

# Configuration réseau & VLANs

VLANs & règles permissives / restrictives



# Interfaces réseau Proxmox

Editer l'interface LAN relié à pfSense, cocher "VLAN aware" pour qu'il transporte les VLANs que l'on va définir directement dans pfSense qui sera notre point central de routage.

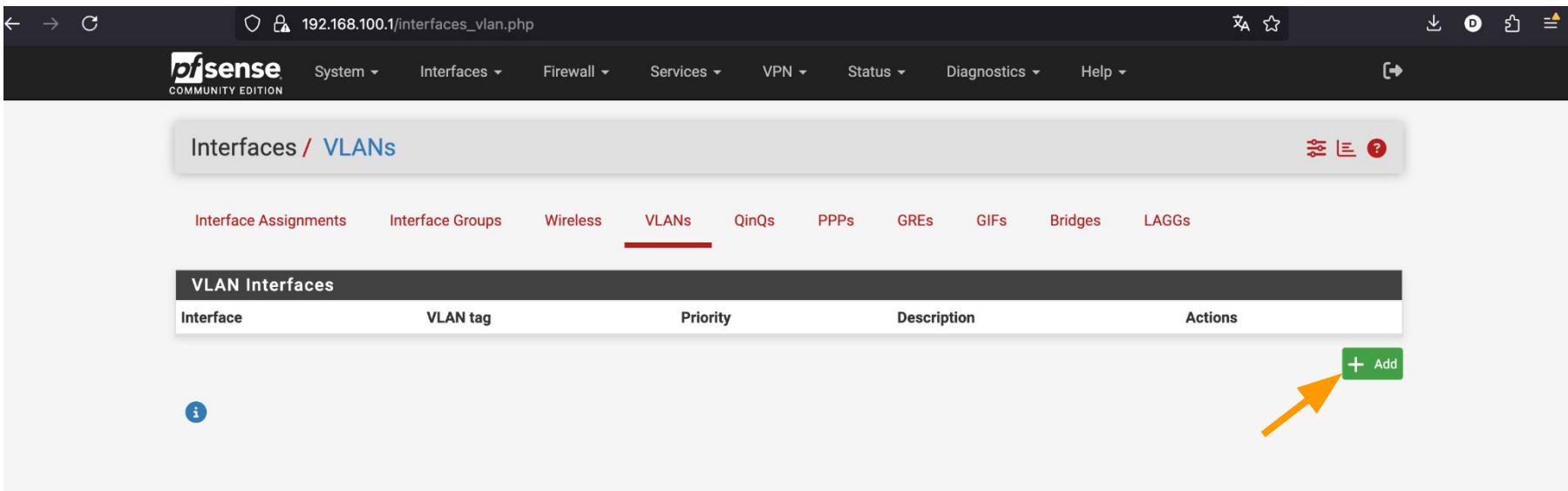
The screenshot shows the Proxmox VE 9.0.3 interface. The left sidebar shows a tree structure of the datacenter, with the 'pve' node selected. Under 'Network', there are two entries: 'vmbr0' and 'vmbr1'. A yellow arrow points from the text in the left sidebar to the 'vmbr0' entry. The main table lists network interfaces, and the 'vmbr0' row is highlighted. A modal dialog titled 'Edit: Linux Bridge' is open for 'vmbr0'. Inside the dialog, the 'Name:' field is set to 'vmbr0', 'Autostart:' has a checked checkbox, 'IPv4/CIDR:' is set to '192.168.100.2/24', 'VLAN aware:' has a checked checkbox (indicated by a yellow arrow), 'Bridge ports:' is set to 'eno1', and 'MTU:' is set to '1500'. The 'VLAN IDs:' field contains '2-4094'. At the bottom of the dialog are 'Advanced' and 'OK' buttons.

