

4.7 ConnectionStatus

This section displays the info of connected wireless clients including MAC addresses and encryption info, etc.

🗋 W1500A 150W Outdo	or L ×				
← → C 🗋 192.	168.2.1/main.asp				☆ = ®
Tend	la				Version.
Stat	tus Quick Set	up Networ	Wireless	Advanced	Security
Basic Security WDS	Conne	ction Status	s client info.		3
Ouring Residen	MAC Ad	dress Statu	s Authenticat	ion SSID	
Advanced	C8:3A:3	5:C6:B3:E5 Conn	ected None	Tenda_1	
Access Control	Refre	sh			
Connection Status					~
<		1			>

Tenda

Chapter5 Advanced Applications

The **Advanced** tab only works on router mode, it has the following 7 submenus: Bandwidth Settings, Connection Status, DDNS, Virtual Server, DMZ Host, UPnP, Routing Table and Static Routing.

5.1 Bandwidth Settings

Bandwidth control is used for limit internal network speed. It supports IP address range configuration. Click Add and below screen will appear.

🗎 W1500A 150W Outdoor I ×		
← → C 🗋 192.168.2.	1/nain. asp	☆ =
Tenda [®] Status	Quick Setup Network Wireless Advanced	Version Product Security
Bandwidth Control	Custom Bandwidth Control	
DDNS Virtual Server	Use this section to manage and allocate your bandwidth resource.	
DMZ Host UPnP	Bandwidth Range:	
Routing Table Static Routing	Downlink Bandwidth:	
:	Description: 4	

- > Enable: Check/uncheck to enable/disable current entry.
- > When disabled, corresponding entry will not take effect though existing in fact.
- > **IP Range:** Enter a single IP or an IP range.
- > **Uplink Bandwidth:** Max uplink traffic.
- > **Downlink Bandwidth:** Max downlink traffic.
- Description: Briefly describe the current rule, the Max number of rule is 10.

5.2 Connection status

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Showing the current connection information, which is client IP address, MAC address and connection mode.

🗋 W1500A 150M Outdoor 1 ×					
← → C 🗋 192.168.2	1/main.asp				☆ =
Tenda [®] Status	Quick Setup	Network	Wireless	Advanced	Version Product I Security
Bandwidth Control	Connectior	i Status			
	This section di	splays client info a	nd connection sta	tus, etc.	
DDNS					
Virtual Server	IP Address	MAC	Address	Medium Type(W	ired/Wireless)
DUTIE	192.168.2.18	85 00:B	0:0C:17:EC:A1	Wired	
UM2 Host	192.168.0.12	20 78:2	B:CB:04:99:48	Wired	
UPnP	192.168.2.1	73 44:3	7:E6:51:FE:40	Wired	
Routing Table	192.168.2.16	58 10:7	8:D2:F4:66:56	Wired	
Static Routing	Refresh				
()					8



5.3 **DDNS**

Dynamic DNS or DDNS is a method of updating, in real time, a Domain Name System (DNS) to point to a changing IP address on the Internet. This is used to provide a persistent domain name for a resource that may change location on the network.

🗋 ¥1500A 150M Outdoor 1 ×				_ = X
← → C 🗋 192.168.2.	1/main.asp			☆ = ª
Tenda [®]				Version Product I
Status	Quick Setup Networ	'k Wireless	Advanced	Security
Bandwidth Control	DDNS			
Connection Status	DDNS:			
	0000	Ochable Obsable		
Virtual Server	Service Provider:	Register		
DMZ Host	User Name:			
UPnP	Password			
Routing Table				
Static Routing	Domain Name:			
	Status:	Disconnected		_
		Save	incel	~
<	11			>

1. Mostly, broadband ISP (Internet service provider) only provide client with Dynamic IP address. While DDNS knows every change on IP address and Banding it with well-known name, so others users can use well-known name to communicate with the client.

- 2. DDNS can help you setup virtual server in your company or home.
- Service Provider: Select the DDNS service provider you are using, support no-ip.com, dyndns.com
- > User Name: Enter the DDNS user name registered with your DDNS



service provider.

- Password: Enter the DDNS Password registered with your DDNS service provider.
- Domain Name: Enter the DDNS domain name with your DDNS service provider.

For example: If you have registered a DDNS service from no-ip.com for a web server on the host at 192.168.2.10 and get below info:

	-
User Name	Tenda
Password	123456
Domain Name	tenda.zapto.org



First set a mapping rule on Virtual Server interface (For details, see Virtual Server section) and then enter the registered user name, password and domain name as shown below:

🕒 ¥1500A 150M Outdoor L ×				
$\leftarrow \rightarrow \mathbf{C}$ 192.168.2.	1/main.asp			☆ =
Tenda			96	Version Product
Status	Quick Setup Netw	ork Wireless	Advanced	Security
Bandwidth Control	DDNS			
Connection Status	DDNS:	Enable Disab	1	
		0	_	
Virtual Server	Service Provider:	no-ip.com	Register 2	
DMZ Host	User Name:	Tenda		
UPnP	Password:	·····		
Routing Table				
Static Routing	Domain Name:	tenda.zapto.org		
	Status:	Disconnected		
	4	Save C	ancel	×

Then Click Save to save the settings.

Simply input "http://tenda.zapto.org" in a launched web browser and your web server will be accessible.

