Procédure Installation pfSense

CONFIGURATION PF_SENSE SUR RESEAU LAN

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1. Configuration du réseau de VMWare

Nous allons tout d'abord configurer les cartes réseaux de notre paramétrage sur l'outil de virtualisation, dans notre cas VMWare.

👳 Virtual	Network Ed	litor			×
Name	Туре	External Connection	Host Connection	DHCP	Subnet Address
VMnet0	NAT	NAT	Connected	Enabled	192.168.226.0
VMnet1	Custom	-	-	-	192.168.56.0
VMnet8	Custom	-	-	-	192.168.221.0
<					>
		Add Ne	etwork Remov	ve Network	Rename Network
VMnet Info	rmation				
Bridge	d (connect VI	Ms directly to the external network)			
Bridae	d to:	, , ,		~ _ A	utomatic Settings
bridge	a w,				atomate octango
NAT (shared host's IP address with VMs) NAT Settings					
O Host-o	nly (connect)	VMs internally in a private network)			
Conne	ct a host virtu	al adapter to this network			
Host v	irtual adapter	r name: VMware Network Adapter \	/Mnet0		
🗸 Use loo	cal DHCP serv	rice to distribute IP address to VMs			DHCP Settings
Subnet IP	192.168	. 226 . 0 Subnet mask: 255	5.255.255.0		
	\land Adm	ninistrator privileges are required to	modify the network o	onfiguration.	Change Settings
Restore De	faults In	nport Export (OK Cancel	Арр	Help

Nous allons configurer une carte réseau **VMnet0** en **NAT**, on connecte l'Host et habilitons le DHCP.

L'autre carte réseau **VMnat1** en **Custom** et nous allons bloquer l'accès internet ainsi que le DHCP.

Nous allons ensuite créer deux cartes réseau sur notre VM et nous allons configurer les deux en **Custom**

Pf_Sense - VMware Workstation		- o	×
File Edit View VM Tabs Help 🕨 🖛			
Pf_Sense × Windows 10 pour Pf_Sense ×	Virtual Machine Settings X		
Pf_Sense	Perdwore Options Device Summary Device status		
Power on this virtual machine Edit virtual machine settings Oevices Memory 256 MB	Immemory 256 Mill Connected Immediate Immediate Immediate		
	Sound Card Auto detect Writing the book to banker the hosts to access Writing the book to banker the host to access Writing the book Writing Writing		
Description Type here to enter a description of this virtual machine.	▼ Virtual Machir		
	Configura Hardware comp Primary IP OK Cancel Help		

Une fois que cette action est réalisée nous allons lancer une machine virtuelle à partir de l'image ISO *pfSense-CE-2.6.0-RELEASE-amd64*

2. Installation et configuration du serveur Pf_Sense

fSense Installer	
Welcome to pfSense!	Welcome
<mark>Install</mark> Rescue Shell Recover config.xml	Install pfSense Launch a shell for rescue operations Recover config.xml from a previous install
K	0 <mark>k ></mark> <cancel></cancel>



How would you like '	to partition your disk?
Auto (ZFS) Auto (UFS) BIOS Auto (UFS) UEFI Manual Shell	Guided Root-on-2FS Guided Disk Setup using BIOS boot method Guided Disk Setup using UEFI boot method Manual Disk Setup (experts) Open a shell and partition by hand
	D <mark>R > <c< mark="">ancel></c<></mark>

pfSense Inst	aller		
Ī	ZFS Con Configure Options:	figuration	
	<pre>>>> Install T Pool Type/Disks: - Rescan Devices - Disk Info N Pool Name 4 Force 4K Sectors? E Encrypt Disks? P Partition Scheme S Swap Size M Mirror Swap? W Encrypt Swap?</pre>	Proceed with Installation stripe: 0 disks * pfSense YES NO GPT (BIOS) 1g NO NO	
	<mark>⟨S</mark> elect≻	<cancel></cancel>	

Create ZFS boot pool with displayed options



pfSense Installer		
	ZFS Configuration	
	[*] <mark>1a0</mark> UMware, UMware Virtual S	
	C □ K → < Back →	

