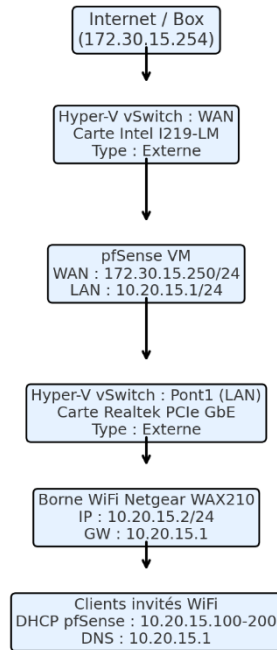


Sujet : Mise en place d'un réseau invités avec pfSense, Hyper-V et portail captif

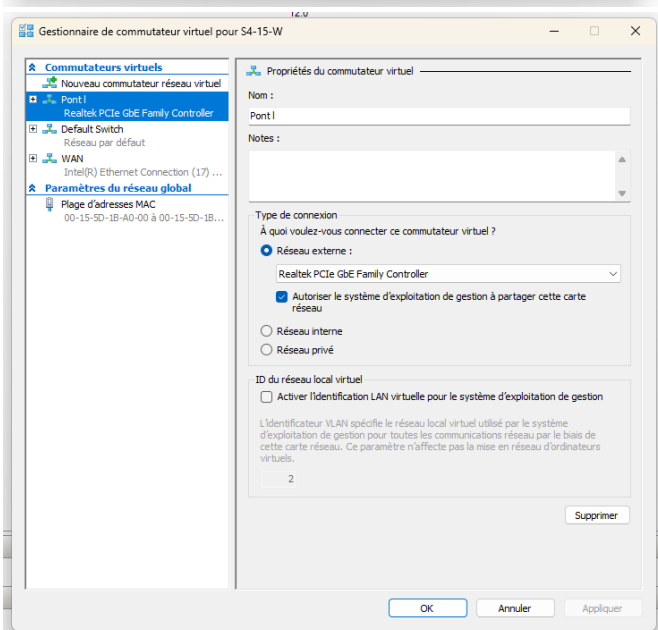
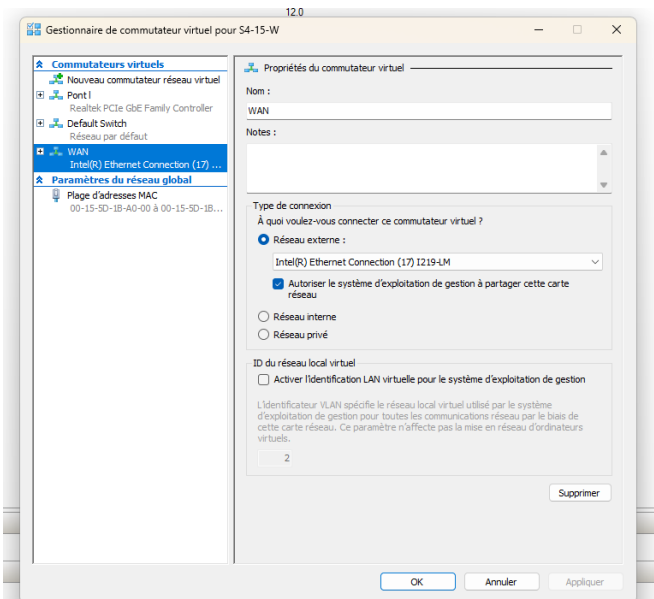
Matériel : PC Windows (Hyper-V), 2 interfaces réseau physiques (Intel I219-LM et Realtek PCIe), borne **Netgear**.

1) Architecture du projet



Hyper-V (commutateurs virtuels)

- WAN : **Externe**, attaché à **Intel I219-LM**.
- Pont1 (LAN) : **Externe**, attaché à **Realtek**



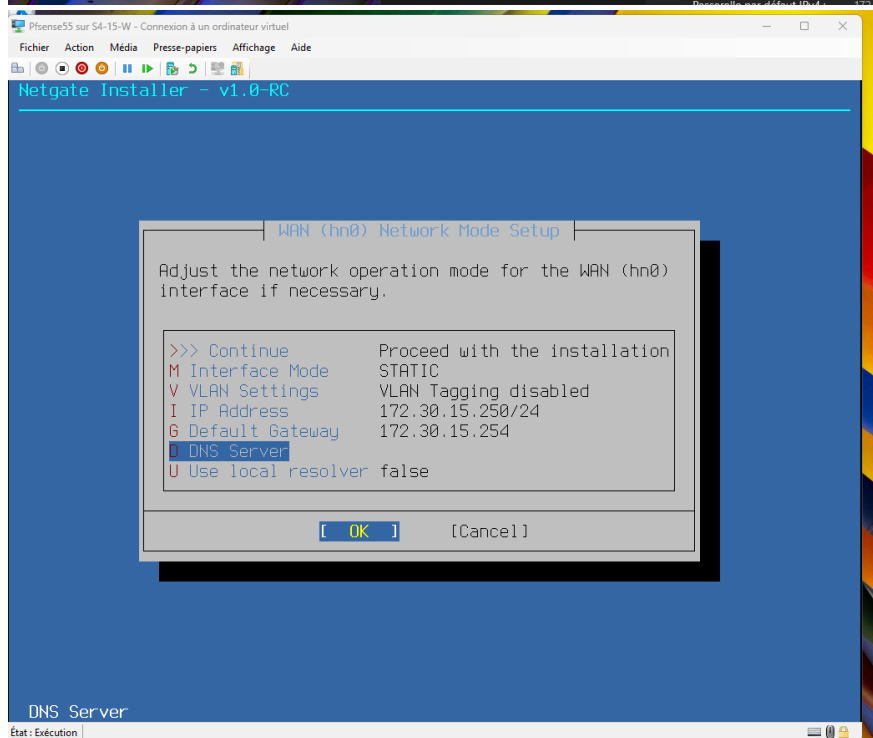
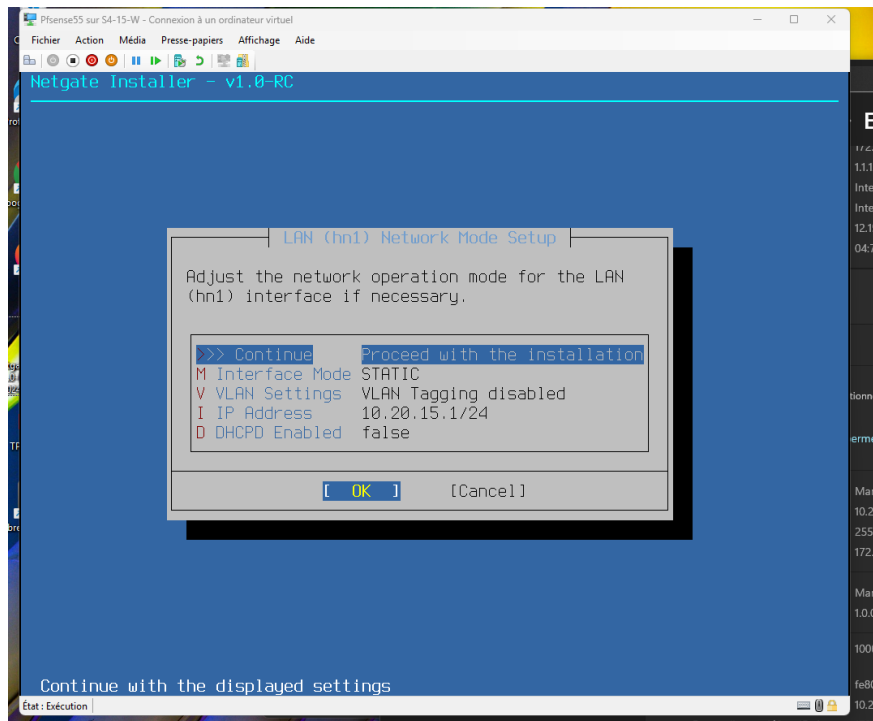
2) Installation & assignation pfSense

Installeur Netgate

- **WAN (hn0)**
 - Mode : **STATIC**
 - IP : **172.30.15.250/24**
 - **Default gateway : 172.30.15.254**
 - VLANs : disabled

