

Operating principles of outsourcing or remote data copy.

To guarantee a secure link between 2 IDSboxes via Internet, the set up principle is as follows:

- The remote IDSbox comes to connect itself to the public IP address of the company's broadband access (ADSL, cable, fibre ...), at the scheduled time.
- If this public IP address is not fixed, this could be relayed by a DynDNS type address (the IP address is replaced in this case by a subdomain, which itself does not change). You should obtain a fixed public IP address from your Internet access provider.
- For security reasons, the entry into the company's network via the broadband line is limited to a certain number of services, thus blocking any intrusion attempt. Only some ports remain open. This is the method that is used to open ports to allow on-line games. You will find therefore that in some routers the menu "Gaming" is the menu by which router ports are opened.
- It is therefore necessary to open a port to allow a direct and exclusive connection between two IDSboxes.

is the reason why it does not call the DHCP (Random and dynamic IP attribution by a LAN server).

This constitutes the **first element of security** of the concept of transfer via the internet. The choice in the sense of the connection (Remote IDSbox towards Enterprise IDSbox) was chosen since the IT resources are found naturally in the company. This avoids the need to have technical constraints while installing and connecting the remote box. No remote LAN configuration is necessary during the installation of the remote unit.

The second element of security: in order to ensure the confidentiality of the transaction between the two IDSboxes, an exchange procedure of authentication keys is used through a SSL tunnel. This step is initiated by the remote IDSbox; since the receiving IDSbox has the same certificate of identification, it will authorize the connection and dialog between the two IDSboxes.



- The 52222 port is used since it is not used by any current services.
- Opening this port implies the attribution of a destination target which in this case is the Enterprise IDSbox. To identify this target precisely, the Enterprise IDSbox has a fixed local IP code. This

The third element of security: in order to ensure that it really is your remote IDSbox that is trying to connect to the enterprise IDSbox, we have put in place a password that provides an additional control that it is indeed your IDSbox that is requesting access.



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Some examples of router configuration

LIVEBOX - example model Inventel

- Go to the configuration space of your router as indicated in the quick installation guide or the user manual. You need a PC whose TCP/IP configuration is configured to « obtain an IP address automatically ».
- Open a Web browser and enter the IP address indicated in manufacturer's manual.
- Enter the username and password as mentioned in the manufacturer's manual.
- Then select « Configuration », « Advanced » and lastly « Router » (1)
- Enter a new Service with the following information (2) :
 - Service → give a name of your choice
 - Protocol → TCP
 - External port (Origin port) → 52222
 - Internal (Remote port) → 52222
 - Server IP Address (Destination IP address) → IP address of the Enterprise IDSbox
- Validate by clicking on « Add » (3)

The screenshot shows the Livebox router configuration page. On the left is a sidebar menu with categories: My services, Security, Configuration, Languages, Update, Administrator, Assistance, Advanced, ADSL, Wireless, Router (highlighted), USB Host Port, UPnP, Dynamic DNS, Network, Save, and System Information. The main content area is titled 'Router - NAT' and contains a table for service configuration. The table has columns: Service, Protocol, External port, Internal port, Server IP address, and Remove. A single row is visible with Service 'ADMINBOX65', Protocol 'TCP', External port '52222', Internal port '52222', and Server IP address '10.0.0.65'. Below the table are 'Add' and 'Remove' buttons. A 'DMZ setup' section is also visible at the bottom.

