	Network	Profile	Advanced	Soft AP
SoftAP m Internet C SSID:	ode: onnecting Share(IC\$	ON     Coral Area     SoftAP	© OFF	•	
Security T Encryption Security K	ype: n Type: Kev:	WPA2-PS AES 12345678	К	▼ ▼	haracters
IP Address	s:	192.168.1	37.1	Show C	naracters
					Apply

- > Soft AP mode: Select ON or OFF to enable or disable this function.
- Internet Connecting Share(ICS): Select a network connection that can access to the Internet from the drop-down list. For example, if your computer is connecting to the Internet via an Ethernet cable, you should select the corresponding Local Area Connection so as to share the network with other wireless devices.
- **SSID:** Set a name for the wireless network shared by your adapter. The default is SoftAP.
- Security Type: The security type here is set to be WPA2-PSK which is based on 802.11i and uses AES (Advanced Encryption Standard).
- > **Encryption Type:** The encryption type here is set to be AES.
- Security Key: Set a security key for the wireless network that shared by your adapter. It is recommended that you specify another key instead of the default key 12345678. When another wireless device connects to the network shared by your adapter, it will be asked to enter the corresponding security key.
- IP Address: Displays the IP address of the adapter when it works in SoftAP mode. You can also check if the network shared by your adapter is working properly by checking this IP Address. For example, if the IP Address is 0.0.0.0, it means that the Internet connection is failed.

#### 3.3.5 About



#### 3.4 Uninstall Driver and Utility

The software uninstallation steps vary a bit in different systems, please follow the appropriate instructions for your Windows operating system: <u>Windows 8/8.1</u>, <u>Windows XP/7</u>.

#### • Windows 8/8.1

Uninstall driver:

Go to **Start > Apps**, and find the **TP-LINK** application. Click **Uninstall - TP-LINK TL-WN823N Driver**, then follow the on-screen instructions to complete the uninstallation.

Uninstall utility:

Go to **Start > Apps**, and find the **TP-LINK** application. Click **Uninstall - TP-LINK Wireless Configuration Utility**, then follow the on-screen instructions to complete the uninstallation.

• Windows XP/7

Uninstall driver:

Go to **Start > All Programs > TP-LINK > Uninstall - TP-LINK TL-WN823N Driver**. Follow the on-screen instructions to complete the uninstallation.

Uninstall utility:

Go to **Start > All Programs > TP-LINK > Uninstall - TP-LINK Wireless Configuration Utility**. Follow the on-screen instructions to complete the uninstallation.

## Chapter 4 Mac OS X

#### 4.1 Install Driver and Utility

We take the procedures in Mac OS X 10.10 as an example - the procedures may vary slightly for other versions of Mac OS.

1. Insert the CD and run it manually. Open the **TL-WN823N** folder.



## Note:

The CD is included in the package. If your CD does not work or your computer doesn't support the CD, you can also download the driver and utility from the TP-LINK website (www.tp-link.com).

2. Open the Mac OS X Driver folder.

Coriver Setup.exe	TL-WN823N_User Guide.pdt	Utility
	Guide.pdf	

3. Double-click the **Mac OS X 10.7\_10.10.zip** file. It will be unzipped into the **Download** folder automatically.

• • •	Mac OS X Driv	/er
< >		Q. Search
Favorites  All My Files  Cloud Drive  Ar Applications  Desktop  Desktop  Downloads  Devices  Untitled  Remote Disc  CD184A5   Tags	Дур Mac OS X 10.7_10.10.zip	

4. Open the **Mac OS X 10.7\_10.10** folder, double click the **Installer.pkg** file to open the installation wizard.



5. The Install TP-LINK Wireless USB Adapter Utility and Driver Wizard window will appear. Click Continue and follow the wizard to continue the installation.

	welcome to the TP-LINK wheless 03B Adapter Utility and Driver Installe
	Welcome to TP-LINK Wireless world
Introduction	
Read Me	
License	
Destination Select	
Installation Type	
Installation	
Summary	
	Go Back Continue

#### TL-WN823N 300Mbps Mini Wireless N USB Adapter User Guide

Introduction	Inis is the Mac US X driver for 1P-LINK Wireless USB Adapter. If you have already installed an older version of software, please uninstall it first by executing
Read Me	Otherwise, this software can not be upgraded successfully. The system is
License	required to reboot after the driver is installed, so please close all the other applications before installing this software. After the system boots up and you
Destination Select	enter the system, please follow the following steps to configure the network: 1. Select the "System Preference" from the system menu.
Installation Type	<ol> <li>Select and launch the "Network" item in the "System Preference" folder.</li> <li>From the "Continue" list select the correct adapter and configure it</li> </ol>
Installation	4. Configure the settings.
Summary	Then you can connect to the WLAN.

