

③ Select the AP you wish to connect to (The SSIDs of these two wireless networks become the same now. You need to identify them by their MAC addresses.). Click OK on the appearing dialog box and then close scan.

Sele	ct SSID	MAC Address	Channel	Security	Signal Strength						
۲	Tenda_0E1A78	C8:3A:35:00:04:E8	7	WPA/AES	68						
Me	essage from webpage	(A		— X							
	Please click on OK to confirm that you want to connect to this AP!										
			ОК	Cancel							

(4) Check the automatically populated SSID, channel and MAC address, etc of the remote AP.

Verify that all settings are correct and then click **OK**.

Tenda	Wizard	Advanced	Wireless	QoS	Applications	Security	Tools
Wireless Basic Settings Wireless Security Access Control Wireless Connection Status	Wireless Basic Setti Enable Wireless Primary SSID Secondary SSID Wireless Working Mode Network Mode SSID Broadcast AP Isolation Channel Channel Bandwidth Extension Channel WMM Capable APSD Capable Wireless Working M	Tenda_0E1A7 Tenda_0E1A7 O Wireless A 11b/g/n mixe © Enable C Enable 2442MHz (Ch C 20 2417MHz (Ch C Enable C En	ccess Point(AP) d mode	© WDS Br	idge Mode	Help In this section y configure the w settings of the as the SSID (nai network) and B Channel. SSID: This is the name of your w network. It is p "Tenda_XXXXX "XXXX" repr- last six charact MAC address.) Please change security. Note t should not be I SSID Broadca option allows y your network n publicly broadd choose to disab	ireless router such me of the roadcast e public rireless reset to X' (where esents the ers in device by default. it for better hat this field eft blank. st: This ou to have ames (SSIDs) cast or if you
	AP MAC Address	C8:3A:35:00:0)4:E8			will be hidden.	



(5) Set the security key of Router 2 to the same as Router 1.

Click Wireless -> Security to set the security settings to match the remote device (Security Mode:

WPA2-PSK, Cipher Type: AES, Security Key: 12345678).

Tenda	Wizard	Advanced Wirele	ess QoS	Applications	Security	Tools
Wireless Basic Settings Wireless Security Access Control Wireless Connection Status	Wireless Security Set Select SSID Security Mode WPA Algorithms Security Key	Tenda_0E1A78 WPA - PSK(Recommend AES(Recommended) 12345678 Default: 12345678		C TKIP&AES	Heip Here you can s wireless passw wireless networ recommended -PSK as Securit AES as WPA Alg Type. WEP Key: Must	ord for your k. You are to select WPA y Mode and orithms
		To configure a wireless se Disable O Enat OK Can	le	the WPS below!	WPA/WPA2-P can enable per mixed mode, b make sure that client also supp selected Securit Security Key: between 8~63 sensitive ASCII of	racters or 10 acters. ersonal:You sonal (PSK) or ut you must the wireless iorts the y mode. Yust be case-

(6) Click Advanced -> DHCP Server and disable the DHCP server on Router 2 (Disable DHCP server on the local router that is used to extend the wireless network from the remote Internet-enabled router).

Tenda							
	Wizard	Advanced	Wireless	QoS	Applications	Security	Tools
Status Internet Connection Setup MAC Clone WAN Speed	DHCP Server DHCP Server IP Pool Start Address IP Pool End Address	 Enable 192.168.2. 192.168.2. 				Help DHCP server (I Configuration P assigns an IP a each device on LAN/private ne	rotocol) ddress to the twork. When
LAN Settings DNS Settings DHCP Server	Lease Time	One day	Cancel	•		you enable the the DHCP Serve automatically a unused IP addr IP address poo requesting dev	er will llocate an ress from the Il to the
DHCP Client List						the device is se an IP Address Automatically".	et to "Obtain

If WDS connection fails, try a different security mode and/or cipher type.



Step 4: Configure PC3 & PC4

③ If PC 3 and PC 4 are set to static or fixed IP addresses (This is uncommon), change them to "Obtain an IP address automatically" and "Obtain DNS server address automatically" from the device. For details, see <u>Appendix 1Configure PC TCP/IP Settings</u>.

Тір------

If PC 3 and PC 4 are already set to "Obtain an IP address automatically" and "Obtain DNS server address automatically" from the device, click **Repair** to repair the IP settings.

④ Wait until your PC successfully obtains an IP address.

Local St	tatus	? 🛿
General	Support	
Connec	tion status	
1	Address Type:	Assigned by DHCP
۲.	IP Address:	192. 168. 2. 103
	Subnet Mask:	255. 255. 255. 0
	Default Gateway:	192. 168. 2. 1
	Details	
Windows connecti Repair.	s did not detect problems with this ion. If you cannot connect, click	Repair
		Close



Verify Bridge Connectivity:

4 On PC 3, Click Start -> Run.

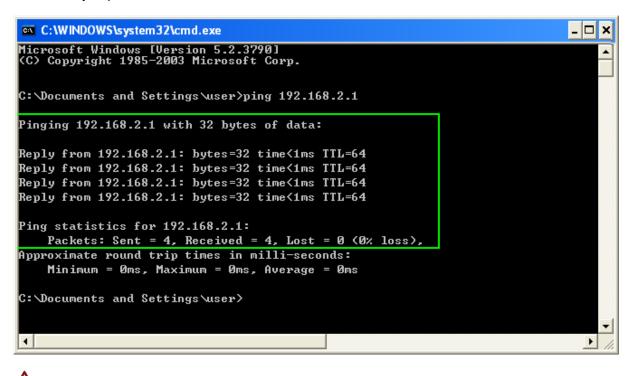


(5) Enter cmd and click OK.

Run	? 🔀
-	Type the name of a program, folder, document, or Internet resource, and Windows will open it for you.
Open:	cmd 💌
	OK Cancel Browse



⑥ Input ping 192.168.2.1 and press Enter. If you get a screen as seen below, you have successfully implemented WDS.



△_{Note} ------

1 WDS feature can only be implemented between 2 WDS-capable wireless devices. Plus, SSID, channel, security settings and security key must be exactly the same on both such devices.2 To ensure a proper wireless connection, do not change any settings on the two devices after WDS is successfully implemented.



2.2 Wireless Security

Click Wireless -> Wireless Security to enter the Wireless Security screen. Here you can define a

security key to secure your wireless network against unauthorized accesses.

	Wizard	Advanced	Wireless	QoS	Applications	Security	Tools
Wireless Basic Settings	Wireless Security Se	etup				Help	
	Select SSID	Tenda_22198	8	-		Here you can se	
Access Control	Security Mode	WPA - PSK(Re	ecommended)	-		wireless passwo wireless networ	and a state of the
Wireless Connection Status	WPA Algorithms	AES(Recom	imended) 🔘	TKIP 🥑	TKIP&AES	recommended t -PSK as Security	
	Security Key					AES as WPA Alg	
		Default: 12345	5678			Type.	
		and and the	wireless security	key, disable t	the WPS below!	WEP Key:Must or 13 ASCII char or 26 Hex chara	acters or 1
	WPS Settings	Oisable	💮 Enable		Reset OOB	WPA/WPA2-Pe can enable pers	onal (PSK) (
		OK	Cancel			mixed mode, bi make sure that	the wireless
						client also supp selected Securit	

Configuration Procedures:

- ① Select the wireless network (SSID) you wish to encrypt.
- 2 Configure security mode, cipher type and security key.
- 3 Click **OK** to save your settings.

🚽 Knowledge Center-----

1. Open: Wireless speed can reach up to 54Mbps if WEP - Open is selected.

2. Shared: Wireless speed can reach up to 54Mbps if WEP - Shared is selected.

3. Default key: Select a key to be effective for the current WEP encryption. For example, if you

select Key 1, wireless clients must join your wireless network using this Key 1.

4. WPA-PSK: WPA personal, support AES and TKIP cipher types.

5. WPA2-PSK: WPA2 personal, support AES, TKIP and TKIP+AES cipher types.

6. WPA/WPA2-PSK mixed: If selected, both WPA-PSK and WPA2-PSK secured wireless clients

can join your wireless network.

7. AES: If selected, wireless speed can reach up to 300Mbps.

8. TKIP: If selected, wireless speed can reach up to 54Mbps.

9. TKIP+AES: If selected, both AES and TKIP secured wireless clients can join your wireless network.



2.3 Wireless Access Control

Specify a list of devices to "Permit" or "Forbid" a connection to your wireless network via the devices' MAC Addresses.

Click Wireless -> Wireless Access Control to enter the configuration screen.

There are three options available: Disable, Forbid and Permit.

A. If you want to allow all wireless clients to join your wireless network, select Disable.

B. If you want to allow ONLY the specified wireless clients to join your wireless network, select

Permit.

C. If you want to disallow ONLY the specified wireless clients to join your wireless network, select

Forbid.