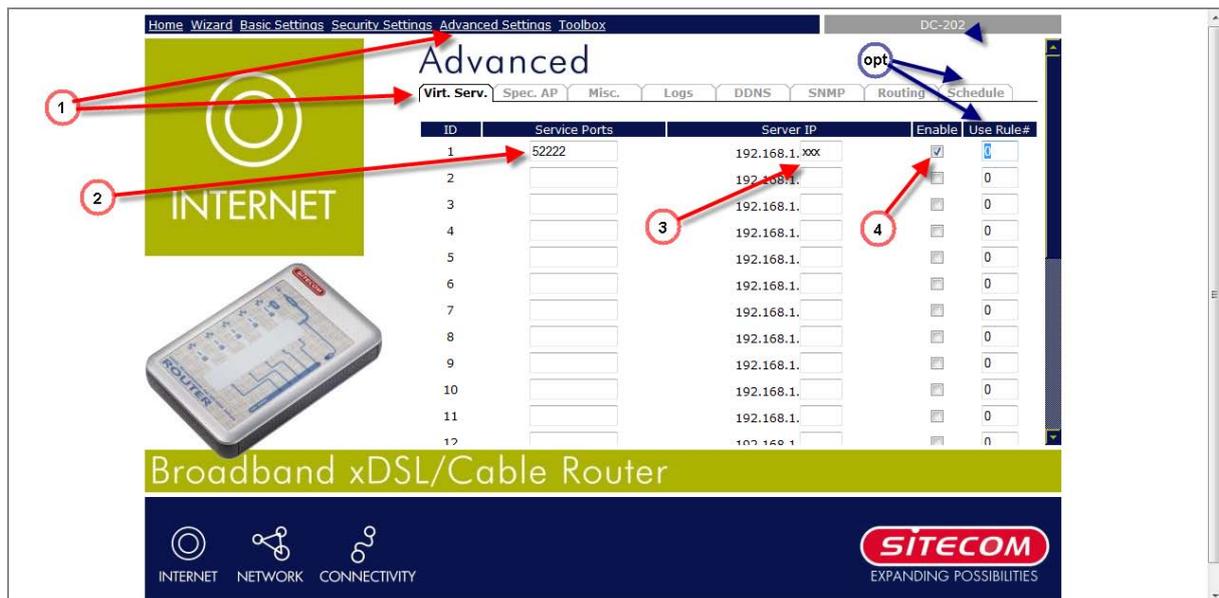
- **The configuration of your router for your IDSbox is now complete.**



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Sitecom - example model DC-202

- ❑ Go to the configuration space of your router as indicated in the quick installation guide or the user manual. You need a PC whose TCP/IP configuration is configured to « obtain an IP address automatically ».
- ❑ Open a Web browser and enter the IP address indicated in manufacturer's manual.
- ❑ Enter the username and password as mentioned in the manufacturer's manual.
- ❑ Then select « Advanced Settings », first spot « Virt. Serv. » (1)
- ❑ Enter 52222 in the Service Ports zone(2)
- ❑ Enter the IP address of your Enterprise IDSbox connected to the LAN (3) and tick the space (4)
- ❑ As an option you can program a time to open the port, which you would have created before in « Schedule » (Opt)



- ❑ Do not forget to validate your entries by clicking on the save button.



- ❑ The configuration of the router for your IDSbox is now complete.



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Netgear - example model ProSafe™ FVG318

- ❑ Go to the configuration space of your router as indicated in the quick installation guide or the user manual. You need a PC whose TCP/IP configuration is configured to « obtain an IP address automatically ».
- ❑ Open a Web browser and enter the IP address indicated in manufacturer's manual.
- ❑ Enter the username and password as mentioned in the manufacturer's manual (by default this is generally Admin / Admin),
- ❑ Select « Services », in the « Security » option. (1)
- ❑ Click on « Add Custom Service » (2) to open the port 52222

- ❑ Enter the requested values

- Service Name = give the name of your choice, e.g. IDSBOX
- Type = Protocol TCP
- Start port = 52222
- Finish port (Destination port) = 52222

Click on « Apply » to validate.

- ❑ You will come back to the « Services » screen in « Security »
- ❑ Select « Rules » (4), in « Security »



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NETGEAR settings
ProSafe™ 802.11g Wireless VPN Firewall FVG318

Rules

Outbound Services

#	Enable	Service Name	Action	LAN Users	WAN Servers	Priority	Log
Default	Yes	Any	ALLOW always	Any	Any	None	Always

Inbound Services

#	Enable	Service Name	Action	LAN Server IP address	WAN Users	Priority	Log
1	<input checked="" type="checkbox"/>	IDSBOX	ALLOW Always	10.168.1.90	Any	None	Always
Default	Yes	Any	BLOCK always	--	Any	None	Always

Rules Help

The Firewall will always block DoS (Denial of Service) attacks. A DoS attack does not attempt to steal data or damage your PCs, but overloads your Internet connection so you can not use it - the service is unavailable.

As well, you can use this screen to create Firewall rules to block or allow specific traffic. **This feature is for Advanced Administrators only!** Incorrect configuration will cause serious problems.

Outbound Services

This lists all existing rules for outbound traffic. If you have not defined any rules, only the default rule will be listed. The default rule allows all outgoing traffic.

To create a new rule:

1. Click the "Add" button. (It does not matter which radio button is selected)
2. The "Outbound Service" screen will be displayed. This screen has its own help file.
3. Complete the "Outbound Service" screen, and save the data. The new rule will be listed in the table when you return to this screen.