	Software License Agreement
	English
Read Me	Copyright (c) 2015 TP-LINK TECHNOLOGIES CO. All rights reserved.
License	
Destination Select	
Installation Type	
Installation	
Summary	

## Note:

The language of this utility is in accordance with the language of your computer by default, and any change of it is invalid.

	the software license agreeme	nt.
Introdu	Click Agree to continue or click	Disagree to cancel the installation and
Read I	quit the Installer.	
Licens		
Destin	Read License	Disagree
Installa		
Installatio	n	
Summary		

#### TL-WN823N 300Mbps Mini Wireless N USB Adapter User Guide

	This will take 5.9 MB of space on your computer.
Read Me	Click Install to perform a standard installation of this software for all
License	users of this computer. All users of this computer will be able to use
<ul> <li>Destination Select</li> </ul>	this software.
Installation Type	
Installation	
<ul> <li>Summary</li> </ul>	
	Go Back Insta



	Installing TP-LINK Wireless USB Adapter Utility and Driver
Introduction Read Me License Destination Select Installation Type Installation Summary	Registering updated components
	Go Back Continue

20



 After restarting the computer, the TP-LINK utility will pop up automatically. You can use the utility to join a Wi-Fi network with your adapter. For more guidance, please refer to <u>Join a</u> <u>Wireless Network</u>.

Link Status	Profiles	Available Network	WPS	Information	
	1101100	, wallable Hotwork		internation	
MAC Address :	c4e984190	70b			
SSID :					
BSSID :					
Security :	None				
Connection :	Disconnect	ed			
Network Type :					
Channel :					
Link Speed(Mbps) :	тх	RX			
HT Info :					
Signal Strength : <					0%
				Turn Radie	o OFI

## Note:

If the TP-LINK Utility does not pop up automatically, make sure the USB wireless network adapter is connected properly and the LED is on.

#### 4.2 Join a Wireless Network

There are two options of using the adapter to join a Wi-Fi network.

#### Option 1: TP-LINK Utility

TP-LINK Utility lets you easily connect the adapter to a Wi-Fi network and manage the adapter.

#### Option 2: WPS (Wi-Fi Protected Setup)

WPS (Wi-Fi Protected Setup) is a network security standard for easily adding computers and other devices to a home network. Use this method if your wireless router or access point supports WPS.

#### 4.2.1 TP-LINK Utility

1. Open TP-LINK Utility and select **Available Network** tab. Then select the network you want to join from the list and click **Connect**.

Accession	0010	Observal	Mature de Trans	Freedom	DOOID
Associated	5510	✓ Channel	Network Type	Encryption	85510
	TP-LINK_9839	4	Infrastructure	WPA2-PSK AES	0020000698
	TP-LINK_8786	11	Infrastructure	WPA2-PSK AES	c490467387
	TP-LINK_82D0haha	1	Infrastructure	No Encryption	fa96951fca2
	TP-LINK_7AFF_4	11	Infrastructure	WPA2-PSK AES	1e0aeb147a
	TP-LINK_7AFF_3	11	Infrastructure	WPA2-PSK AES	1e0aeb147a
	TP-LINK_7AFF_2	11	Infrastructure	WPA2-PSK AES	1e0aeb147a
	TP-LINK_7AFF_1	11	Infrastructure	WPA2-PSK AES	000aeb147a
	TP-LINK_68CEEA	11	Infrastructure	No Encryption	60e32768ce
	TP-LINK_5F79	1	Infrastructure	No Encryption	6466b3865f
	TP-LINK_2.4GHz_0969	9 1	Infrastructure	WPA2-PSK AES	000aeb1309
	TP-LINK_2	1	Infrastructure	WPA2-PSK AES	6261860102
	TP-LINK_0C451A	6	Infrastructure	No Encryption	3c46d80c45
	TP-LINK_07D4	6	Infrastructure	No Encryption	fcd733ab07
	TP-LINK_0690	1	Infrastructure	No Encryption	fcd733ab06
	TP-LINK_0507	12	Infrastructure	WPA2-PSK AES	0002030405
	TP-LINK_050607	1	Infrastructure	No Encryption	0c8268401e
	Refresh	1		Conr	lect