Wireless Access Control Application Example:

To only allow your own notebook at the MAC address of C8:3A:35:CC:34:25 to join your wireless network

Tenda						
	Wizard	Advanced Wire	less QoS	Applications	Security	Tools
Wireless Basic Settings	Access Control				Неір	
Wireless Security	Select SSID	Tenda_221988	•		Specify a list of devices to "Perr	
	MAC Address Filter	Permit			"Forbid" a conn	ection to you
Wireless Connection Status	MAC Address Filter	Fernin			router via the d addresses. All o	
	MAC Address		0	perate	not listed as Pe be Forbidden a	
	C8 : 3A : 35 : CC	: 34 : 25	Ľ	Add	versa.	nd vice
	C8:3A:35:CC:34:25			Delete		
		ОК Са	ncel			

Configuration Procedures:

Select the wireless network (SSID) you wish to enable Access Control on.

1 Select **Permit**.

2 Enter the MAC address of the wireless device you want to restrict. Here in this example, enter

C8:3A:35:CC:34:25.



- 3 Click Add to add the MAC address to the MAC address list.
- 4 Click **OK** to save your settings.
- ¥ Tip-----
- 1. Up to 16 wireless MAC addresses can be configured.

2. If you don't want to configure the complex wireless security settings and want to disallow others to join your wireless network, you can configure a wireless access control rule to allow only your own wireless device.

2.4 Wireless Clients

Click Wireless -> Wireless Connection Status. Here you can see a list of wireless devices

connected to the router.

Tenda									
		Wizard	Advanced	Wireless	QoS	Applications	Security	Tools	
Wireless Basic Settings Wireless Security Access Control Wireless Connection Status		Select SSID					Help Here you can s wireless device to the router. Bandwidth:Th	s connected	
	NO.	MAC	Address		Bandwidt	h	frequency widtl connection, 40		
	1	C8:3	A:35:CA:EC:3D		40M		for 802.11n sp		

۲ ۲ Tip-----

1. The bandwidth here refers to the channel bandwidth instead of wireless connection rate. You can know whether there are unauthorized accesses to your wireless network by viewing the wireless client list.

3 Bandwidth Control

3.1 Bandwidth Control

If there are multiple PCs behind your router competing for limited bandwidth resource, then you can use this feature to specify a reasonable amount of bandwidth for each such PC, so that no one will be over stuffed or starved to death.



2. The volume of uplink traffic/downlink traffic should not be larger than that allowed on your



router's WAN (Internet) port. You can ask your ISP to provide the volume of Internet traffic.

Bandwidth Control Application Example:

You share a 4M-broadband service with your neighbor (at 192.168.2.100) who always downloads a large volume of data from Internet. Your Internet surfing experience is thus affected seriously. In this case, use this feature to set limits for the volume of Internet traffic he/she can get. For example, you can equally split the bandwidth, so your neighbor can only use up to 2M Internet traffic and you can happily enjoy 2M.

Tenda							Kõ		
		Wizard A	dvanced	Wireless	QoS	Ар	plications	Security	Tools
Bandwidth Control Traffic Statistics	Bandwidth Control ✓ Enable Enable Bandwidth Control ✓ Enable IP Address 192.168.2. 100 Upload / Download Download ▼ Bandwidth Range 256 256 (KByte/s) Enable ✓ Аdd To List							Help The Bandwidth Control he you to improve network performance by specifying the download/upload spe for computers. Upload/Download:Seleu upload or download from the drop-down list. Bandwidth Range:Set a upload/download	
	No.	IP Range	Destination	Bandwidth Range	Enable	Edit	Delete	bandwidth limit PC(s).	on specified
	1	192.168.2.100~100	Download	256~256	\checkmark	Edit	Delete	Note:The max upload/downlo	
			OK	Cancel				bandwidth sho exceed the bar provided by yo	uld not dwidth

Configuration Procedures:

1 Enable Bandwidth Control: Check the Enable box to enable the Bandwidth Control feature.

2 **IP Address:** Enter the last number of the IP address. Here in this example, enter 100 in both boxes.

3 Upload/Download: Select Download from the drop-down list.

Bandwidth Range: Set a limit to regulate download bandwidth of PCs on the LAN. Here in

this example, enter 256 in both boxes.

- **Enable:** Check to enable the current rule.
- 6 Add to List: Click to add current rule to the rule list.
- Click OK to save your settings.



3.2 Traffic Statistics

Traffic Statistics meter allows you to monitor and view the volume of traffic used by LAN devices.

Click QoS-> Traffic Statistics to enter the Statistics screen.

Tip------If you suspect some PCs behind your router are consuming a large volume of bandwidth (downloading videos, etc) you can enable this Traffic Statistics meter feature to find out which PCs are overusing the traffic. Enabling the Traffic Statistics feature may degrade the router's

performance. Do not enable it unless necessary.

Tenda											
	Wi	zard	Advanced	Wirel	ess	QoS	Applications	Security	Tools		
Bandwidth Control Traffic Statistics	Traffic Sta	tistics	☑ Enable ²	Traffic Statisti	cs			Help Traffic Statistics	Contra de las suestes de las		
	IP Address	Uplink Rate (KByte/s)	Downlink Rate (KByte/s)	Sent Message	Sent Bytes MByte	Received Message	Received Bytes MByte	to see at a glance how much traffic each device in your network is using.			
			ОК	Car	icel						

Configuration Procedures:

1 Check Enable Traffic Statistics.

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

Knowledge Center-----

1. IP Address: Displays the IP addresses of the PCs that have connected to the device.

2. Uplink Rate: Displays the upload speed (KByte/s) of a corresponding PC.

3. Downlink Rate: Displays the download speed (KByte/s) of a corresponding PC.

4. Sent Message: The number of packets transmitted by a corresponding PC upon traffic statistics meter startup.

5. Sent Bytes: The number of bytes transmitted by a corresponding PC upon traffic statistics meter startup. The unit is MByte.

6. Received Message: The number of packets received by a corresponding PC upon traffic statistics meter startup.

7. Received Bytes: The number of bytes received by a corresponding PC upon traffic statistics



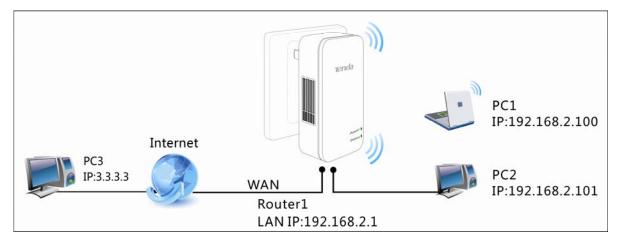
meter startup. The unit is MByte.

4 Special Applications

4.1 Port Range Forwarding

You want to share resources on your PC with your friends who are not in your LAN. But, by default, the router's firewall blocks inbound traffic from the Internet to your computers except replies to your outbound traffic. You can use the Port Forwarding feature to create exceptions to this rule so that your friends can access these files from external networks.

Click **Applications** to enter the configuration screen.



Application Example:

As shown in the figure above, your PC at 192.168.2.100 connects to the router and runs a FTP

server on port number 21. Your friends want to access this FTP server on your PC from external

network.



1. Make sure your WAN IP address (Internet IP address) is a public IP address. Private IP addresses are not routed on the Internet.

2. Make sure you enter correct service port numbers.

3. To ensure that your server computer always has the same IP address, assign a static IP address to your PC.

4. Operating System built-in firewall and some anti-virus programs may block other PCs from accessing resources on your PC. So it is advisable to disable them before using this feature.

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Tenda												
		Wizard	Advance	ed Wire	less	QoS	Ap	oplications	Security	Tools		
	Port	Range Forw	arding						Help			
DMZ Host		ange forwarding			To forward ports to an							
DDNS		specialized Inter nunication reques		internal host, specify a range of ports from								
UPNP Settings	the sp	pecified LAN IP a	ddress.						1~65535 (for a single port, enter the port number in			
Static Routing	NO.	Start Port-End	Port LA	LAN IP Protocol E		Enable	Delete	both Start and End fields. Then enter the internal				
Routing Table	1.	21 - :	21 19	92.168.2. 100	TCP	-			host's IP Addre	ss. Be sure to		
	2.	-	19	92.168.2.	TCP	•			statically assign Address in the	Advanced >		
	3.	-	19	92.168.2.	TCP	•			DHCP Client Lis make this funct	ion effective.		
	4.	-	19	92.168.2.	TCP	•			Specify the pro required for the			
	5.	-	19	92.168.2.	TCP	-			utilizing the po "Enable" and th			
	6.	-	19	92.168.2.	TCP	-	100		Start Port-En	d Port:		
	7.	_	19	92.168.2.	TCP	•			Specify the WAI ports.	N service		

Configuration Procedures:

- Start Port: Enter the starting port number for the service. Here in this example, enter 21.
 End Port: Enter the ending port number for the service. Here in this example, enter 21.
- 2 **LAN IP:** Enter the IP address of your local computer that will provide this service. Here in this example, enter 192.168.2.100.
- **Brotocol:** Specify the protocol required for the service utilizing the port(s).
- 4 Check **Enable** to activate this rule.
- **(5)** Click **OK** to save your settings.