To make changes to an existing rule:

1. Click the check box at the beginning of the row and click Apply to disable or Enable the policy.
2. Click the radio button next to an row in the table.
3. Click the button for the desired actions.

- You come back to the « Services » in « Security »
- Click on the « Add » button to add an association rule between the service created and the IP address of the Enterprise IDSbox.
- Select the service created previously and enter the IP address of the Enterprise IDSbox. (6)
- Then click « Enable » (7)
- The configuration of your router for the IDSbox is now complete.**



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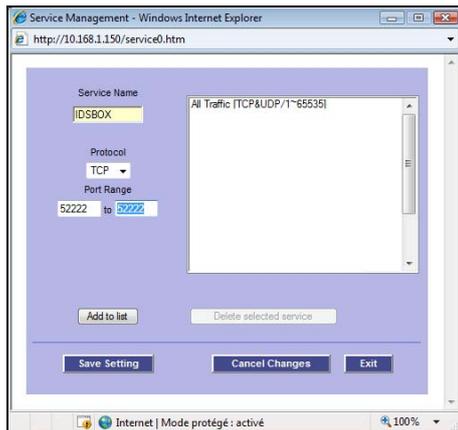
Linksys - example model RV042

- Go to the configuration space of your router as indicated in the quick installation guide or the user manual. You need a PC whose TCP/IP configuration is configured to « obtain an IP address automatically ».
- Open a Web browser and enter the IP address indicated in manufacturer's manual.
- Enter the username and password as mentioned in the manufacturer's manual. (By y default this is generally Admin / Admin),
- Select « Setup » (1), then « Forwarding » (2)
- Click on « Service Management » (3) to open the 52222 port

The screenshot shows the Linksys RV042 web interface. The top navigation bar includes 'Setup', 'System Summary', 'Dhcp', 'System Management', 'Port Management', 'Firewall', 'VPN', 'Log', 'Wizard', 'Support', and 'Logout'. The 'Setup' menu is expanded, showing 'Network', 'Password', 'Time', 'DMZ Host', 'Forwarding', 'UPnP', 'One-to-One NAT', and 'More...'. The 'Forwarding' sub-menu is selected, showing 'Port Range Forwarding' and 'Port Triggering'. The 'Port Range Forwarding' section has a table with columns 'Service', 'IP Address', and 'Enable'. The 'Service Management' button is highlighted with a red circle and the number 3. The 'IP Address' field is highlighted with a red circle and the number 2. The 'Service' dropdown menu is highlighted with a red circle and the number 1. The 'Add to list' button is also visible. The page includes a 'SITEMAP' sidebar on the right and a 'Cisco Systems' logo at the bottom right.

- Enter the requested values

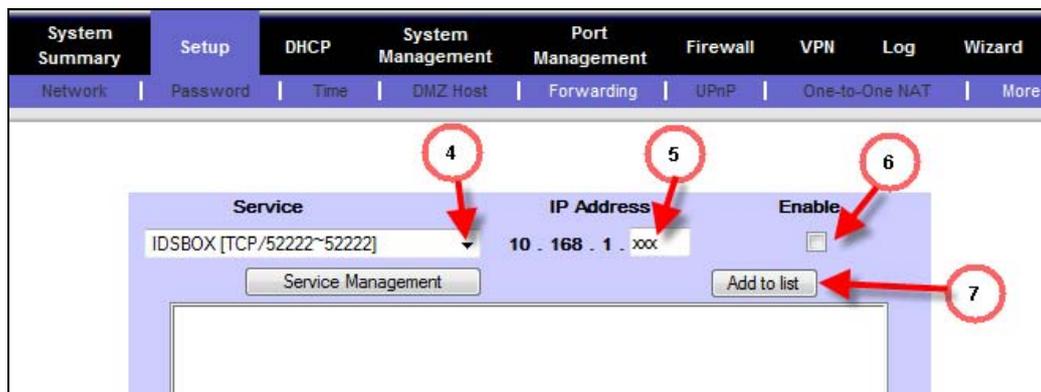
Router configuration



- Service Name = give a name of your choice, e.g. IDSBOX
- Protocol = TCP
- Port range (Origin port) = 52222
- to (destination port) = 52222

Click on the button « Add to list », then « Save setting » to validate

- You will come back to « Setup » - « Forwarding »



