W301A 300Mbps Wireless Access Point User Guide

300Mbps Wireless Access Point



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Chapter 1 Product Overview

W301A is a wireless Access Point based on the latest IEEE802.11n standard while at the same time being backwards compatible with IEEE802.11b/g devices. Adopting the advanced "Multiple in and Multiple out" (MIMO) technology, it can provide a maximum of 300Mbps stable transmitting rate for wireless users. With appropriate Power over Ethernet (POE) support, you only need to run one cable to the AP to deliver both data and power. Ceiling mounted design and POE technology make it couldn't be easier for family, enterprise, and hotel users to extend wireless networks indoors. Unique Watchdog technology makes AP working more stably and wireless network running normally for a long time.

Wireless AP and WDS working modes support wireless AP, wireless Repeater, wireless Point-to-Point (P2P) Bridge, and wireless Point-to-Multipoint (P2MP) Bridge functions. Firstly, it can be used as a wireless Hot Spot to enable the accesses of wireless users when in AP mode. Secondly, it can be used as a Bridge to connect two or more wired networks when it is in P2P or P2MP mode. Thirdly, it can also be used as a wireless Repeater to expand your wireless network coverage area.

Furthermore, 64/128-bit Wired Equivalent Privacy (WEP), WPA-PSK, WPA2-PSK, WPA&WPA2, 802.1X Authentication, and MAC Address filter are all supported to protect your data and privacy. Gigabit LAN port provides you higher LAN transmission rate. SNMP and Web-based management interface make configuration easier than ever.

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1.1 Product Features

- Complies with the latest 802.11n and 802.11b/g standards
- Supports AP and WDS working modes
- Provides 300Mbps receiving and transmitting rate
- MIMO technology uses signal reflections to increase 8 times transmission distance of 802.11g standard and efficiently reduce "dead spots"
- One Gigabit Auto-negotiation LAN port supported for LAN connection
- > POE and external power supported
- SNMP and Web-based management interface
- ➢ 64/128-bit WEP encryption
- WPA-PSK, WPA2-PSK, WPA&WPA2 encryption methods
- > Auto MDI/ MDIX
- Wireless VLAN divisible for managing clients conveniently
- Client's access limited
- Watchdog designed to make device run stably
- Supports auto wireless channel selection
- Software controls the wireless signal on/ off and remotely controls the wireless coverage area.

1.2 Package Contents

Please unpack the package and find the following items:

- One W301A Wireless AP
- One Power Adapter

- Eight Screws
- > One User Guide
- One Network Cable
- > Four plastic covers

If any of listed items are missing or damaged, please contact the Tenda reseller from whom you purchased for replacement immediately.

Chapter 2 Product Installation

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You are recommended to install the product after configuring the settings of W301A according to the guide in chapter 3. The following steps take AP mode for example.

- Use the included power adapter to power on the AP. You can also use POE power supply or POE switch to power on the AP.
- Connect one end of the network cable to the LAN port of W301A, and another end to your Ethernet broadband, switch or PC.
- 3. Connect wireless adapter to W301A.

Please refer to the topology below:



Chapter 3 Configuration Guide

3.1 Web Login

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Connect to W301A via wired cable and configure 192.168.0.x(x ranges 2-254) as your PC's IP address, and 255.255.255.0 as subnet mask. (Please refer to the Appendix II for details on TCP/IP setting)

Launch Internet Explorer. In the address bar, enter the AP's default IP address, 192.168.0.254. Press Enter key and the login screen will appear. Enter **admin** both in the user name and password field.

Connect to 19	2.168.0.254 🔹 👔 🔀
R	
Wireless-N Acces	s Point
Password:	Image: State Sta
	Remember my password
	OK Cancel

Click OK to enter the welcome page of the device.

e Edit View Favorites Tools Help			
) Back + 🔘 - 💌 🗟 🐔	🔎 Search 🤺 Favorites 🕢 🔗 - 🌺 🔟 + 🍇		
iress 🗃 http://192.168.0.254/			💌 🔁 🤄
Tondo			
ienda		www.tenda.cn	
System Status			
Wireless Settings	Welcome to Setup Witand		
SNMP configuration			
System Tools	The wizard will help you setup the AP parameters easily.		
Logout			
More Products>>> ©2008 Tenda			
	Next		

You can select "Running Status", "LAN Settings", "Wireless Settings", "SNMP Settings" and "System Tools" on the left menu. Click "Next" to enter the wireless working mode setup page. W301A supports two working modes: wireless AP (AP), Bridge (WDS). Select a working mode to configure the settings. For more details please refer to the following chapters.

3.2 Setup Wizard

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Click "Next" in the first page and the next page appears.

System Status	
Setup Wizard	
LAN Settings	Setup Wizard
Wireless Settings	Please select wireless working mode:
SNMP configuration	• Wireless AP (AP)
System Tools	O Bridge(WDS)
Logout	
More Products>>>	
©2009 Tenda	Next

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hasic settings

On this page, you can select wireless AP or Bridge to adapt different wireless access environment.

3.3 Wireless Access Point (AP) Mode

Select "Wireless Access Point (AP)" and then click "Next" to enter the

System Status Setup Wizard			
LAN Settings	Basic Settings		
Wireless Settings	Working Mode: AP		
Siving configuration	Wireless Mode	11b/g/n mixed mode 💌	
System 1001s	SSID	Tenda	
Logout	Broadcast(SSID)		
More Products>>>	BSSID	00:B0:C6:05:4E:D0	
2009 Tenda	WLAN Isolation	O Enable ③ Disable	
	Channel	6	
	Operation Mode	💿 Mixed Mode 🛛 Green Field	
	Channel Bandwidth	0 20 💿 20/40	
	Guard Interval	🔘 long 💿 Auto	
	Reverse Direction Grant(RDG)	O Disable 💿 Enable	
	Extension Channel	2457MHz (Channel 10) 😽	
	Aggregation MSDU	💿 Disable 🔘 Enable	
	Back Next		

Picture 4

Fill in the following items according to the reminder information.

- 1. **SSID:** Set the SSID name of the device.
- 2. Channel: Select the wireless communication channel. The default is channel 6.

After you finish the settings, click "Next" to enter the "Security Settings" page as the picture below:

	30	windps Wire	less Access
System Status			
Setup Wizard	310 X 0 X 0 4		
LAN Settings	Wireless Security Sere	ung,	
Wireless Settings	AP Security Settin	σε	
Basic Settings	SSID "Tenda"	9 7//	
Security Settings	AP-Security Mode	WEP Mixed Mode	¥
Advanced Settings	Default Key	Key 1	
Connection Status	WEP Key1	12345	ASCII 🗸
SNMP configuration	WEP Key2	12345	ASCII 🗸
System Tools	WEP Key3	12345	ASCII 💌
Logout	WEP Key4	12345	ASCII 🖌
- More Products>>> (2009 Tenda	Note: AP Security 802:11n standard dei (Disable), WPA-Pen WPA2-Person-ARS, Compatibility probi	r Setting lines three encryption modes son-AES. Other encryption modes are ans may exist between differ	: Open-None nonstandard ent factories

"Security Settings" is used to encrypt the settings for AP and authorize the wireless client to access the AP for security in wireless network. Please refer to chapter 4.1.1.2 for detailed security setting specifications.

After finishing the settings, click "Next" to finish settings as the picture below.

System Status	
Setup Wizard	
LAN Settings	Setup Wizard
Wireless Settings	You have set the parameters of multifunctional wireless AP sucessfully. Click
SNMP configuration	"Save" to save and enable settings.
System Tools	If you want to configure more, please select other menu.
Logout	
More Products>>>	
©2009 Tenda	Back Save

3.4 Bridge (WDS) Mode

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Select "Setup Wizard" on the left menu and the working mode selection

interface will appear as the picture below.

System Status		
Setup Wizard		_
LAN Settings	Setup Wizard	
Wireless Settings	Please select wireless working mode:	
SNMP configuration	O Wireless AP (AP)	
System Tools	● Bridge(WDS)	
Logout		
More Products>>>		
©2009 Tenda	Next	

Select Bridge (WDS) and then click "Next". You will enter the WDS setup

page as the picture below.