- **LAN (hn1)**

- Mode : **STATIC**
- IP : **10.20.15.1/24**
- DHCPD : **false**



Console pfSense

- 1 Assign interfaces → **WAN=hn0, LAN=hn1**
- 2 Set interface IP

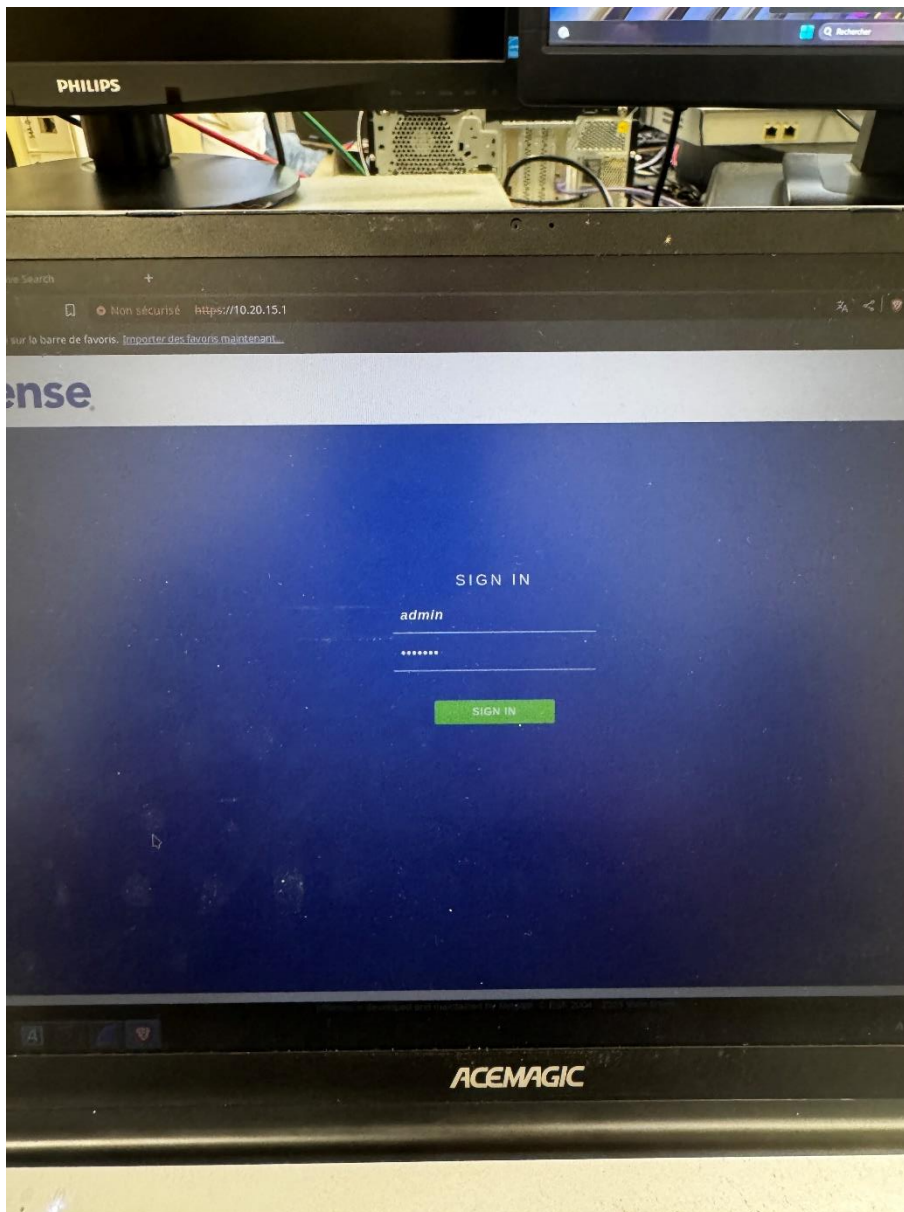
- **WAN** : 172.30.15.250/24, GW 172.30.15.254, pas d'IPv6, pas de DHCP, **HTTPS conservé**
- **LAN** : 10.20.15.1/24, pas de GW, pas d'IPv6, **DHCP désactivé au début**

Accès: **https://10.20.15.1** (admin / pfsense ⇒ mot de passe ensuite changé).

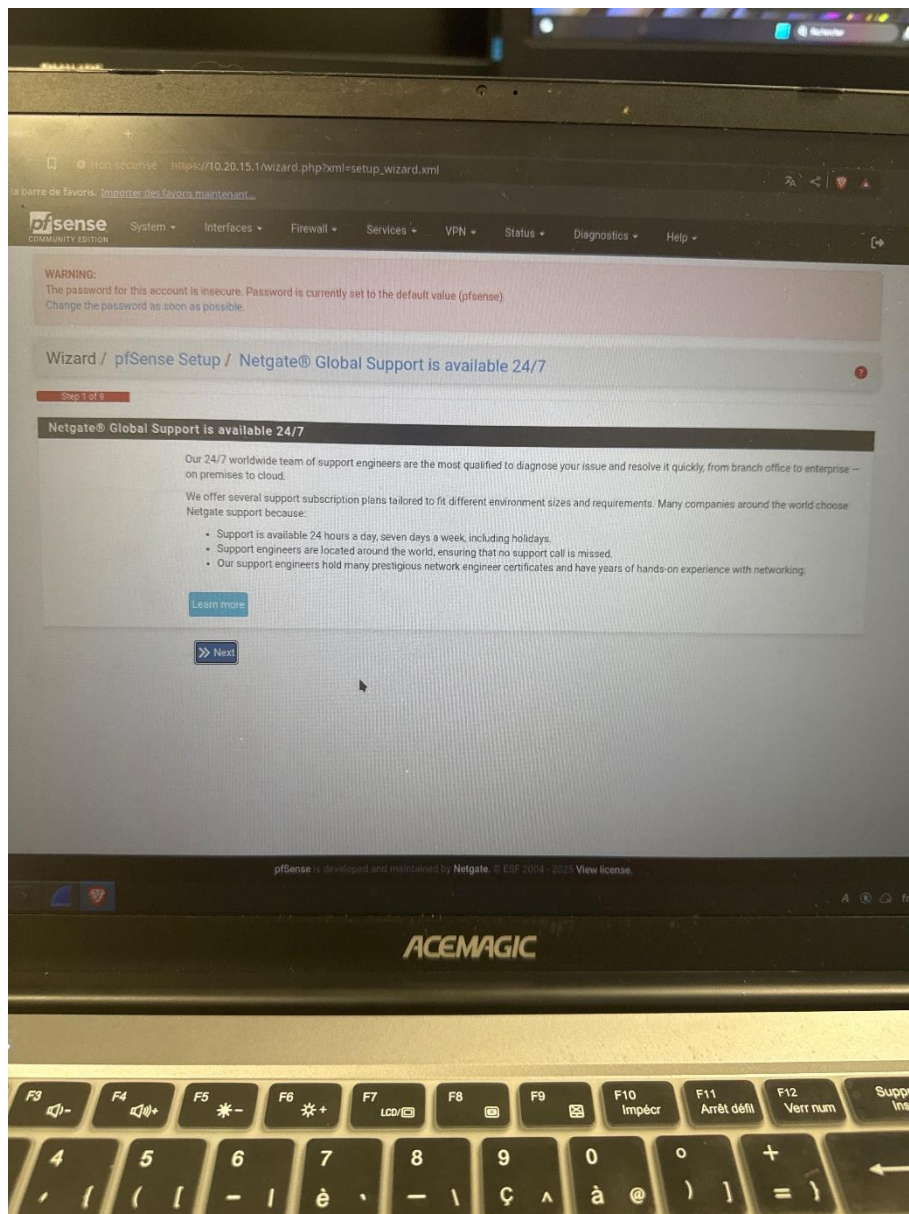
1. Connexion à l'interface

En ouvrant un navigateur et en entrant l'adresse IP LAN de pfSense (**10.20.15.1**), j'ai accédé à l'écran de connexion.