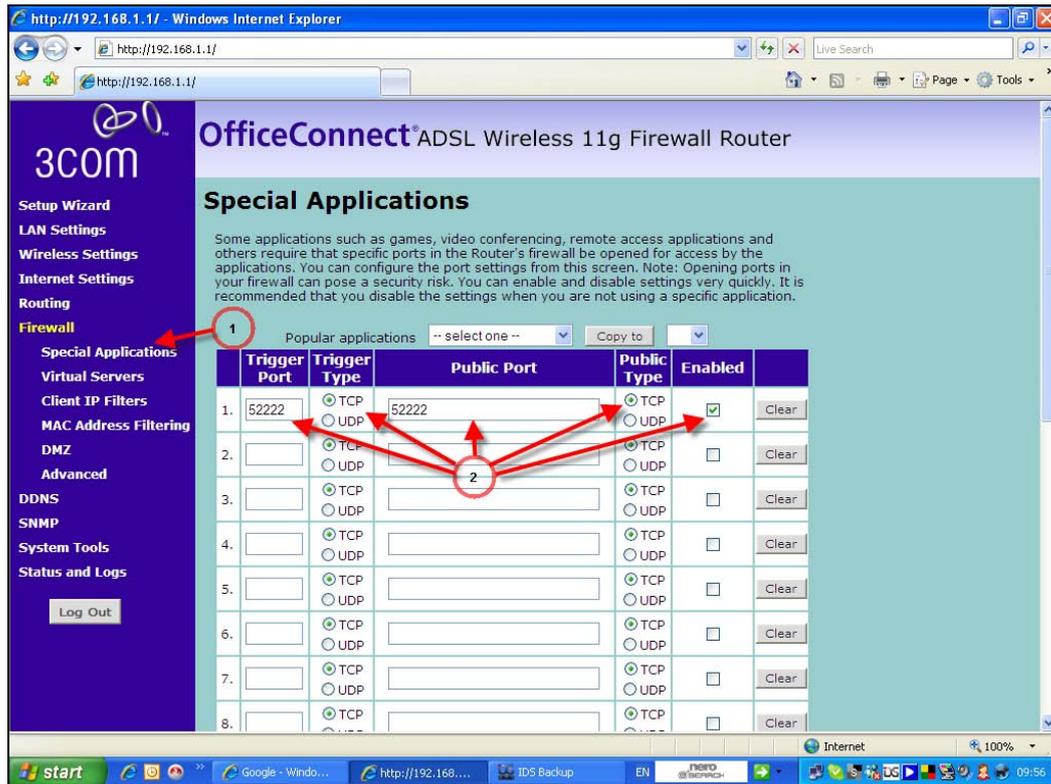
- Select the service you have just created (4)
- Complete the field « IP Address » (5) with IP address value of your IDSbox
- Tick the « Enable » button (6) to activate the service
- Click on « Add to list » (7) to validate your input
- **The configuration of your router for the IDSbox is now complete.**



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3Com Office Connect - example model 3CRWDR100A

- Go to the configuration space of your router as indicated in the quick installation guide or the user manual. You need a PC whose TCP/IP configuration is configured to « obtain an IP address automatically ».
- Open a Web browser and enter the IP address indicated in manufacturer's manual.
- Enter the username and password as mentioned in the manufacturer's manual. (By y default this is generally Admin / Admin),
- Select « Special Applications » (1), in « Firewall »
- Enter the port 52222 as « Trigger port » and « public port » as shown (2) and tick « Enabled » to activate



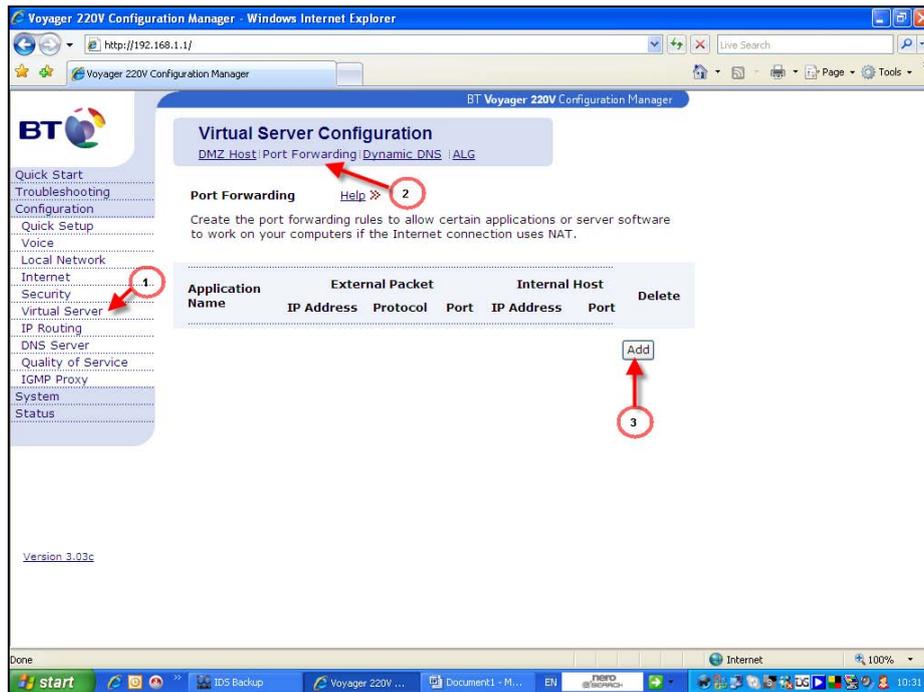
- The configuration of the router for the IDSbox is now complete.