Appuyer sur espace pour cocher le disque

pfSense Insta	ller
	ZFS Configuration
	Last Chance! Are you sure you want to destroy
	the current contents of the forfowing arsks.
	da0
	(YES) (NU) [Press arrows, TAB or ENTER]

pfSense Installer			
	Fetching Distribu	it ion	
P b	IAN IFEST base.txz	[Done] [69%]	
F	'etching distribution file Overall Progress 69%	25	

Archive Extraction Extracting distribution files
base.txz N
Overall Progress:
15%



La VM Reboot

atapci0: <Intel PIIX4 UDMA33 controller> port 0x1f0-0x1f7,0x3f6,0x170-0x177,0x37 6,0x1060-0x106f at device 7.1 on pci0 ata0: <ATA channel> at channel 0 on atapci0 ata1: <ATA channel> at channel 1 on atapci0 pci0:

vgapci0: <VGA-compatible display> port 0x1070-0x107f MeM 0xe8000000-0xefffffff,0 xfe000000-0xfe7fffff irq 16 at device 15.0 on pci0 vgapci0: Boot video device mpt0: <LSILogic 1030 Ultra4 Adapter> port 0x1400-0x14ff MeM 0xfeba0000-0xfebbfff f,0xfebc0000-0xfebdffff irq 17 at device 16.0 on pci0 mpt0: <LSILogic 1030 Ultra4 Adapter> port 0x1400-0x14ff MeM 0xfeba0000-0xfebbfff f,0xfebc0000-0xfebdffff irq 17 at device 17.0 on pci0 pci2: <ACPI PCI bridge> at device 17.0 on pci0 pci2: <ACPI PCI bridge> at device 17.0 on pci0 uci0: <UHCI (generic) USB controller> port 0x2000-0x200f irq 18 at device 0.0 o n pci2 usbus0 on uhci0 eM0: <Intel(R) Legacy PR0/1000 MT 82545EM (Copper)> port 0x2000-0x203f MeM 0xfd5 C0000-0xfd5dffff,0xfdff0000-0xfdffffff irq 19 at device 1.0 on pci2 eM0: EEPROM V15.255-15 eM0: EEPROM V15.255-15 eM0: Using 1024 TX descriptors and 1024 RX descriptors eM0: Ethernet address: 00:0c:29:6d:fc:12 eM0: netMap queues/slots: TX 1/1024, RX 1/1024 eM1: <Intel(R) Legacy PR0/1000 MT 82545EM (Copper)> port 0x2040-0x207f MeM 0xfd5 a00000-0xfd5bffff,0xfdfe0000-0xfdfffff irq 16 at device 2.0 on pci2

Starting syslog...done. Starting CRON... done. pfSense 2.6.0-RELEASE amd64 Mon Jan 31 19:57:53 UTC 2022 Bootup complete FreeBSD/amd64 (pfSense.home.arpa) (ttyv0) VMware Virtual Machine – Netgate Device ID: a83355b7cb276e3a9c55 *** Welcome to pfSense 2.6.0-RELEASE (amd64) on pfSense *** -> v4/DHCP4: 192.168.226.128/24 WAN (wan) -> ем0 LAN (lan) -> v4: 192.168.1.1/24 -> ем1 9) pfTop 10) Filter Logs 0) Logout (SSH only) 1) Assign Interfaces 2) Set interface(s) IP address 11) Restart webConfigurator Reset webConfigurator password
 Reset to factory defaults 12) PHP shell + pfSense tools 13) Update from console 5) Reboot system 14) Enable Secure Shell (sshd) 6) Halt system 7) Ping host 8) Shell 15) Restore recent configuration 16) Restart PHP-FPM Enter an option: 📕

Ici nous sommes dans l'interface de config.