- **Identifiant par défaut** : admin
- **Mot de passe par défaut** : pfsense



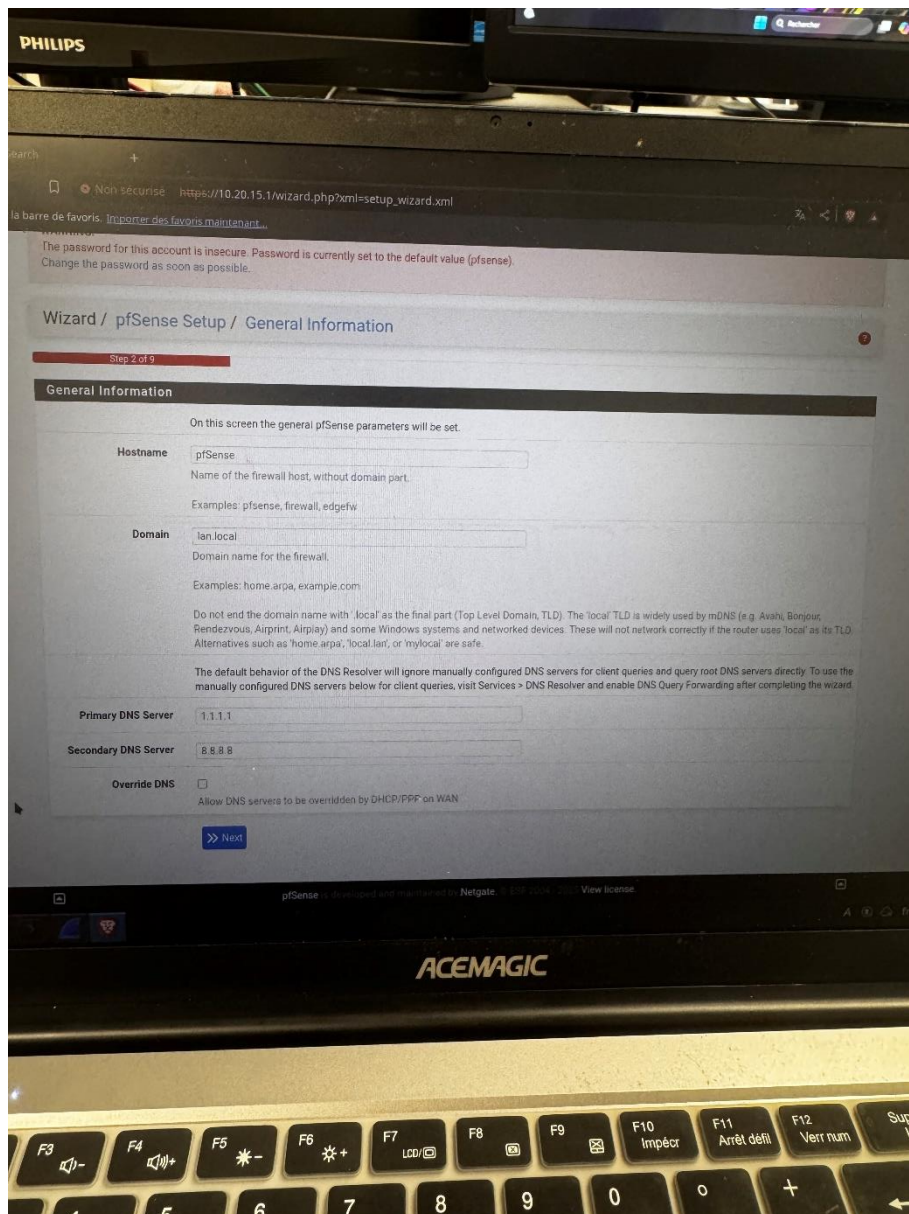
2. Lancement du Wizard



3. Informations générales

Dans la première étape, j'ai renseigné :

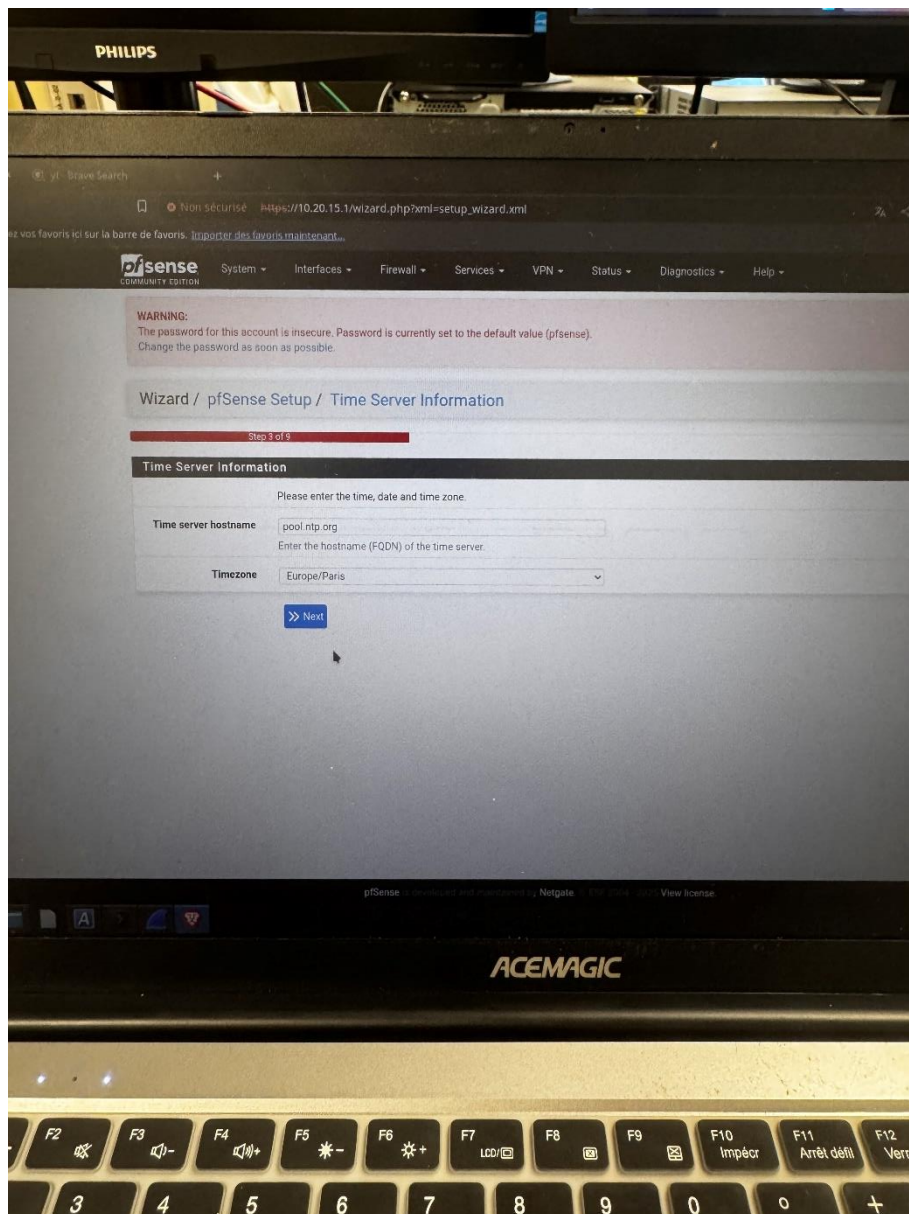
- **Hostname** : pfSense
- **Domain** : lan.local
- **DNS primaire** : 1.1.1.1 (Cloudflare)
- **DNS secondaire** : 8.8.8.8 (Google)



4. Configuration du serveur de temps (NTP)

L'étape suivante permet de définir le serveur de temps.