Name ↑	Alternative Names	Type	Active	Autostart	VLAN a...	Ports/Slaves	Bond Mode	CIDR	Gateway
enx1866dcaf01f63									
enp5s0f0	enxa0369fc0b1f0	Network Device	No	No	No				
enp5s0f1	enxa0369fc0b1f2	Network Device	No	No	No				
enp7s0f0	enxa0369fc0b200	Network Device	No	No	No				
enp7s0f1	enxa0369fc0b202	Network Device	No	No	No				
vmbr0		Linux Bridge	Yes	Yes	No	eno1		192.168.100.2/24	
vmbr1		Linux Bridge	Yes	Yes	No	eno2			

# VLANs sur pfSense

Aller sur pfSense → Interfaces → Assignment → VLANs

Cliquer sur Add



The screenshot shows the pfSense web interface at the URL `192.168.100.1/interfaces_vlan.php`. The top navigation bar includes links for System, Interfaces, Firewall, Services, VPN, Status, Diagnostics, and Help. The 'Interfaces / VLANs' page is displayed, with the 'VLANs' tab highlighted. Below the navigation, there are tabs for Interface Assignments, Interface Groups, Wireless, VLANs, QinQs, PPPs, GReS, GIFs, Bridges, and LAGGs. The main content area is titled 'VLAN Interfaces' and contains a table with columns: Interface, VLAN tag, Priority, Description, and Actions. A green 'Add' button with a plus sign is located in the bottom right corner of the table header. An orange arrow points to this 'Add' button. The bottom left corner of the page has a small blue info icon.

Choisir l'interface parent, définir le tag VLAN, save.

pfSense COMMUNITY EDITION

System ▾ Interfaces ▾ Firewall ▾ Services ▾ VPN ▾ Status ▾ Diagnostics ▾ Help ▾

Interfaces / VLANs / Edit

VLAN Configuration

Parent Interface: em0 (bc:24:11:81:00:c2) - lan  
Only VLAN capable interfaces will be shown.

VLAN Tag: 30  
802.1Q VLAN tag (between 1 and 4094).

VLAN Priority: 0  
802.1Q VLAN Priority (between 0 and 7).

Description: Serveurs  
A group description may be entered here for administrative reference (not parsed).

 Save

Liste des VLANs

VLAN Interfaces				
Interface	VLAN tag	Priority	Description	Actions
em0 (lan)	10		Critique	 
em0 (lan)	20		Clients	 
em0 (lan)	30		Serveurs	 
em0 (lan)	40		Developpement	 
em0 (lan)	99		VPN	 

 + Add

# Assigner les VLANs dans pfSense

Dans Interfaces →  
Assignment, ajouter les  
VLANs et configuez-les :

- IP
- DNS
- DHCP
- Règles

The screenshot shows the pfSense web interface under the 'Interfaces' menu. The 'Interface Assignments' tab is selected. The page displays two network ports assigned to the WAN and LAN interfaces. Below these, a list of 'Available network ports' includes 'VLAN 10 on em0 - lan (Critique)'. A green '+ Add' button is located to the right of this list. A large orange arrow points from the bottom right towards this '+ Add' button. At the bottom of the page, a note states: 'Interfaces that are configured as members of a lagg(4) interface will not be shown.'

# Configuration d'une interface VLAN dans pfSense

Activez l'interface et configurez l'IP

**General Configuration**

<b>Enable</b>	<input checked="" type="checkbox"/> Enable interface
<b>Description</b>	Management (critique) Enter a description (name) for the interface here.
<b>IPv4 Configuration Type</b>	Static IPv4
<b>IPv6 Configuration Type</b>	None
<b>MAC Address</b>	XX:XX:XX:XX:XX:XX The MAC address of a VLAN interface must be set on its parent interface
<b>MTU</b>	<input type="text"/> If this field is blank, the adapter's default MTU will be used. This is typically 1500 bytes but can vary in some circumstances.
<b>MSS</b>	<input type="text"/> If a value is entered in this field, then MSS clamping for TCP connections to the value entered above minus 40 for IPv4 (TCP/IPv4 header size) and minus 60 for IPv6 (TCP/IPv6 header size) will be in effect.
<b>Speed and Duplex</b>	Default (no preference, typically autoselect) Explicitly set speed and duplex mode for this interface. WARNING: MUST be set to autoselect (automatically negotiate speed) unless the port this interface connects to has its speed and duplex forced.

**Static IPv4 Configuration**

<b>IPv4 Address</b>	192.168.110.1	/ 24
<b>IPv4 Upstream gateway</b>	None	<b>+ Add a new gateway</b>

# DHCP d'une interface VLAN



Services → DHCP Server  
→ ManagementCritique

Renseigner le pool, les dns  
plus bas, etc.