5.4 Virtual Server

Defines the mapping between the service port range of WAN access and LAN server, all of the WAN ports used within the scope of access will be re-positioned to the LAN network server specified by IP address.

🗋 W1500A 150M Outdoor L ×						
← → C 🗋 192.168.2.	1/main.asp					☆ =
Tenda						Version Product
Status	Quick Set	up Network	Wireless	Advanced	Secu	rity
Bandwidth Control	Virtua	l Server				
Connection Status	This sec	tion allows you to confi	a virtual server sett	inas.		
DDNS			-	-		
	ID	Ext Port-Int Port	Private IP	Protocol	Enable	Delete
DMZ Host	1			Both 💌		
LIPoP	2	<u> </u>		Both 💌		
Routing Table	3			Both 💌		
Static Routing	4			Both 💌		
State Roberty	5	<u> </u>		Both 💌		
	6			Both 💌		
	7			Both 💌		
	8			Both 💌		
	Comm	non Service Port:	NS(53) ¥ 🗛	10 ID 1		
			Pagel 2 3	4		

- Ext Port-Int Port: WAN service port. Internal LAN PC port corresponding mapped to an external port.
- > **Private IP:** The IP address of a computer used as a server in LAN.
- Protocol: Includes TCP, UDP and Both. Select "Both" if you are not sure about which protocol to use.
- > **Enable:** The corresponding entry takes effect only if you.
- checked this option.
- > **Delete:** Clear all settings of this item.
- > Common Service Port: The well-known protocol ports are listed

in the drop-down list. Select one and select a sequence number in the ID drop-down list and then click "Add", this port will be added automatically to the ID list. For other well-known service ports that are not listed, you can manually add them to the list.

> Add to: Add the selected well-known port to the policy ID. For Example: you can build a WEB server on your computer and set the router's port range forwarding to enable your friends to access to your computer. Suppose that your WEB server or your computer's static IP address is 192.168.2.100, and you wish your friends can access the server through the default port 80 and adopts TCP protocol.

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→ C 192.168.2	. 1/main. asp					☆
Tenda						
Status	Quick Se	tup Network	Wireless	Advanced	Secu	rity
Bandwidth Control	Virtu	al Server				
Connection Status	This se	ction allows you to confid	uirtual center cetting	16		
DDNS	1115 36		,			
	ID	Ext Port-Int Port	Private IP	Protocol	Enable	Delete
DMZ Host	1	80 - 80	192.168.2.100	Both 💌		
Ding Host	2			Both 💌		
UPNP	3			Both 🔽		
Routing Table	4			Both 💌		-
Static Routing						-
	2			Both M		
	6			Both 💌		
	7			Both 🔽		
	8	-		Both 🔽		
	Com	mon Service Port:	NS(53) Y Add to		•	



Notice: If you set the service port of the virtual server as 80, you must set the Web Management port on Remote Web Management screen to be any value except 80 such as 8080. Otherwise, there will be a conflict to disable the virtual server.

5.5 DMZ Host

The DMZ Settings screen allows one local computer to be exposed to the Internet for use of a special-purpose service such as Internet gaming or videoconferencing. DMZ hosting forwards all the ports at the same time to one PC.



- DMZ Host IP: The IP address of the LAN computer you want to set as DMZ host.
 - **Enable**: Check to enable the DMZ host.

For example:

Set the computer at the IP address of 192.168.2.10 as DMZ host to connect another host on the Internet for intercommunication.



Notice: When the DMZ host is enabled, the firewall settings of the DMZ host will not function.

5.6 UPnP

With the UPnP (Universal Plug and Play) function, the internal host can request the router to process some special port switching so as to enable the external host to visit the resources of the internal host.

UPnP works in Windows XP, Windows ME or later (Note: Operational system needs to be integrated with or installed with DirectX 9.0) or in an environment with installed application software that supports UPnP.



Enable UPnP: Click the checkbox to enable the UPnP.



5.7 Routing Table

This page shows the router's core routing table.

🗋 W1500A 150W Outd	loor I ×								Σ
← → C 🗋 192	.168.2.1/m	ain. asp						5	-
Tend		uick Setup	Network	Wire	less	Advanced		Version Product	
Bandwidth Control		Routing Table							
DDNS		Destination Netwo	rk Subnet I	dask	Gatewa	y .	metric	Interface	ł
Virtual Server		192.168.2.0	255.25	5.255.0	0.0.0.0		0	LAN	
DMZ Host		Refresh							
UPnP									
Routing Table									
Static Routing									
<									>

The main duty for a router is to look for a best path for every data packet, and transfer this data packet to a destination station. In order to fulfill this function, many transferring paths, i.e. routing table, are saved in the router, for choosing when needed.



5.8 Static Routing

This page is used to set the router's static routing under router mode. Click Add, the following page you will see.

🖹 W1500A 150W Outdoor L >		<u> </u>
← → C 🗋 192.168.	2.1/main.asp	ය ≓
Tenda [®] Status	Quick Setup Network Wi	Version: Picebox N Ireless Advanced Security
Bandwidth Control	Add	
Connection Status	Destination Network:	
DDNS		
Virtual Server	Subnet Mask:	1
DMZ Host	Gateway:	
UPnP	Interface:	
Routing Table	LAN DAN	
<	3 - Save Cancel	

- Destination Network: The destination host or IP segment you visit.
- Subnet Mask: Enter the subnet mask, generally it is 255.255.255.0
- Getaway: The entry IP address of the next router.
- Interface: If destination need go through WAN port, then set it as WAN. Otherwise, set it as LAN.