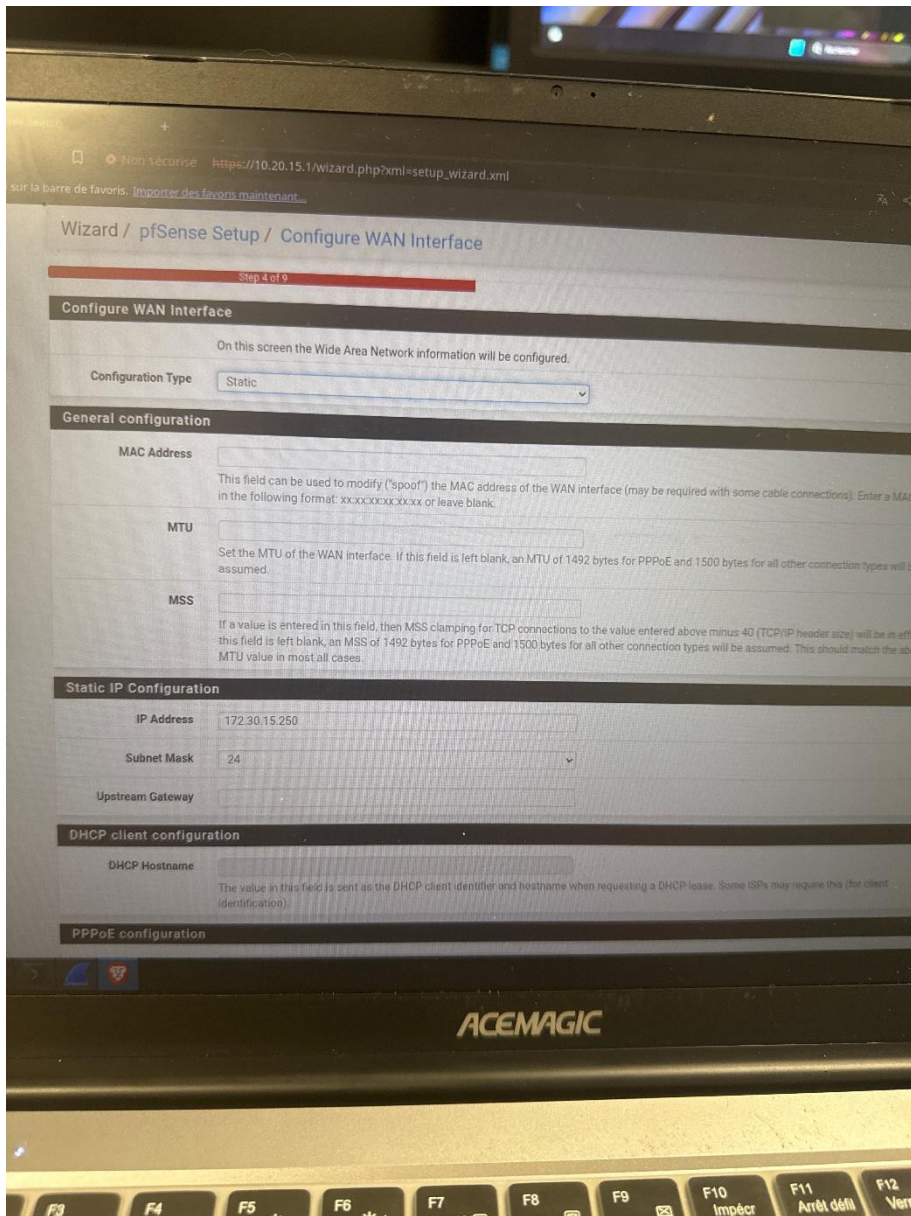
- **Serveur de temps** : pool.ntp.org
- **Fuseau horaire** : Europe/Paris