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BT Voyager - example model 3CRWDR100A

- Go to the configuration space of your router as indicated in the quick installation guide or the user manual. You need a PC whose TCP/IP configuration is configured to « obtain an IP address automatically ».
- Open a Web browser and enter the IP address indicated in manufacturer's manual.
- Enter the username and password as mentioned in the manufacturer's manual. (By y default this is generally Admin / Admin),
- Select « Special Applications » (1), in « Firewall »
- Then select « Port Forwarding » (2) and click on « Add » (3)



- Enter the data as shown below

Port Forwarding

Add New Port Forwarding Rule

Application Name:

Pre-defined: Audio/Video Camerades

User defined: ID Server (3)

From Internet Host IP Address: ALL

Forward to Internal Host IP Address: 192.168.1.200 (4)

By using the rules:

Protocol	External Packet		Forward to Internal Host	
	Port Start	Port End	Port Start	Port End
TCP	52222	52222	52222	52222
TCP				
TCP				

(6)

- Define an application name (3)
- Enter the address of the Enterprise IDSbox in « Internal Host IP address » (4)
- Indicate the 52222 port in all the fields linked to the TCP protocol (5)
- Click on « Apply » to validate (6)

- The configuration of your router for the IDSbox is now complete.



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Ultimobyte - example model Halon SX-50

- Go to the configuration space of your router as indicated in the quick installation guide or the user manual. You need a PC whose TCP/IP configuration is configured to « obtain an IP address automatically ».
- Open a Web browser and enter the IP address indicated in manufacturer's manual.
- Enter the username and password as mentioned in the manufacturer's manual. (By default this is generally Admin / Admin),
- Select « Services » (1), in « Firewalling »
- Choose « Custom Services » (2) and click on « new service » (3)
- Make for example the service IDSBOX, select TCP for the protocol and enter the port 52222 in « Source Ports » and « Destination ports » as shown below (4) then validate.

ID	Name	Protocol	Source/Type	Dest/Code	Forward	
service:1	admin_services	TCP	Any	22,80,443	Same As Dest	Delete
service:2	Vnc	TCP,UDP	Any	5901	Same As Dest	Delete
service:3	SSH2	TCP,UDP	Any	122	22	Delete
service:4	DMZ	TCP,UDP	Any	25,53	Same As Dest	Delete
service:5	DMZ_PROXY	TCP,UDP	Any	80,443,21,20	Same As Dest	Delete
service:6	SSH	TCP	Any	22	Same As Dest	Delete
service:7	FTP_DATOS	TCP,UDP	Any	20,27200-27210	Same As Dest	Delete
service:8	SMP2	TCP	Any	2525	Same As Dest	Delete
service:9	IDSBOX	TCP	52222	52222	Same As Dest	Delete

- Add an address group (4 – 5) to make known the Enterprise IDSbox IP Address (6)