 The wireless network security properties screen displays. If your network uses wireless security, you will be prompted to enter the Wi-Fi password of the network in the blank field next to Network key, and enter it again in the blank field next to Confirm network key. Click OK.

			,		
Profile Name : TP-LINK	_9839				
SSID : TP-LINK	_9839				
Wireless Network Security Prope	erties				
Network Authentication :	WPA2_PSK	0			
Data Encryption :	AES	0			
ASCII					
Key index (advanced) :	1	0			
Network key :					
Confirm network key :	•••••				
				Cancel	ОК

3. After successfully connecting to your network, it will switch to **Link Status** screen automatically, which will show the network status. If you select **Available Network** tab, you will see a symbol in front of your network's SSID, which indicates a successful connection.

Associated	SSID	Channel	Network Type	Encryption	BSSID
	TP-LINK_9839	4	Infrastructure	WPA2-PSK AES	002000069839
$\smile$	TP-LINK_8786	11	Infrastructure	WPA2-PSK AES	c49046738786
	TP-LINK_82D0haha	1	Infrastructure	No Encryption	fa96951fca21
	TP-LINK_7AFF_4	11	Infrastructure	WPA2-PSK AES	1e0aeb147af5
	TP-LINK_7AFF_3	11	Infrastructure	WPA2-PSK AES	1e0aeb147af3
	TP-LINK_7AFF_2	11	Infrastructure	WPA2-PSK AES	1e0aeb147af1
	TP-LINK_7AFF_1	11	Infrastructure	WPA2-PSK AES	000aeb147aff
	TP-LINK_68CEEA	11	Infrastructure	No Encryption	60e32768ceea
	TP-LINK_5F79	1	Infrastructure	No Encryption	6466b3865f79
	TP-LINK_2B2B	6	Infrastructure	No Encryption	000c432b2
	TP-LINK_2.4GHz_0969	11	Infrastructure	WPA2-PSK AES	000aeb130969
	TP-LINK_1B28	7	Infrastructure	WPA2-PSK AES	001966081b28
	TP-LINK_07D4	6	Infrastructure	No Encryption	fcd733ab07d4
	TP-LINK_0690	1	Infrastructure	No Encryption	fcd733ab0690
	TP-LINK_0507	12	Infrastructure	WPA2-PSK AES	000203040507
	TP-LINK_050607	1	Infrastructure	No Encryption	0c8268401e10
	TO LINE OFFERO	~	1-4	No Francisco	0-010-015500
	Refresh			Con	nect

#### 4.2.2 WPS (Wi-Fi Protected Setup)

WPS can be activated via PBC (Push Button Configuration) and PIN. Please refer to <u>PBC</u> or <u>PIN</u> below.

> PBC

#### Option 1

1. Press the **WPS/QSS** button on your router or AP. Within 2 minutes, press and hold the **WPS** button on the adapter until the following screen appears.



Link St	atus	Profiles	Available Network	WPS Infor	mation
SSID	Char	inel	Security	BSSID	
P-LINK_9839	4		WPA2-PSK AE	S 00200006	9839
P-LINK_5F79	1		No Encryption	6466b386	5f79
BCDE	3		No Encryption	841b5ed7	daed
P-LINK_7AFF_1	11		WPA2-PSK AE	S 000aeb14	7aff
P-LINK_0507	12		WPA2-PSK AE	S 00020304	0507
P-LINK_7AFF_2	11		WPA2-PSK AE	S 1e0aeb14	7af1
P-LINK_7AFF_3	11		WPA2-PSK AE	S 1e0aeb14	7af3
P-LINK_68CEEA	11		No Encryption	60e32768	ceea
P-LINK_E837	1		No Encryption	f81a672ee	e837
P-LINK_1B28	7		WPA2-PSK AE	S 00196608	1b28
P_LINK 8786	11		W/PA2_PSK AF	GQ04673	8786
Refresh	Please	e kev the Pl	IN code into your AP's	s config page	PIN
	DINI	0405060	0		
	PIN:	8480868	9		PBC
WPS Progress :	Exch	ange WPS	Message		
•				2 sec	Cancel