System Status	Basic Settings	
Setup Wizard		
LAN Settings	Working Mode: AP	
Wireless Settings	Wireless Mode	11b/g/n mixed mode 🛩
SNMP configuration	SSID	Tenda
System Tools	Broadcast(SSID)	⊙Enable ○Disable
Logout	BSSID	00:B0:C6:05:4E:D0
More Products>>>	WLAN Isolation	O Enable ③ Disable
©2009 Tenda	Channel	6
	Operation Mode	Mixed Mode Green Field
	Channel Bandwidth	○ 20 ④ 20/40
	Guard Interval	Olong Auto
	Reverse Direction Grant(RDG)	O Disable ③ Enable
	Extension Channel	2457MHz (Channel 10) 💌
×.	Aggregation MSDU	⊙ Disable ○ Enable
	Working Mode: WDS	
	Allow wireless clier	at to access
	WDS Mode WDS	P2P 💌
	AP MAC	
	Channel: 1 🛩	
		Open Scan
	1	
	Back Next	

Bridge (WDS) working mode includes: Point to Point Bridge (WDS P2P),

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Point to Multipoint Bridge (WDS P2MP), Wireless Repeater (Repeater). Users can select the mode according to need. Please refer to Chapter 4.1.2 for detailed introduction.

Click "Enable Scan". AP will scan the available wireless device nearby automatically and display them under the list (see the picture below). Select the AP which you need to bridge and click "Next" to enter the security setup interface. On the other hand, you can input the MAC address of wireless device which you want to bridge manually and select the corresponding channel.

System Status	Basic Settings	
Setup Wizard	base of tange	
LAN Settings	Working Mode: AP	
Wireless Settings	Wireless Mode 11b/g/n mixed mode 🛩	
SNMP configuration	SSID Tenda	
System Tools	Broadcast(SSID)	
Legent	BSSID 00.B0.C6.05.4E.D0	
Mana Burduntessa	WLAN Isolation O Enable ③ Disable	
Biore Products>>>	Channel 6	
S2007 Found	Onemption Made Minut Made O'Court Field	
	Channel Bandwidth	
	Grandlet Bandwallt (20 (20)40	
	Reverse Direction	
	Grant(RDG)	
	Extension Channel 2457MHz (Channel 10) 💌	
	Aggregation MSDU 💿 Disable 🔿 Enable	
	Working Mode: WDS	
	Allow wireless client to access	
	WDS Mode WDS P2P	
	AP MAC	
	Channel: 1 V	
	Close Scan	
	Select SSID MAC Address Channel Security Signs	al I
	O Tenda_3003E0 00:b0:0c:30:03:e0 1 WPAPSK/AES 100	6
	O Tenda 00:b0:8c:01:01:f4 6 NONE 29	
	Tenda000 c8:3a:53:a7:3c:2c 13 NONE 99	
	Back Next	

After finish the settings, click "Next" to enter the "Security Setting" option

as the picture below.

System Status				
Setup Wizard				_
LAN Settings	Security Setting			
Wireless Settings	WDS Security			
SNMP configuration	WDS-Security	2.	1000	
System Tools	Mode	Disable	~	
Logout		Disable WEP		
More Products>>>		AES		
©2009 Tenda	Back Next	()-CO		

"WDS Security Setting" is used to encrypt the AP and authorize the device to establish bridge. Only when the passwords of the devices in bridge are consistent, the communication can get through normally.

After finishing the settings, click "Next" and "Save" to finish settings.

Setup Wizard LAN Settings	Setup Wizard
Wireless Settings SNMP configuration	You have set the parameters of multifunctional wireless AP sucessfully. Click "Save" to save and enable settings.
System Tools	If you want to configure more, please select other menu.
• Logout More Products>>> ©2009 Tenda	Back Save

3.5 Running Status

This page shows the wireless AP's current status, including wireless status, LAN status and system information.



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System Status	Wireless status			
Setup Wizard				
LAN Settings	Working mode	AP		
Wireless Settings	Wireless mode	11b/g/n mixed mode		
SNMP configuration	Main SSID	Tenda		
	Security Mode	Disable		
System 1001s	Channel	6		
Logout				
More Products>>>				
©2009 Tenda				
	T A NJ doctory for formation			
	Lai v Internate Deprintation			
	Ethernet IP method	Static IP		
	MAC Address	00:B0:C6:05:4E:D0		
	IP Address	192.168.0.254		
	Subnet mask	255 255 255 0		
	Default gateway	192.168.0.1		
	System information			
	Software version	3.3.4f		
	Hardware version	2.0		
	Run time	00:00:05:04		
	System time	2007-03-29 Thu 09:53:07		

• Wireless Status

It shows the current working status, including working mode, wireless network mode, SSID, Channel, Encryption mode, etc.

• LAN Interface information

It shows LAN IP obtain way, MAC address, IP address, subnet mask, etc.

• System information

It shows the device's current software version, hardware version, etc.

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3.6 LAN Settings

This section mainly deals with LAN's basic settings.

System Status Setup Wizard LAN Settings	LAN Settings			
Wireless Settings SNMP configuration	You could configure LA MAC Address	N interface informati 00:B0:C6:05:4E:D0	ion here.	
System Tools	IP Method	Static IP		
Logout	IP Address	192.168.0.254		
More Products>>>	Subnet Mask	255.255.255.0]	
©2009 Tenda	Default Gateway	192.168.0.1]	
	Primary DNS Server Secondary DNS Server]	
	Host name	W301A	(Optional)	
	Apply Cancel			

- Static IP: The default IP address is 192.168.0.254. If necessary, you can configure a new IP address, subnet mask and gateway manually for the device.
- Dynamic IP: Automatically obtain IP address, subnet mask and gateway from DHCP server. (Unless you have got permission to obtain this information from the uplink connected device, otherwise, it is not recommended to select this way).
- Note: If the LAN IP address is changed, you need use the new IP address to login the wireless AP's Web interface next time.

Chapter 4 Wireless Settings

This chapter introduces you wireless settings in two working modes: Access Point (AP) and Bridge (WDS), including basic settings, security settings, advanced settings, access control, and connection status.

4.1 Basic Settings

This period introduces you the basic settings in AP mode and WDS mode.

4.1.1 Access Point (AP) Mode

In this mode, the AP will act as a central hub for accesses from wireless to wireless, wireless to wired, wireless to WAN. The most important is to provide a wireless client access such as wireless network adapter access.

4.1.1.1 Application and Topology Plan

The AP mode can convert the wired transmission into wireless signals. If you have one wired cable connecting to Internet, and want to access the Internet via wireless signals connecting to your notebook computer, this mode fits perfectly.



4.1.1.2 Function Explanation

The basic setup page in Access Point (AP) working mode is as follows:

Tenda	300	OMbps	Wireless	Access	Point
System Status					
Setup Wizard	Wireless Basic Settings				
LAN Settings					
Wireless Settings	Working Mode: AP				1
Basic Settings	Wireless Enable	Disable			
Security Settings	Wireless Mode	11b/a/n M	lixed Mode 🔽		
Advanced Settings	CCID.	Tanda			
Access Control	3310	Tenua			
Connection Status	Broadcast(SSID)	Enable	○ Disable		
SNMP configuration	BSSID	00:B0:C6:0	5:4E:D0		
System Tools	WLAN Isolation	O Enable	Oisable		
Logout	Channel	6	~		
More Products>>>	Operation Mode	💿 Mixed N	Iode 🔘 Green Field		
©2009 Tenda	Channel Bandwidth	O 20 💿	20/40		
	Guard Interval	🔿 long 💿	Auto		
	Reverse Direction Grant(RDG)	O Disable	💿 Enable		
	Extension Channel	2457MHz	(Channel 10) 💌		
	Aggregation MSDU	💿 Disable	○ Enable		
	Apply Cancel				

- Wireless Signal: Click "Disable" to shut all the wireless feature of this AP; click "Enable" to open the wireless feature.
- Network Mode: Select one mode from the following. The default is 11b/g/n mode.
- 11b mode: Allow the wireless client to connect with the device in
 11b mode at the maximum speed of 11Mbps.
- I1g mode: Allow the 11g/11n-compliant client device to connect with the AP at the maximum speed of 54Mbps.
- 11b/g mode: Allow the 11b/g-compliant client device to connect with the AP with auto-negotiation speed, and 11n wireless client to connect the device with 11g speed.
- 11b/g/n mode: Allow 11b/g/n-compliant client device to connect with the AP with auto- negotiation speed. The maximum speed is

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300Mbps.

