How to use NAT and No NAT at the same time with a Bipac 7800N

For the this guide we have been provided with a range of static IP's.

80.229.71.33 - Modems reserved IP

Subnet - 255.255.255.240

80.229.71.34-46 - usable IP's

This guide will be done from factory default setting.

Login the routers interface page by opening internet explorer and typing in the address bar <u>http://192.168.1.254</u>

Use the username 'admin' and password 'admin' to login to the routers configuration page.

Click on 'WAN' on the left hand column, and enter your ISP credentials to establish a internet connection. Once you click on 'Apply' the modem will reboot to apply the WAN change.

Now click on 'Advanced' >> 'Configuration'>> 'LAN'>> 'Ethernet' and change the LAN IP to 192.168.1.1, with subnet mask 255.255.255.0, and click on 'Apply' at the bottom of the page. The modem will reboot to apply the change, you will then have to use the IP 192.168.1.1 to log back in to the router, as shown below.

<u>BILLION</u>	1		Dual WAN ADSL2+ Firewall Route	er	Poweri	ng commissions th Security
Advanced		Configuration				
• Basic		in the second				
		* Ethernet				
Quick Start		Parameters				
		IP Address	192.168.1.1			
▶ LAN		Netmask	255 255 255 0			
• Ethernet		Notifide.				
IP Alias		RIP	Disable 💌			
 IPv6 Autoconfig 		Apple Cance	1			
• Wireless						
Wireless Security						
• WPS						
DHCP Server						
▶ WAN						
System						
▶ Firewall						
• QoS						
Virtual Server						
• Wake on LAN	~			E Save Config	A Restart	
			Copyright @ Billion Electric Co., Ltd. All rights resen	ved.	φικεσιαιτ	-MDr.Ogou

The router rebooting with the current configuration.

BILLION		Dual WA	AN ADSL2+ Firewall Ro	uter	Poweri	ng communications A Security
Advanced	Configura	tion				
• Basic						
► Status	▼Restart					-
Quick Start	Since set	tings are changed, the r	outer will reboot to make the c	hanges take effect! Please wa	ait for seconds.	
▼Configuration	total :			0%		
▶ LAN						
• Ethernet						
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• QoS						
Virtual Server						
• Wake on LAN						
				Save Config	🖗 Restart	
		Copyright @ Bill	lion Electric Co., Ltd. All rights re	served.		100 44

Routers new IP as shown at the top of the following picture

🖉 BiPAC 7800N - Windows Internet I	xplorer									
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BILLION			Dual WAN	l ADSL2+ Fir	ewall	Router			Powering communication with Security	
Basic	Status									
Advanced	* Devic	e Information	n			* Physic	al Port Status			
• Status	Model	Name	BIPAC 7800N			Etherne	t 🗸	1		
Quick Start	System	Up-Time	1 min(s)			EWAN	×	¢.		
VVAN	Hardwa Softwa	are version	Annex A			ADSL	~	440/14714	kbps	
• WLAN	Soliwa	re version	1.000-0.1007			Wireles	s* v			
	- WAN									
	Port •	Protocol VPI/VCI	Operation	Connection	IP A	ddress	Netmask	Gateway	Primary DNS	
	ADSL	PPPoA 0/38	1	Connecting						
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Done								🕘 Internet	ka - 0.	100% •

Now click on 'Advanced' >> 'Configuration' >> 'LAN' >> 'IP Alias' and enter the IP that your ISP specified for your router, as shown in the screen shot below.

For this example we used IP address 80.229.71.33, and enter the subnet 255.255.255.240, this is the information provided by out ISP. Once done click on 'Apply' the modem will reboot with the current settings.

BILLION	/	Dual WAN	l ADSL2+ Firewall Route		Powerin	ng communications h Security
Advanced 1		Configuration				
♦ Status		▼IP Alias				
Quick Start		Parameters				
Configuration 2		IP Address 5	80.229.71.33			
LAN		Mahmanda				
• Ethernet	1	Netmask	255.255.255.240			
IP Alias		Apply Cancel				
· IPv6 Autoconfig						
• Wireless	5	7				
· Wireless Security						
• WPS						
DHCP Server						
▶ WAN						
System						
▶ Firewall	1					
· QoS						
Virtual Server	1					
• Wake on LAN	~					
				Save Config	🖗 Restart	Logout
		Copyright @ Billio	n Electric Co., Ltd. All rights reserve	ed.		

Now click on 'Advanced' >> 'Configuration' >> 'WAN' >> 'WAN Profile', untick the 'NAT' option and click on 'Edit/Delete' to apply the change as shown below.