2. The following screen indicates a successful connection by WPS. Click **OK**.



#### Option 2

1. Press the **WPS/QSS** button on your router or AP.



2. Within 2 minutes, open TP-LINK Utility and click **WPS** tab. Click **PBC**.

	Link State	us	Profiles	Available Network	WPS	Information	
- CIP		Chaor	al	Security	R	REID	
TP-LINK 9	830	A	lei	WPA2-PSK	AES 00	12000069839	
TP-LINK 5	E79	1		No Encrypti	n 64	166b3865f79	
ABCDE	175	3		No Encrypti	on 84	1b5ed7daed	
TP-LINK 7	AFE 1	11		WPA2-PSK	AFS 00	0aeb147aff	
TP-LINK 0	507	12		WPA2-PSK	AES 00	0203040507	
TP-LINK 7	AFF 2	11		WPA2-PSK	AES 1e	0aeb147af1	
TP-LINK 7	AFF_3	11		WPA2-PSK	AES 1e	0aeb147af3	
TP-LINK_6	8CEEA	11		No Encrypti	on 60	e32768ceea	
TP-LINK_E	837	1		No Encrypti	on f8	1a672ee837	
TP-LINK_1	B28	7		WPA2-PSK	AES 00	1966081b28	
TP-I INK 8	786	44		WPD0-PCK	4FS c4	19046738786	
Refres	sh F	lease	key the P	IN code into your A	<sup>D'</sup> s confia	page	PIN
			0405000				
	F	'IN:	8485868	19			PBC
							-
							Cancel

3. The following screen indicates a successful connection by WPS. Click OK.



- > PIN
- 1. Open TP-LINK Utility and click **WPS** tab. Mark down the PIN displayed on the screen, and click **PIN**.



- 2. Within 2 minutes, log in to the Web Management page of your router or AP. Go to its **WPS** page, enter the PIN of the adapter in the corresponding field and click **Connect**.
- 3. The following screen indicates a successful connection by WPS. Click OK.

6	WPS Protocol Finished !! It will connect to WPS AP automatically.	
		014
		UK

#### 4.3 Management

TP-LINK Utility provides you with an easy way to manage your adapter. It includes the following sections:

Link Status - View the information of the current Wi-Fi network connection and of the adapter.

Profiles - Save or manage various Wi-Fi network connection settings.

Information - View the utility version and the driver version of your adapter.

Open TP-LINK Utility and click the **Link Status**, **Profiles** or **Information** tab to manage the corresponding section of your adapter.

#### 4.3.1 Link Status

You can view the signal strength of the Wi-Fi network, the MAC address of the adapter and other information of the link status as shown in the following figure.

Link State	us Profiles	Available Network	WPS	Information	
MAC Address	: c4e984190	70b			
SSID	: TP-LINK_98	339			
BSSID	: 002000069	839			
Security	: WPA2-PSK	AES			
Connection	: Connected				
Network Type	: Infrastructu	re			
Channel	: 4				
Link Speed(Mbps)	: TX 144	RX 144			
HT Info	: BW:20MHz	MCS:14			
Signal Strength	:				100%
				Turn Radio	OFF
				Turil Haulo	OF

#### 4.3.2 Profiles

The **Profiles** screen lets you save and manage different Wi-Fi network connection settings as profiles so that you can quickly and simply connect to your network. Moreover, you can join a hidden Wi-Fi network that does not broadcast its SSID by adding a profile, provided that you know its wireless settings, such as SSID, security type, and encryption type. For details, please refer to the instructions below: <u>To add a new profile</u>, <u>To join a Wi-Fi network</u>, <u>To manage an existing profile</u>.