- Main SSID: SSID (Service Set Identifier) is the unique name of the wireless network. It is recommended to modify this name for wireless client to recognize wireless signals.
- Broadcast SSID: When you select "Disable SSID broadcast", AP will not broadcast its own SSID number. If there is a wireless connection request, you need to input SSID number manually.
- BSSID : Basic Service Set Identifier of wireless network. In IEEE802.11, BSSID is the MAC address of wireless access point.
- WLAN Isolation: The access control feature based on wireless MAC address. When this feature is enabled, each of your wireless clients will be in its own virtual network and will not be able to communicate with each other. This feature is to isolate the communication of wireless clients connected with different AP.
- Channel: Specify the effective channel (from 1 to 13\Auto) of the wireless network.
- Extension channel: To increase data throughput of wireless network, the extension channel range is used in 11n mode.
- Channel Bandwidth: Select the proper channel bandwidth to improve the wireless performance. 20M bandwidth can improve the anti-jamming ability of the wireless device. 40M bandwidth can improve the flux of 11N client.

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4.1.2 Bridge (WDS) Mode

Bridge (WDS) mode includes P2P, P2MP, Wireless Repeater.

4.1.2.1 Point to Point Bridge

P2P bridge mode can connect with two wired network via wireless access points, which communicate by wireless signals and not by cables. This mode can be free from the cable trouble. The P2P topology shows below



Select P2P Bridge in drop-down list of WDS mode as the picture below:

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System Status	Wireless Basic Settings
Setup Wizard	
LAN Settings	Working Mode: AP
Wireless Settings	Wireless Enable Disable
Basic Settings	Wireless Mode 11b/g/n Mixed Mode 🗹
Security Settings	SSID Tenda
Advanced Settings	Broadcast(SSID) ③ Enable ① Disable
Access Control	BSSID 00:B0:C6:05:4E:D0
Connection Status	WLAN Isolation O Enable O Disable
SNMP configuration	Channel 10
System Tools	
Logout	Operation Mode Officen Field
-More Products>>>	Channel Bandwidth 020 0 20/40
92009 Tenda	Guard Interval Olong O Auto
	Grant(RDG)
	Extension Channel 2437MHz (Channel 6) 😽
	Aggregation MSDU ③ Disable ◎ Enable
	Working Mode: WDS
	Allow wireless client to access.
	WDS Mode WDS P2P
	AP MAC 00:12:3A:4A:88:18
	Channel: 10 V
	Onen Scan
	Spon Stan
	Apply Cancel

This page includes the AP and WDS parameter setting. AP parameter setting can change SSID and enable/ disable wireless feature.

- AP MAC: Enter the interconnection equipment's MAC address.
- Channel: Select the channel according to interconnection equipment's; the devices on the two ends must be at the same channel.
- Open Scan: Click this button, the AP will scan the nearby wireless devices automatically and display the information in

the table. Select the device which need to bridge, the AP will add the device's MAC address automatically and select the corresponding channel.

4.1.2.2 P2MP Bridge Mode

The P2MP Bridge Mode which connects scattered wired network together is more complicated than P2P Bridge mode. P2MP usually transmit wireless signals from one access point, and other access points are in charge of receiving signals so as to share network resource. Support up to 4 remote access point connection. In this mode, wireless clients are not allowed to connect.

P2MP Bridge mode can connect multiple wireless access point together without cabling. If "Root AP" is configured as P2MP bridge mode, other (less than 4) remote access points should select P2P bridge modes. The topology shows below:



Select WDS P2MP mode in the drop-down box of WDS mode as the picture below.