Nous allons faire le choix 2 pour configurer l'interface de l'adresse IP

VMware Virtual Machine – Netgate Devic	ce ID: a83355b7cb276e3a9c55
*** Welcome to pfSense 2.6.0-RELEASE	(amd64) on pfSense ***
WAN (wan) -> em0 -> v4/I LAN (lan) -> em1 -> v4:	DHCP4: 192.168.226.128/24 192.168.1.1/24
 Ø) Logout (SSH only) 1) Assign Interfaces 2) Set interface(s) IP address 3) Reset webConfigurator password 4) Reset to factory defaults 5) Reboot system 6) Halt system 7) Ping host 8) Shell 	 9) pfTop 10) Filter Logs 11) Restart webConfigurator 12) PHP shell + pfSense tools 13) Update from console 14) Enable Secure Shell (sshd) 15) Restore recent configuration 16) Restart PHP-FPM
Enter an option: 2	
Available interfaces:	
1 – WAN (ем0 – dhcp, dhcp6) 2 – LAN (ем1 – static)	
Enter the number of the interface you	wish to configure:

Ensuite nous allons choisir le réseau LAN choix 2 et définissons notre LAN en **192.168.10.254**

Available interfaces: 1 - WAN (em0 - dhcp, dhcp6) 2 - LAN (em1 - static) Enter the number of the interface you wish to configure: 2 Enter the new LAN IPv4 address. Press <ENTER> for none: > 192.168.10.254

Il nous demande ensuite de choisir le masque de sous réseau on met 24

```
Subnet masks are entered as bit counts (as in CIDR notation) in pfSense.
e.g. 255.255.255.0 = 24
255.255.0.0 = 16
255.0.0.0 = 8
Enter the new LAN IPv4 subnet bit count (1 to 32):
> 24
```

Nous tapons sur Entrée deux fois pour sauter l'étape de l'IPv4 t IPv6



On sélectionne **n** pour déshabiliter le DHCP server dans le LAN.

Puis y pour le **webConfigurator protocol**.

Do you want to enable the DHCP server on LAN? (y/n) n Disabling IPv4 DHCPD... Disabling IPv6 DHCPD... Do you want to revert to HTTP as the webConfigurator protocol? (y/n) y Please wait while the changes are saved to LAN... Reloading filter... Reloading routing configuration... DHCPD... Restarting webConfigurator... The IPv4 LAN address has been set to 192.168.10.254/24 You can now access the webConfigurator by opening the following URL in your web browser: http://192.168.10.254/ Press <ENTER> to continue.

Nous pouvons voir l'adresse IP modifiée

Ensuite nous cliquons Entrée.

Ici nous atterrissons dans l'interface graphique de base.

```
Starting syslog...done.
Starting CRON... done.
pfSense 2.6.0-RELEASE amd64 Mon Jan 31 19:57:53 UTC 2022
Bootup complete
FreeBSD/amd64 (pfSense.home.arpa) (ttyv0)
VMware Virtual Machine - Netgate Device ID: a83355b7cb276e3a9c55
*** Welcome to pfSense 2.6.0-RELEASE (amd64) on pfSense ***
WAN (wan)
                   -> емØ
                                   -> v4/DHCP4: 192.168.226.128/24
LAN (lan)
                                   -> v4: 192.168.10.254/24
                   -> ем1
                                           9) pfTop
10) Filter Logs
0) Logout (SSH only)
1) Assign Interfaces
2) Set interface(s) IP address
                                           11) Restart webConfigurator

    Reset webConfigurator password
    Reset to factory defaults

                                           12) PHP shell + pfSense tools
                                           13) Update from console
14) Enable Secure Shell (sshd)
5) Reboot system
                                           15) Restore recent configuration
6) Halt systeм
7) Ping host
8) Shell
                                           16) Restart PHP-FPM
Enter an option:
```

Nous allons ensuite créer une autre VM Windows 10 Professionnel

Virtual Machine Settings	5	×
Hardware Options		
Device Memory Processors Hard Disk (NVMe) CD/DVD (SATA) Network Adapter USB Controller Sound Card Printer Display	Summary 4 GB 2 20 GB Using file D:\/VM\ISO pour V Custom (VMnet1) Present Auto detect Present Auto detect	Device status Connect at power on Network connection Bridged: Connected directly to the physical network Replicate physical network connection state NAT: Used to share the host's IP address Host-only: A private network shared with the host Winett CAN segments Advanced
		OK Cancel Help

