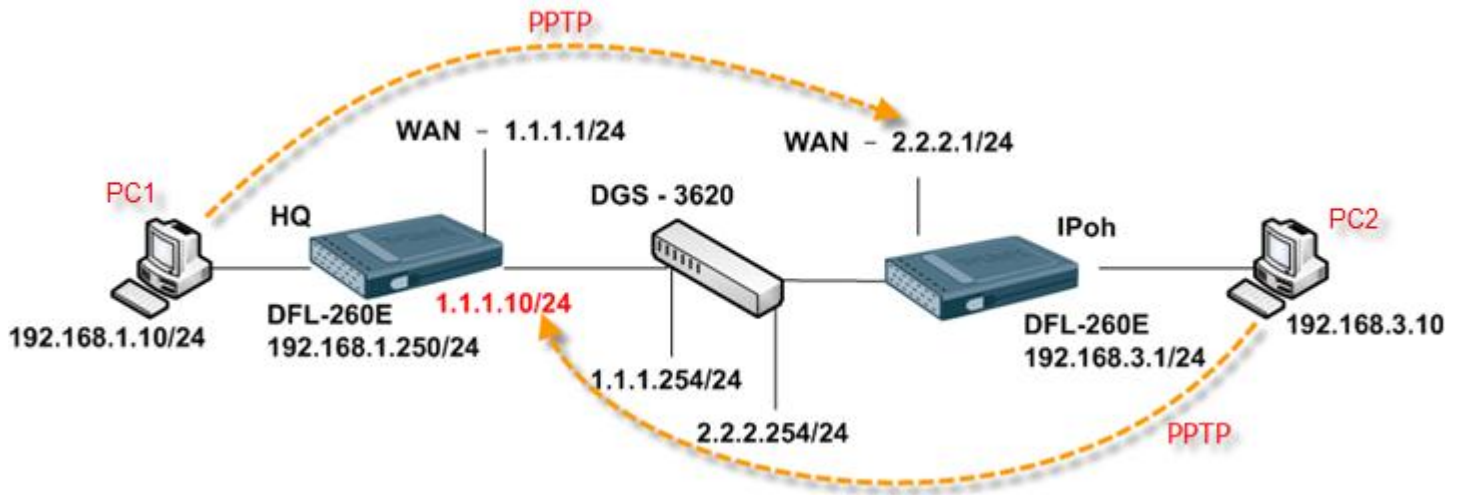


How to make two PPTP dial-in at the same time

[Topology]



[Case Number]: HQ20110825000003

[Notice]

One of our customer has three sites to use PPTP connect either other site as same time. If we use PPTP ALG, we can find some problem with connect. The first connect is success dial-in but the other side dial-in after it may fail at first time connect. It maybe two or three then success connect.

Behind this information is come from our developer.

We suspect the problem is due to how GRE packets work. Since GRE is not TCP or UDP but rather IP protocol 47, the DFL cannot distinguish between the clients due to the lack of a way to distinguish the clients from each other as GRE does not have any source or destination ports. So in this scenario it works fine when one client is connected. The connection table looks something like this: RAWIP GRE core:192.168.98.11:0 ge1:192.168.98.21:0 130 But when a client in the other direction establishes his connection, the GRE traffic will fail as the packet itself only contain information about source and destination IP. It cannot be distinguished by port or interface. That's why a possible solution would be to use another IP on one of the sides to solve this problem. I am unsure whenever the PPTP-ALG would help in this case as you have a server on both sides.

If we want success connect as same time at first connection, we need more one of same IP range address.

This KM is show how to set up two of sites with connect as same time. We have assumed two of more people will connect at the same time between two sites. So, it must set up PPTP ALG first. In this case we have used public ARP at different IP in same WAN port.

[DFL-260E Setup] Ipoh

1. Objects > Address Book

#	Name	Address	User Auth Groups	Comments
1	D_PPTP_IP_Pool	192.168.200.2-192.168.200.10		
2	D_PPTP_ServerIP	192.168.200.1		

2. Objects > ALG with AV/WCF

#	Name	Type	Parameters	Comments
1	D_PPTP_ALG	PPTP ALG		

3. Objects > Services

#	Name	Type	Parameters	ALG Info	Comments
1	D_PPTP_Service	TCP	1723	D_PPTP_ALG	

4. Interfaces > PPTP/L2TP Servers

General | PPP Parameters | Add Route

General

Name: PPTP_Server

Inner IP Address: D_PPTP_ServerIP

Tunnel Protocol: PPTP

Outer Interface Filter: wan

Server IP: wan_ip

5. User Authentication > User Authentication Rules

General | Log Settings | Authentication Options | Accounting | Agent Options | Restrictions