Tenda

Chapter 6. Security Settings

6.1 Mac Address Filter

Security Settings only fits for Wireless Router Mode.

To better manage PCs in LAN, you can use the MAC Address Filter function to allow/disallow such PCs to access to Internet. In Filter Mode, you can choose Disable, Allow Access to Internet, and Deny Access to Internet.

If you choose Allow Access to Internet, you will see the following configuration page.

P 1500A	150M Outdoor L ×						
← ⇒ C	192.168.2	.1/main.asp				☆ =	63
те	nda					Version Product	^
	Status	Quick Setup	Networ	k Wireless	Advanced	Security	
MAC Filter		MAC Filter					
Client Filter		Filt	ter Mode:	Allow 🔽 Access t	o Internet		
URL Filter			Soloct				
Remote Web	Management		Selecc	(1)			
			Enable:				
		De	scription:				
		MAC	Address:				
			Time:	00 💌 : 00 💌 :	- 00 💌 : 00 💽		
			Day:	Every day Sun M	on_Tue_Wen_Thu	_Fri_Sat	
			Delete:	Clear			
				Save	ancel		~
<						>	-

Filter Mode: Select Deny or Allow according to your own needs.



Deny Access to Internet: Disallow only PCs at specified MAC addresses to access Internet. Other PCs are allowed.

Allow Access to Internet: Allow only PCs at specified MAC addresses to access Internet. Other PCs are denied

Select: Select a number (indicating a corresponding entry) from the drop-down menu. Up to 10 rules can be set.

Enable: Check/uncheck to enable/disable the corresponding entry.

Description: Enter a meaningful name to you for corresponding entry. **MAC Address:** Enter the PC's MAC address that you want to filter out. **Time:** Select a time range for the corresponding entry to take effect, or else the default time is 00:00~00:00, which means the entry will be effective all the day.

Day: select a day or several days for the corresponding entry to take effect. **Example** : To allow a PC at the MAC address of 00:00:4C:77:88:99 to access Internet from 00:00 to18 : 00 everyday, configure same settings on the screenshot below on your device:



🕒 ¥1500A 150M Outdoor L ×						
← → C 🗋 192.168.2	1/main.asp				\$	≣
Tenda					Versi Prod	on ^
Status	Quick Setup	Network	Wireless	Advanced	Security	
MAC Filter	MAC Filter					
Client Filter	Filter	Mode:	nw 🔽 Accesso	Internet		
URL Filter						
Remote Web Management		Select (1)	≥ 2			
	E	nable: 🔽				
	Descr	iption: 1				
	MAC Ad	dress: 00	00 4C	77 88	99 🗕	5
		Time: 00	00 💌 -	18 💌 🗄 00 🔹	- 6	
	7		ery day ⊡Sun⊡Mo	n⊽Tue⊽Wen⊽Thu	FrigSat	
		Delete: C	lear			
		8 🛥	Save	ancel		~

Click Save to save the settings.

6.2 Client Filter

Tenda

To better manage PCs in LAN, you can allow or disallow such PCs to access certain ports on Internet using the Client Filter functionality.



Filter Mode: Select Deny or Allow according to your own needs.

Disable: disable the corresponding entry.

Deny Access to Internet: Disallow PCs at specified IP addresses to access certain ports on Internet.

Allow Access to Internet: Allow only PCs at specified IP addresses to access certain ports on Internet.

Select: Select a number (indicating a filter rule) from the drop-down menu. Up to 10 rules can be set.



Enable: Check/uncheck to enable/disable the corresponding entry.

Description: Enter a meaningful name to yourself for a new filter rule.

Start IP: Enter a starting IP address.

End IP: Enter an ending IP address.

Port: Enter TCP/UDP protocol port number (s); it can be a range of ports or a single port from 1 to 65534.

Traffic Type: Select a protocol or protocols for the traffic (TCP/UDP/Both). **Time:** Select a time range for the rule to take effect.

Day: Select a day or several days for the rule to take effect.

Example: To forbid PCs within the IP address range of

192.168.2.20--192.168.2.30 to visit websites from 9:00 to 18:00, do as follows:



P W1500A 150M Outdoor 1 :		
← → C 🗋 192.168.	.1/nain.asp 🟠	=63
Tenda Status	Quick Setup Network Wireless Advanced Security	<u>^</u>
	Client Filter	
MAC Filter	Filter Mode: Derry Access to Hiternet	
	Select (1) y = 0	
URL Filter	Enable:	
Remote Web Management	Description: 1	
	Start IP: 192.168.2.20	
	End IP: 192.168.2.30 - 3	
	Port: 80 ~ 80	
	Traffic Type: Both	
	Time: 09 💙 ; 00 💙 ~ 18 💙 ; 00 💙 🕳 4	
	Day: Every day Sur Mong Tue Weng Thuy Eric Sat 5	
	Delete: Clear	
	6 - Save Cancel	
<		~

Click Save to save the settings.



6.3 URL Filter

To better control LAN PCs, you can use the URL filter functionality to allow or disallow such PC to access certain websites within a specified time range. In Filter Mode, you can choose Disable, Allow Access to Websites, and Deny Access to Websites. You will see the page below.