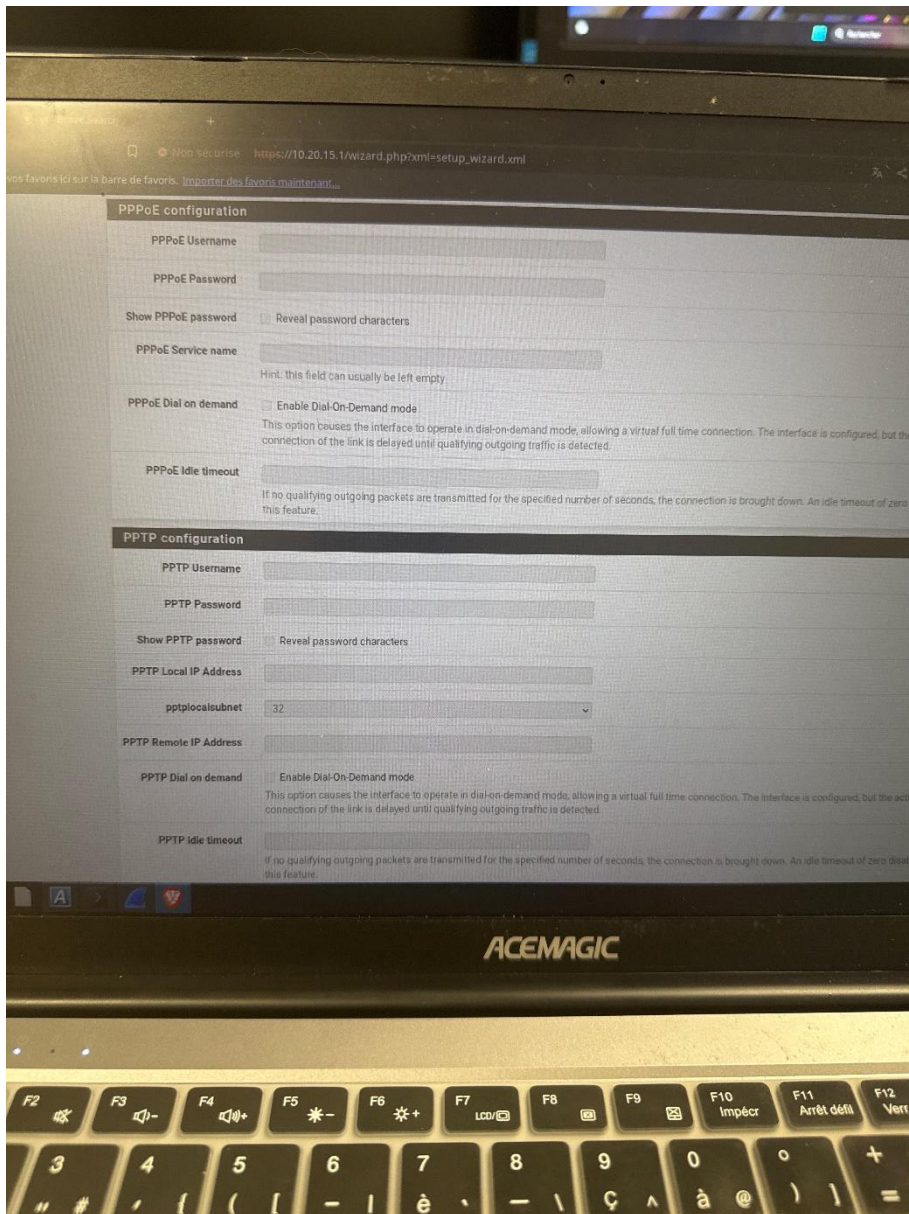


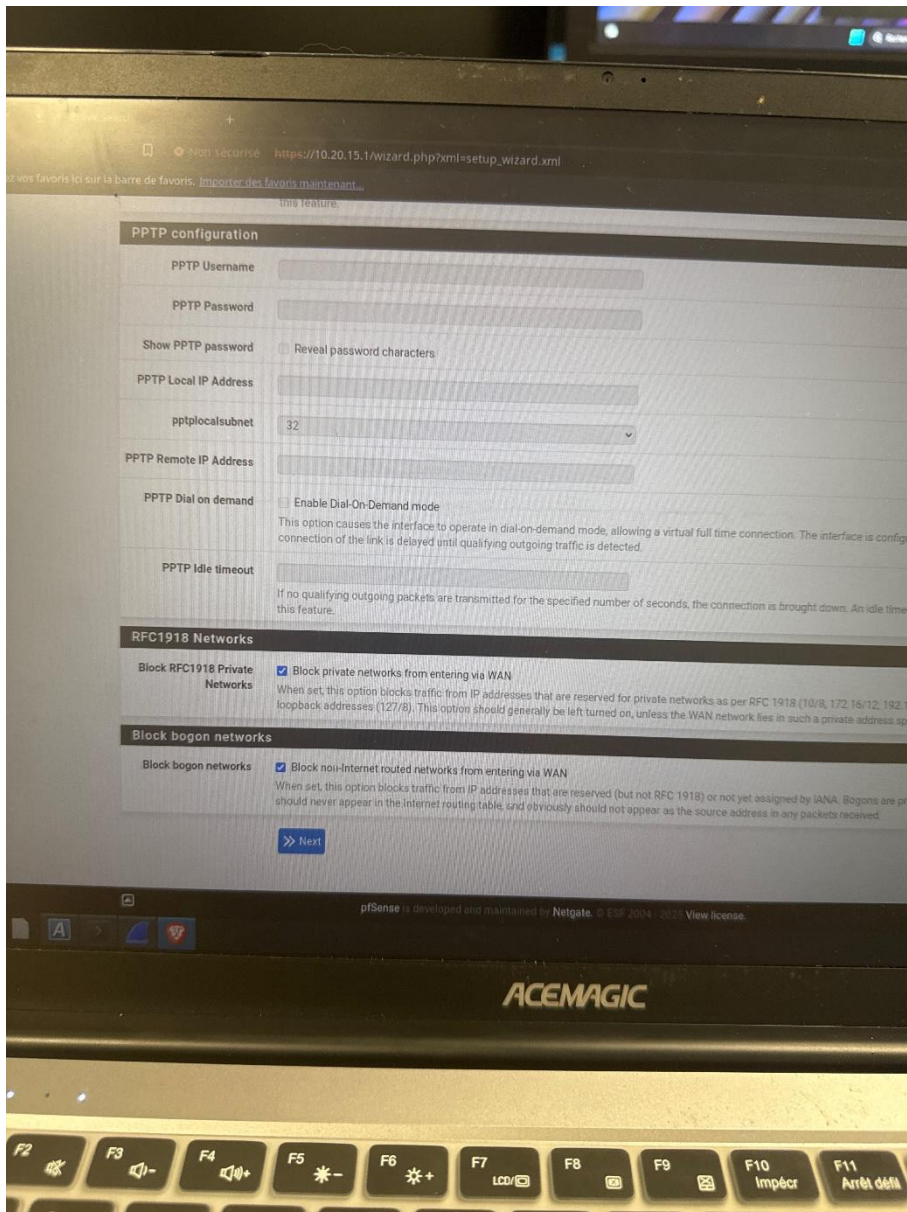
5. Configuration de l'interface WAN

J'ai configuré l'interface **WAN** en **IP statique** avec les paramètres suivants :

- **Adresse IP** : 172.30.15.250
- **Masque** : /24
- **Passerelle (gateway)** : 172.30.15.254







4) Post-install pfSense

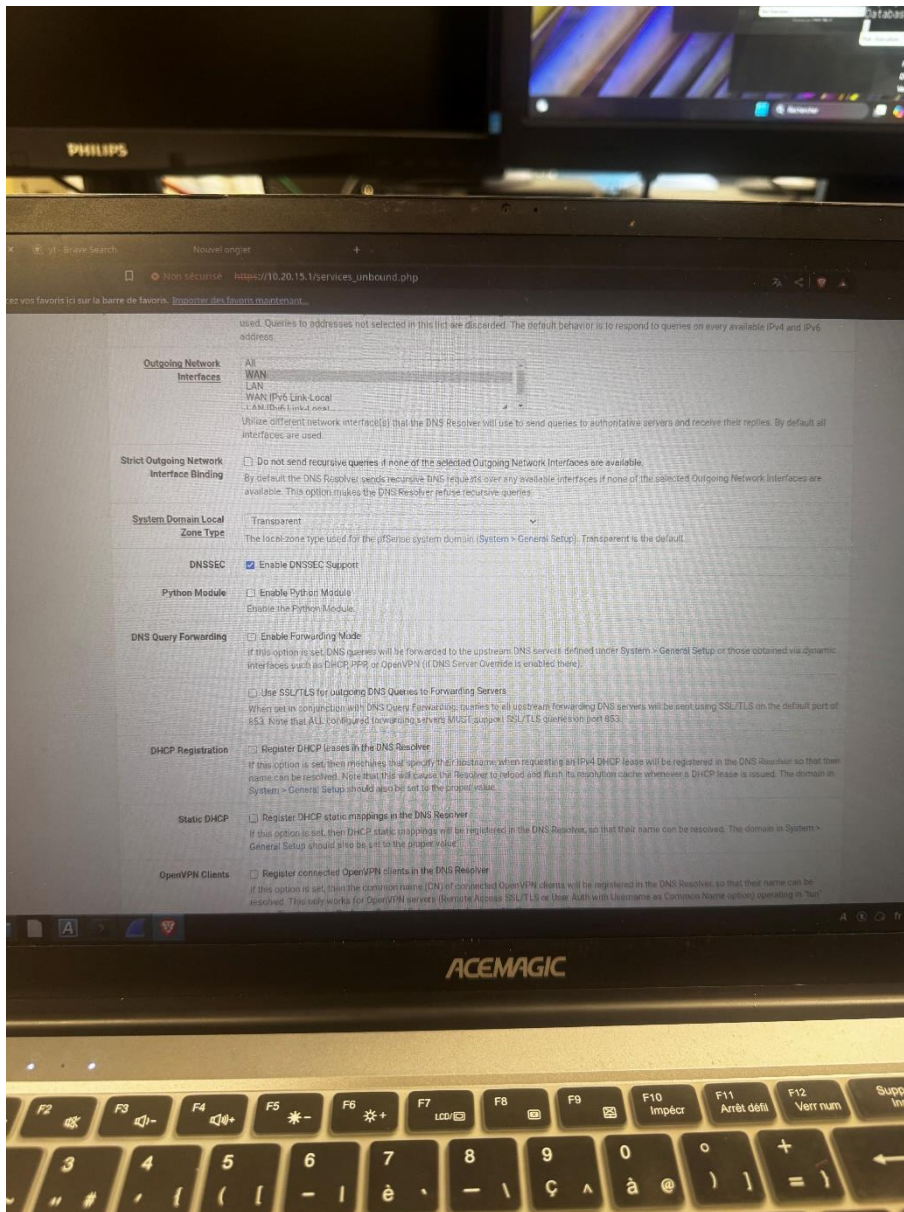
Général & Routage

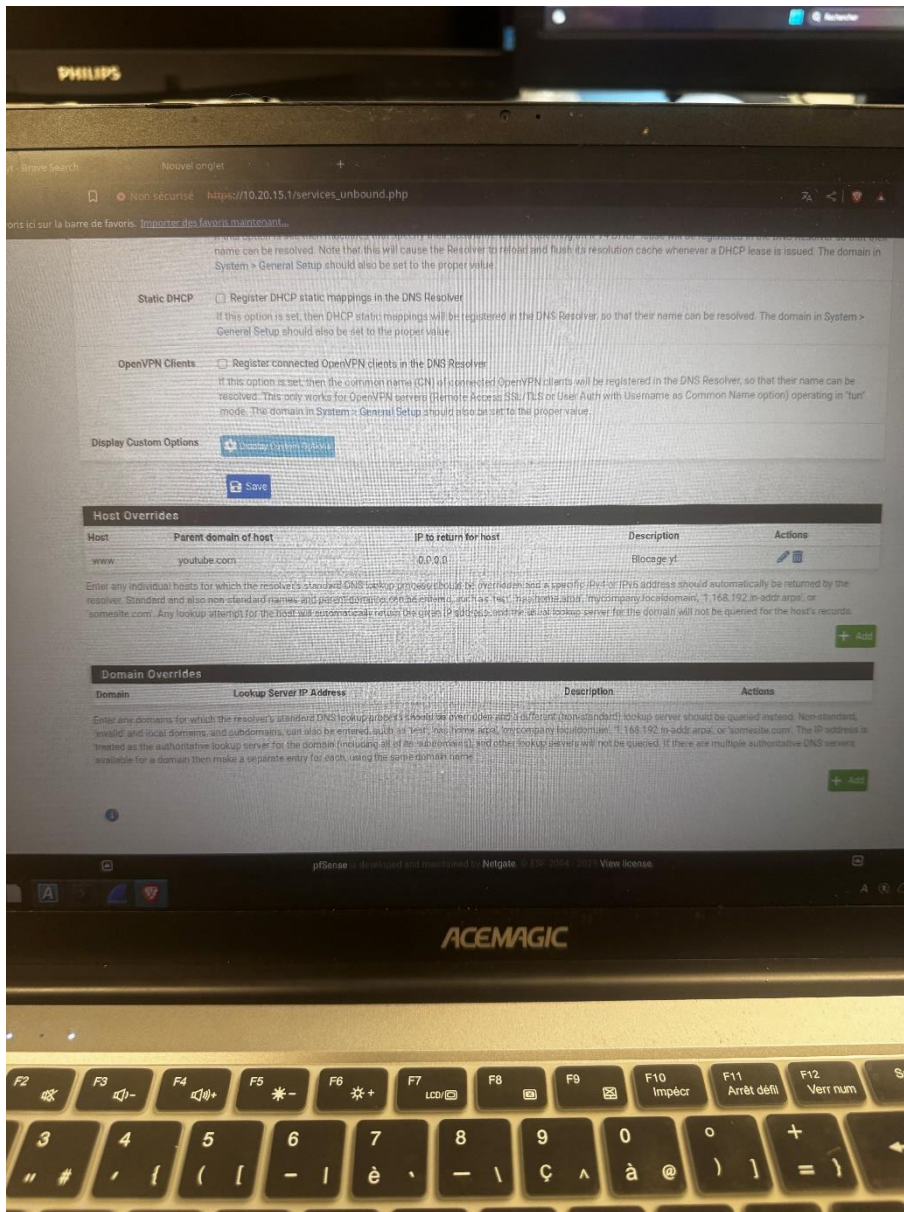
- DNS système : 1.1.1.1 / 8.8.8.8, **override DHCP/PPP WAN décoché.**
- Gateway par défaut : **172.30.15.254.**
- NAT : **Automatic Outbound NAT** (par défaut).