General

Name: PPTP_Auth

Authentication agent: L2TP/PPTP/SSL VPN

Authentication Source: Local

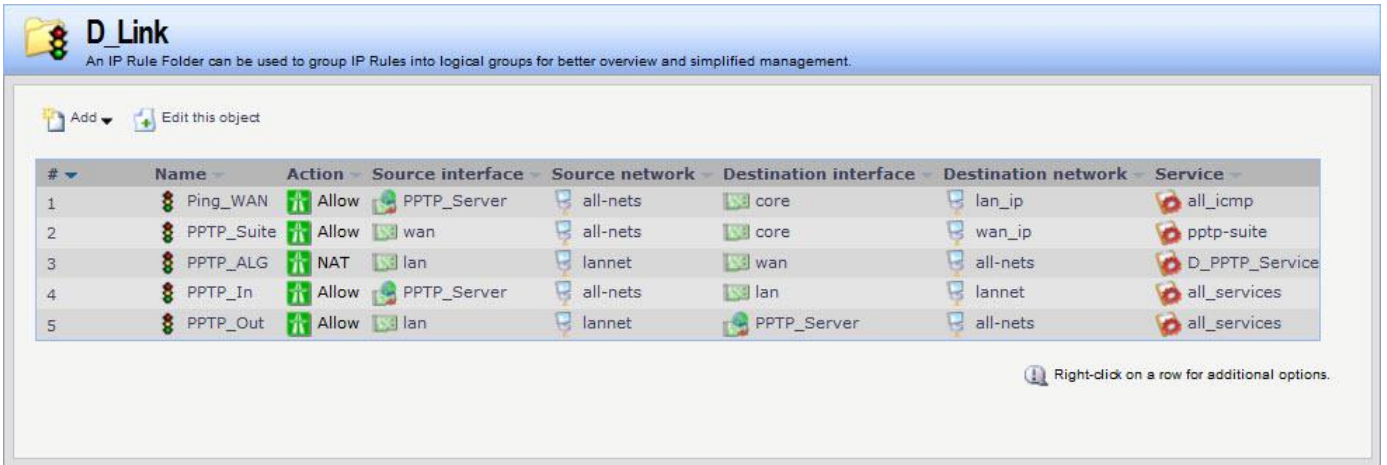
Interface: PPTP_Server

Originator IP: all-nets

Terminator IP: wan_ip

For XAuth and PPP, this is the tunnel originator IP.

6. Rules > IP Rules

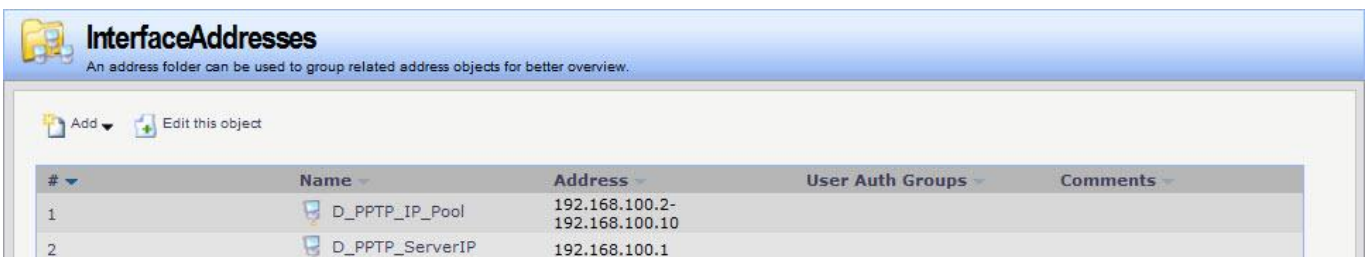


#	Name	Action	Source interface	Source network	Destination interface	Destination network	Service
1	Ping_WAN	Allow	PPTP_Server	all-nets	core	lan_ip	all_icmp
2	PPTP_Suite	Allow	wan	all-nets	core	wan_ip	pptp-suite
3	PPTP_ALG	NAT	lan	lannet	wan	all-nets	D_PPTP_Service
4	PPTP_In	Allow	PPTP_Server	all-nets	lan	lannet	all_services
5	PPTP_Out	Allow	lan	lannet	PPTP_Server	all-nets	all_services

Rule 1 is test for ping firewall gateway.