Nous allons parametrer la carte réseau de notre VM en la mettant en **Custom** et avec la **VMnet1**

2.1Vérification internet sur client Windows

Une fois que nous avons installé notre VM Windows nous allons configurer le réseau de notre VM Windows en modifiant l'adresse IPv4

Conseille			
Microsoft Edge			
	Affic	hage des tâches	
	Affic	nage des taches	
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Ici nous définissons une adresse ip statique et l'adresse ip de notre serveur Pf_Sense

Pour avoir accès à internet nous devons configurer le DNS et allons configurer celui de Google 8.8.8.8

Ensuite nous ouvrons un navigateur et saisissons l'adresse IP de notre serveur

2.2Connexion au server

Nous allons nous connecter au serveur par un navigateur et l'adresse de la passerelle



Pour le log in

id: admin

mdp: pfsense

3. Configuration du firewall Pf_Sense depuis Windows

D 🗾 pfSense.home.arpa - Wizard: pfS 🗙 🕂	-	٥	×
← → C 🔺 Non sécurisé 192.168.10.254/wizard.php?xml=setup_wizard.xml	∱ @		
COMMUNITY EDITION System - Interfaces - Firewall - Services - VPN - Status - Diagnostics - Help -		G	•
WARNING: The 'admin' account password is set to the default value. Change the password in the User Manager.			
Wizard / pfSense Setup /		0	
pfSense Setup			
Welcome to pfSense® software!			
This wizard will provide guidance through the initial configuration of pfSense.			
The wizard may be stopped at any time by clicking the logo image at the top of the screen.			
pfSense® software is developed and maintained by Netgate®			
Learn more			
>> Next			
pfSense is developed and maintained by Netgate. © ESF 2004 - 2022 View license.			
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							*				
	Wizard / pfSe	nse Setup / General Information				0					
						· ·	1				
	Step 2 of 9										
	General Informat	ion					- 1				
		On this screen the general pfSense parameters will be set.									
~ 3	Hostname	pfSense									
		EXAMPLE: myserver					- 1				
	Domain	home.arpa									
		EXAMPLE: mydomain.com									
The default behavior of the DNS Resolver will ignore manually configured DNS servers for client queries and query servers directly. To use the manually configured DNS servers below for client queries, visit Services > DNS Resolve enable DNS Query Forwarding after completing the wizard.											
	Primary DNS Server	8.8.8.8									
	Secondary DNS										
	Server										
	Override DNS										
		Allow DNS servers to be overridden by DHCP/PPP on WAN									
		>> Next									
	0				1 1	5:42	-				
	D lapez ici pour		°C ⁄	^ 밑	⁽¹⁹⁾⁾ 01/0	6/2022	3				
	pfSense.home.arpa	- Wizard: of x +			_	٥	×				
	\rightarrow C	Non sécurisé 192.168.10.254/wizard.php?xml=setup wizard.xml	ŝ	£≞	Ģ						
		terr Interference Finance VIDN Obstant Dispersenting Units					•				
	COMMUNITY EDITION	tem • Internaces • Firewall • Services • VPN • Status • Diagnostics • Help •				, i					
	WARNING: The 'adm										
		in' account password is set to the default value. Change the password in the User Manager.					•				
	Wizard / pfS	in' account password is set to the default value. Change the password in the User Manager. Ense Setup / Time Server Information				0					
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	Wizard / pfS St Time Server Inf Time server hostname	in' account password is set to the default value. Change the password in the User Manager. ense Setup / Time Server Information p3 of 9 prmation Please enter the time, date and time zone. [2.pfsense.pool.ntp.org Enter the hostname (FQDN) of the time server.				8					
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Dém	Wizard / pfS Ste Time Server Info Time server hostname Timezone	in' account password is set to the default value. Change the password in the User Manager. ense Setup / Time Server Information p3 of 9 prmation Please enter the time, date and time zone. (2.pfsense.pool.ntp.org Enter the hostname (FQDN) of the time server. Etc/UTC v Next				0					