DNS Resolver (Unbound)

- **Enable, Interfaces = LAN+Localhost, Outgoing = WAN.**
- **DNSSEC, Forwarding.**

- **Host Overrides** : youtube.com, www.youtube.com → **0.0.0.0**.





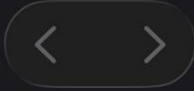
4) Borne WiFi (Netgear)

- **IP statique : 10.20.15.2/24**
- **Gateway : 10.20.15.1**
- **DNS : 10.20.15.1 (+ 8.8.8.8 en secours)**
- **DHCP désactivé** sur la borne.
- Borne reliée physiquement au **LAN (Pont1)**.

12:14

5G 49

aplogin.net
WAX210D9A3DA-CONFIG-ONLY



Wi-Fi captif



If your country or region is not displayed in the pull-down menu, please upgrade the AP to the latest firmware. If your country or region does not display after upgrade, contact NETGEAR support.

Country/Region

France

AP Login New Password*

Admin108!

Confirm New Password*

Admin108!

SSID*

wifi leo encore

Passphrase*

Admin108!

(* 8-63 chars)

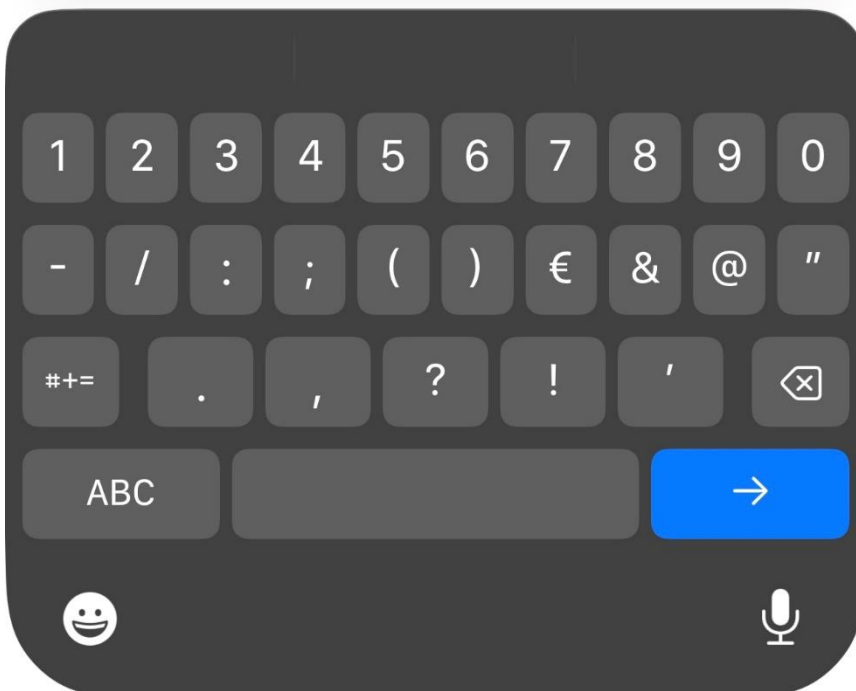
Terms of Use

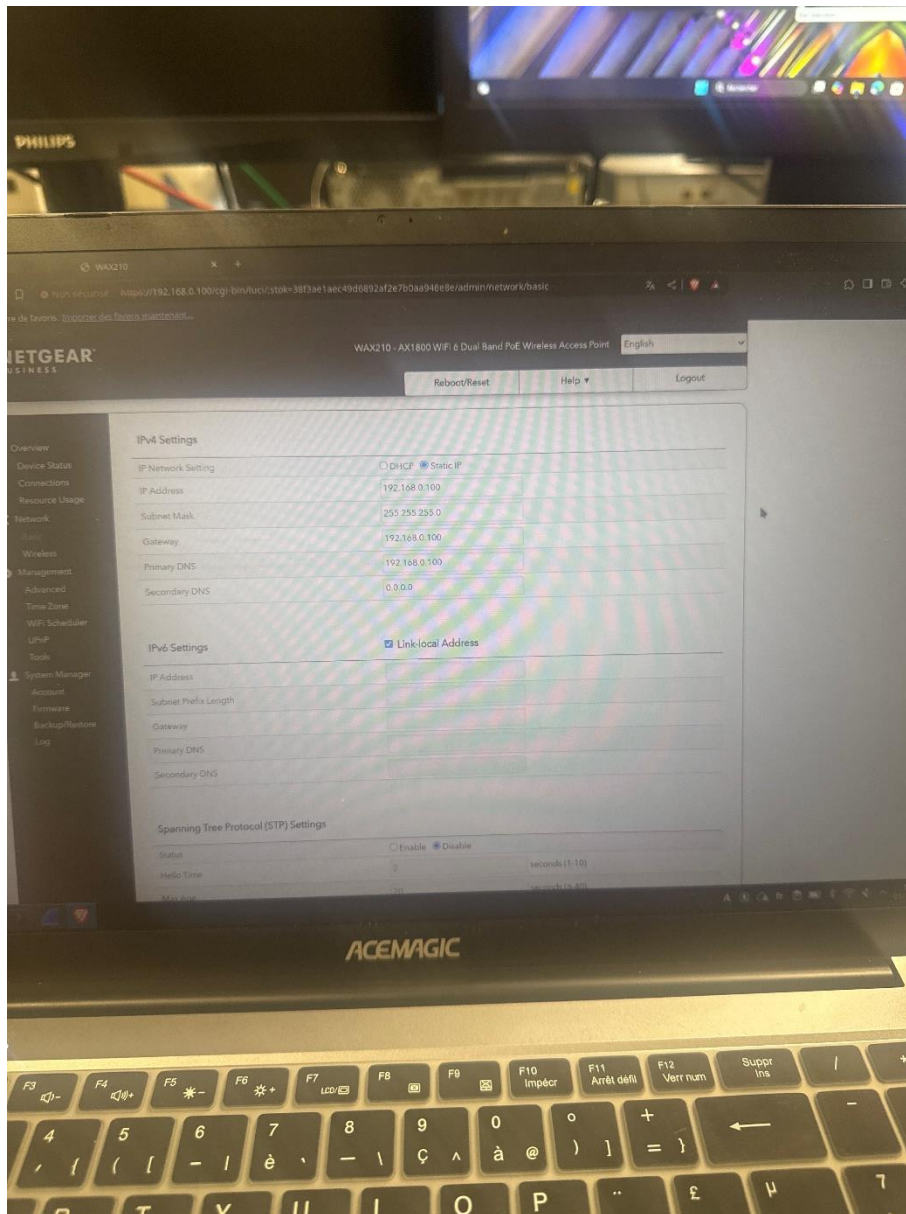
This device must be professionally installed. It is the installer's responsibility to follow local country regulations including operations within legal frequency channels, output power and DFS requirements. Vendor or Reseller or Distributor is not responsible for illegal wireless operations. Please see Device's Terms and Conditions for more details.