Setup Wizard LAN Settings Wireless Settings Wireless Settings Basic Settings Basic Settings SCULTIV Settings SCULTIV Settings Advanced Settings Advanced Settings Advanced Settings Connection Status SNMP configuration System Tools Logeut Channel Dendvidth Disable Channel Disable Channel Channel Disable Channel Channel Disable Channel Channel Disable Channel Disable Channel Channel Disable Channel Channel Disable Channel Channel Disable Channel	stem Status	Wireless Basic Settings	
LAN Settings Working Mode: AP Wireless Settings Wireless Enable Disable Basic Settings Wireless Mode 11b/g/n Mixed Mode Image: Control Connection Status Sourcetion Status SSID Tenda Image: Connection Status System Tools Operation Mode Obsoble Obsoble Logout Operation Mode Mixed Mode Image: Connection Status System Tools Operation Mode Mixed Mode Green Field Logout Channel 10 Image: Connection Status System Tools Operation Mode Mixed Mode Green Field Logout Channel 10 Image: Channel Image: Channel Support Tends Operation Mode Mixed Mode Green Field Channel 10 Image: Channel Image: Channel Image: Channel Support Tends Operation Mode Mixed Mode Green Field Image: Channel Support Tends Channel Enable Image: Channel Image: Channel Image: Channel Image: Channel Support Tends Agregation MSDU Disable Enable Image: C	tup Wizard		
Wireless Settings Wireless Enable Disable Basic Settings Wireless Mode 11b/g/n Mixed Mode Image: Construct Settings Security Settings SSID Tenda Image: Construct Settings Advanced Settings Broadcast(SSID) © Enable Disable Access Control BSSID 00:B0:C6:05:4E:D0 Connection Status WLAN isolation Enable © Disable SNMP configuration Channel 10 Image: Construct Setting System Tools Operation Mode Mixed Mode Green Field Logout Channel Bandwidth 20 20:40 More Products>>> Guard Interval long @ Auto Reverse Direction Orant(RDO) Disable Enable Moreing Mode: WDS Aggregation MSDU Disable Enable Working Mode: WDS Allow wireless cleant to access. WDS Node WDS P2MP AP MAC 00:B0:0C:30:03:E0 AP MAC 00:B0:0C:01:01:F4 AP MAC 00:B0:BC:01:01:F4 AP MAC 00:B0:BC:01:01:F4	N Settings	Working Mode: AP	
Basic Settings Wireless Mode 11b/g/n Mixed Mode Security Settings SSID Tenda Advanced Settings Broadcast(SSID) © Enable Disable Access Centrel BSSID 00 B0.C6 05.4E D0 Connection Status WLAN isolation Enable © Disable System Tools Operation Mode Mode Green Field Legout Operation Mode Mode Green Field Channel 10 ✓ More Products>>> Oug @ Auto Reverse Direction Grant(RDO) Disable Enable Channel 2437MHz (Channel 6) ✓ Aggregation MSDU Disable Enable Working Mode: WDS Allow wireless cleant to access. WDS Mode WDS 72MP ✓ AP MAC 00:B0:0C:30:03:E0 AP MAC AP MAC 00:B0:0C:01:01:F4 4DMAC	ireless Settings	Wireless Enable	Disable
Security Settings SSID Tenda Advanced Settings Broadoast(SSID) © Enable Disable Access Control 00 B0.06.05.4E:D0 Connection Status WLAN Isolation Enable © Disable SNMP configuration Status Operation Mode © Mixed Mode © Green Field Channel 10 ✓ Source Products>>> Operation Mode © Mixed Mode © Green Field Channel 10 ✓ More Products>>> Outed Interval long @ Auto Reverse Direction Grant(RDG) Disable Enable Working Mode: WDS Allow wireless cleant to access: WDS Mode WDS Mode WDS 200:00:30:03:E0 AP MAC 00:B0:0C:30:03:E0 AP MAC	Basic Settings	Wireless Mode	11b/g/n Mixed Mode 🛩
Advanced Settings Broadcast(SSID) © Enable Disable Access Control On B0/C6.05.4E.D0 Connection Status WLAN Isolation Enable Disable SNMP configuration Channel 10 Image: Channel 0 System Tools Operation Mode Mixed Mode Green Field Logout Operation Mode Mixed Mode Green Field Channel 10 Image: Channel 0 Disable 2009 Tends Quard Interval long @ Auto Reverse Direction O Disable Enable Working Mode: WDS Disable Enable Image: Channel 2437MHz (Channel E) Image: Channel Aggregation MSDU O Disable Enable Image: Channel Image: Channel Image: Channel E)	Security Settings	SSID	Fenda .
Access Control ESSID 00 E0 C6 05:4E D0 Connection Status WLAN Isolation Enable © Disable System Tools Dependent of the control of th	Advanced Settings	Broadcast(SSID)	Senable O Disable
Connection Status WLAN Isolation Enable © Disable SNMP configuration Channel 10 Image: Channel System Tools Operation Mode Mozed Mode Green Field Loggout Operation Mode Mozed Mode Green Field More Products>>> Guard Interval Iong @ Auto Reverse Direction O Isable Enable Grant(RDG) Disable Enable Working Mode: WDS Disable Image: Channel E) Aggregation MSDU Ø Disable Enable Working Mode: WDS PLMP Image: Channel E) AP MAC 00:E0:0C:30:03:E0 AP MAC AP MAC	Access Control	BSSID	00:B0:C6:05:4E:D0
SNMP configuration Channel 10 Image: Channel System Tools Operation Mode Mized Mode Green Field Logout Channel 20 2040 More Products>>> Guard Interval long Auto 8009 Tends Reverse Direction Grant(RDG) Disable Enable Extension Channel 2437 MHz (Channel 6) Image: Channel 6) Aggregation MSDU Disable Denable Working Mode: WDS Allow wireless client to access. WDS Mode WDS P2MP Image: Channel 700 (101) (1	Connection Status	WLAN Isolation	🔿 Enable 💿 Disable
System Tools Logout More Products>>> 2009 Tenda: Operation Mode Guard Interval Channel Bandwidth Channel Channel Channel Chann	SNMP configuration	Channel	10 💌
Log out More Products>>> 2009 Tends 2009 Tends 200	stem Tools		
More Products>>> Guard Interval 0009 Tends Channel Bandwidth Guard Interval Channel Bandwidth Guard Interval Channel Bandwidth Can @ 0 kuto Channel Bandwidth Channel	gout	Operation Mode (● Mixed Mode ○ Green Field
Guard Interval Color Solution Guard Interval Color Solution Reverse Direction Disable Senable Extension Channel 2437MHz (Channel 6) • Aggregation MSDU Obieable Enable Working Mode: WDS Allow wireless client to access. WDS Mode WDS P2MP • AP MAC 00:12:3A:4A:88:18 AP MAC 00:10:30:03:E0 AP MAC 00:00:00:03:00 AP MAC 00:00:00:101:F4	are Products>>>	Channel Bandwidth	20 💿 20/40
Reverse Direction Grant(RDG) Extension Channel Aggregation MSDU Disable Enable Working Mode: WDS Allow wireless client to access. WDS Mode WDS P2MP AP MAC 00:12:3A:4A:88:18 AP MAC 00:60:0C:30:03:E0 AP MAC 00:00:0C:01:01:F4	0 Tenda	Guard Interval	🔾 long 💿 Auto
Extension Channel 2437MHz (Channel 6) Aggregation MSDU ① Disable ① Enable Working Mode: WDS Allow wireless client to access. WDS Mode WDS P2MP AP MAC 00:12:3A:4A:88:18 AP MAC 00:B0:0C:30:03:E0 AP MAC 00:B0:0C:101:F4		Reverse Direction (Grant(RDG)	🔿 Disable 💿 Enable
Aggregation MSDU Disable Enable Working Mode: WDS Allow wireless client to access. WDS Mode WDS P2MP AP MAC 00:12:3A:4A:88:18 AP MAC 00:B0:0C:30:03:E0 AP MAC D0:B0:0C:101:F4		Extension Channel	2437MHz (Channel 6) 💌
Working Mode: WDS Allow wireless client to access. WDS Mode WDS P2MP AP MAC 00:12:3A:4A:88:18 AP MAC 00:B0:0C:30:03:E0 AP MAC		Aggregation MSDU	🖲 Disable 🔿 Enable
Allow wireless client to access. WDS Mode WDS P2MP AP MAC 00:12:3A:4A:88:18 AP MAC 00:B0:0C:30:03:E0 AP MAC 00:B0:8C:01:01:F4		Working Mode: WDS	
WDS Mode WDS P2MP AP MAC 00:12:3A:4A:88:18 AP MAC 00:B0:0C:30:03:E0 AP MAC 00:B0:8C:01:01:F4		Allow wireless client	to access.
AP MAC 00:12:3A:4A:88:18 AP MAC 00:80:0C:30:03:E0 AP MAC 00:80:8C:01:01:F4		WDS Mode WDS F	2MP 👻
AP MAC 00:80:0C:30:03:E0 AP MAC 00:80:8C:01:01:F4		AP MAC 00:12:3	A:4A:88:18
AP MAC 00:80:80:01:01:F4		AP MAC 00:B0:0)C:30:03:E0
		AP MAC 00:80:8	3C:01:01:F4
AP MAC		AP MAC	
Channel: 6		Channel: 6 💌	
Open Scan			Open Scan
		-	

- AP MAC Address: Input the remote AP's MAC address. (No more than 4)
- Channel: Select the channel which bridge needs to use. (All APs in the bridge must be at the same channel.)
- Enable Scan: Click this button, the AP will scan the nearby wireless devices automatically and display the information in the table. Select the device which need to bridge, the AP will add the device's MAC address automatically and select the corresponding channel. When multiple devices are added, AP will select the

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channel of the last added device as the bridge used channel (You can also change the channel according to your need. All the devices must at the same channel, thus the bridge can be established.)

4.1.2.3 Wireless Repeater Mode

Repeater Mode can repeat and amplify wireless signals to extend wireless network coverage. In this mode, wireless clients are allowed to connect.

When two LAN's transmission distance is over the wireless device's maximum transmission value, or there is much block among devices, you can use the Repeater mode to deal with these problems by adding MAC addresses. The topology shows below:



Select wireless repeater on the drop-down box of WDS mode and the page will show as below.



System Status	Wireless Basic Settings		
Setup Wizard			
LAN Settings	Working Mode: AP		
Wireless Settings	Wireless Enable	Disable	
Basic Settings	Wireless Mode	11b/g/n Mixed Mode 🗹	
Security Settings	SSID	Tenda	
Advanced Settings	Broadcast(SSID)	⊙ Enable ○ Disable	
Access Control Connection Status SNMP configuration System Tools	BSSID	00:B0:C6:05:4E:D0	
	WLAN Isolation	🔿 Enable 💿 Disable	
	Channel	10 👻	
	Onemation Made	One Fill	
Logout	Chernel Bandwidth	O Milled Mode O Green Field	
More Products>>>	Cuerd Internal		
©2009 Tenda	Barama Direction	∪ long ⊕ Auto	
	Grant(RDG)	O Disable 💿 Enable	
	Extension Channel	2437MHz (Channel 6) 💌	
	Aggregation MSDU	⊙ Disable ○ Enable	
	Working Mode: WDS		
	🗹 Allow wireless clier	nt to access.	
	WDS Mode WDS	AP Repeater 💌	
	AP MAC 00:12	3A:4A:88:18	
	AP MAC 00:B0	:0C:30:03:E0	
	AP MAC 00:80	:8C:01:01:F4	
	AP MAC		
	Channel: 6 💌		
		Open Scan	
	Apply Cancel		

When the users select "permit wireless client to access", AP can also be used as "Wireless Access Point" to allow the access of wireless client when it is used as a wireless bridge. The basic settings of wireless repeater are divided into two parts: one part is the basic setting in AP mode (See 4.1.1.2); another part is the basic setting in WDS mode (See 4.1.2.2).