Now, your friends only need to enter ftp://xxx.xxx.xxx.21in their browsers to access your FTP server. xxx.xxx.xxx is the router's WAN IP address. For example, if it is 172.16.102.89, your friends need to enter ftp://202.33.56.88:21.



4.2 DMZ Host

The DMZ (De-Militarized Zone) function disables the firewall on the router for one device for a special purpose service such as Internet gaming or video conferencing applications that are not compatible with NAT (Network Address Translation).

Click **Applications -> DMZ Host** to enter the DMZ Host screen.

▲_{Note} ------

1. DMZ host poses a security risk. A computer configured as the DMZ host loses much of the protection of the firewall and becomes vulnerable to attacks from external networks.

2. Hackers may use the DMZ host computer to attack other computers on your network.

Tenda								
	Wizard	Advanced	Wireless	QoS	Applications	Security	Tools	
Port Range Forwarding	DMZ Host					Help		
	NOTE: When the DMZ host	is enabled, the	firewall settings o	f the DMZ hos	t will not	The DMZ (De-		
DDNS	function. DMZ Host IP Address	192.168.2.120				Zone) function firewall on the		
UPNP Settings						device for a sp such as Interne		
Static Routing		V Enable				video conferen	cing.	
Routing Table		OK	Cancel			DMZ Host IP The IP address for which the re	of the device	
						firewall will be sure to staticall address of that	y set the IP	
						address of that DHCP Client Lis ensure that this consistent.	t Section to	

Configuration Procedures:

① **DMZ Host IP Address:** The IP Address of the device for which the router's firewall will be disabled. Be sure to statically set the IP Address of that device for this function to be consistent.

- 2 Enable: Check to enable the DMZ host.
- 3 Click **OK** to save your settings.



Tip-----

1. Be sure to statically set the IP Address of the computer that serves as a DMZ host for this function to be consistent.

2. Security softwares such as anti-virus software and OS built-in firewall, etc may affect the DMZ host feature. Disable them if DMZ host fails.

4.3 DDNS

Dynamic DNS or DDNS is a term used for the updating in real time of Internet Domain Name System (DNS) name servers. We use a numeric IP address allocated by Internet Service Provider (ISP) to connect to Internet; the address may either be stable ("static"), or may change from one session on the Internet to the next ("dynamic"). However, a numeric address is inconvenient to remember; an address which changes unpredictably makes connection impossible. The DDNS provider allocates a static host name to the user; whenever the user is allocated a new IP address this is communicated to the DDNS provider by software running on a computer or network device at that address; the provider distributes the association between the host name and the address to the Internet's DNS servers so that they may resolve DNS queries. Thus, uninterrupted access to devices and services whose numeric IP address may change is maintained. Click **Applications -> DDNS** to enter the configuration screen.

¥ Tip-----

1. To use the DDNS feature, you need to have an account with one of the Service Providers in the drop-down menu first.

2. This router supports two DDNS service providers: dyndns and no-ip.

DDNS Application Example:

If your ISP gave you a dynamic (changing) public IP address, you want to access your router remotely (<u>6.5 Remote Web Management</u>) but you cannot predict what your router's WAN IP address will be, and the address can change frequently. In this case, you can use a commercial Dynamic DNS service. It lets you register your domain to their IP address and forwards traffic directed at your domain to your frequently changing IP address.

If you obtain the following account from your dyndns.org service provider:

- ✓ User Name: tenda
- ✓ Password: 123456



✓ Domain Name: tenda.dyndns.org.

You want to use the PC at 218.58.98.3 to remotely access this router on port number 8090.

Configuration Procedures:

1 DDNS Service: Select Enable.

2 **Service Provider:** Select your DDNS service provider from the drop-down menu. Here in this example, select **dyndns**.

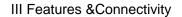
3 **User Name:** Enter the DDNS user name registered with your DDNS service provider. Here in this example, enter tenda.

Password: Enter the DDNS Password registered with your DDNS service provider. Here in this example, enter 123456.

Domain Name: Enter the DDNS domain name with your DDNS service provider. Here in this example, enter tenda.dyndns.org.

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

Tenda										
	Wizard	Advanced	Wireless	QoS	Applications	Security	Tools			
Port Range Forwarding DMZ Host DDNS	DDNS DDNS Service	Enable	⑦ Disable		c DNS) Service ssign a fixed					
	Service Provider	dyndns.org		× 2	iign up	domain name for your dvnamic WAN IP address so				
UPNP Settings	Username	tenda				that you can re	a second and the second and			
Static Routing	Password	123456	1%			your LAN from the web. You need to have an account of				
Routing Table	Domain Name	tenda.dyndns.	org			any Service Pro drop-down me				
		OK	Cancel			DDNS Service Username, Pas Domain Name that you registe DDNS service p enable the serv router.	Enter your sword, and (Host Name) red with the rovider to			





⑦ Click Tools -> Remote Web Management, enable the Remote Web Management feature, enter 8090 in the Port field, 218.58.98.3 in the IP Address field and then click OK to save your settings.

Tenda							
	Wizard	Advanced	Wireless	QoS	Applications	Security	Tools
Reboot Restore To Factory Default	Remote Web Manag	ement				Help This section all	ows network
Backup/Restore		8090				administrator t router remotely	And the second
Syslog	Port IP Address		Port: This is the management port to be				
Remote Web Management	IP Address	218.58.98.3				open to outside default setting	e access. The
Time Settings		OK	Cancel			IP Address:H	
Change Password						specify the IP a	ddress for
Upgrade						remote manage IP address is so the device beco romotely acces PCs on Internet	et to 0.0.0.0, omes sible to all

Now you can access the router from the Internet by entering http://tenda.dyndns.org:8090 in your

browser.



4.4 UPNP

The Universal Plug and Play (UPnP) feature allows network devices, such as computers from Internet, to access resources on local host or devices as needed. UPnP-enabled devices can be discovered automatically by the UPnP service application on the LAN. If you use applications such as multiplayer gaming, peer-to-peer connections, real-time communications such as instant messaging, or remote assistance (a feature in Windows XP), you may need to enable Universal Plug and Play (UPnP) for better experience.

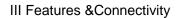
Click **Applications -> UPnP Settings** to enter the configuration screen. The UPnP feature is enabled by default.

Tenda							۵) .		
	Wizard	Advanced	Wireless	QoS	Applications	Security	Tools		
Port Range Forwarding DMZ Host DDNS UPNP Settings Static Routing Routing Table	UPNP settings Enable UPnP	▼ OK	Cancel			Help UPnP(Universal Play) allows Win systems to con device for vario applications au	ndows based figure the ous Internet		

4.5 Static Routing

Static routes provide additional routing information to your router. Typically, you do not need to add static routes. However, when there are several routers in the network, you may want to set up static routing. Static routing determines the path of the data in your network. You can use this feature to allow users on different IP domains to access the Internet via this device. It is not recommended to use this setting unless you are familiar with static routing. In most cases, dynamic routing is recommended, because this feature allows the router to detect the physical changes of the network layout automatically. If you want to use static routing, make sure the router's DHCP function is disabled.

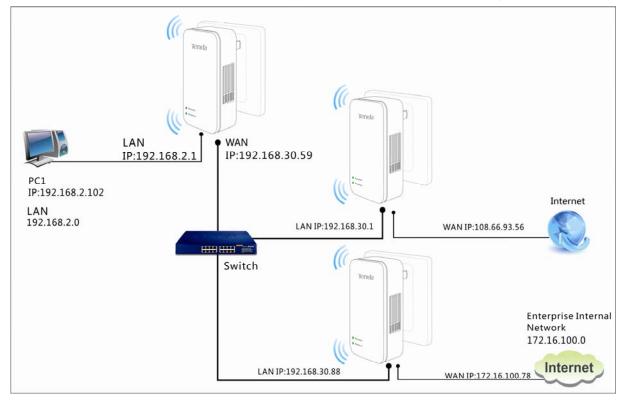
Click **Applications -> Static Routing** to enter the configuration screen.





- Ťip-----
- 1. Gateway must be on the same IP segment as WAN or LAN segment as the router.
- 2. Subnet Mask must be entered 255.255.255.255 if destination IP address is a single host.
- _____

Static Route Application Example - Gateway IP address on the same IP segment as WAN IP:



For example, your company internal network and Internet are on different IP net segment and you want PCs on your LAN to access Internet and your company internal network via the Tenda Router. You can simply configuring static routes on the Tenda Router. The figure above depicts this application scenario.



Configuration Procedures:

Tenda				<u> </u>)
	Wizard	Advanced	Wireless	oS Applications	Security Tools
Port Range Forwarding	Static Routing				Нејр
DMZ Host	Destination Network	Cubran Marily	Catalogue		Static Routing: When there
DDNS	IP Address	Subriet Mask	Gateway		are several routers in the network, you may want to
UPNP Settings	172.16.100.0	255.255.255.0	192.168.30.88	Add	set up static routing.
	-				Static routing determines the path of the data in your
Routing Table	172.16.100.0	255.255.255.0	192.168.30.88	Delete	network. You can use this feature to allow users on
		OK	Cancel		different IP domains to access the Internet via this device. It is not recommended to use this

(1) **Destination Network IP Address:** The IP address of the final destination. Enter your corporate internal network address: 172.16.100.0.