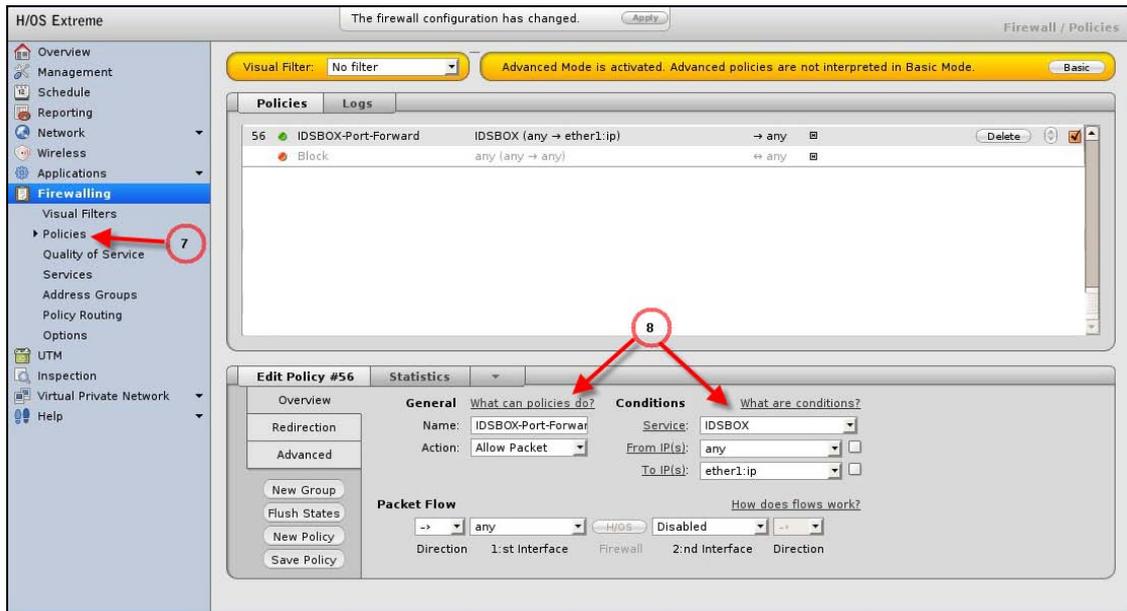
ID	Name	Addresses/Networks	
group:12	Aula_aceptado	192.168.2.99	Delete
group:13	Anti-spam	192.168.0.2	Delete



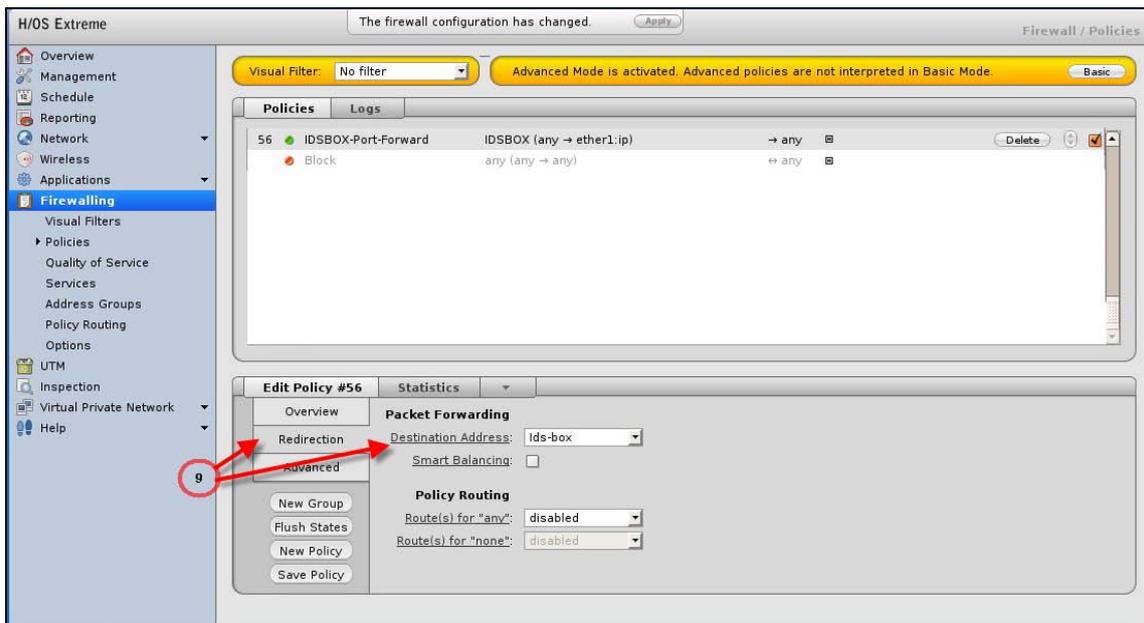
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Router configuration

- Now you need to create a rule via the menu « Policies » (7) and link it to the IDSBOX service created previously (8)



- The last step consists of the redirecting of the service (port 52222) towards the Enterprise IDSbox address that was created as a group of addresses (9)



- The configuration of your router for your IDSbox is now complete.



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