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4.2 Security Settings

It is used to configure the AP network's security setting, including AP security setting and WDS security setting.

4.2.1 AP Security Setting

We introduce six common encryption modes to you (support ten encryption modes), including Mixed WEP encryption, WPA-PSK, WPA-Enterprise, WPA2-PSK, WPA2-Enterprise, etc.

Mixed WEP

WEP (Wired Equivalent Privacy), a basic encryption method, usually encrypts wireless data using a series of digital keys (64 bits or 128 bits in length). By using the same keys on each of your wireless network devices, you can prevent unauthorized wireless devices from monitoring your transmissions or using your wireless resources. WEP is based on RSA algorithm from RC4. It is the original and weak encryption method, so it is recommended not to use this method. Select Mixed WEP to enter the following window:

setup wizara	Wireless Security Sett	ng		
LAN Settings				
Wireless Settings	AP Security Settin	gs		
Basic Settings	SSID "Tenda"			
Security Settings	AP-Security Mode	WEP Mixed Mode	*	
Advanced Settings	Default Key	Key 1 💌		
Connection Status	WEP Keyl	12345	ASCI	~
SNMP configuration	WEP Key2	12345	ASCII	~
System Tools	WEP Key3	12345	ASCII	*
Logout	WEP Key4	12345	ASCI	*
- More Products>>> 12009 Tenda	Note : AP Security 802.11n etanolard de (Dasable), WFA-Penson-ABS (Compatibility problem)	: Setting ines three encryption modes on-AES, Other encryption modes are not may exist between differ	Open-None nonstandard, ent factories,	



Setting Explanation

- Security Mode: From the drop-down menu select the corresponding security encryption modes.
- WEP Key1~4: Set the WEP key with the format of ASCII and Hex. You can enter ASCII code (5 or 13 ASCII characters. Illegal character as "/" is not allowed.) Or 10/26 hex characters.
- Default Key: Select one key from the four configured keys as the current available one.

WPA- PSK

WPA (Wi-Fi Protected Access), a Wi-Fi standard, is a more recent wireless encryption scheme, designed to improve the security features of WEP. Select "WPA-PSK" from the drop-down menu to enter the following window:

System Status Setup Wizard LAN Settings	Wireless Security Setting
 Wireless Settings Basic Settings Security Settings Advanced Settings Access Control Connection Status SNMP configuration System Tools Logout More Products>>> 62009 Tenda 	AP Security Settings SSID "Tenda" AP-Security Mode WPA a lamithm
	Key PisChangeMe Key Renewal 3600 Interval 3600 Note : AP Security Setting 802.11n standard defines three encryption modes: Open-None (Disable), WPA-Person-AES, WPA2-Poison-AES, Other encryption modes are nonstandard Compatibility problems may easit between different factoried
	Apply Cancel



Setting Explanation

- WPA Algorithms: Provides TKIP [Temporal Key Integrity Protocol] or AES [Advanced Encryption Standard]. The default is TKIP mode.
- Pass Phrase: Enter the encrypted characters with 8-63 ASCII characters.
- ♦ Key Renewal Interval: Set the key's renewal period.

WPA2-PSK

WPA2 provides more secure features than WEP and WPA. Select "WPA2-PSK" from the drop-down menu to enter the following window:

System Status Setup Wizard LAN Settings	Wireless Security Setti	ng
Wireless Settings Basic Settings Security Settings Advanced Settings Access Control Connection Status SNMP configuration System Tools Logout More Products>>> 82009 Tenda	AP Security Settin, SSID "Tenda" AP-Security Mode WPA Algorithm Key Key Renewal Interval Note : AP Security 302.11n standard def (Disäkle), WFA-Pere WFA2-Person-AES; Compatibility proble	
	Apply Cancel	

Setting Explanation

WPA Algorithms: Provides TKIP [Temporal Key Integrity Protocol] or AES [Advanced Encryption



Standard]. The default is TKIP mode.

- Pass Phrase: Enter the encrypted characters with 8-63 ASCII characters.
- ♦ Key renewal Interval: Set the key's renewal period.

WPA

This security mode is used when a RADIUS server is connected to the device. Select "WPA" from the drop-down menu to enter the following window:

y Setting
y Setting
Settings ta' Mode WPA - Enterprise To TKIP A - Enterprise To TKIP A - Enterprise To TKIP A - Enterprise TKIP&AES TKIPAEAES T

Setting Explanation

- WPA Algorithms: Provides TKIP [Temporal Key Integrity Protocol] or AES [Advanced Encryption Standard]. The default is TKIP mode.
- ♦ Pass Phrase: Enter the encrypted characters with



8-63 ASCII characters.

- ♦ Key Renewal Interval: Set the key's renewal period.
- Radius Server: Enter the IP address of the Radius server.
- Radius Server port: Enter the authentication port of the Radius server. The default is 1812.
- Shared Secret: Enter the shared key for authentication server with 8~63 ASCII characters.
- Session Timeout: The authentication interval period between AP and authentication server. The default is 3600s.

WPA2

This security mode is based on Radius authentication server and WPA2 encryption method. WPA2 is used when a RADIUS server is connected to the device. Select "WPA2" from the drop-down menu to enter the following window:

System Status Wireless Security Setting Setup Wirard AP Security Settings LAN Settings SID "Tenda" Basic Settings AP Security Mode Basic Settings WPA2 - Enterprise Security Settings WPA2 - Enterprise Advanced Settings WPA Algorithm Advanced Settings WPA Algorithm Access Control Off One Seconds Connection Status PMK Cache Period SNMP configuration Off On System Tools Address Logout RADIUS Server -More Products>>> 1812 Stand Key PisChangeMe Session timed out 3600 Note : AP Security Setting 302.11n standed defines thare encryption modes : Open-None (Diskib), WPA - Person-AES, WPA -	<u>Tenda</u> ®	300Mbps Wireless Access Point
LAN Settings AP Security Settings Wireless Settings SSID "Tenda" Basic Settings AP Security Mode WPA2 - Enterprise Basic Settings WPA Algorithm TKIP AES Advanced Settings WPA Algorithm TKIP AES TKIP & AES Advanced Settings Key Renewal 3600 Seconds Access Control Interval 10 Minutes Connection Status Presenthentication Ooff On SNMP configuration RADIUS Server 192168.0.100 Address Logout RADIUS Server 1812 Stand Key PisChangeMe Sologo Tenda Session timed out 3600 Note : AP Security Setting S02009 Tenda Size Preson-AES WPA - Preson-AES WPA - Preson-AES WPA - Peson-AES WPA - Peson-AES WPA - Peson-AES WPA - Peson-AES	System Status Setup Wizard	Wireless Security Sotting
Apply Cancel	LAN Settings Wireless Settings Basic Settings Security Settings Advanced Settings Access Control Connection Status SNMP configuration System Tools Logout More Products>>> 02009 Tenda	AP Security Settings SSID "Tenda" AP-Security Mode WPA Algorithm O TKIP O AES TKIP&AES Key Renewal Interval PMK Cache Period 10 Minutes Presuthentization O Off On RADIUS Server 192.168.0.100 Address RADIUS Server 192.168.0.100 RADIUS Server 192.168.0.100 RADIUS Server 192.168.0.100 RADIUS Server 192.168.0.100 Note : AP Security Setting Session timed out 3600 Note : AP Security Setting S02.1 In standard defines these encryption modes: Open-None (Disable), WPA-Person-AES, WPA2-Person-AES, Other encryption modes are nonstandard. Compatibility publices may east between different factories.

Setting Explanation

- WPA Algorithms: Provides TKIP [Temporal Key Integrity Protocol] or AES [Advanced Encryption Standard]. The default is TKIP mode.
- Pass Phrase: Enter the encrypted characters with 8-63 ASCII characters.
- ♦ Key Renewal Interval: Set the key's renewal period.
- Radius Server: Enter the IP address of the Radius server.
- Radius Server Port: Enter the authentication port of the Radius server. The default is 1812.
- Shared Key: Enter the shared key for authentication server with 8~63 ASCII characters.
- Session Timeout: The authentication interval period



between AP and authentication server. The default is 3600s.