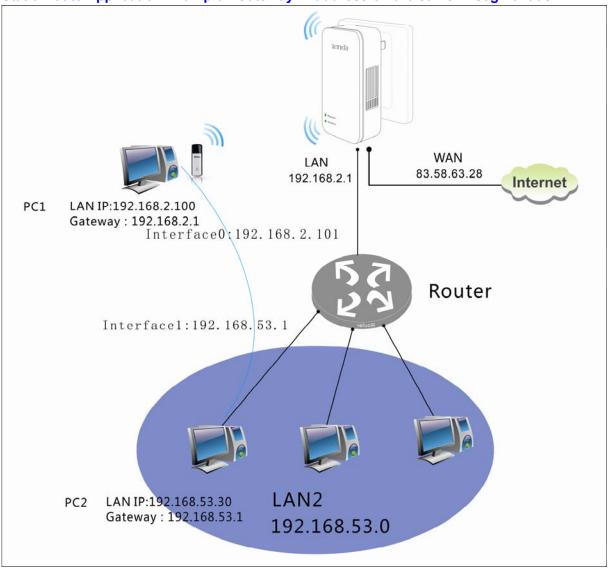
2 Subnet Mask: Enter the subnet mask of your corporate internal network: 255.255.255.0.

- **Gateway:** Enter the gateway IP address to your corporate internal network: 192.168.30.88
- 4 Click **Add** to add a static route.
- **(5)** Click **OK** to save your settings.

Click **Applications -> Routing Table** to view your static route entry. If it does not display, go to **Tools** to reboot your router. Enter the router's management interface. When the router successfully connects to the Internet, the following screen will display:

Tenda								
	Wizard	Advanced	Wireless	QoS	Applications	Security	Tools	
Port Range Forwarding	Routing Table					Help		
DMZ Host	Destination IP	Subnet Mask	Gateway	Hops	Interface	There are three interfaces:	types of	
DDNS	192.168.2.0	255.255.255.0	192.168.2.0	0	br0	vlan2 - WAN inte		
UPNP Settings	172.16.100.0	255.255.255.0	192.168.30.88	3	vlan2	ppp0 - PPPoE ir br0 - LAN interf		
Static Routing								
Routing Table	Refresh							





Static Route Application Example - Gateway IP address on the same IP segment as LAN IP:

As seen in the above figure, PC2 on LAN2 connects with the Tenda Router via the Router; PC1 on LAN1 accesses Internet via the Tenda Router that performs NAT. You can configure static routes to implement mutual communication between PCs on LAN1 and LAN2.



Tenda								
	Wizard	Advanced	Wireless	QoS Appli	ications Security	Tools		
Port Range Forwarding	rt Range Forwarding Static Routing							
DMZ Host	Destination Network Subnet Mask Gateway					Static Routing:When there		
DDNS	IP Address					u may want to		
UPNP Settings	192.168.53.0	255.255.255.0	192.168.0.101	Add	set up statio	routing.		
						g determines the data in your		
Routing Table	172.16.100.0	255.255.255.0	192.168.30.8	B Delete	incentorie: Fo	u can use this llow users on		
	192.168.53.0	255.255.255.0	192.168.0.10	1 Delete	different IP access the I	domains to nternet via this		
		OK	Cancel		device. It is recommend setting unle	led to use this		

Configuration Procedures:

- 1 Destination Network IP Address: Enter 192.168.53.0.
- 2 Subnet Mask: Enter 255.255.255.0.
- **3** Gateway: Enter 192.168.0.101.
- 4 Click **Add** to add the rule.
- 5 Click **OK** to save your settings.

Click **Applications -> Route Table** to view your static route entry. If it does not display, go to **Tools** to reboot your router. Enter the router's management interface. When the router successfully connects to the Internet, the following screen will display:

Wizard	Advanced	Wireless	QoS	Applications	Security Tools
Routing Table					Help
Destination IP	Subnet Mask	Gateway	Hops	Interface	There are three types of interfaces:
0.0.0.0	0.0.0.0	10.0.0.254	1	vlan2	vlan2 - WAN interface,
10.0.0.0	255.0.0.0	10.0.0.0	0	vlan2	ppp0 - PPPoE interface, br0 - LAN interface.
172.16.100.0	255.255.255.0	192.168.30.88	3	vlan2	
192.168.2.0	255.255.255.0	192.168.2.0	0	br0	
192.168.53.0	255.255.255.0	192.168.0.101	3	vlan2	
208.184.49.129	255.255.255.255	10.0.0.1	0	vlan2	
	Destination IP 0.0.0.0 10.0.0.0 172.16.100.0 192.168.2.0 192.168.53.0	Destination IP Subnet Mask 0.0.0.0 0.0.0.0 10.0.0.0 255.0.0.0 172.16.100.0 255.255.0 192.168.2.0 255.255.255.0 192.168.53.0 255.255.255.0	Destination IP Subnet Mask Gateway 0.0.0.0 0.0.0.0 10.0.0.254 10.0.0.0 255.0.0.0 10.0.0.0 172.16.100.0 255.255.255.0 192.168.30.88 192.168.2.0 255.255.255.0 192.168.2.0 192.168.53.0 255.255.255.0 192.168.0.101	Destination IP Subnet Mask Gateway Hops 0.0.0.0 0.0.0.0 10.0.0.254 1 10.0.0.0 255.0.0.0 10.0.0.0 0 172.16.100.0 255.255.255.0 192.168.30.88 3 192.168.2.0 255.255.255.0 192.168.2.0 0 192.168.53.0 255.255.255.0 192.168.0.101 3	Destination IP Subnet Mask Gateway Hops Interface 0.0.0.0 0.0.0.0 10.0.0.254 1 vlan2 10.0.0.0 255.0.0.0 10.0.0.0 0 vlan2 172.16.100.0 255.255.255.0 192.168.30.88 3 vlan2 192.168.2.0 255.255.255.0 192.168.0.101 3 vlan2



4.6 Routing Table

Click **Applications -> Routing Table** to view the router's route table.

Tenda										
	Wizard	Advanced	Wireless	QoS	Applications	Security	Tools			
Port Range Forwarding	Routing Table					Неір				
DMZ Host	Destination IP	Subnet Mask	Gateway	Hops	Interface	There are three types of interfaces:				
DDNS	0.0.0.0	0.0.0.0	10.0.0.254	1	vlan2	vlan2 - WAN interface,				
UPNP Settings	10.0.0.0	255.0.0.0	10.0.0.0	0	vlan2	ppp0 - PPPoE br0 - LAN inte				
Static Routing	172.16.100.0	255.255.255.0	192.168.30.88	3	vlan2					
	192.168.2.0	255.255.255.0	192.168.2.0	0	br0					
	192.168.53.0	255.255.255.0	192.168.0.101	3	vlan2					
	208.184.49.129	255.255.255.255	10.0.0.1	0	vlan2					

Knowledge Center-----

1. **Destination IP:** The IP address of the final destination. "0.0.0.0" indicates any network segment.

2. Subnet Mask: The subnet mask for the specified destination.

3. Gateway: This is the next router on the same LAN segment as the router to reach.

4. Hops: This stands for the number of routers between your network and the destination.

5. Interface: The interface between your router and the final destination.

5 Security

This router provides three security policies: MAC filter, client filter and URL filter.

- To restrict your LAN PCs to access certain websites on Internet via URL, see <u>URL Filter</u>.
- To restrict your LAN PCs to access Internet via MAC addresses, see <u>MAC Filter</u>.
- To restrict your LAN PCs to access certain services on Internet via their IP addresses, see

Client Filter.

5.1 URL Filter

This section allows you to control URL access. There are two options available: Disable and Deny.

- **A** . **Disable:** Disable the URL Filter feature.
- **B**. **Deny:** Disallow only the devices at specific IP addresses to access certain websites (containing specified URL characters) on Internet during the specific time period and/or



specific days of the week.

Click **Security** to enter the configuration interface.

V Tip-----

1. Each rule can only include a single domain name. To filter multiple domain names, set a rule for each domain name.

2. Time/Day: If Time is set to 0:00 to 0:00 and Day is set to Sun ~ Sat, the rule will be applied 24 hrs/day.

3. If you have not set up the system time for this device, click **Tools -> Time Settings** to set up correct time and date for the rules to be effective. For more information, see <u>6.6 Time</u>.

```
_____
```

URL Filter Application Example:

If you want to disallow the computers (192.168.2.100~192.168.2.101) on your home network to

access "YouTube" within the time period from 9 : 00 to 17 : 00 during working days: Monday ~

Friday, then do as follows:

Tenda)		
	Wizard	Advanced Wireless QoS	Applications	Security Tools
URL Filter Settings	URL Filter Settings			Help
MAC Address Filter Settings	Filter Mode	Forbid Only		This section allows you to
Client Filter Settings	Access Policy Policy Name(Optional) Start IP End IP URL Character String Time Day(s) Enable	(1) ▼ video 192.168.2. 192.168.2. 101 YouTube ● 9 ▼ 0 ▼ Mon ▼ Fri ▼ Ø Clear this item: Clear ● OK Cancel		control websites access. Select a policy from the drop -down menu and briefly describe it in the corresponding field. You can set the access restriction in details including the IP address range of devices, time period, and specific days of the week. Domain name can be entered the full name(for example www.google.com) or keyword(for example google),but only support one domain name for one rule. Be sure to statically assign IP Address of the devices you

Configuration Procedures:

- 1 Filter Mode: Select Deny.
- 2 Select: Select a rule ID, for example, (1).