🕒 ¥1500A 150M Outdoor L ×						
← → C 🗋 192.168.2.	1/main.asp					☆ = 8
Tenda						Versio Produ
Status	Quick Setup	Netw	ork	Wireless	Advanced	Security
MAC Filter	URL Filter					
Client Filter	Filt	er Mode	Don	Access	to Websites	
URL Filter			Den	, <u> </u>		
Remote Web Management		Select	(1)	*		
		Enable:				
	De	scription:				
		Start IP:				
		End IP:				
	U	RL String:				
		Time:	00	00 🕑	00 🕑 00 💌	
		Day:	∠ Eve	ry day _⊮ Sun _⊮ M	ongTuegWengThu	
		Delete:	Cle	ar		~
<						>

Filter Mode: Select Deny or Allow according to your own needs.

Deny Access to Websites: Disallow PCs at specified IP addresses to access websites with certain URL string.

Allow Access to Websites: Allow PCs at specified IP addresses to access websites with certain URL string.



Select: Select a number (indicating a filter rule) from the drop-down menu. Up to 10 rules can be set.

Description: Enter a meaningful name to yourself for a new filter rule.

Start IP: Enter a starting IP address.

End IP: Enter an ending IP address.

URL String: Enter domain names or a part of a domain name that needs to be filtered out.

Time: Select a time range for the corresponding entry to take effect.

Day: select a day or several days for the corresponding entry to take effect. **Example:**

To forbid PCs within the IP addresses range of 192.168.2.20--192.168.2.30 on your LAN to visit websites whose URL contains "sina", "baidu" and "163" from 00 : 00 to 18 : 00 on working days: Monday- Friday, then do as follows:

h W1500A 150M Outdoor L ×	x 0 -	
← → C 🗋 192.168.2.	/aain. asp 🏠 🚽	2
Tenda		C
Status	Quick Setup Network Wireless Advanced Security	
MAC Filter	URL Filter Filter Mode: Deny Recess to Melsite \$	
Client Filter URL Filter	Select (1) 2	
Remote Web Management	Description: 1	
	Start IP: 192.168.2.20 4	
	URL String: baldu, sina, 163 5	
	Time: 00 V 00 N ~ 19 V 00 V Day. Every day Estimation of the control of the contr	
	Delete: Clear	
	7 - Save Cancel	
		*

Click Save to save the settings.



6.4 Remote Web Management

The Remote Web management allows the Router to be configured from the Internet by a web browser.

1500A 150W Outdoor	I ×				
← → C 🗋 192.16	8.2.1/main.asp				☆ =
Tenda					Version Produc
Status	Quick Setup	Network	Wireless	Advanced	Security
MAC Filter Client Filter URL Filter Remote Web Management	Remote We	b Managemen Enable: V Port: 808	1 1	2	
٢	P	4 -	88.93.93	ancel	8

- Enable: Select whether to enable the Remote Web-based Management feature.
- Port: Remote admin port; the port used by trusted hosts from
- Internet or other external networks to access and manage the device remotely via a web browser.
- IP address : Enter a trusted IP address of a PC from Internet or other external networks which you want to authorize to manage the device remotely via a web browser.

Notice:

1. To access the device via port 8080, enter http://x.x.x.x:8080 where "x.x.x.x" represents the the device's Internet IP address and 8080 is the remote admin port. Assuming the device's Internet IP address is 220.135.211.56, then, simply replace the "x.x.x.x" with "220.135.211.56" (namely, http://220.135.211.56:8080).

2. Leaving the IP address field at "0.0.0.0" makes the device remotely accessible to all the PCs on Internet or other external networks; populating it



with a specific IP address, say, 218.88.93.33, makes the device only remotely accessible to the PC at the specified IP address.



Chapter 7 SNMP

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. For using this function, please enable it and provide the information which the following page need.

P VISOA 1908 Outdoor 1 ×	-						
← → C 🗋 192.168.2.	1/main.asp						≣
Tenda							^
Status	Quick Setup Netwo	rk Wireless	Advanced	Security	SNMP Setting	Tools	
500	SAMP Setting To corig SMP parameter SAMP Sering System Contact System Name System Lacation Read Community	s for SNMP V1 or V2 ver Enable admin V1500a sherzhen public	sion.		SNMP Here you o SMMP v1 & v2 Administrator Rome, and Ld Enable: SNMP functionally. Read Cerr a community SNMP agent is	an configure that can read Name, Device cation. lect it to agent munity: Specify for reading iffermation.	
KU		Save C	ancel			2	~

- System contact : Set the name to access the AP. Usually set the administrator's name.
- Device Name : Set the AP's name, such as Tenda_W1500A.
- **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.

Tenda

Chapter 8 System tools

This section focuses on how to maintain AP, including Syslog, Statistics, Time & Date, Change Password, Backup, Restore, Firmware Update, Restore to Factory Default, Reboot.

8.1 Syslog

The section is to view the system log. You can view the various statuses after system startup and check whether there's network attack. If the log is over 200 records, it will clear them automatically.