	Link Status Pro	Available Network	VPS Information
State	Profile Name	SSID	Network Type
<ul> <li>Image: A start of the start of</li></ul>	TP-LINK_9839	TP-LINK_9839	Infrastructure
	Home	TP-LINK_Network	Infrastructure
	Add Edit	Remove	Apply

#### > To add a new profile

- 1. Click the Add button, and then a new window will open.
- 2. Complete the settings as shown in the following figure, and click **OK**.

	Wireless Network Security Properties					
Profile Name : Home						
SSID : TP-LINK	SSID : TP-LINK_Network					
Wireless Network Security Prope	erties					
Network Authentication :	WPA2_PSK 🗘					
Data Encryption :	AES					
ASCII						
Key index (advanced) :	1					
Network key :						
Confirm network key :						
	Cancel OK					

**Profile Name** - Enter a name for your profile, such as Home, Office, Coffeehouse. Do not enter the profile name that already exists.

**SSID** - Enter the name of your Wi-Fi network.

#### Wireless Network Security Properties:

Select or enter the corresponding wireless settings, including **Network Authentication**, **Data Encryption** and **Network key**, which should be the same as those of your Wi-Fi network. Then click **OK**.

#### > To join a Wi-Fi network

If you want to join a Wi-Fi network that listed in the profile screen, select the profile and click **Apply** button in the bottom corner.

#### > To manage an existing profile

If you want to change the name or the wireless settings of an existing profile, select it and click the **Edit** button in the bottom corner of the Profile screen, then you can edit the settings of this profile. If you want to delete a profile that you no longer use, select it and click the **Remove** button.

#### 4.4 Uninstall Driver and Utility

- 1. Insert the CD and run it manually.
- 2. Go to TL-WN823N > Mac OS X Driver > Mac OS X 10.7\_10.10.zip > Uninstall.command.



- 3. A command window will pop up, please type the password of the root user to uninstall the software.
- 4. Wait till the "**Process completed**" shows up, then restart your computer to finish the uninstallation.

## PNote:

The CD is included in the package. If your CD does not work or your computer doesn't support the CD, you can also download the driver and utility from the TP-LINK website (<u>www.tp-link.com</u>).

## Chapter 5 Linux

Please visit the TP-LINK support website, find and download the compatible version of driver for your TL-WN823N at <u>www.tp-link.com</u>.

## **Appendix A: Specifications**

Normal	
Interface	USB 2.0 Interface
Standards	IEEE 802.11n, IEEE 802.11g, IEEE 802.11b
Button	Wi-fi Protected Setup (WPS) Button (QSS Compatible)
Operating System	Windows XP, Windows 7, Windows 8, Windows 8.1 32/64bit
	Mac OS X 10.7 - 10.10
	Linux
Throughput	300Mbps (Maximal)
	11b: 1/2/5.5/11Mbps
Padio Data Pate	11g: 6/9/12/18/24/36/48/54Mbps
	11n: Up to 300Mbps
	11b:CCK,QPSK,BPSK
Modulation	11g:OFDM
	11n: QPSK, BPSK, 16-QAM, 64-QAM
Media Access Protocol	CSMA/CA with ACK
Data Security	WEP; WPA/WPA2; WPA-PSK/WPA2-PSK
Frequency*	2.4 ~ 2.4835GHz
Spread Spectrum	Direct Sequence Spread Spectrum (DSSS)
Safety & Emissions	FCC, CE

Environmental and Physical			
Working Temperature	0℃~40℃ (32°F~104°F)		
Storage Temperature	-40℃~70℃(-40°F~158°F)		
Working Humidity	10% ~ 90% RH, Non-condensing		
Storage Humidity	5% ~ 90% RH, Non-condensing		

\* Only 2.412GHz $\sim$ 2.462GHz is allowed to be used in USA, which means only channel 1 $\sim$ 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 (Direct-Sequence Spread Spectrum) 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 (Frequency Hopping Spread Spectrum) 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.

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- 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 Service Set Identification 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 (Wired Equivalent Privacy) 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 (Wireless Local Area Network) A group of computers and associated devices communicate with each other wirelessly, which network serving users are limited in a local area.
- WPA (Wi-Fi Protected Access) A wireless security protocol uses TKIP (Temporal Key Integrity Protocol) encryption, which can be used in conjunction with a RADIUS server.