3 Description: Briefly describe the current rule, say, yahoo, (It can only consist of numbers,

letters, or underscore). This field is optional.

- 4 Start IP/End IP: Enter 100-101.
- **(5)** URL Character String: Enter the domain name you wish to filter out. Here in this example,



enter YouTube.

6 **Time:** Specify a time period for the current rule to take effect. Here in this example, select 9:00~17:00.

Day: Select a day, or several days of the week for the current rule to take effect. Here in this example, select Mon ~ Fri.

⑦ Click **OK** to save your settings.

5.2 MAC Filter

This section allows you to restrict specific clients to access the Internet via the devices' MAC addresses. Each PC has at least an installed network adapter with a unique MAC address. Three options are available: Disable, Forbid Only and Permit Only.

A. Disable: Disable the MAC Filter feature.

B. Forbid Only: Disallow only the devices at specific MAC addresses to access Internet during the specific time period and/or specific days of the week.

B. Permit Only: Allow only the devices at specific MAC addresses to access Internet during the specific time period and/or specific days of the week.

Click Security -> MAC Address Filter Settings to enter the configuration interface.

¥

1. Time/Date: If Time is set to 0:00 to 0:00 and Day is set to Sun ~ Sat, the rule will be applied 24 hrs/day.

2. If you have not set up the system time for this device, click **Tools -> Time Settings** to set up correct time and date for the rules to be effective. For more information, see <u>6.6 Time</u>.

MAC Filter Application Example:

Your router functions as an active DHCP server and delivers an unsecured wireless network. From time to time, you suffer from slow network speed and start to suspect unauthorized accesses to your network. You can set MAC filter rules to allow only your PC at 00:E4:A5:44:35:69 and your wireless device at 00:E4:A5:44:35:6A to access Internet via this router.



Tenda	COKO .						
	Wizard	Advanced	Wireless	QoS	Applications	Security	Tools
URL Filter Settings	MAC Address Filter	Settings				Help	
MAC Address Filter Settings	Filter Mode	Permit Only		•		This section allo	
Client Filter Settings						set the time spo can or cannot a	ccess the
	Access Policy	(1)		•		Internet via the adresses. Selec	
	Policy Name(Optional)	yahoo				from the drop- and briefly des	
	MAC Address	00 : E4 :	A5 : 44 : 35	: 69		corresponding	field. You can
	Time	0 💌 : 0	• ~ 0 •	: 0 -		set the access r permission in d	etail
	Day(s)	Mon	~ Fri			including the tir and specific da	
	Enable	Clear thi	s item: Clear			week.	
		ОК	Cancel			When Time is s 0:0, the rule wi 24 hrs/day.	

Configuration Procedures:

- 1 Filter Mode: Select Permit Only.
- 2 Access Policy: Select a rule ID, for example, (1).

(3) **Policy Name:** Briefly describe the current rule, say, yahoo, (It can only consist of numbers, letters, or underscore). This field is optional.

④ MAC Address: Specify the MAC address of the computer that you want to restrict,

00:E4:A5:44:35:69.

- **5 Time:** Keep the default of 0:00 ~ 0:00. The rule will be applied 24hrs/day.
- 6 Day(s): Select Mon ~ Fri.
- **Enable**: Check to activate this rule.
- 8 Click **OK** to save your settings.
- 9 Repeat steps 1-7 to configure a rule for the MAC address "00:E4:A5:44:35:6A".

5.3 Client Filter

This section allows you to set the times specific clients can or cannot access services on the Internet via the devices' IP addresses and port numbers.

Click **Security -> Client Filter Settings** to enter the configuration interface. Select a Policy from the drop-down menu and briefly describe it in the corresponding field. You can set the access restriction or permission in detail including the time period, and specific days of the week. Three options are available: Disable, Forbid Only and Permit Only.

A. Disable: Disable the Filter feature.

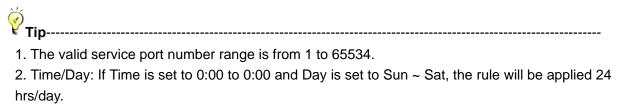


B. Forbid Only: Disallow only the devices at specific IP addresses to access certain services on

Internet during the specific time period and/or specific days of the week.

C. Permit Only: Allow only the devices at specific IP addresses to access certain services on

Internet during the specific time period and/or specific days of the week.



3. If you have not set up the system time for this device, click **Tools -> Time Settings** to set up correct time and date for the rules to be effective. For more information, see <u>6.6 Time</u>.

Client Filter Application Example:

To disallow your family member (PC IP address: 192.168.2.150) to access web pages within the

time period of 8:00~18:00 from Monday to Friday

URL Filter Settings	Client Filter Setting	s	Help
MAC Address Filter Settings	Filter Mode	Forbid Only	This section allows you to set the times specific client
Client Filter Settings			can or cannot access the
	Access Policy	(1)	Internet via the devices'IP addresses. Select a Policy
	Policy Name(Optional)		from the drop-down menu
	Start IP	192.168.2. 150	and briefly describe it in th corresponding field. You ca
	End IP	192.168.2. 150	set the access restriction o permission in detail
	Port	80 ~ 80	including the time period, and specific days of the
	Туре	ТСР	week.
	Time	8 💌 : 0 💌 ~ 18 💌 : 0 💌	When Time is set to 0:0 to 0:0, the rule will be applie
	Day(s)	Mon 💌 ~ Fri 💌	24 hrs/day.
	Enable	Clear this item: Clear	

Configuration Procedures:

- 1 Filter Mode: Select Forbid Only.
- 2 Access Policy: Select a rule ID, for example, (1).

3 Policy Name (Optional): Briefly describe the current rule (It can only consist of numbers,

letters, or underscore). This field is optional.

Start IP: Enter a starting IP address. Here in this example, enter 150.



- (5) End IP: Enter an ending IP address. Here in this example, enter 150.
- 6 Port: Enter a service port number. Here in this example, enter 80.
- **Type:** Select a protocol for the traffic. If you are unsure, select **Both**.
- 8 Time: Specify a time period for the current rule to take effect. Here in this example, select8:00 ~18:00.

Day(s): Select a day, or several days of the week for the current rule to take effect. Here in this example, select Mon ~ Fri.

- 9 Enable: Check to enable the current rule.
- (1) Click **OK** to save your settings.

6 Tools

6.1 Reboot

When a certain feature does not take effect or the device fails to function correctly, try rebooting the device.

the device.

Tenda				0Kč	Ð Í			
		Wizard	Advanced	Wireless	QoS	Applications	Security	Tools
Reboot	Rebo	oot The Route	21				Help	
Restore To Factory Default Backup/Restore		he button to rebo poot The Router	Rebooting the router will activate any modified settings on the router. While the router is rebooting, all					
Syslog Remote Web Management							connections will reconnected au later.	be lost and
Time Settings Change Password								
Upgrade								

6.2 Restore to Factory Default Settings

Click Tools -> Restore to Factory Default to enter the configuration screen. Here you can reset

the device to factory default settings.

▲_{Note------}

1. If you enable this option, all current settings will be deleted and be restored to factory default values. You will have to reconfigure Internet connection settings and wireless settings.

2. Do not restore factory default settings unless the following happens:

- You need to join a different network or unfortunately forget the login password.
- You cannot access Internet and your ISP or our technical support asks you to reset the router.



Tenda									
	Wizard Advanced Wireless QoS Application					s Security Too			
Reboot	Restore To Facto	Help All settings will be set back to default.							
Restore To Factory Default	Click this button to rest								
Backup/Restore	Restore To Factor	y Default				Default Passw	un ed to design		
Syslog									
Remote Web Management						Default IP Add 192.168.2.1	dress:		
Time Settings						Default Subne			
Change Password						255.255.255.0			
Upgrade									

The factory default settings are listed below:

- IP Address: 192.168.2.1
- Subnet Mask: 255.255.255.0.

For more factory default settings, see 2 Default Settings.

6.3 Back/Restore

Once you have configured the device the way you want it, you can save these settings to a configuration file on your local hard drive that can later be imported to your device in case that the device is restored to factory default settings.

Click **Tools -> Back/Restore** to enter the configuration screen.

when renaming the file name to avoid problems.