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802.1x Authentication

This security mode is used when a RADIUS server is connected to the device. 802.1x, a kind of Port-based authentication protocol, is an authentication type and strategy for users. The port can be either a physic port or logic port (such as VLAN). For wireless LAN users, a port is just a channel. The final purpose of 802.11x authentication is to check if the port can be used. If the port is authenticated successfully, you can open this port which allows all the messages to pass. If the port isn't authenticated successfully, you can keep this port "disable" which just allows 802.1x authentication protocol message to pass. Select "802.1x" from the drop-down menu to enter the following window:

System Status Setup Wizard	Window Council Cost		
LAN Settings	Whereas security sem	arg	
Wireless Settings	AP Security Settings		
Basic Settings	SSID "Tenda"		
Security Settings	AP-Security Mode	802.1X	
Advanced Settings	WED		
Access Control	The DHIE Course	Con Con	
Connection Status	Address	192.168.0.100	
SNMP configuration System Tools	RADIUS Server Port	1812	
Logout	Shared Key	PIsChangeMe	
More Products>>>	Session timed out	3600	
©2009 Tenda	Note : AP Security	y Setting	
01007 10144	802 11n standard defines three encryption modes: Open-None		
	(Disable), WPA-Person-AES,		
	WPA2-Person-AES. Other encryption modes are nonstandard		
	Compatibility proble	ems may exist between different factories.	
	Apply Cancel		

Setting Explanation

802.1x WEP: Click "Enable/Disable" to enable or disable the WEP algorithm.



- *Radius Server*: Enter the IP address of the Radius server.
- Radius Server Port: Enter the authentication port of the Radius server. The default is 1812.
- Shared Secret: Enter the shared key for authentication server with 8~63 ASCII characters.
- Session Timeout: The authentication interval period between AP and authentication server. The default is 3600s.

Note: To improve security level, do not use too easy characters.

4.2.2 WDS Security Setting

WDS Security Setting is to protect the data safety of wireless bridge.

The security setup page of Point to Point Bridge and Point to Multipoint Bridge is as the picture below

System Status			
Setup Wizard	Wireless Security Sett	ing	
LAN Settings			
Wireless Settings	WDS Security Set	tings	
Basic Settings	WDS-Security	Disable	
Security Settings	Mode	Disable	
Advanced Settings		WEP Encryption	
Connection Status		AES Encryption	
SNMP configuration	Apply Cancel		
System Tools			
Logout			
-More Products>>>			
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WDS security setting provides three encryption modes: WEP encryption, TKIP encryption and AES encryption.

♦ WEP Key: You can set the WEP key in ASCII code or

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Hexadecimal code.

- Key: You can choose ASCII code (5 or 13 ASCII codes, illegal characters like "/" are forbidden) or Hexadecimal characters (10 or 26 Hexadecimal characters).
- TKIP/ AES Key: TKIP/AES is an encryption mode based on WPA and WPA2.
- ♦ Key: Key characters are ASCII codes from 8 to 63.

Note: The encryption mode and password of each device in the bridge must be consistent, thus the connection can be established. You are recommended to encrypt the bridge to protect the wireless bridge.

LAN Settings	Wireless Security Setting		
Wireless Settings	AP Security Settings		
Basic Settings	SSID "Tenda"		
Security Settings	AP-Security Mode WPA - PSK		
Advanced Settings	WPA Algorithm I TKIP AES TKIP&AES		
Access Control	Kev 12345678		
SNMP configuration	Key Renewal 3600 Seconds		
System Tools	Note: AP Security Setting 802 11n standard defines these encryption modes: Open-None		
Logout			
More Products>>> ©2009 Tenda	(Dueble), WPA-Fermon-AES, WPA2-Person-AES: Other encryption modes are nonstandard. Compatibility problems may exist between different factories.		
	WDS Security Settings		
	WDS-Security Mode		
	Encryption Key 88888888		

The security setup page of wireless repeater is as follows:

Security setting of wireless repeater can be divided into AP security

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setting and WDS security setting. AP security setting focuses on wireless client access, while WDS security setting focuses on wireless bridge connection. AP security setting appears only when wireless client accesses are permitted in wireless repeater mode. Please refer to Chapter 4.2.1 for AP security setup.

Tenda® 4.3 Advanced Settings

This section mainly deals with wireless advanced settings, including Speed, Beacon Interval, Fragment Threshold, etc. Select "Wireless Setting->Advanced Setting" to enter the following screen:

System Status Setup Wizard			
LAN Settings	Advanced Settings		
Wireless Settings	BG Protection Mode	Auto 💌	
Basic Settings	Basic Data Rates	Default(1	-2-5.5-11 Mbps) 🛛 👻
Security Settings	Beacon Interval	100	ms (range 20 - 999, default 100)
Access Control	Fragment Threshold	2346	(range 256 - 2346, default 2346)
Connection Status	RTS Threshold	2347	(range 1 - 2347, default 2347)
SNMP configuration	TX Power	100	(range 1 - 100, default 100)
System Tools			
Logout	WMM Capable	💿 Enable	○ Disable
More Products>>>	APSD Capable	○ Enable	 Disable
©2009 Tenda	The limited of clinet	10	(range 0 - 20, default 10)
	Wireless LED	⊙On (Ooff
	Apply Cancel		

Setting Explanation:

- BG Protection Mode: For 11b/g wireless client, it is easier to connect with 11n wireless device. The default is "Auto".
- Basic Data Rates: In term of different requirements, you can select one of the suitable Basic Data Rates from the drop-down menu. Here, default value is (1-2-5.5-11Mbps...). It is recommended not to modify the default value.
- Beacon Interval: The frequency interval of the beacon, which is a packet broadcast by an AP to synchronize a wireless network. The default value is 100 ms.

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- Fragment Threshold: The fragmentation threshold defines the maximum transmission packet size in bytes. The packet will be fragmented if the arrival is bigger than the threshold setting. The default size is 2346 bytes.
- RTS Threshold : RTS stands for "Request to send". This parameter controls what size data packet the frequency protocol issues to RTS packet. If the device works in SOHO, do not modify the default value.
- TX Power: Set the wireless output power level. The default value is 100.
- WMM Capable: To enhance wireless multimedia transfer performance (0n-line video and voice). If you are not clear about this, enable it.
- APSD Capable: It is used for auto power-saved service. The default is disabled.

4.4 Access Control

To secure your wireless LAN, the wireless access control is actually based on the MAC address management. Select "Wireless Setting->Access Control" to display the following screen:

System Status	Wireless Access Control
LAN Settings Wireless Settings Basic Settings	MAC Address Filter:
Security Settings Advanced Settings Access Control Connection Status SNMP configuration	MAC Address Management MAC Address Action 00 : b0 : aa : da : ec : 24 Add 00:b0acdaec:24 Delete
System Tools Logout More Products>>> ©2009 Tenda	Apply Cancel

Setting Explanation:

- MAC Address Filter: Enable/disable MAC address filter. Select "Close" to malfunction MAC address; "disable" to prevent the MAC addresses in the list from accessing the wireless network; "Allow" to allow the MAC address in the list to access the wireless network.
- MAC Address Management: Input the MAC address to implement the filter policy. Click "Add" to finish the MAC add operation.
- MAC list: Show the added MAC address. You can add or delete them.

Note: This AP can support no more than 32 MAC addresses.

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4.5 Connection Status

This page shows wireless client's connection status, including MAC address, Channel bandwidth, etc. Select "Wireless Setting->connection status" to enter the following screen:

System Status Setup Wizard LAN Settings Wireless Settings Basis Settings	Wireless Connection Status The Current Wireless Access List: Refresh			
Security Settings Advanced Settings Access Control Connection Status SNMP configuration System Tools Logout More Products>>> @2009 Tenda	NO. 0	MAC Address 00/B0/8C:07:19:AF	Bandwidth 40M	

Setting Explanation:

MAC Address: Shows current connecting host's MAC address.

Bandwidth: Shows current connecting host's (wireless client) bandwidth (20MHz or 40MHz).