Tanda				10-A	Version	WISCOA_VI.0	.1.20,EN (59
Status	Quick Se	tup	Wirele	ss Advanced	Security	SNMP Setting	Tools
lyslog Statistics	Sysio This se	g ction allows you to view all e	events that	: occur upon system startup		Syslog This section view all events	allows you to that occur
Time & Date	View L	og Levels:	upon system st device records	a maximum			
Pachum	Index	Time	Type	Log Contents		Note:Logs w	ill be cleared
rackup	1	2011-05-01 00:00:06	wan	Broadcasting Dhcp_discov	Ir .	automatically w	hen reaching
Restore	2	2011-05-01 00:00:06	wan	Dhcp_offer Received from	(192.168.0.2)	pages).	r entries (2 5
Firmware Update	3	2011-05-01 00:00:06	wan	Broadcasting Dhcp., reques	t for		
Restore to Factory Default	4	2011-05-01 00:00:06	wan	Dhcp_ack received from (1	192.168.0.2)		
Reboot	5	2011-05-01 00:00:06	wan	Get Client IP Address (192	.168.0.100)		
	6	2011-05-01 00:00:06	system	DHCP Server Start			
	7	2011-05-01 00:00:10	system	wan up			

- > **Refresh:** Click this button to update the log.
- > **Clear:** Click this button to clear the current log.



8.2 Statistics

Statistics is only for routing mode. This section will display the LAN IP addresses and the corresponding packet traffic status of the local network.

Salay Quick Setup Retwork Woreless Advanced Security SNRP Setting Tools Salay Quick Setup Retwork Woreless Advanced Security SNRP Setting Tools Salay Salay Control Security SNRP Setting Tools Salay Salay Control Security States Control Security Security States Control Security Security States Control Security States Control Security States Control Security States Control Security Security States Control Security S	→ C 192.168.2.1	/main.asp					
Statustics Statustics Transit Transit Transit Transit Statustics Transit Statustics Transit Statust Transit St	Tenda Status	Quick Setup Ne	etwork Wirele	ss Advanced	Security	WI SOOA, VI. Name WI SOOA SNMP Setting	0.1.20,Ett (59 Tools
	Svilig Geniese Time & Date Change Password Eackup Restore	Statistics Enable Traffic Statisti Rate Unit: KB/s Refresh Ck	cs:	Display in descending Synes TRate IRa	Display in Orde order of downs 💌	Statistics Statistics di usage by PCs	splays traffic on your LAN.

- Enable Traffic Statistics: Tick this box to enable the network user traffic statistics. If there is no need to, we suggest turn off this function.
- > **Refresh:** Click this button to update the statistic list.



8.3 Time & Date

P VISODA 1508 Outdoor 1 ×		
← → C 🗋 192.168.2.	1/main.asp	☆ :
Tenda		Constant of the second of the
Status	Quick Setup Network Wireless Advanced Security	SNMP Setting Tools
Systeg	Time and Date	Time & Date
Statistics	This section assists you in setting the device current time; you can either select to set the	This section assists you in setting the device's surgest
	time and date manually or update it from Internet automatically.	time; you can either select to
Change Password	Sync with Internet time servers	set the time and date manually or update it from
Backup	Sync Interval: 30 minutes	Internet automatically. Note:The configured time
Restore	Time Zone: (OMT+08:00)Beijing, Chongquing, Hc 💌	and date information lose when the device is powered
Firmware Update	Note: CMT time will be undered automatically only when the device is connected to	off. However, it will be
Restore to Factory Default	Internet	the router connects to the
Reboot	Set Time and Date Manually. 2013 Year (a Month 25 Day (a Hour) Monte 28 Second Sync with Your PC	Internet. To activate time- based features (e.g., firewall), the time and date info shall be set correctly first, either manually or automatically.
	Save Cancel	

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.

- Sync with Internet time servers : Obtain the standard GMT time from Internet automatically.
- Sync Interval : System time synchronization interval. Please choose according to your need, the system default cycle time is half an hour.
- > **Time Zone** : Select your time zone from the drop-down menu.
- Sync with Your PC : Customize the time of the device the same with your PC.



8.4 Change Password

⇒ C □ 192.168.2.	1/main.asp					53
Tenda						
Status	Quick Setup Netwo	ork Wireless	Advanced	Security	SNMP Setting	Tools
yslog	Change Password				Change Pas	sword
tatistics îme & Date	Note:	Default password is an for better security. The	imin, We recommend	I you to change it maximum of 14	Default pas admin, We rec to change it for serurity. Other	isword is ommend you r better wise: anunne
hange Password ackup	Old User Name:	characters in length an admin	d no space.		in your network this utility to ch settings. Old Parsen	k can access lange your
estore irmware Update	Old Password:				time use the re "admin". If you chanced it and	uter, enter already funfortunately
estore to Factory Default	New User Name:				forgot, restore factory default New Passwi	the router to s. ord: Input a
	Confirm New Paseword				new password consist of 3-14 without any sp Confirm Ner	It MUST only 4 characters ace. w Password:

This section is to set a new user name and password to better secure your device and network. Type in correct parameters in the blank and click **save** to finish the username and password settings.

- > **Old User Name:** Enter the old username.
- > **Old Password:** Enter the old password.
- > New Username: Enter a new user name for the device.
- > **New Password:** Enter a new password for the device.
- **Confirm New Password:** Re-enter to confirm the new password.