	WAN Profile								
Advanced 1	Parameters								
lasic	Profile Port								
Status						1000	1		
Quick Start	Protocol	PPPoA (RFC2364,	PPP over AAL5)			*			
Configuration 2	Description	00000 0 0 29 2	VELOVEL	0	1	Encap.		VOMUN	
LAN	Description	ppp0a_0_0_36_2	VFINUCI	38		method	1	VC/MOX	×.
WAN 3	Username	eteccomponents@	pl Password						
· WAN Interface	NAT 5		IR (0.0.0.0: Aut	0.00	0.0	Auth D	rotocol	Auto	
WAN Profile 4			IF (0.0.0.0. Au	0) 0.0.	0.0	Autil. F	010001	Auto	
· ADSL Mode	Obtain DNS	Automatic	Ma	ke sure	e vou untick NAT			212.159.6.10	
System	Connection		Idio Lippoout		, ,	(01111		1402	
Firewall	Connection	Always On	iule inneout	144	0]	WIO		1432	_
QoS	IPv6	Enable							
Virtual Server	When you fini	sh configurin e el l WAN	l settings, please	e click t	he 'Restart' button	for these	changes	s to take effect.	
Wake on LAN	Add Edit	/ Delete					-		
Time Schedule	Edit Protocol	Interface Desc	ription VPI	VCL	Encon method	MAT	ID	IDv6	Delete
Advanced		nnenace Desc		20	VOMUX	Enchlo	0.0.00		Delete
	U FFFOA	bbb_0_0_39_1 bbbo	a_0_0_36_2.0	30	VC/WOX	Enable	0.0.0.0	,	

Wait for the page to refresh and click on 'Save Config' at the bottom of the page, and click on 'Apply' in the middle of the page to confirm you wish to save the config. As shown below

and the second sec	* WAN Profile						
anced	Parameters						
C	Profile Port	ADSL 🗸					
IS	Protocol	PPPoA (RFC2364, P	PP over AAL5)		~		
k Start iguration N	Description	pppoa_0_0_38_2	VPI / VCI	0 / 38	Encap. method	VC/MUX	*
AN	Username	eteccomponents@pl	Password		1		
/AN Interface	NAT	Enable	IP (0.0.0.0. Auto)	0000	Auth Protocol	Auto 🗸	
/AN Profile	Obtain DNIO		Deimoni	040 450 5 0	Casan dani	040 450 5 40	-
DSL Mode	Obtain DNS	✓ Automatic	Primary	212.159.6.9	Secondary	212.159.6.10	
stem	Connection	Always On	Idle Timeout	0 min(s) [1 -	MTU	1492	
ewaii	IDue			1440]			
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		Copyright @ Billion	Electric Co., Ltd. /	All rights reserved.		•	

Apply

Now please click on 'Restart' at the bottom of the page and select 'Current Settings' and click 'Restart' to apply the new WAN change. As shown below.

BILLION	Dual WAN ADSL2+ Firewall Router	
Advanced	Configuration	
♦ Status	* Restart	
Quick Start	After restarting. Please wait for several seconds to let the system come up.	
► Configuration	○ Factory Default Settings Image: Current Settings Image: Current Settings Image: Current Settings <t< td=""><td></td></t<>	
	Save Config	out
	Copyright @ Billion Electric Co., Ltd. All rights reserved.	

Now open 'Command Prompt' and enter the following commands.

telnet 192.168.1.1 press enter

use the username 'admin' and the password 'admin' press enter

enter iptables -t nat -I POSTROUTING -s 192.168.1.0/24 -j SNAT --to 80.229.71.34 press enter.

I have used one of static IP's from the range. This IP will be used for computers using NO NAT. As shown below.



You can type 'Logout' to logout of the CLI command.

Now check your IP address on your computer. It will show the IP address of 80.229.71.34.



Now if you wish to set a device on your network to use a external IP please use the following example.

You will have to set static IP's to LAN card.

Internet Protocol (TCP/IP) Pr	operties 🛛 🛛 🛛 🛛
General	
You can get IP settings assigned a this capability. Otherwise, you nee the appropriate IP settings. O Obtain an IP address automa	automatically if your network supports d to ask your network administrator for atically
Use the following IP address	
IP address:	80 . 229 . 71 . 35
Subnet mask:	255.0.0.0
Default gateway:	80 . 229 . 71 . 33
O Obtain DNS server address a	automatically ar addresses:
Preferred DNS server:	208 . 67 . 222 . 222
Alternate DNS server:	
	Advanced
	OK Cancel

You can enter one of your usable IP's in the IP address section, for the default gateway you have to enter the IP address reserved for the router, the same IP address we entered in the 'IP Alias'.

Now you check your IP address on this device. As shown below.



Please note if you power cycle the router you will need to enter the CLI commands again via command prompt.

That should be it, you should have computers running on a internal IP address (192.168.1.100) they should be behind one of your usable IP's. You should also have computers set with a static IP that have external IP addresses assigned to them.