To backup configurations

1 Click Backup.

Tenda		Wizard	Advanced	Wireless	QoS	Applications	Security	Tools
		meana	Advanced	metas	205	Applications	Security	10013
Reboot	Backu	ip/Restore					Help	
Restore To Factory Default	Here yo	ou can Backup yo	our router's current	configuration or r	estore your r	outer with a	Backup:Click o	
Backup/Restore	saved c	configuration file.					to save a copy o router's configu	
Syslog	Click he	ere to save a con	figuration file to yo	ur computer: Ba	ackup		your computer.	
Remote Web Management							Restore:First c "Browse" to brow	
Time Settings			Browse	Restore			computer and s configuration file	
Change Password							upload to your i	router. The
Upgrade							to upload your and apply the s	r selection

② Click **OK** on the appearing window.

Message from webpage
Please select a path on your computer to save the configuration file.
OK Cancel

③ Click **OK** on the appearing alert window.

File Downlo	oad 🗾 🔀
Do you it?	want to save this file, or find a program online to open
	Name: RouterCfm.cfg
	Type: Unknown File Type, 12.0KB
	From: 192.168.2.1
	Find Save Cancel
	While files from the Internet can be useful, some files can potentially harm your computer. If you do not trust the source, do not find a program to open this file or save this file. <u>What's the risk?</u>



- X Save As 🗢 📃 Desktop 🔸 ✓ ✓ Search Desktop 2 ____ ----0 Organize 🔻 New folder . * 🔆 Favorites Libraries 📃 Desktop System Folder L Downloads luckyme E Recent Places Ε Е System Folder 🔚 Libraries Computer Documents System Folder J Music Pictures Network Videos System Folder W311E 🖳 Computer File name: RouterCfm Ŧ Save as type: CFG File • Save Cancel Hide Folders
- 4 Select a local hard drive to save the file and click **Save**.

To restore configurations

(1) Click **Browse**.

Tenda			0Kč	n in the second s			
	Wizard	Advanced	Wireless	QoS	Applications	Security	Tools
Reboot Restore To Factory Default Backup/Restore Syslog Remote Web Management Time Settings Change Password Upgrade	Backup/Restore Here you can Backup yo saved configuration file. Click here to save a con		_	estore your ro ackup	uter with a	Help Backup:Click of to save a copy router's configu your computer. Restore:First of "Browse" to bro computer and s configuration fil upload to your click on the "Re to upload you and apply the s in that file.	of your rations to lick on wse your elect the e you want to router. Then store" button r selection



Save As		ter (KINKII Longe		1.82		×
Deskto	op 🕨		- - f ₂	Search Desktop		P
Organize 🔻 Ne	w folder				11 11 11	0
☆ Favorites ■ Desktop ● Downloads ● Recent Places	Î	Libraries System Folder luckyme				
Libraries Documents Music		System Folder Computer System Folder				E
E Pictures		Network System Folder W311E				+
File name: Save as type:	RouterCfm CFG File					•
Hide Folders			1	Save	Canc	el

② Select the configuration file that is saved previously to your local hard drive and click **Open**.

③ Click the **Restore** button to reset your device to previous settings.

Tenda								
	Wizard	Advanced	Wireless	QoS	Applications	Security	Tools	
Reboot	Backup/Restore					Help		
Restore To Factory Default Backup/Restore Syslog	Here you can Backup yo saved configuration file. Click here to save a conf	outer with a	Backup:Click on this button to save a copy of your router's configurations to your computer.					
Remote Web Management	/me\Desktop\RouterCfm.	fal Browse	Restore			Restore:First of "Browse" to bro computer and	wse your	
Time Settings Change Password Upgrade						configuration fi upload to your click on the "Re to upload you	router. Thei store" butto	
						and apply the sin that file.	settings save	



6.4 Logs

Click **Tools -> Syslog** to enter the logs screen. Here you can view the history of the device's

actions.

Tenda											
		Wizard	Advance	ed Wireless	QoS	Applications	Security	Tools			
Reboot	Sys	log					Help				
Restore To Factory Default			Here you can view the								
Backup/Restore							history of the re actions. After 1				
Syslog	1	2011-04-01 00:00:00	main	System start			the previous logs will be cleared automatically.				
Remote Web Management	2		system	interface vlan2 init							
Time Settings		00:01:27									
Change Password	3	2011-04-01 00:01:28	system	DHCPC_DISCOVER se	nding						
Upgrade	4	2011-04-01 00:01:37	system	DHCPC_DISCOVER se	ending						
	5	2011-04-01 00:01:37	system	DHCPC_DISCVOER re	ceived						
	6	2011-04-01 00:01:37	system	DHCPC_STATE_REQU	ESTING init ser	nding					

Up to 150 entries can be logged. After 150 entries, you can click Refresh to update the logs or

click Clear to clear the earliest logs.

6.5 Remote Web Management

The Remote web management allows the device to be configured and managed remotely from the Internet via a web browser. Click **Tools -> Remote Web Management** to enter the configuration screen.

Knowledge Center-----

1. Port: This is the management port to be open to outside access. The default setting is 8080. This can be changed.

2. IP Address: Here you can specify the IP address for remote management (When set to 0.0.0.0, the device becomes remotely accessible to all the PCs on Internet or other external networks).

Remote Web Management Application Example:

To access your router (WAN IP address: 102.33.66.88) at your home from the PC (218.88.93.33) at your office via the port number 8090



Configuration Procedures:

(1) **Enable:** Check to enable the remote Web management feature.

Tenda							
	Wizard	Advanced	Wireless	QoS	Applications	Security	Tools
Reboot Restore To Factory Default Backup/Restore Syslog Remote Web Management Time Settings Change Password Upgrade	Remote Web Manag Port IP Address	Jement Enable 8080 OK	Cancel			Help This section all administrator to router remotely Port:This is the management p open to outside default setting IP Address:H specify the IP a remote manage IP address is so the device becc romotely access PCs on Internet	o manage the ort to be e access. The is 8080. ere you can ddress for erent. When et to 0.0.00, omes sible to all

2 **Port:** This is the management port to be open to outside access. Here in this example, enter

8090.

3 IP Address: Specify the IP address for remote management. Here in this example, enter

"218.88.93.33".

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

Tenda					L'ANKE					
		Wizard	Advanced	Wireless	QoS	Applications	Security	Tools		
Reboot	Remote	Web Mana	gement				Help			
Restore To Factory Default			V Enable				This section allo administrator to			
Backup/Restore							router remotely	-		
Syslog		Port	8080				Port: This is the			
Remote Web Management		IP Address	218.88.93.33		-		management p open to outside			
Time Settings			OK	Cancel			default setting i	s 8080.		
Change Password							IP Address:He specify the IP a			
Upgrade							remote manage IP address is se the device becc romotely access PCs on Internet	ement.When et to 0.0.0.0, omes sible to all		

Now you can access the router at your home by simply entering http://102.33.66.88:8090 in the web browser on the PC at your office.

1. For better security, customize a port number between 1025 and 65535 for the remote web management interface, do not use the number of any common service port (1-1024).



2. Make sure your WAN IP address (Internet IP address) is a public IP address. Private IP addresses are not routed on the Internet.

3. It is unsafe to make your router remotely accessible to all PCs on external network. For better security, we suggest that only enter the IP address of the PC for remote management.

4. You must change the default login password before you can enable this feature.

6.6 Time

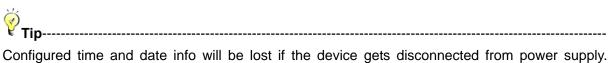
Click **Tools -> Time** to enter the time screen.

A. Sync with Internet time servers

Tenda								
	Wizard	Advanced	Wireless	QoS	Applications	Security	Tools	
Reboot	Time Settings					Help		
Restore To Factory Default	Time Zone	Time Zone						
Backup/Restore	(GMT+08:00) Beijing, C	hongqing, Hong Ko	ng, Urumqi	•		router's system can choose to s	et the time	
Syslog	Note: System time will n	ot be accurate unl	ess there is an acc	ess to the Inte	ernet or you	manually or get time from the Ir		
Remote Web Management	select "Customized Time	e" below.				the system will connect to NTP		
	Customized Time					synchronize the	time.	
Change Password	2013 Year 9 M	Nonth 17 Day 17	Hour 56 Minut	e 34 Second		Note:Configure		
Upgrade		OK	Cancel			the device is di from power sup	sconnected	

Configuration Procedures:

- ① Select your time zone.
- ② Click **OK** to save your settings.



Configured time and date into will be lost if the device gets disconnected from power supply. However, it will be updated automatically when the device reconnects to Internet. To activate time-based features (e.g. firewall), the time and date info shall be set correctly first, either manually or automatically.

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B. Set Time and Date Manually/Sync with Your PC

Tenda							
	Wizard Advanced Wireless QoS Applications	Security Tools					
Reboot	Time Settings	Help This page is used to set the					
Restore To Factory Default	Time Zone						
Backup/Restore	(GMT+08:00) Beijing, Chongqing, Hong Kong, Urumqi	router's system time. You can choose to set the time					
Syslog	Note: System time will not be accurate unless there is an access to the Internet or you	manually or get the GMT time from the Internet and the system will automatically connect to NTP server to					
Remote Web Management	select "Customized Time" below.						
	Customized Time	synchronize the time.					
Change Password	2013 Year 9 Month 17 Day 17 Hour 56 Minute 34 Second	Note:Configured time and date info will be lost when					
Upgrade	OK	the device is disconnected from power supply.					