By checking this box, I accept [NETGEAR's Terms and Conditions](#) and acknowledge that I have read the Privacy Notice



Préremplir le contact

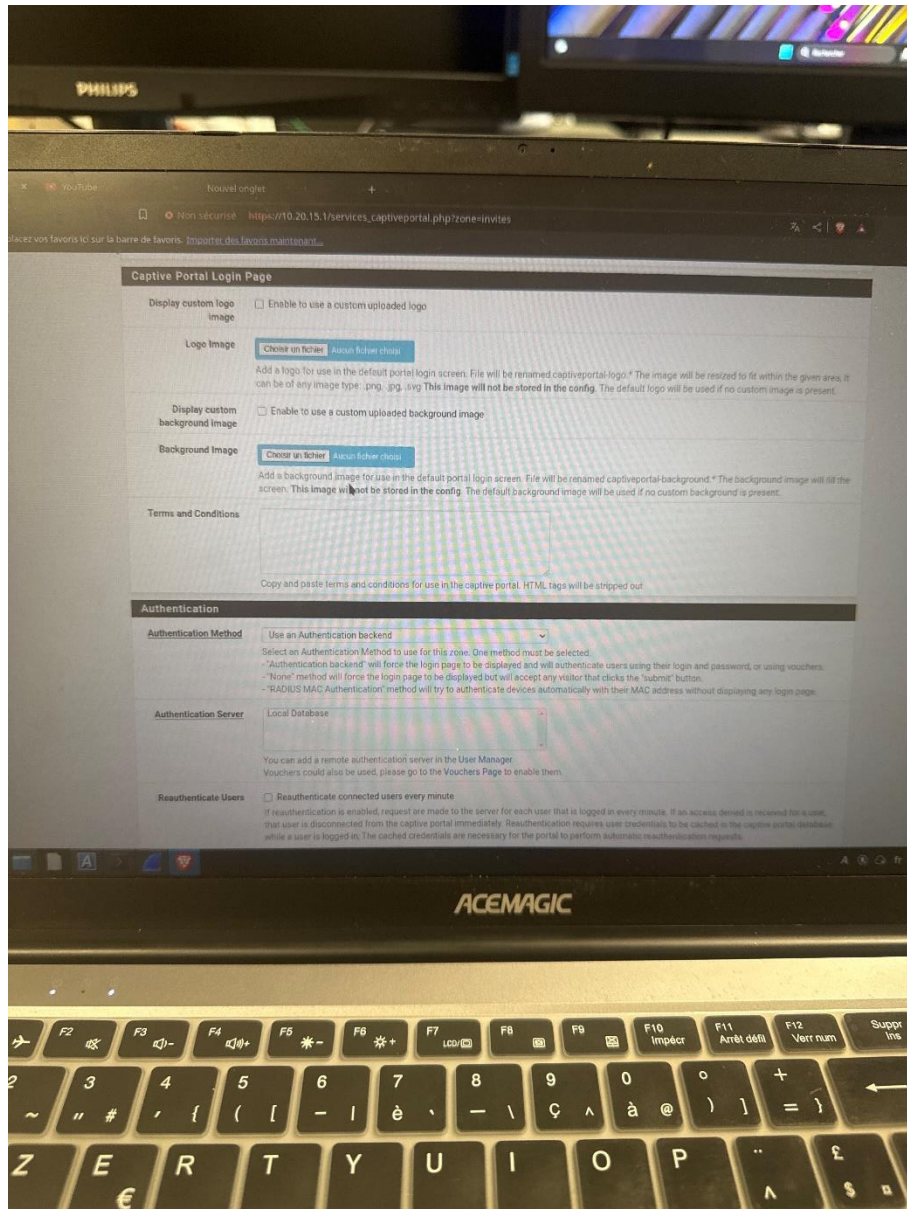


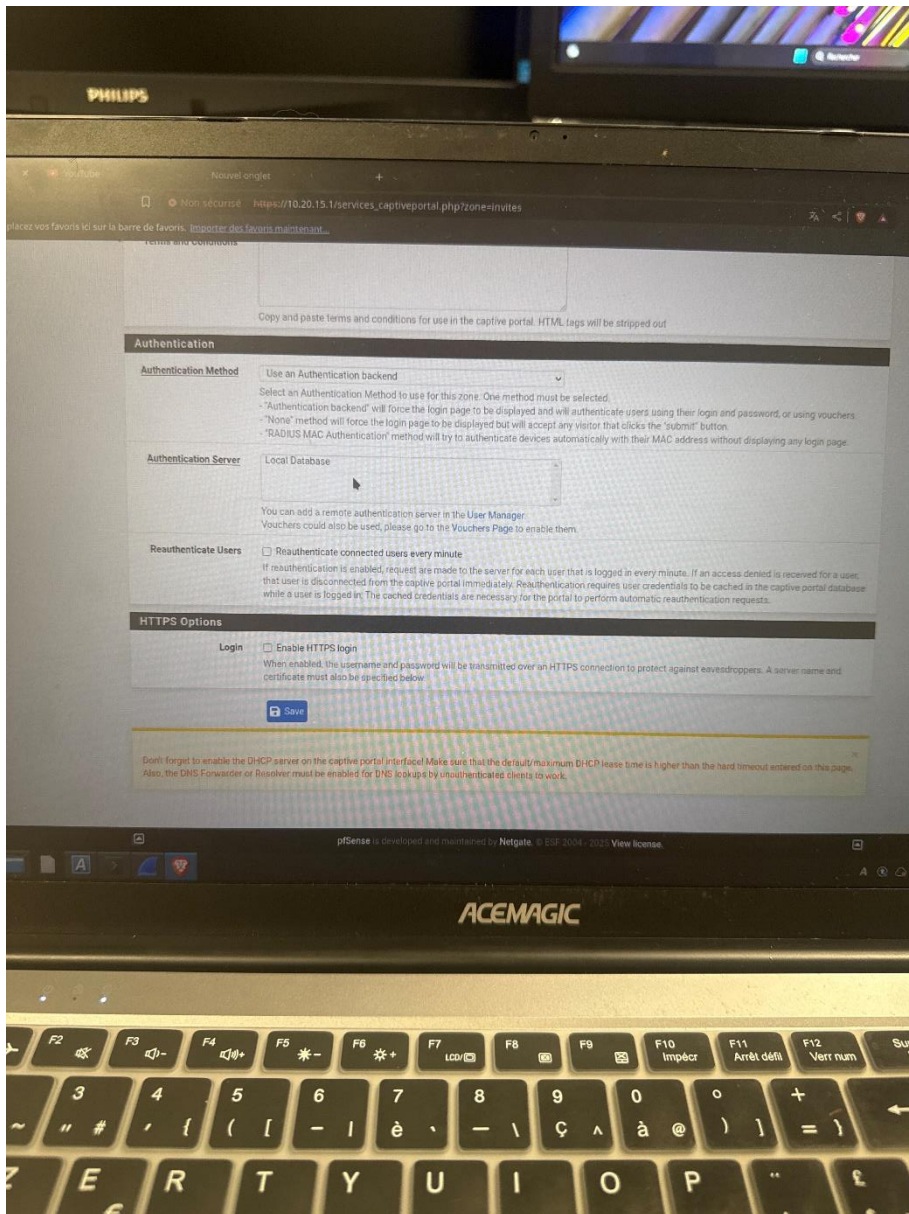


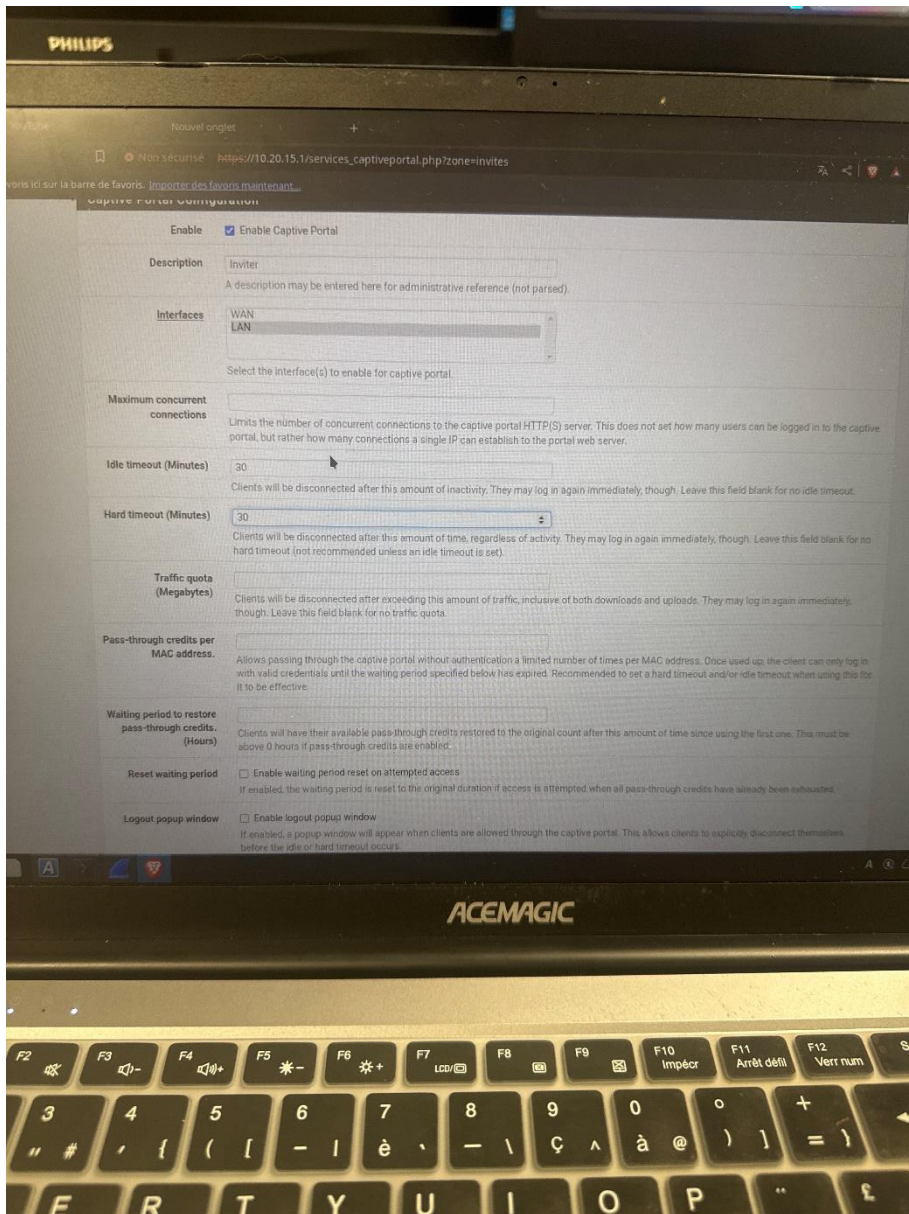
5) Captive Portal (zone “invites”)

- **Enable, Interface : LAN** uniquement.
- **Idle timeout : 30 min, Hard timeout : 60 min.**
- **Authentication Method : Use an Authentication backend**

- **Authentication Server : Local Database** (comptes créés dans System → User Manager).







PHILIPS

Nouvel onglet

Non sécurisé https://10.20.15.1/services_captiveportal.php?zone=invites

Allez sur la barre de favoris. Importer des favoris maintenant...

services_captiveportal.php?zone=invites

Enable Enable Captive Portal

Description

Inviter

A description may be entered here for administrative reference (not parsed).

Interfaces

WLAN

LAN

Select the interface(s) to enable for captive portal.

Maximum concurrent connections

Limits the number of concurrent connections to the captive portal HTTP(S) server. This does not set how many users can be logged in to the captive portal, but rather how many connections a single IP can establish to the portal web server.

Idle timeout (Minutes)

30

Clients will be disconnected after this amount of inactivity. They may log in again immediately, though. Leave this field blank for no idle timeout.

Hard timeout (Minutes)

30

Clients will be disconnected after this amount of time, regardless of activity. They may log in again immediately, though. Leave this field blank for no hard timeout (not recommended unless an idle timeout is set).