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/	Sense Syste	em - Interfaces - Firewall - Services - VPN - Status - Diagnostics - Help -			C	
	WARNING: The 'admi	n' account password is set to the default value. Change the password in the User Manager.				
	Wizard / pfSe	nse Setup / Configure WAN Interface			0	
7		Step 4 of 9				
	Configure WAN I	nterface				
-		On this screen the Wide Area Network information will be configured.				
	SelectedType	DHCP V				
	General configur	ation				
	MAC Address	This field can be used to modify ("spoof") the MAC address of the WAN interface (may be required wit connections). Enter a MAC address in the following format: xx:xx:xx:xx:xx or leave blank.	h some	cable		
	МТU	Set the MTU of the WAN interface. If this field is left blank, an MTU of 1492 bytes for PPPoE and 1500 connection types will be assumed.	bytes fo	or all oth	er	
	MSS	If a value is entered in this field, then MSS clamping for TCP connections to the value entered above m header size) will be in effect. If this field is left blank, an MSS of 1492 bytes for PPPoE and 1500 bytes	ninus 40 for all o	(TCP/IF)	
		effectuer une recherche O 🛱 🕐 🥅 🛱 🗙 📟 🔶 24°C	 고 	d») 1/	5:45	
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	Static ir connyu					
	IP Address					*
	IP Address Subnet Mask	32 🗸				*
	IP Address Subnet Mask Upstream Gateway	32 ~				*
	IP Address Subnet Mask Upstream Gateway DHCP client conf	32 V iguration				•
	IP Address Subnet Mask Upstream Gateway DHCP client conf DHCP Hostname	32	se. Some	e ISPs m	ау	
	IP Address Subnet Mask Upstream Gateway DHCP client conf DHCP Hostname PPPoE configura	32 iguration The value in this field is sent as the DHCP client identifier and hostname when requesting a DHCP lease require this (for client identification). tion	se. Some	e ISPs m	ау	
	IP Address Subnet Mask Upstream Gateway DHCP client conf DHCP Hostname PPPoE configurat	32 iguration The value in this field is sent as the DHCP client identifier and hostname when requesting a DHCP lease require this (for client identification). tion	se. Some	e ISPs m	ay	
	IP Address Subnet Mask Upstream Gateway DHCP client conf DHCP Hostname PPPoE Configura PPPoE Username PPPoE Password	32 iguration The value in this field is sent as the DHCP client identifier and hostname when requesting a DHCP lease require this (for client identification). tion	se. Some	∋ ISPs m	ay	
	IP Address Subnet Mask Upstream Gateway DHCP client conf DHCP Hostname PPPoE Usemame PPPoE Usemame Show PPPoE password	32 • iguration • The value in this field is sent as the DHCP client identifier and hostname when requesting a DHCP lease require this (for client identification). • tion •	se. Some	e ISPs m	ау	
	IP Address Subnet Mask Upstream Gateway DHCP client conf DHCP Hostname PPPoE Configura PPPoE Username PPPoE Password Show PPPoE password PPPoE Service name	32 ✓ iguration	se. Some	e ISPs m	ay	
	IP Address Subnet Mask Upstream Gateway DHCP client conf DHCP Hostname PPPoE Username PPPoE Disername Show PPPoE password PPPoE Service name	32 Image: Second Se	se. Some	e ISPs m	ay ace is	

PPTP Username	
PPTP Password	
Show PPTP password	Reveal password characters
PPTP Local IP Address	
pptplocalsubnet	32 ~
PPTP Remote IP Address	
PPTP Dial on demand	Enable Dial-On-Demand mode This option causes the interface to operate in dial-on-demand mode, allowing a virtual full time connection. The interface configured, but the actual connection of the link is delayed until qualifying outgoing traffic is detected.
PPTP Idle timeout	If no qualifying outgoing packets are transmitted for the specified number of seconds, the connection is brought down. Ar idle timeout of zero disables this feature.
RFC1918 Networ Block RFC1918 Private Networks	Ks ■ Block private networks from entering via WAN When set, this option blocks traffic from IP addresses that are reserved for private networks as per RFC 1918 (10/8, 172.16/12, 192.168/16) as well as loopback addresses (127/8). This option should generally be left turned on, unless the WAN network lies in such a private address space, too.
Block bogon networks	vorks ☑ Block non-Internet routed networks from entering via WAN When set, this option blocks traffic from IP addresses that are reserved (but not RFC 1918) or not yet assigned by IANA. Bogons are prefixes that should never appear in the Internet routing table, and obviously should not appear as the source address in any packets received.