Chapter 5 SNMP Setting

5.1 SNMP Introduction

Simple Network Management Protocol (SNMP) is a popular protocol for network management. It is widely used in local area networks (LAN) for collecting information, and managing and monitoring, network devices, such as servers, printers, hubs, switches, and routers from a management host. Managed devices that support SNMP including software are referred to as an SNMP agent, which usually interacts with third-party SNMP management software to enable the sharing of network status information between monitored devices and applications and the SNMP management system. A defined collection of variables (managed objects) are maintained by the SNMP agent and used to manage the device. These objects are defined in a Management Information controlled by the on-board SNMP agent. SNMP defines both the format of the MIB specifications and the protocol used to access this information over the network.

5.2 SNMP Setting

This device supports SNMP v1 and SNMP v2c. Please click "SNMP Setting" in the left page to enter the following window:

Tenda °	300Mbps Wireless Access Point
System Status Setup Wizard LAN Settings Wireless Settings SNMP configuration	SNMP configuration You could configure SNMP v1&v2 parameters here. Oisable OiEnable Contect administrator
System Tools Logout More Products>>> 62009 Tenda	Device name W301A Location Shenzhen Read Community Public R/W Community Private

Click "enable" or "disable" to enable and disable SNMP management.

Setting Explanation:

- Contact: Set the name to access the AP. Usually set the administrator's name.
- ♦ Device Name: Set the AP's name, such as Tenda_300A.
- ♦ Location: Set the AP's network location.
- Read Community: Indicates the community read access string to permit reading this AP's SNMP information. The default is Public.
- Read/Write Community: Indicates the community read/write access string to permit reading and re-writing this AP's SNMP information. The default is Private.

Chapter 6 System Tools

This section focuses on how to maintain AP, including Restore to Factory Default Setting, Backup/Restore, Firmware Upgrade, Reboot, Password Change, Syslog.

6.1 Password Change

This section is to set a new user name and password to better secure your device and network. Click "Apply" to finish changing password.

Setup Wizara	Change Password		
LAN Settings			
Wireless Settings	Note:User Name and Passy	word makeup only by	number or/and letter.
SNMP configuration			
System Tools	User Name	admin	
Change Password	Old Password		
Restore to Factory	New Password		
Backup/Restore	Re-enter to Confirm	•••••	
Time Settings			
Reboot			
Upgrade			
System Log	Apply Cancel		
Logout			
-More Products>>>			
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- ♦ User Name: Enter a new user name for the device.
- ♦ Old Password: Enter the old password.
- ♦ New Password: Enter a new password.
- ♦ Re-enter to Confirm: Re-enter to confirm the new password.

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NOTE: It is highly recommended to change the password to secure your network and the device.

6.2 Restore to Factory

This button is to reset all configurations to the default values. It means the device will lose all the settings you have set.

Restore: Click this button to restore to default settings.

Factory Default Settings:

User Name: admin

Password: admin

IP Address: 192.168.0.254

Subnet Mask: 255.255.255.0

System Status	
Setup Wizard LAN Settings Wireless Settings	Restore to Factory Default Settings
SNMP configuration	Restore
System Tools	
Change Password	
Restore to Factory	
Backup/Restore	
Time Settings	
Reboot	
Upgrade	
System Log	
Logeut	
More Products >>> ©2009 Tenda	

6.3 Backup/Restore

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The device provides backup/restore settings, so you need set a directory to keep these settings.

Backup: Click this button to back up the device's configurations.

Browse: Click this button to browse the directory where you backup or save the device's settings.

Restore: Click this button to restore the device's configurations.

System Status Setup Wizard LAN Settings Wireless Settings SNMP configuration System Tools Change Password Restore to Factory Backup/Restore Time Settings Reboot Upgrade System Log	Backup/Restore The device provides backup/restore settings. you need set a directory to keep these parameters. Backup Please choose restore file: Browse Restore
Logout More Products>>> ©2009 Tenda	

6.4 Time Settings

This section is to select the time zone for your location. You can select your own time or obtain the standard GMT time from Internet.

Tenda	300Mbps Wireless Access Point
System Status Setup Wizard LAN Settings Wireless Settings SNMP configuration System Tools Change Password Restore to Factory Backup/Restore Time Settings Reboot Upgrade	State State State State Time Settings Time Zone: (OMT+08:00)Beling,China, Hong Kong,Singapore, Taipei (CMT+08:00)Beling,China, Hong Kong Kong,Singapore, Taip
System Log Logout More Products>>> ©2009 Tenda	Apply Cancel

Setting Explanation:

- ♦ Time Zone: Select your time zone from the drop-down menu.
- ♦ Customized time: Enter the time you customize.

6.5 Reboot System

This page is used to reboot wireless access point. Rebooting the device makes the settings configured go into effect.

Reboot: Click this button to reboot the device.

Setur Wizard	
LAN Settings	Reboot
Wireless Settings	Click have to subject the worter
SNMP configuration	Reboot
System Tools	
Change Password	hanna an
Restore to Factory	
Backup/Restore	
Rehaat	
Upgrade	
System Log	
Logout	
More Products>>>	
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6.6 Firmware Upgrade

The device provides the firmware upgrade by clicking the "Upgrade" after browsing for the firmware upgrade packet which you can download from <u>www.tenda.cn</u>. After the upgrade is completed, the device will reboot automatically.

Tenda	300Mbps Wireless Access Point
System Status Setup Wizard LAN Settings Wireless Settings SNMP configuration System Tools Change Password Restore to Factory Backup/Restore Time Settings Reboot Upgrade System Log Lacot	Upgrade Select the firmware: Browse Upgrade The current firmware vension: 3.3.4f-Sep 28 2009 IMPORTANT: Do not power off the system during the firmware upgrade to avoid damaging the device. The AP will reboot after the upgrade.
More Products>>> ©2009 Tenda	

Upgrade Steps:

- 1. Download the higher firmware version from our website: www.tenda.cn.
- 2. Extract the firmware file on your computer.
- On the Firmware Upgrade screen, enter the location directory of the firmware file in the field provided, or click the **Browse** button and find the file.
- 4. Click **Upgrade** button, and follow the on-screen instructions.
- 5. After the upgrade is completed, the device will reboot automatically.

IMPORTANT: Do not power off the system during the firmware upgrade to avoid damaging the device.

6.7 Syslog

The section is to view the system log. Click the "Refresh" to update the log. Click "Clear" to clear all shown information. If the log is over 150

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records, it will clear them automatically.

Setup Wizard LAN Settings Wireless Settings	System Lag Page I content				
System Tools	1	2007-03-29 09:48:09 2007-03-29 09:48:09	System System	wins started. Load watch dog success.	
Restore to Factory Backup/Restore Time Settings Reboot	3	2007-03-29 09:48:09	System	System start success.	m
•Upgrade •System Log Logout	R	efresh Clear			
More Products>>> 32009 Tenda					

Refresh: Click this button to update the log.

Clear: Click this button to clear the current log.

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Appendix I: Glossary

- Access Point (AP): Any entity that has station functionality and provides access to the distribution services, via the wireless medium (WM) for associated stations.
- Channel: An instance of medium use for the purpose of passing protocol data units (PDUs) that may be used simultaneously, in the same volume of space, with other instances of medium use(on other channels) by other instances of the same physical layer (PHY),with an acceptably low frame error ratio(FER) due to mutual interference.
- SSID: Service Set identifier. An SSID is the network name shared by all devices in a wireless network. Your network's SSID should be unique to your network and identical for all devices within the network. It is case-sensitive and must not exceed 20 characters (use any of the characters on the keyboard).Make sure this setting is the same for all devices in your wireless network.
- WEP: Wired Equivalent Privacy (WEP) is the method for secure wireless data transmission. WEP adds data encryption to every single packet transmitted in the wireless network. The 40bit and 64bit encryption are the same because of out 64 bits, 40 bits are private. Conversely, 104 and 128 bit are the same. WEP uses a common KEY to encode the data. Therefore, all devices on a

wireless network must use the same key and same type of encryption. There are 2 methods for entering the KEY; one is to enter a 16-bit HEX digit. Using this method, users must enter a 10-digit number (for 64-bit) or 26-digit number (for 128-bit) in the KEY field. Users must select the same key number for all devices. The other method is to enter a text and let the computer generate the WEP key for you. However, since each product use different method for key generation, it might not work for different products. Therefore, it is NOT recommend using.

