Installation Pfsense

Qu'est-ce que pfSense ?

pfSense est un pare-feu open-source basé sur FreeBSD, conçu pour fournir une plate-forme de sécurité réseau robuste et flexible. Il offre une gamme complète de fonctionnalités de pare-feu, de routage avancé, de VPN, de filtrage de contenu et de surveillance du trafic réseau.

Configuration requise pour pfSense

Processeur : Processeur multi-cœur cadencé à 500 MHz ou plus.

Mémoire RAM : 1 Go de RAM ou plus.

Stockage : Disque dur d'au moins 8 Go.

Cartes Réseau : Deux interfaces réseau Ethernet.

Installation pfSense

Configuration VMWARE Pro Workstation

Device	Summary
E Memory	1 GB
Processors	2
Hard Disk (SCSI)	20 GB
CD/DVD (IDE)	Using file C:\Users\thoma\On
Potwork Adapter	Bridged (Automatic)
Network Adapter 2	LAN Segment
🕾 USB Controller	Present
්ම Sound Card	Auto detect
Display	Auto detect

• Première carte réseaux en Bridge ou en NAT

Device Summary ■ Memory 1 GB ■ Processors 2 ■ Hard Disk (SCSI) 20 GB ③ CD/DVD (IDE) Using file C:\Users\thoma\On ● Network Adapter Bridged (Automatic) ● Network Adapter 2 LAN Segment ● USB Controller Present ↓ Sound Card Auto detect ■ Display Auto detect	Device status Connected 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 Custom: Specific virtual network	
		VMnet0 VM

• Deuxième carte réseau sur le lan segment

Device Memory Processors Hard Disk (SCSI) CD/DVD (IDE) Network Adapter Network Adapter 2 USB Controller Sound Card Display	e Summary emory 1 GB ocessors 2 ard Disk (SCSI) 20 GB D/DVD (IDE) Using file C:\Users\thoma\On etwork Adapter Bridged (Automatic) etwork Adapter 2 LAN Segment BF Controller Present und Card Auto detect splay Auto detect	Connected 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 Custom: Specific virtual network
		VMnet0 VMnet0 VMnet0 Advanced

Installation pfSense

• On tape « entrée »



• Tape « entrée » pour installer pfSense

pfSense Installer		
Welcome to pfSense!		
Install Install pfSense Rescue Shell Launch a shell for rescue operations		
Recover config.xml Recover config.xml from a previous install		
Cancel>		

• Sélectionner auto UFS



• Tape « entrée » pour install

>>> Install T_Pool_Tume/Disks:	Proceed with Installation strine: A disks
- Rescan Devices	*
- Disk Info	*
N Pool Name	pfSense
F Encrunt Disks?	NO
P Partition Scheme	GPT (BIOS)
S Swap Size	1g
M Mirror Swap?	NÖ
W Encrypt Swap?	NO

Aucune redondance nécessaire car nous somme en machine virtuelle

ZFS Configuration Select Virtual Device type:		
stripe mirror raid10 raidz1 raidz2 raidz3	Stripe - No Redundancy Mirror - n-Way Mirroring RAID 1+0 - n × 2-Way Mirrors RAID-Z1 - Single Redundant RAID RAID-Z2 - Double Redundant RAID RAID-Z3 - Triple Redundant RAID	
(F	<mark>< DK ></mark> <cancel> Press arrows, TAB or ENTER]</cancel>	

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• On tape barre espace pour cocher la case puis entrer

ZFS Configuration				
[*] da0	VMware,	VMware	Virtual S	
<	<mark>OK ></mark>	< Back	>	

• Tape « entrée » pour valider

ZFS Configuration Last Chance! Are you sure you want to destroy the current contents of the following disks: da0		
<pre></pre>		
Checksum Verification base.txz [In Progress]		
Verifying checksums of selected distributions.		
Overall Progress Ø%		

pfSense 2.7.2-RELEASE amd64 20231206-2010 . Bootup complete FreeBSD/amd64 (pfSense.home.arpa) (ttyv0) UMware Virtual Machine - Netgate Device ID: 16584549370c5a12752c *** Welcome to pfSense 2.7.2-RELEASE (amd64) on pfSense *** WAN (wan) -> ем0 -> v4/DHCP4: 192.168.87.21/24 v6/DHCP6: fd28:97e7:8af2:f3f3:20c:29ff:fe52:43 e4/64 LAN (lan) -> v4: 192.168.1.1/24 -> ем1 Ø) Logout (SSH only)
1) Assign Interfaces
2) Set interface(s) IP address
3) Reset webConfigurator password
1) Reset for factor factor 9) pfTop 10) Filter Logs 11) Restart webConfigurator
 12) PHP shell + pfSense tools Reset to factory defaults
 Reboot system 13) Update from console14) Enable Secure Shell (sshd) 6) Halt system 7) Ping host 8) Shell 15) Restore recent configuration 16) Restart PHP-FPM Enter an option:

pfSense 2.7.2-RELEASE amd64 20231206-2 Bootup complete	2010			
FreeBSD/amd64 (pfSense.home.arpa) (ttyv0)				
VMware Virtual Machine - Netgate Device ID: 16584549370c5a12752c				
*** Welcome to pfSense 2.7.2-RELEASE (amd64) on pfSense ***				
WAN (wan) -> ем0 -> v4/) v6/)	DHCP4: 192.168.87.21/24 DHCP6: fd28:97e7:8af2:f3f3:20c:29ff:fe52:43			
е4∕64 LAN (lan) -> ем1 -> ∪4:	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:				

Paramétrage Pfsense patte Wan/LAN

Une fois Pfsense installer nous devons configurer les pattes Wan et Lan :

Configuration de la patte WAN

On sélectionne l'option 2 : on tape 2

Puis également le port WAN : on tape 1

On laisse l'IPV4 être géré par le DHCP car c'est notre accès Internet. Donc on tape « y »

Mais on désactive l'IPV6 pour éviter toute perturbation entre les deux protocoles.