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



8.5 Backup

Tenda	WI SOGA, VI.O. 1.20, EN (SP anie: WI SOGA	
Status	Quick Setup Network Wireless Advanced Security	SNMP Setting Tools
ivslog itatistics finne & Date Change Password Ratkup	Backup Die die Eaklup Feature to see current settings to your local hard dive. Backup	Back up Click "Backup" to save current settings to your local hard shive.
Restore Firmware Update Restore to Factory Default Reboot		

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



8.6 Restore

Tenda		
Status	Quick Setup Network Wireless Advanced Security	SNMP Setting Tools
Svalog Statistics Time & Date Change Password Eactoop Restore Firmware Update Extense to Forme Default	Restore Use the Sphere fagure to restore antiggs saved presends to your local hard dow. Park: Conserver Restore	Restore Click the Trouse' button to locate and select a configuration file that is saved previously to your lead hard drive. And then click the "Restore' button to reset your router to previous settings.
Reboot		

Choose File: 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.

8.7 Firmware Update

Tenda

By upgrading the router's software, you will get more stable version and appreciation of the routing function.

Tenda						
Status	Quick Setup Net	work Wireless	Advanced	Security	SNMP Setting	Tools
ivslog	Firmware Update				Firmware U	Ipdate
itatistics Firme & Date	Step 1	Download the latest fir	mware from www.ten	Sa.cn.	Use this se your router's f better function	ction to update firmware for nality or new
Change Password	Step2:	Click Browse to locate	and select the downlo	aded firmware.	features. The reboot autom	device will atically when
Backup Restore	Step3	Click the button Updat	e to upgrade your des	ice.	Note: Do n the router or i	at power off disconnect
firmware Update	Current Firmware	W1500A_V1.0.1.20_E	hosen N (5989)		Ethernet cable upgrading, ot be permanen	r while herwise it may tly damaged.
Restore to Factory Default	Version				Upgrading tak minutes. When	ies about 2 n it is
	Current Firmware Date	Apr 23 2013			reboot autom	atically.

Firmware Update Steps :

On the Firmware Upgrade screen, click the **Choose File** button and find the new firmware file.

Click **Update** button, and follow the on-screen instructions.

After the upgrade is completed, the device will reboot automatically.

Note: Do not power off the system during the firmware upgrade to avoid damaging the device. The upgrade process will take a few minutes, please wait patiently.



8.8 Restore to Factory Default



Restore to Factory Default: Click this button is to reset all configurations to the default values. It means the device will lose all the settings you have set.

Factory Default Settings:

- User Name: admin
- > Password: admin
- > **IP Address:** 192.168.2.1
- Subnet Mask: 255.255.255.0



8.9 Reboot

This page is used to reboot the device. Rebooting the device makes the settings configured go into effect. This process will take about one minute.

Tenda							
Status	Quick Setup	Network	Wireless	Advanced	Security	SNMP Settin	ig Tools
ivalog itatistics Firme & Date Dange Password Backup Restore	Reboot Click the buttor Reboot	Reboot to restar	t your router.			Reboot Reboo activates connectio discome during th	iting the device new settings, and ons will be cted automatically ie progress.
Timware Update Restore to Factory Default							

Reboot: Click this button to reboot the device.

Appendix 1 TCP/IP Settings

If you are using Windows XP, do as follows:

1. From the desktop, click **Start > Control Panel > Network** and **Internet**

Connections.







2. Right-click on the Local Area Connection and select Properties.





3. Select Internet Protocol (TCP/IP) and click Properties.





4. Select Use the following IP address.

aeneral			
You can get IP settings assigned this capability. Otherwise, you ne the appropriate IP settings.	d automatically if your network supports eed to ask your network administrator fo		
Obtain an IP address autor	natically		
• Use the following IP addres	15		
IP address:	192.168.2.12		
Subnet mask:	255 . 255 . 255 . 0		
Default gateway:			
Obtain DNS server address	: automatically		
Use the following DNS server	ver addresses:		
Preferred DNS server:			

IP address: Enter 192.168.2.xxx where xxx can be any number between 2 and 253).

Subnet mask: Enter 255.255.255.0.

Click **OK** twice to save your settings.

If you are using Windows 7, do as follows:

1. Click on Start-> Control Panel -> Network and Internet-> Network

and Sharing Center. Click Change adapter settings.



2. Right-click on the Local Area Connection and select Properties.





3. Select Internet Protocol Version 4 (TCP/IPv4) and click Properties or directly double-click on Internet Protocol Version 4 (TCP/IPv4).