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← → C 🔺 Non sécurisé 192.168.10.254/wizard.php?xml=setup_wizard.xml 🖉 🏠 🏠	Ē	• • •
Sense System - Interfaces - Firewall - Services - VPN - Status - Diagnostics - Help -		6
WARNING: The 'admin' account password is set to the default value. Change the password in the User Manager.		
Wizard / pfSense Setup / Configure LAN Interface		0
Step 5 of 9		
Configure LAN Interface		
LAN IP Address [192.168.10.254		
Type dhcp if this interface uses DHCP to obtain its IP address.		
Subnet Mask 24 v		
» Next		
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lci nous avons déjà configuré le LAN donc on laisse par défaut

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← → C 🔺 Non sécurisé 192.168.10.254/wizard.php?xml=setup_wizard.xml 🖉 🏠 🗲 G												
Sense System - Interfaces - Firewall - Services - VPN - Status - Diagnostics - Help -												
Wizard / pfSense Setup / Set Admin WebGUI Password	0											
Step 6 of 9												
Set Admin WebGUI Password												
On this screen the admin password will be set, which is used to access the WebGUI and also SSH services if enab	led.											
Admin Password												
Admin Password AGAIN												
>> Next												
pfSense is developed and maintained by Netgate. © ESF 2004 - 2022 View license.												
P Tapez ici pour effectuer une recherche O 目 III I	15:50 01/06/2022	3										

Nous allons changer le mot de passe

	🗾 pfSens	e.home.arpa	- Wizard: pfS 🗙	+									-	٥	×
\leftarrow	\rightarrow C	A N	lon sécurisé	192.168.1	10.254/wizar	rd.php?xml	l=setup_	wizard.xml	l&stepid=9		۲œ	£_≡	Ē	۲	
						5	Step 9 of 9	9							-
	Wizard c	ompleted	l.												
			Congratul	lations! p	pfSense i	is now co	onfigur	red.							
			We recomme one of the me	end that yo lost import	ou check to s tant things y	see if there you can do	e are any to maint	software i tain the see	updates ava curity of yo	ailable. Keepin ur network.	ıg your softv	vare up to	o date is		
			Check for upd	lates											
			Remembe	er, we're	here to he	elp.									
			Click here t	to learn ab	out Netgate	24/7/365	support	services.							
			User surve	ey											
er.			Please help a short survey Anonymous	all the peop (all answe I s User Su	ple involved ers are anony urvey	l in improvii Iymous)	ng and e	expanding	pfSense so	ftware by takir	ng a momen	t to ansv	ver this		
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La configuration est terminée

Nous allons nous intéresser à la config du service DHCP

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Services / DHCP Server / LAN Contract C												
The changes have be	en applied successfully.				×							
LAN General Options Enable	Enable DHCP server on LAN interface											
BOOTP	□ Ignore BOOTP queries											
Deny unknown clients Allow all clients When set to Allow all clients, any DHCP client will get an IP address within this scope/range on this interface. If set to Allow known clients from any interface, any DHCP client with a MAC address listed on any scope(s)/interface(s) will get an IP address. If set to Allow known clients from only this interface, only MAC addresses listed below (i.e. for this interface) will get an IP address within this scope/range.												
Ignore denied clients	 Denied clients will be ignored rather than rejected. This option is not compatible with failover and cannot be enabled when a Failover Peer IP address 	ss is co	onfigure	d.								
Ignore client identifiers	☐ If a client includes a unique identifier in its DHCP request, that UID will not be recorded in its I This option may be use Parler à Cortana ∦ can dual boot using different client identifiers but the sa	lease. ame ha	rdware ((MAC)		Ŧ						