Configuration Procedures:

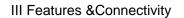
① Check **Customized Time**.

2 Specify correct time and date.

③ Click **OK** to save your settings.

And then go to **Status** screen (**Advanced -> Status**) to make sure the system time is correctly updated.

	WAN Status	Нер
Internet Connection Setup	Connection Status Connected	Connection Status:Refers to the connection between
MAC Clone WAN Speed	WAN IP 10.0.1.24 Subnet Mask 255.0.0.0	the router and the device connected to the router's WAN.
LAN Settings	Gateway 10.0.0.254 DNS Server 10.0.0.254	Internet Connection Type:
DNS Settings DHCP Server	Alternate DNS Server 8.8.8.8 Connection Time 00:00:07	This can be set in Advanced > Internet Connection Setup.
DHCP Client List	Release Refresh	DHCP and PPPoE are the most common.
	System Status	Connection Time:Displays WAN connection duration for
	LAN MAC Address C8:35:3A:22:19:88 WAN MAC Address C8:35:3A:22:19:88	the DHCP/Dynamic IP and PPPoE connection type.
	System Time 2013-09-17 17:57:37 Running Time 01:34:12	System Version:Displays the current firmware version
	Connected Client 1	of the device.
	System Version V5.07.53_en Hardware Version V3.0	





6.7 Login Password

Click Tools -> Change Password to enter the configuration screen. It is strongly recommended

that you change the factory default login password. Otherwise, anyone in your network can access

this utility to change your settings.

🦞 Tip-----

1. The default login password is admin. Please change it for better security.

2. The password can include 0-12 characters. I f no character is entered (left blank), no password is set.

Tenda	CAR CREATE						
	Wizard	Advanced	Wireless	QoS	Applications	Security	Tools
Reboot	Change Password		Help				
Restore To Factory Default	Administrator Login Credentials Password must be alpha-numeric. Old Password					This section allows you to	
Backup/Restore						change the login password.	
Syslog	New Password					Device's default password is "admin". It is advisable to	
Remote Web Management	Confirm New Password					change it for be Otherwise, anyo	
Time Settings		Ok	Cancel			network may ac utility to view or	
Change Password		OK	Cancer			settings.	
Upgrade						Old Password	

Configuration Procedures:

- 1 **Old Password:** Enter the old password.
- 2 New Password: Input a new password.
- 3 Confirm New Password: Re-enter the new password for confirmation.
- 4 Click **OK** to save your settings.

6.8 Firmware Upgrade

Click **Tools** -> **Upgrade** to enter the configuration screen. Firmware upgrade is released periodically to improve the functionality of your device and also to add new features. If you run into a problem with a specific feature of the device, log on to our website (www.tendacn.com) to download the latest firmware to update your device. If you run into a problem with a specific feature of the device, log on to our website (www.tendacn.com) to download the latest firmware to update your device. If you run into a problem with a specific feature of the device, log on to our website (www.tendacn.com) to download the latest firmware to update your device.



▲_{Note} ------

1. Before you upgrade the firmware, make sure you are having a correct firmware. A wrong firmware may damage the device.

2. It is advisable that you upgrade the device's firmware over a wired connection. DO NOT interrupt the power to the router when the upgrade is in process otherwise the router may be permanently damaged.

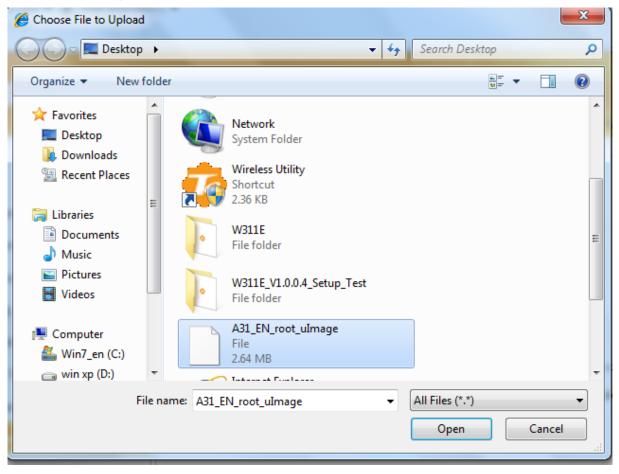
Configuration Procedures:

(1) Click **Browse**.

Tenda					
	Wizard Advanced Wireless QoS Applica	tions Security Tools			
Reboot Restore To Factory Default Backup/Restore Syslog Remote Web Management Time Settings Change Password Upgrade	Upgrade By upgrading the router'software, you'll get new features. Select the firmware file: Browse Upgrade Current System Version: V5.07.53_en; Publishing Date:Sep 10 2013 Note: Do not power off the router during the upgrade and you can only use a computer that is plugged into one of the LAN ports of this router to complete the upgrade to avoir damaging the router. The router will reboot automatically after the upgrade.	website and saved it to your			



2 Select the upgrade file and click **Open**.



③ Click **Upgrade** and wait until the upgrade progress indicator bar displays 100% completed.

When upgrade is completed, view the **Current System Version**. It should display the firmware you load.

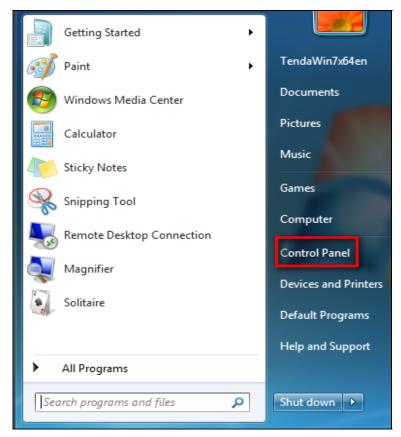


IV Appendix

1 Configure PC TCP/IP Settings

Windows 7

1 Click Start -> Control Panel.

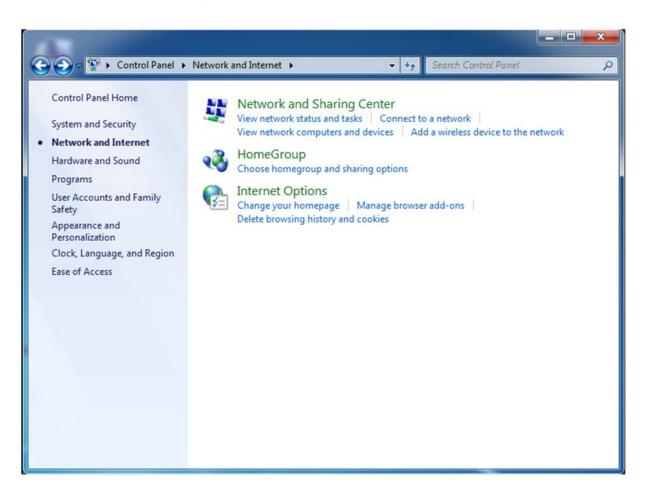




2 Click Network and Internet.



3 Click Network and Sharing Center.

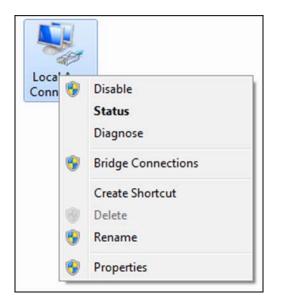




④Click **Change adapter settings**.

🕒 🕞 🗢 👯 « Network and Inte	rnet Network and Sharing Center
Control Panel Home	View your basic network information and set up connections
Change adapter settings	i See full map
Change advanced sharing settings	WIN7X64EN Unidentified network Internet (This computer)
	View your active networks Connect or disconnect
	Unidentified network Access type: No network access Public network Connections: Image: Local Area Connection
	Change your networking settings
	Set up a new connection or network Set up a wireless, broadband, dial-up, ad hoc, or VPN connection; or set up a router or access point.
	The second secon
	Connect or reconnect to a wireless, wired, dial-up, or VPN network connection.
See also	Choose homegroup and sharing options
See also HomeGroup	Access files and printers located on other network computers, or change sharing
Internet Options	settings.
Windows Firewall	Troubleshoot problems Diagnose and repair network problems, or get troubleshooting information.

(5) Click Local Area Connection and select Properties.





(6) Select Internet Protocol Version 4 (TCP/IPv4) and click Properties.

Intel(R) PRO	1000 MT Network Conne	ction
nis connection use	es the following items:	Configure
	licrosoft Networks	
QoS Pack		M. 171
	inter Sharing for Microsoft btocol Version 6 (TCP/IPv	
	otocol Version 4 (TCP/IPv	Concernence of the second s
		a second second second
	Topology Discovery Mapp	
	Topology Discovery Mapp Topology Discovery Resp	
Link-Layer	Topology Discovery Resp	onder
✓ ▲ Link-Layer Install		
Link-Layer Install Description	Topology Discovery Resp	onder Properties



O Select Obtain an IP address automatically and click OK.