Traffic quota (Megabytes)

Clients will be disconnected after exceeding this amount of traffic, inclusive of both downloads and uploads. They may log in again immediately, though. Leave this field blank for no traffic quota.

Pass-through credits per MAC address

Allows passing through the captive portal without authentication a limited number of times per MAC address. Once used up, the client can only log in with valid credentials until the waiting period specified below has expired. Recommended to set a hard timeout and/or idle timeout when using this for it to be effective.

Waiting period to restore pass-through credits (Hours)

Clients will have their available pass-through credits restored to the original count after this amount of time since using the first one. This must be above 0 hours if pass-through credits are enabled.

Reset waiting period

Enable waiting period reset on attempted access

If enabled, the waiting period is reset to the original duration if access is attempted when all pass-through credits have already been exhausted.

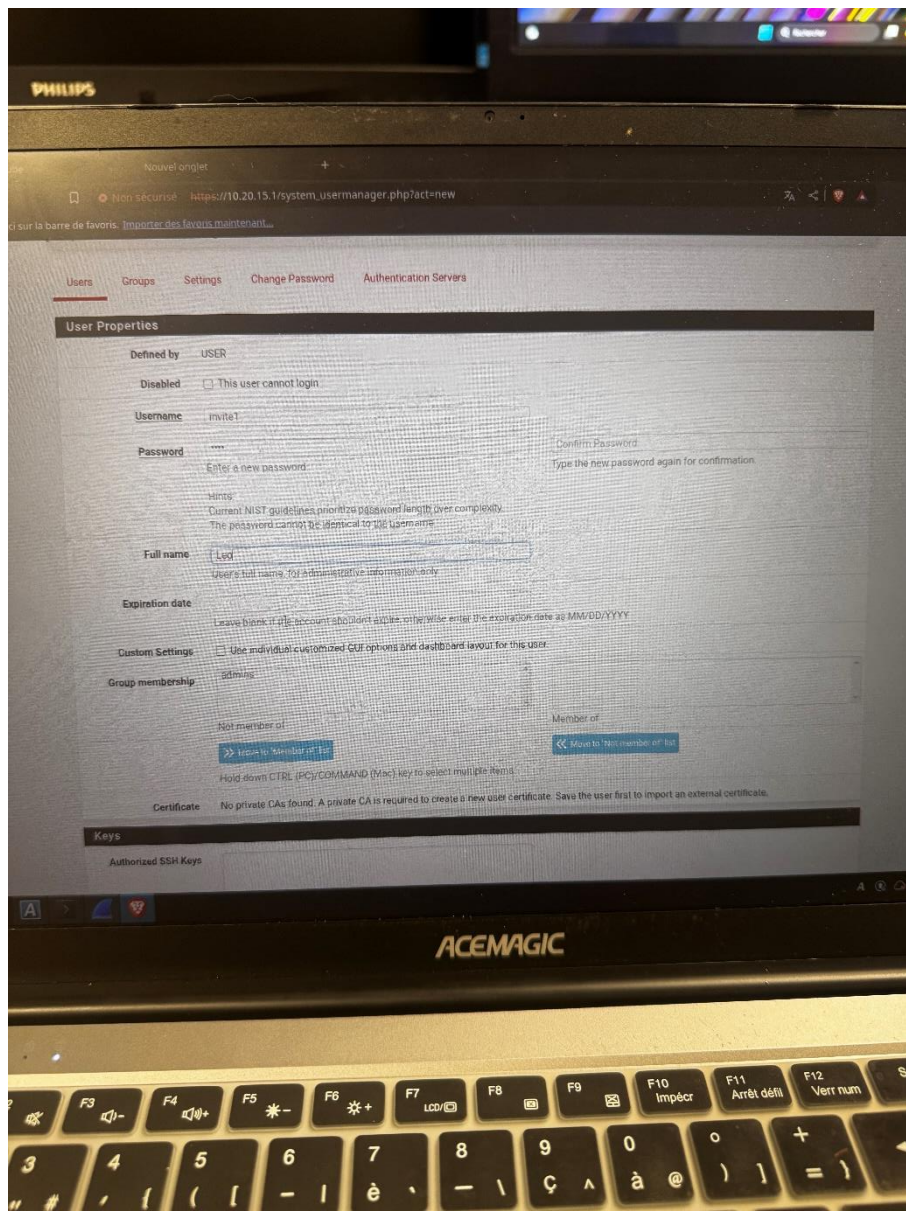
Logout popup window

Enable logout popup window

If enabled, a popup window will appear when clients are allowed through the captive portal. This allows clients to explicitly disconnect themselves before the idle or hard timeout occurs.

ACEMAGIC





6) Tests réalisés

- **Connectivité** : depuis un client WiFi, ping **10.20.15.1** OK, **Internet** OK.
- **DNS** : résolutions non fonctionnelles via pfSense, overrides.
- **Portail captif** : non déclenché.

- ChatGPT.