On coche la case **Enable**

Nous sélectionnons **Allow all clients**

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	Subnet	192.168.10.0							*
	Subnet mask	255.255.255.0							
	Available range	192.168.10.1 - 192.1	68.10.254						
	Range	192.168.10.10 From		192.168.10.245 To	ō				÷,
	Additional Pools								
	Add	+ Add pool							
		If additional pools of	addresses are needed insid	e of this subnet outside the abov	ve Range, they may be	specifie	d here.		
		Pool Start	Pool End	Description	Act	ions			
	Servers								
	WINS servers	WINS Server 1							
		WINS Server 2							
	DNS servers	8.8.8.8							
		DNS Server 2							
		DNS Server 3							

Le DNS serveur va être celui de Google

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	Dynamic DNS	Display Advanced								*
	MAC address control	Display Advanced								
	NTP	Display Advanced								
	TFTP	Display Advanced								
	LDAP	Display Advanced								
	Network Booting	Display Advanced								
	Additional BOOTP/DHCP Options	Display Advanced								
		Save								
	DHCP Static Maj	ppings for this Interfa	Ce IR addross	Hos	thomo	Description				
		MAC address	IF address	nos	strame	Description			_	
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Nous allons ensuite sauvegarder nos modifications

Ensuite nous allons modifier à nouveau notre carte réseau du client Windows et définissons une adresse IP et un DNS automatiquement

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	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	VPN		Obtenir une adresse IP automatiquement     OUtiliser l'adresse IP suivante :
	_L_			Adresse IP :
	52	Mode		Masque de sous-réseau :
	(p)	Point		
	⊕	Proxy		OUtiliser l'adresse de serveur DNS suivante :
				Serveur DNS préféré :
				Serveur DAS auxiliare :
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Page 27 | 43

L'adresse IP de notre client Windows est bien dans la plage définie dans le Pf Sense. Nous allons donc redémarrer le Pf Sense



## 3.1 Alias pour les ports en LAN

Nous allons nous reconnecter à Pf_Sense

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Ici nous nous rendons dans l'onglet Firewall – Aliases -Ports

Création d'un alias avec les ports désirés

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Dreparties			
Properties			
Name	Internet		
	The name of the alias may onl	y consist of the characters "a-z, A-Z, U-9 and _".	
Description	Internet		
	A description may be entered	nere for administrative reference (not parsed).	
Туре	Port(s)	~	
Port(s)			
Hin	t Enter ports as desired, with a s	single port or port range per entry. Port ranges ca	n be expressed by separating with a colon.
Por	t 80	Http://	Delete
	443	Https:\\	m Delete
	53	DNS	Delete
	Save - Add Port		
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irewall Aliases	Ports		
ne	Values	Description	Actions
ernet	80, 443, 53	Internet	

#### 3.2Restriction du flux internet grâce aux règles

#### Ensuite nous créons des règles dans **Firewall – Rules - LAN**

- Ipv4_(icmp) * * * * * (il sert à faire un ping)
- Ipv4_(tcp/udp) LANnet * * 53 443 80 * (c'est l'alias qui permet l'ouverture aux ports)
- Ipv4 LANnet * * * * (bloque tout accès internet)

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		States	Protocol	Source	Port	Destination	Port	Gateway	Queue Schedu	le Description		Actions	
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0									bbA 1	🕽 Add 面 Delete	B Save	+ Sepa	arator

L'ordre des règles est important car Pf_Sense prend en compte la règle de restriction pour pouvoir après interpréter la 1^{ère} règles pour le ping et la 2^{ème} pour les ports internet

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Fi	rev	vall / Ru	les / LAN	1		C:\Users\User1>p Envoi d'une reau	oing 8.8. Jête 'Pir	8.8 ng' 8.8.8.8 avec 32 c	octets de don	nnées	:	Â	
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		States	Protocol	Source	Port	Minimum = 40	Əms, Maxi	mum = 51ms, Moyenne =	44ms				
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# Nous pouvons observer que le ping google fonctionne correctement