The screenshot shows the pfSense web interface for managing the DHCP server. The top navigation bar includes links for System, Interfaces, Firewall, Services, VPN, Status, Diagnostics, and Help. The current page is 'Services / DHCP Server / MANAGEMENTCRITIQUE'. The sub-navigation tabs are 'Settings', 'LAN', and 'MANAGEMENTCRITIQUE', with 'MANAGEMENTCRITIQUE' being the active tab. The main configuration area is divided into sections: 'General Settings', 'Primary Address Pool', and 'Secondary Address Pool'. The 'General Settings' section contains fields for 'DHCP Backend' (set to 'Kea DHCP'), 'Enable' (checked), 'Deny Unknown Clients' (set to 'Allow all clients'), 'Ignore Client Identifiers' (unchecked), 'DNS Registration' (set to 'Track server'), and 'Early DNS Registration' (set to 'Track server'). The 'Primary Address Pool' section shows a single subnet configuration with 'Subnet' set to '192.168.110.0/24' and 'Subnet Range' set to '192.168.110.1 - 192.168.110.254'. The 'Secondary Address Pool' section is currently empty. The top right of the page includes red icons for 'CO' (Configuration), 'S' (Status), 'L' (Logs), 'B' (Backup), and a question mark for help.

Services / DHCP Server / MANAGEMENTCRITIQUE

CO S L B ?

Settings LAN MANAGEMENTCRITIQUE

**General Settings**

DHCP Backend: Kea DHCP

Enable:  Enable DHCP server on MANAGEMENTCRITIQUE interface

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 in a static mapping 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 in static mappings on this interface will get an IP address within this scope/range.

Ignore Client Identifiers:  Do not record a unique identifier (UID) in client lease data if present in the client DHCP request

This option may be useful when a client can dual boot using different client identifiers but the same hardware (MAC) address. Note that the resulting server behavior violates the official DHCP specification.

DNS Registration: Track server

Optionally overrides the DHCP server default DNS registration policy to force a specific policy.

Early DNS Registration: Track server

Optionally overrides the DHCP server default early DNS registration policy to force a specific policy.

**Primary Address Pool**

Subnet: 192.168.110.0/24

Subnet Range: 192.168.110.1 - 192.168.110.254

Address Pool Range: 192.168.110.100 - 192.168.110.150

# Assigner un VLAN à une VM



Ajouter le tag correspondant dans les paramètres de la carte réseau de la VM.

The screenshot shows the Proxmox VE 9.0.3 interface. The left sidebar shows a tree view of the server and its VMs. The main window is focused on a VM named '106 (Debian-ZABBIX)'. The 'Hardware' tab is selected. A modal dialog box is open, titled 'Edit: Network Device'. Inside the dialog, the 'Bridge' dropdown is set to 'vmbr0'. The 'VLAN Tag' dropdown is set to 'no VLAN'. The 'Firewall' checkbox is checked. An orange arrow points to the 'Firewall' checkbox. At the bottom of the dialog are 'Help', 'Advanced' (unchecked), and 'OK' buttons.

