BROADCOM ®

Confiden

Application Notes

Supported Applications under NAPT

For BCM963xx DSL Linux

November 4, 2005

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REVISION HISTORY

Version	Date	Change Description
1.0	Nov 4, 2005	Extracted from appendix A Linux release notes

Introduction

This application notes specifies how Broadcom DSL Linux router supports various services and applications passing through the router when NAPT is enabled within the router.

Using Port Forwarding When Services Are Behind the NAT

Protocol	Type	Port
FTP- File Transfer	TCP	21
HTTP- Web Server	TCP	80
DNS- Domain Name Server	TCP UDP	53
Telnet- Remote connection	TCP	23
SMPT- Outgoing mail	TCP	25
POP3 - Incoming mail	TCP	110
NNTP- Network News Transfer Protocol	TCP	119
PCAnyWhere	UDP TCP	5631-5632
TALK	UDP	517-518
Net2Phone	TCP UDP	2000
HTTPS- Secure Web Server	TCP	443
VNS- Remote Display System	TCP	5900-5909 5800-5809
TFTP	UDP TCP	69
SSH- Secure Remote Login	TCP	22

Using Port Forwarding When Games Are Behind the NAT

Game	Type	Port
Age of Empires II	TCP UDP	2300:2400 2300:2400
Star Craft	TCP	4000
Half Life Team Fortress	TCP UDP	27015 27015
Diablo II	TCP	6112 4000
Quake II	UDP	27950 27960 27910 27952 27000 26000 27951
Quake III	UDP	27950 27960 27910 27952 27000 26000 27951
Return to Castle Wolfenstein	UDP	27950 27952 27953 27960 27961 27962 27963 27965
Unreal Tournament	UDP	7777

Using Port Triggering to Play Games Behind the NAT

Game	Outgoing port range	Protocol	Incoming port range	Protocol
Return to Castle Wolfenstein	27950-27965	UDP	27950-27965	UDP
Star Craft	4000-4000	TCP/UDP	4000-4000	TCP/UDP

No Configuration is Necessary to Use These Applications Behind the NAT

Protocol (note 1)	Type	Port
FTP- File Transfer	TCP	21
TFTP	UDP	69
	TCP	
TALK	UDP	517-518
H.323	TCP	1720
IRC	TCP	6667
SNMP	UDP	161-162
PPTP	TCP	1723
Window's Media Player (note 2)	UDP	7000-7007
DirectX game (note 3)	UDP	2300-2400
AOL Instant Messenger (note 4)	TCP	5190
MSN Messenger (note 4)	TCP	1863

Notes:

- All protocols mentioned above are for client behind the NAT. If hosting server is needed, use Port Forwarding.
- Windows Media Player uses TCP port 1755 from player to connect to server and uses UDP port 7000-7007 to do the actual streaming of data
- DirectX uses TCP port 47624 from client behind NAT to connect to peer and expects peers to use UDP port 2300-2400 thereafter.
- AOL and MSN Messenger Proxy Server are needed for user-user direct connection during file and image transfer

Configuring ICQ

To run ICQ behind NAT, follow these steps:
1. Under the Connections settings in Preferences, click on the "User" tab, and change it to "Using proxy" and set the type as "SOCKS 4".
2. Disconnect and reconnect.
3. Set it back to "Not using proxy" and set it to use the ports you specify. You should now be able to put whatever you want and have it actually listen. Be sure to disconnect/reconnect after you make every change.
4. From the DSL modem, use port forwarding to forward TCP port range you choose from Step 3 to your local machine.