Networking Sharing	
Connect using:	
🔮 Realtek RTL	8139/810x Family Fast Ethernet NIC
	Configure
This connection use	s the following items:
🗹 📑 Client for Mi	crosoft Networks
QoS Packe	Scheduler
File and Prin	ter Sharing for Microsoft Networks
Internet Prot	acal Vareian 6 (TCD/IDv6)
I Dielessen i Deel	IN (
Internet Prot	ocol Version 4 (TCP/IPv4)
 ✓ Internet Prot ✓ Link-Layer 	ocol Version 4 (TCP/IPv4) Fopology Discovery Mapper I/O Driver
 ✓ <u>Internet Prot</u> ✓ Link-Layer 1 ✓ Link-Layer 1 	ocol Version 4 (TCP/IPv4) Topology Discovery Mapper I/O Driver Topology Discovery Responder
 ✓ Internet Prot ✓ Link-Layer 1 ✓ Link-Layer 1 	ocol Version 4 (TCP/IPv4) Topology Discovery Mapper I/O Driver Topology Discovery Responder
 ✓ <u>Link-Layer</u> ✓ Link-Layer ✓ ⊥ Link-Layer 	ocol Version 4 (TCP/IPv4) Topology Discovery Mapper I/O Driver Topology Discovery Responder Uninstall Properties
 ✓ ▲ [Internet Prot ✓ ▲ Link-Layer 1 ✓ ▲ Link-Layer 1 ✓ ■ Link-Layer 1 	ecel Venision 4 (TCP/IFv4) Fopology Discovery Mapper (/O Driver opology Discovery Responder Uninstall Properties
 ✓ ▲ [Internet Prot ✓ ▲ Link-Layer 1 ✓ ▲ Link-Layer 1 ✓ ■ Link-Layer 1 ✓ ■ Description 	opol Venium 4 (1 CP(P+9)) iopology Discovery Mapper I/O Driver iopology Discovery Responder Uninstall Properties
 ✓ Internet Prot ✓ Link-Layer 1 ✓ Link-Layer 1 ✓ Install Description Transmission Co 	ocal Vennish 4 (TCP/PP-9) orology Discovery Mapper (VO Driver opology Discovery Responder Uninstall Properties ntrol Protocol/Internet Protocol. The default wide
Internet Prot Link-Layer T Link-Layer T Link-Layer T Install Description Transmission Co area network pro- diverse interpent	cool Vension 4 (TCP/IP-9) fopology Discovery Mapper I/O Driver fopology Discovery Responder Uninstall Properties tho Protocol[Internet Protocol. The default wide tocol that provides communication across
Internet Prot Link-Layer Link-Layer Link-Layer Install Description Transmission Cc area network pro diverse interconr	Uninstall Properties Uninstall Properties Intel Protocol/Internet Protocol. The default wide tocol flat provides communication across Communication across
 ✓ ▲ Internet Prot ✓ ▲ Link-Layer 1 ✓ ▲ Link-Layer 1 ✓ ■ Link-Layer 1 ✓ Install Description Transmission Ccarea network prodiverse interconr 	Uninstall Properties Uninstall Properties
 ✓ ▲[Internet Prot ✓ ▲ Link-Layer 1 ✓ ▲ Link-Layer 1 ✓ ▲ Link-Layer 1 ✓ Ensk-Layer 1 ✓ Bescription Transmission Ccarea network prodiverse interconr 	ocol Vennen 4 (TCP/PP-9) opology Discovery Responder opology Discovery Responder Uninstall Properties to Orban provides communication across lected networks.



4. Select Use the following IP address.

Seneral You can get IP settings assigner this capability. Otherwise, you ne the appropriate IP settings.	d automatically if your network supports red to ask your network administrator for
O Obtain an IP address autor	natically
• Use the following IP address	15:
IP address:	192.168.2.12
Subnet mask:	255 . 255 . 255 . 0
Default gateway:	
Obtain DNS server address	: automaticallu
Use the following DNS service of the service o	ver addresses:
Preferred DNS server:	

IP address: Enter 192.168.2.xxx where xxx can be any number between 2 and 253).

Subnet mask: Enter 255.255.255.0.

Click **OK** twice to save your settings.



Appendix 2: Glossary

Channel

A communication channel, also known as channel, refers either to a physical transmission medium such as a wire or to a logical connection over a multiplexed medium such as a radio channel. It is used to transfer an information signal, such as a digital bit stream, from one or more transmitters to one or more receivers. If there is only one AP in the range, select any channel you like. The default is Auto.

If there are several APs coexisting in the same area, it is advisable that you select a different channel for each AP to operate on, minimizing the interference between neighboring APs. For example, if 3 American- standard APs coexist in one area, you can set their channels respectively to 1, 6 and 11 to avoid mutual interference.

SSID

Service set identifier (SSID) is used to identify a particular 802.11 wireless LAN. It is the name of a specific wireless network. To let your wireless network adapter roam among different APs, you must set all Aps' SSID to the same name.

Wired Equivalent Privacy (WEP) is a security algorithm for IEEE 802.11 wireless networks with the intention to provide data confidentiality comparable to that of a traditional wired network .WEP, recognizable by the key of 10 or 26 hexadecimal digits, is widely in use. WEP uses the stream cipher RC4 for confidentiality,[5] and the CRC-32 checksum for integrity. Standard 64-bit WEP uses a 40-bit key (also known as WEP-40), which is concatenated with a 24-bit initialization vector (IV) to form the RC4 key. The extended 128-bit WEP protocol uses a 104-bit key size (WEP-104). A 152-bit WEP is available from some vendors. Static WEP encryption allows to include 4 WEP

Keys while dynamic WEP encryption changes WEP key dynamically.

WPA/WPA2

The WPA protocol implements the majority of the IEEE 802.11i standard. It enhances data encryption through the Temporal Key Integrity Protocol (TKIP) which is a 128-bit per-packet key, meaning that it dynamically generates a new key for each packet. WPA also includes a message integrity check feature to prevent data packets from being hampered with. Only authorized network users can access the wireless network.

The later WPA2 protocol features compliance with the full IEEE 802.11i standard and uses Advanced Encryption Standard (AES) in addition to TKIP encryption protocol to guarantee better security than that provided by WEP or WPA. Currently, WPA is supported by Windows XP SP1.



Appendix 3 FAQs

This section provides solutions to problems that may occur during installation and operation of the device. Read the following if you are running into problems. If your problem is not covered here, please go to our website of www.tendacn.com or e-mail to support@tenda.cn for help.