Il nous propose le protocole DHCP pour l'IPV6 on refuse « n »

Et on presse « entrée » sans inscrire d'adresse IPV6

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$\frac{1}{100} \frac{1}{100} \frac{1}$	HCP4: 192.168.87.21/24
LHN (lan) -> eM1 -> 04:	192.168.10.254/24
 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) 2 — LAN (ем1 — static)	
Enter the number of the interface you	wish to configure: 1
Configure IPv4 address WAN interface v	via DHCP? (y/n) y
Configure IPv6 address WAN interface v	via DHCP6? (y/n) n

- Passerelle wan est automatique en dhcp
- On presse entrer pour affecter aucune adresse IPV6

Configure IPv6 address WAN interface via DHCP6? (y/n) n Enter the new WAN IPv6 address. Press <ENTER> for none:

Configuration de la patte LAN

pfSense 2.7.2-RELEASE amd64 20231200 Bootup complete	6-2010
FreeBSD/amd64 (pfSense.home.arpa) (†	ttyv0)
VMware Virtual Machine - Netgate Dev	vice ID: 16584549370c5a12752c
*** Welcome to pfSense 2.7.2-RELEAS	E (amd64) on pfSense ***
 	4/DHCP4: 192.168.87.21/24 5/DHCP6: fd28:97e7:8af2:f3f3:20c:29ff:fe52:43
e4/64 LAN (lan) -> ем1 -> v4	4: 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:	

On sélectionne l'option 2 : on tape 2

Puis également le port LAN : on tape 2

On ne veut pas que le port soit paramétré par DHCP : on tape N (le but étant que l'ip du serveur soit fixe)

LAN (lan) -> ем1 -> v4: 192.168.1.1/24 0) Logout (SSH only) 9) pfTop 1) Assign Interfaces 10) Filter Logs 2) Set interface(s) IP address 11) Restart webConfigurator 11) Restart Mebboningarator 12) PHP shell + pfSense tools 13) Update from console 14) Enable Secure Shell (sshd) 15) Restore recent configuration 3) Reset webConfigurator password 4) Reset to factory defaults 5) Reboot system 6) Halt system 7) Ping host 16) Restart PHP-FPM 8) Shell 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: 2 Configure IPv4 address LAN interface via DHCP? (y/n) n Enter the new LAN IPv4 address. Press <ENTER> for none: >

On tape l'adresse IP voulu (tout collé)

Enter the new LAN IPv4 address. Press <ENTER> for none: > 192.168.10.254/24 For a WAN, enter the new LAN IPv4 upstream gateway address. For a LAN, press <ENTER> for none: >

Ensuite nous désactivons l'IPV6 de la patte LAN.

On tape « n »

Puis entrer sans mettre d'adresse

On ne souhaite pas que notre port LAN soit notre passerelle internet c'est un port interne

Enfin on tape « n »

Available interfaces: 1 - WAN (em0 - dhcp, dhcp6) 2 - LAN (em1 - static) Enter the number of the interface you wish to configure: 1 Configure IPv4 address WAN interface via DHCP? (y/n) y Configure IPv6 address WAN interface via DHCP6? (y/n) n Enter the new WAN IPv6 address. Press <ENTER> for none:) Disabling IPv4 DHCPD... Disabling IPv6 DHCPD... Please wait while the changes are saved to WAN... Reloading filter... Reloading routing configuration... DHCPD...^I The IPv4 WAN address has been set to dhcp Press <ENTER> to continue.

Taper « n » on veut rester en https

For a WAN, enter the new LAN IPv4 upstream gateway address. For a LAN, press <ENTER> for none: Configure IPv6 address LAN interface via DHCP6? (y/n) n Enter the new LAN IPv6 address. Press <ENTER> for none: Do you want to enable the DHCP server on LAN? (y/n) yEnter the start address of the IPv4 client address range: 192.168.1.10Enter the end address of the IPv4 client address range: 192.168.1.220Disabling IPv6 DHCPD... Please wait while the changes are saved to LAN... Reloading filter... Reloading routing configuration... DHCPD... The IPv4 LAN address has been set to 192.168.1.254/24 You can now access the webConfigurator by opening the following URL in your web browser: http://192.168.1.254/ Press <ENTER> to continue.

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Reloading routing configuration... DHCPD... The IPv4 WAN address has been set to dhcp Press <ENTER> to continue.VMware Virtual Machine - Netgate Device ID: 176dbcd37b 07ef10d144 *** Welcome to pfSense 2.7.2-RELEASE (amd64) on pfSense *** -> v4/DHCP4: 192.168.43.25/24 -> v4: 192.168.1.254/24 WAN (wan) -> ем0 LAN (lan) -> ем1 Ø) Logout (SSH only)
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13) Update from console
14) Enable Secure Shell (sshd)
15) Restore recent configuration
16) Restart PHP-FPM 4) Reset to factory defaults5) Reboot system 6) Halt system 7) Ping host 8) Shell

Enter an option: 📕