[DFL-260E Setup] HQ

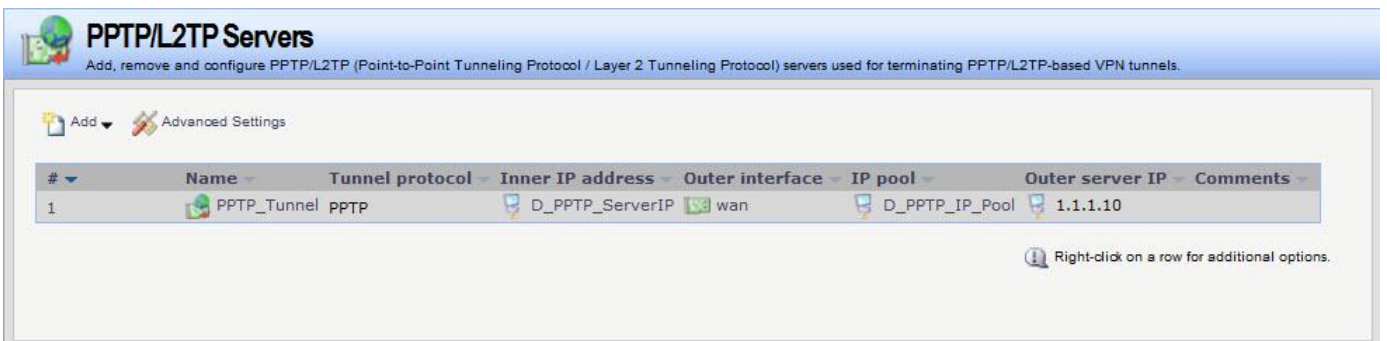
1. Objects > Address Book



#	Name	Address	User Auth Groups	Comments
1	D_PPTP_IP_Pool	192.168.100.2-192.168.100.10		
2	D_PPTP_ServerIP	192.168.100.1		

2. PPTP ALG & PPTP Service as same as Ipoh setting.

3. Interfaces > PPTP/L2TP Servers



#	Name	Tunnel protocol	Inner IP address	Outer interface	IP pool	Outer server IP	Comments
1	PPTP_Tunnel	pptp	D_PPTP_ServerIP	wan	D_PPTP_IP_Pool	1.1.1.10	

4. User Authentication > User Authentication Rules

PPTP-User
The User Authentication Ruleset specifies from where users are allowed to authenticate to the system, and how.

General | Log Settings | Authentication Options | Accounting | Agent Options | Restrictions

General

Name: PPTP-User

Authentication agent: L2TP/PPTP/SSL VPN

Authentication Source: Local

Interface: PPTP_Tunnel

Originator IP: all-nets

Terminator IP: 1.1.1.10

For XAuth and PPP, this is the tunnel originator IP.

Comments

Comments:

OK Cancel

5. Routing > Routing Tables > main

main
The system has a predefined main routing table. Alternate routing tables can be defined by the user.

Add Edit this object

#	Type	Interface	Network	Gateway	Local IP address	Metric	Monitor this route	Comments
1	Route	core	1.1.1.10			0	No	
2	Route	wan	wannet			100	No	Direct route for network wannet over interface wan...
3	Route	wan	all-nets	wan_gw		100	No	Default route over interface wan.
4	Route	dmz	dmznet			100	No	Direct route for network dmznet over interface dmz...
5	Route	lan	lannet			100	No	Direct route for network lannet over interface lan...

Right-click on a row for additional options.

6. Rules > IP Rules

D_Link
An IP Rule Folder can be used to group IP Rules into logical groups for better overview and simplified management.

Add Edit this object

#	Name	Action	Source interface	Source network	Destination interface	Destination network	Service
1	Ping_WAN	Allow	PPTP_Tunnel	all-nets	core	lan_ip	all_icmp
2	PPTP_Suite	Allow	wan	all-nets	core	1.1.1.10	pptp-suite
3	PPTP_ALG	NAT	lan	lannet	wan	all-nets	PPTP_Service
4	PPTP_In	Allow	PPTP_Tunnel	all-nets	lan	lannet	all_services
5	PPTP_Out	Allow	lan	lannet	PPTP_Tunnel	all-nets	all_services

Right-click on a row for additional options.

Rule 1 is test for ping firewall gateway.

[Test]

In PC1

1. Connect PPTP with 2.2.2.1.
2. Ping 192.168.3.1 -t

In PC2

1. Connect PPTP with 1.1.1.10.
2. Ping 192.168.1.250 -t

If two of connects are success and ping command is not lose any packet or connect is fine with any PPTP session.

It's working, Congratulations.

END