WPA/WPA2: A security protocol for wireless networks that builds on the basic foundations of WEP. It secures wireless data transmission by using a key similar to WEP, but the added strength of WPA is that the key changes dynamically. The changing key makes it much more difficult for a hacker to learn the key and gain access to the network.WPA2 is the second generation of WPA security and provides a stronger encryption mechanism through Advanced Encryption Standard (AES), which is a requirement for some government users.



Appendix II: TCP/IP Address Setting (Take WinXP for example)

Click the "Start->Settings->Control Panel" (Fig- 1):



Click "Network and Internet Connections", the windows as below will appear (Fig- 2):



Click the "Network Connections", as Fig-3:



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Choose "Local Area Connection", right-click on the icon, choose the "Properties", then the "Local Area Connection Properties" windows appear, choose the "Internet Protocol (TCP/IP)" in the "This connection uses the following items", click the "Properties".

Advanced		
Connect using:		
Realtek RTL81	39 Family PCI Fast Eth	Configure
This connection uses	the following items:	
🗹 📙 QoS Packet	Scheduler	
AEGIS Proto	icol (IEEE 802.1x) v3.5 ocol (TCP/IP)	.3.0
	ocontrol in J	
<	- 110	>
Install	Uninstall	Properties
Description		
Transmission Contr	ol Protocol/Internet Pro	tocol. The default
across diverse inte	protocol that provides (rconnected networks,	communication
Show icon in notifi	cation area when conn	iected
Notify me when th	is connection has limite	d or no connectivity

Choose the "Use the following IP address", enter the IP address as: 192.168.0.xxx. (xxx ranges 1~253), Subnet mask is: 255.255.255.0(As Showed in Fig- 5)



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eneral	
You can get IP settings assigned his capability. Otherwise, you nee he appropriate IP settings.	automatically if your network supports d to ask your network administrator for
Obtain an IP address automa	atically
O Use the following IP address	
IP address:	192.168.0.115
Subnet mask:	255 . 255 . 255 . 0
Default gateway:	90 21 40 ¹
O Obtain DNS server address a	automatically
Output the following DNS served	er addresses:
Preferred DNS server:	

Click "OK" to apply and return to the "Local Area Connection Properties" windows.

Continue click "OK" to exit the setting windows.

Appendix III: WDS Application Instances

The configurations of P2P, P2MP and Wireless Repeater in WDS mode are almost the same. The number of devices which need to be configured is different according to different mode. The following steps take P2P for example.

If you want to establish P2P transmission between AP1 and AP2, you need to set the parameters as follows.

Select "WDS" mode in Setup Guide for AP1 and set the SSID as "AP1" and channel as "13". The BSSID is 00:b0:c6:05:4e:d0.

	Basic Settings		
System Status			
Setup Wizard	Working Mode: AP		
LAN Settings	Wireless Mode 11b/g/n mixed mode 💌		
Wireless Settings	SSID AP1		
SNMP configuration	Broadcast(SSID) ③ Enable ① Disable		
System Tools	BSSID 00:B0:C6:05:4E:D0		
Logout	WLAN Isolation O Enable O Disable		
More Products>>>	Channel 13		
©2009 Tenda	Operation Mode 💿 Mixed Mode 🔘 Green Field		
	Channel Bandwidth 🛛 20 💿 20/40		
	Guard Interval 🔿 long 💿 Auto		
	Reverse Direction Grant(RDG) ① Disable ③ Enable		
	Extension Channel 2452MHz (Channel 9)		
	Aggregation MSDU 💿 Disable 🔿 Enable		
	Working Mode: WDS		
	Allow wireless client to access		
	WDS Mode WDS P2P		
	AP MAC		
	Channel: 13 💌		
	Open Scan		
	AP MAC Channel: 13 V Open Scan		

Click "Next" to enter the WDS Security Setting.

Tend a®	3	00Mbps	Wireless	Access	Point
System Status					
Setup Wizard LAN Settings	Security Setting				
Wireless Settings	WDS Security				
SNMP configuration System Tools	WDS-Security Mode	TKIP	~		
Logout	Encryption Key	12345678			
More Products>>> ©2009 Tenda					
	Back Next				

Select the encryption mode you need to use. (For example: set the

encryption mode as TKIP and enter the encryption key as 12345678.)

System Status		
Setup Wizard	AL AL YORK OF	
LAN Settings	Setup Wizard	
Wireless Settings	You have set the parameters of multifunctional wireless AP successfully. Click	
SNMP configuration	"Save" to save and enable settings.	
System Tools	If you want to configure more, please select other menu.	
Logout		
More Products>>>		
©2009 Tenda	Back Save	

Click "Next" and save the settings. Then enter the AP2 settings.

Select "WDS" mode for AP2 and set SSID as "AP2". Select the channel "13" which is the same as AP1. Enter the BSSID: 00:b0:c6:05:4e:d0 of AP1 into the AP MAC blank and record the BSSID 00:b0:c6:05:4e:dd of AP2. (You can also use "Enable scan to add".)



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	Basic Settings		
System Status			
Setup Wizard	Working Mode: AP		
LAN Settings	Wireless Mode 11b/g/n mixed mode 💌		
Wireless Settings	SSID AP2		
SNMP configuration	Broadcast(SSID) 💿 Enable 🔘 Disable		
System Tools	BSSID 00:B0:C6:05:4E:DD		
Logout	WLAN Isolation 🔷 Enable 💿 Disable		
More Products>>>	Channel 13		
92009 Tenda	Operation Mode 💿 Mixed Mode 🔘 Green Field		
	Channel Bandwidth 🔘 20 💿 20/40		
	Guard Interval 🔘 long 💿 Auto		
	Reverse Direction Grant(RDG)		
	Extension Channel 2452MHz (Channel 9) 🔽		
	Aggregation MSDU 💿 Disable 🔿 Enable		
	Working Mode: WDS		
	Allow wireless client to access		
	WDS Mode WDS P2P		
	AP MAC 00:b0:c6:05:4e:d0		
	Channel: 13 🗸		
	Open Scan		

Click "Next" to enter the WDS security setting and select AP1 corresponding encryption mode. Then enter the encryption key. (We select TKIP and encryption key 12345678.)

System Status Setup Wizard LAN Settings	Security Setting
Wireless Settings	WDS Security
SNMP configuration System Tools	WDS-Security TKIP
Logout	Encryption Key 12345678
More Products>>> ©2009 Tenda	Back Next

Click "Next" and save the settings.



After you finished AP2 settings, return to AP1 setting.

Select "Wireless Settings→ Basic Setting" in AP. SSID, channel and extension channel can't be changed. You only need to enter BSSID: 00:b0:c6:05:4e:dd of AP2 in AP MAC address blank an then save it (You can also use "Enable Scan to add"). Now all the settings of WDS have been finished.

	Basic Settings			
System Status				
Setup Wizard	Working Mode: AP			
LAN Settings	Wireless Mode 11b/g/n mixed mode 🛩			
Wireless Settings	SSID AP1			
SNMP configuration	Broadcast(SSID)			
System Tools	BSSID 00:B0:C6:05:4E:D0			
Logout	WLAN Isolation 📀 Enable 💿 Disable			
More Products>>>	Channel 13			
©2009 Tenda	Operation Mode O Green Field			
	Channel Bandwidth 🔿 20 💿 20/40			
	Guard Interval Olong O Auto			
	Reverse Direction Grant(RDG) O Disable ⓒ Enable			
	Extension Channel 2452MHz (Channel 9)			
	Aggregation MSDU 💿 Disable 🔿 Enable			
	Working Mode: WDS			
	Allow wireless client to access			
	WDS Mode WDS P2P			
	AP MAC 00:b0:c6:05:4e:dd			
	Channel: 13 💌			
	Open Scan			