Internet Protocol Version 4 (TCP/IPv4	I) Propert	ies		? X
General Alternate Configuration				
You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings.				
Obtain an IP address automatical	lly			
Use the following IP address:				
IP address:				
Subnet mask:	1.1			
Default gateway:	1.1			
Obtain DNS server address autor	natically			
Use the following DNS server add	resses			
Preferred DNS server:				
Alternate DNS server:				
Validate settings upon exit			Adva	nced
		OK		Cancel



(8) Click **OK** on the Local Area Connection Properties window to save your settings.

onnect using:		
-	0/1000 MT Network Connection	
Client for	Configu ses the following items: Microsoft Networks	re
	Printer Sharing for Microsoft Networks Protocol Version 6 (TCP/IPv6)	
🗹 📥 Internet f	Protocol Version 4 (TCP/IPv4)	
 ✓ Internet f ✓ Link-Laye 		
 ✓ Internet f ✓ Link-Laye 	Protocol Version 4 (TCP/IPv4) er Topology Discovery Mapper I/O Driver	es



Windows XP

(1) Right-click My Network Places and select Properties.



2 Right click Local Area Connection and select Properties.

LAN or Hig	h-Speed Internet	_
	Local Area Connection Connected, Firewalled Marvell Yukon 88E8057 PCI-E	
	Disable	
	Status	
	Repair	
	Bridge Connections	
	Create Shortcut	
	Delete	
	Rename	
	Properties	



③ Select Internet Protocol Version 4 (TCP/IPv4) and click Properties.

eneral Advanc	ed		
Connect using:			41
Marvell Yu	ikon 88E8	057 PCI-E Giga	bi Configure
This connection	uses the fo	lowing items:	
Client fo			
🗹 🛃 File and			oft Networks
🗹 🛃 QoS Pa			
Internet	Protocol [I CP/IPJ	
Install		Uninstall	Properties
Description			
Transmission wide area net	work proto		Protocol. The defaul s communication
Transmission I wide area net across diverse	work proto interconn	col that provide ected networks	s communication
Transmission I wide area net across diverse Show icon in	work proto interconn	col that provide ected networks n area when co	s communication
Transmission I wide area net across diverse Show icon in	work proto interconn	col that provide ected networks n area when co	s communication
Transmission I wide area net across diverse Show icon in	work proto interconn	col that provide ected networks n area when co	s communication
Transmission I wide area net across diverse Show icon in	work proto interconn	col that provide ected networks n area when co	s communication



(4) Select Obtain an IP address automatically and click OK.

iternet	Protocol (TCP/IP) Pro	operties
General	Alternate Configuration	
this cap		utomatically if your network supports I to ask your network administrator for
O ()	btain an IP address automat	ically
OU	se the following IP address:	
IP ac	idress:	
Subr	iet mask:	
Defa	ult gateway:	
 O 	btain DNS server address a	utomatically
OU	se the following DNS server	addresses:
Prefe	arred DNS server:	
Alter	nate DNS server.	54 (1) (2)
		Advanced
		OK Cancel



(5) Click **OK** on the **Local Area Connection Properties** window to save your settings.

Connect using:		
Marvell Yukon 88	3E8057 PCI-E Gig	abi Configure
This connection uses th	ne following items:	
Client for Micro	r Sharing for Micro cheduler	osoft Networks
Install	Uninstall	Properties
 Description Transmission Control wide area network pr across diverse interc 	rotocol that provid	
Show icon in notification Notify me when this		

2 Default Settings

Item		Default Settings	
	IP Address	192.168.2.1	
Login	Login Password	admin	
Internet Connection Type		Hotel Mode (Dynamic IP)	
WAN MAC Address		Find it on the label attached to the	
		device	
		PPPoE: 1492	
MTU		DHCP: 1500	
		Static IP: 1500	
WAN Speed		Auto-negotiation	
DNS		Disabled	
	IP Address	192.168.2.1	
I AN Sottings	Subnet Mask	255.255.255.0	
LAN Settings	DHCP Server	Enabled	
	IP Pool	192.168.2.100~192.168.2.150	



	System Time	By default, system automatically synchronizes with Internet time servers. Time Zone: (GMT+08:00) Beijing, Chongqing, Hong Kong, Urumqi	
	Wireless	Enabled	
	Primary SSID (Network Name)	Tenda_XXXXXX ("XXXXXX" is the last six characters of the device's MAC address. You can find it on the label attached to the device.)	
	Secondary SSID	Disabled	
	Wireless Working Mode	Wireless AP	
	Network Mode	11b/g/n mixed	
Wireless	SSID Broadcast	Enabled	
	AP Isolation	Disabled	
	Channel	AutoSelect	
	Channel Bandwidth	20/40	
	Extension Channel	AutoSelect	
	WMM Capable	Enabled	
	APSD Capable	Disabled	
	Security Mode	Disabled	
	Remote Web Management	Disabled	
	Bandwidth Control	Disabled	
Others	Traffic Statistics	Disabled	
Oulers	DMZ Host	Disabled	
	UPnP	Enabled	
	Security	Disabled	





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 feel free to go to <u>www.tendacn.com</u> to find a solution or email your problems to: <u>support@tenda.com.cn</u> or support02@tenda.com.cn. We will be more than happy to help you out as soon as possible.

1. Q: I cannot access the device's management interface. What should I do?

- Make sure the power LED on the device's front panel is on.
- Make sure Ethernet cables are connected properly.
- Verify that your PC's TCP/IP settings are configured correctly. If you select the "Use the following IP address" option, set your PC's IP address to any IP address between 192.168.2.2~192.168.2.254. Or you can select the "Obtain an IP address automatically" option.
- Try a different browser or delete your existing browser's cache and cookies.
- Check the IP address you entered in your browser. It should be http://192.168.2.1.
- Open your browser and click Tools -> Internet Options -> Connections -> LAN Settings,

uncheck the Use a proxy server for your LAN option.

• Press the reset button on the device with a needle for 10seconds to restore factory default settings and then re-access the device.

2. Q: I changed the login password and unfortunately forget it. What should I do?

Press the reset button on the device with a needle for 10seconds to restore factory default settings.

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

• Make sure there are no other DHCP servers on your LAN or other DHCP servers are disabled.

• Make sure the device's LAN IP is not used by other devices on your LAN. The device's default LAN IP address is 192.168.2.1.

 Make sure the statically assigned IP addresses to the PCs on LAN are not used by others PCs.



4. Q: I have problems connecting to Internet/Secure websites do not open or displays only part of a web page. What should I do?

This problem mainly happens to users who use the PPPoE or Dynamic IP Internet connection type.

You need to change the MTU size. Try changing the MTU to 1450 or 1400. If this does not help,

gradually reduce the MTU from the maximum value until the problem disappears.



4 Remove Wireless Network from Your PC

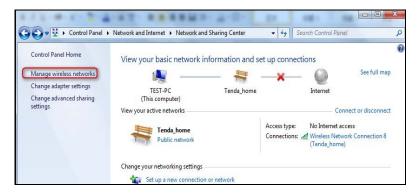
If you change wireless settings on your wireless device, you must remove them accordingly from your PC; otherwise, you may not be able to wirelessly connect to this device. Below describes how to do remove a wireless network from your PC.

Windows 7

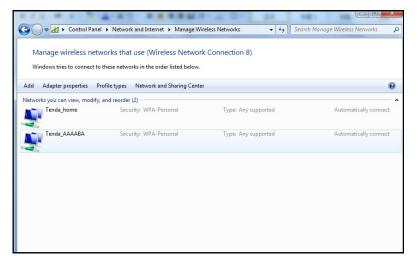
1 Right-click the **Network** icon and select **Properties**.



2 Select Manage Wireless Networks.



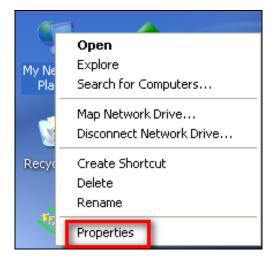
③ Select the wireless network and click **Remove network**.





Windows XP

(1) Right-click My Network Places and select Properties.



2 Right click Wireless Network Connection and then select Properties.

LAN or High-S	LAN or High-Speed Internet		
Local Area Connection	Wirele Netwr Connec	Disable Yiew Available Wireless Networks Status Repair Bridge Connections Create Shortcut Delete Rename Properties	



③Click Wireless Networks, select the wireless network name under Preferred networks and

then click the **Remove** button.

Local Area Connection 2 Properties		<u>?</u> 🗙
General Wireless Networks Advanced		
Use Windows to configure my wireless network settings		
Available <u>n</u> etworks:		
To connect to, disconnect from, or find out more information about wireless networks in range, click the button below.		
View Wireless Networks		
Preferred networks: Automatically connect to available networks in below:	Move up	
Add <u>R</u> emove Propertie Leam about <u>setting up wireless network</u> <u>configuration</u> .	es Ad <u>v</u> anced	
OK Cancel		



5 Safety and Emission Statement

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 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.

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

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.



- Consult the dealer or an experienced radio/TV technician for help.

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

The manufacturer is not responsible for any radio or TV interference caused by unauthorized modifications to this equipment.

Radiation Exposure Statement

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

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

NCC Notice

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