1. Q: I entered the device's LAN IP address in the web browser but cannot access the utility. What should I do?

- A: 1) Verify physical connectivity by checking whether a corresponding port's link LED lights up. If not, try a different cable. Note that an illuminated light does NOT ALWAYS indicate successful connectivity.
- 2). In Router Mode, you must use a wireless network adapter to connect to the device, as the LAN/WAN Ethernet port works as a WAN port for Internet connection; while in AP Mode, Universal Repeater Mode, you must specify an IP address (192.168.2.2~192.168.2.253) on your PC to connect to the device. 3) Click Start-->Run, enter cmd and then input ping 192.168.2.1 to check the connectivity status between your PC and device. If ping succeeds, then check whether the Proxy Server feature is enabled on your browser. If enabled, disable it immediately. In case that ping fails, press and hold the "RESET" button on your device for 7 seconds to restore factory default settings, and then run "ping192.168.2.1" again. Contact our technical support for help if the problem still exists after you tried all the above.

2. Q: What should I do if I forget the login password to my device?

A: Reset your device by pressing the Reset button on the PoE injector for 8~10 seconds. Note: All settings will be deleted and restored to factory defaults once you pressed the Reset button.

3. Q: My computer shows an IP address conflict error after having connected to the device. What should I do?

- A: 1) Check if there are other DHCP servers present in your LAN. If there are other DHCP servers except your router, disable them immediately.
 - 2) The default IP address of the device is 192.168.2.1; make sure this

address is not used by another PC or device. In case that two computers or devices share the same IP addresses, change either to a different address.

4. Q:My computer can neither log in to the device nor access Internet,

and there is a yellow triangle with an exclamation mark shown in the

network adapter icon on the right bottom corner of my computer

desktop; how am I supposed to deal with it?

Tenda

A: This problem occurs because your network card has not been assigned with an IP address. If your computer is set to obtain an IP address automatically, please ensure that the router's DHCP function is enabled. DHCP can automatically assign an IP address to your computer. If there is no DHCP server available on your network, please set a static IP address and fill in gateway and DNS, otherwise you cannot access Internet.

5. Q: How do I share resources on my computer with users on Internet through the device?

- A: To let Internet users access internal servers on your LAN such as e-mail server, Web, FTP, via the device, use the "Virtual Server" feature. To do so, follow steps below:
- Step 1: Create your internal server, make sure the LAN users can access these servers and you need to know related service ports, for example, port for Web server is 80; FTP is 21; SMTP is 25 and POP3 is 110.
- Step 2: Click "Virtual Server" and select "Port Range Forwarding" (also known as Port Forwarding on some devices) on device's web interface.

Step 3: Input the Start Port/External Port, say, 80.

Step 4: Input the End Port/Internal Port, say, 80.

Input the internal server's IP address. For example, assuming that your Web server's IP address is 192.168. 2.10, then simply input it.

Step 6: Select a communication protocol used by your internal host: TCP, UDP or ICMP and enable the rule.

Step 7: Save your settings.

For your reference, we collected a list of some well-known service ports as follows:

For your reference, we collected a list of some well-known service ports as follows:

Server	Protocol	Service Port
Web Server TCP		80
FTP Server	ТСР	21
Telnet	ТСР	23
NetMeeting	ТСР	1503、1720
SKype	TCP/UDP	File Send:6891-6900(TCP) Voice:1863、6901(TCP) Voice:1863、5190(UDP)
PPTP VPN	ТСР	1723
Iphone5.0	ТСР	22555
SMTP	ТСР	25
0000	-	110

If your problems are not covered here, please feel free to go to

www.tendacn.com to find solutions or email your problems to:

support@tenda.com.cn or or support02@tenda.com.cn. We will be more than happy to help you out as soon as possible.

Website: www.tendacn.com

Technical Support: support@tenda.com.cn

Shenzhen Tenda Technology Co., Ltd

www.tendacn.com



Appendix 4 Safety and Emission Statement

CE

CE Mark Warning

This is a Class B product In a domestic environment, this product may cause radio interference, in which case the user may be required to take adequate measures. This device complies with EU 1999/5/EC.

NOTE:(1)The manufacturer is not responsible for any radio or TV interference caused by unauthorized modifications to this equipment.(2) To avoid unnecessary radiation interference, it is recommended to use a shielded RJ45 cable



FCC Statement

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to pro-vide reasonable protection against harmful interference when the equipment is operate din a commercial environment. This equipment generates, uses, and can radiate radiofrequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

FCC Caution: Any changes or modifications not expressly approved by the

party responsible for compliance could void the user's authority to operate this equipment.

This device complies with part 15 of the FCC Rules.

Operation is subject to the following two conditions:

(1) This device may not cause harmful interference, and(2) this device must accept any interference received, including interference that may cause undesired operation. The manufacturer is not responsible for any radio or TV interference caused by unauthorized modifications to this equipment. NOTE:(1)The manufacturer is not responsible for any radio or TV interference caused by unauthorized modifications to this equipment.(2) To avoid unnecessary radiation interference, it is recommended to use a shielded RJ45 cable

FCC Radiation Exposure Statement

This equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled environment. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter. This equipment should be installed and operated with a minimum distance of 20 centimeters between the radiator and your body.