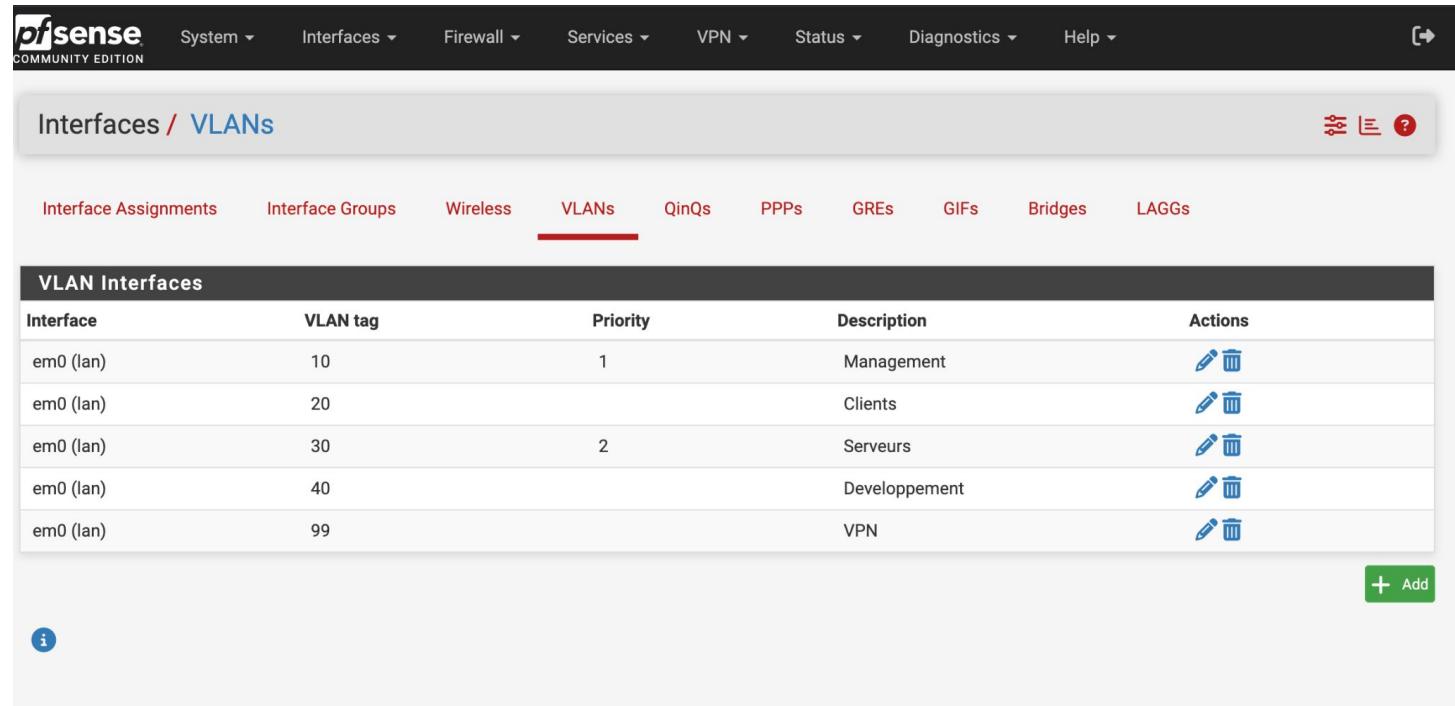
Start Time	End Time	Node	User name	Description	Status
Nov 04 15:38:03	Nov 04 15:38:11	pve	root@pam	VM/CT 100 - Console	OK
Nov 04 15:18:45	Nov 04 15:19:10	pve	Remi@BTS.SIO	VM 101 - Snapshot	OK
Nov 04 15:17:56	Nov 04 15:17:58	pve	Remi@BTS.SIO	VM/CT 101 - Console	OK
Nov 04 15:16:47	Nov 04 15:38:03	pve	root@pam	VM/CT 107 - Console	OK
Nov 04 15:00:25	Nov 04 15:16:46	pve	root@pam	VM/CT 107 - Console	OK



# Passerelles

pfSense aura une passerelle dans chaque VLAN, l'IP renseigner dans l'interface directement sur pfSense. Les clients pourront ou non se connecter à l'interface de pfSense via cette IP sauf si une règle restreint cet accès.

# Recapitulatif



The screenshot shows the pfSense Community Edition web interface. The top navigation bar includes links for System, Interfaces, Firewall, Services, VPN, Status, Diagnostics, and Help. The main title is "Interfaces / VLANs". Below the title, a navigation bar has tabs for Interface Assignments, Interface Groups, Wireless, VLANs (which is highlighted in red), QinQs, PPPs, GREs, GIFs, Bridges, and LAGGs. The main content area is titled "VLAN Interfaces" and contains a table with the following data:

Interface	VLAN tag	Priority	Description	Actions
em0 (lan)	10	1	Management	 
em0 (lan)	20		Clients	 
em0 (lan)	30	2	Serveurs	 
em0 (lan)	40		Developpement	 
em0 (lan)	99		VPN	 

At the bottom right of the table is a green "Add" button with a plus sign. At the bottom left is a blue information icon. The left side of the slide has the text "Priorité 1 au plus critique vers 7 le moins critique".