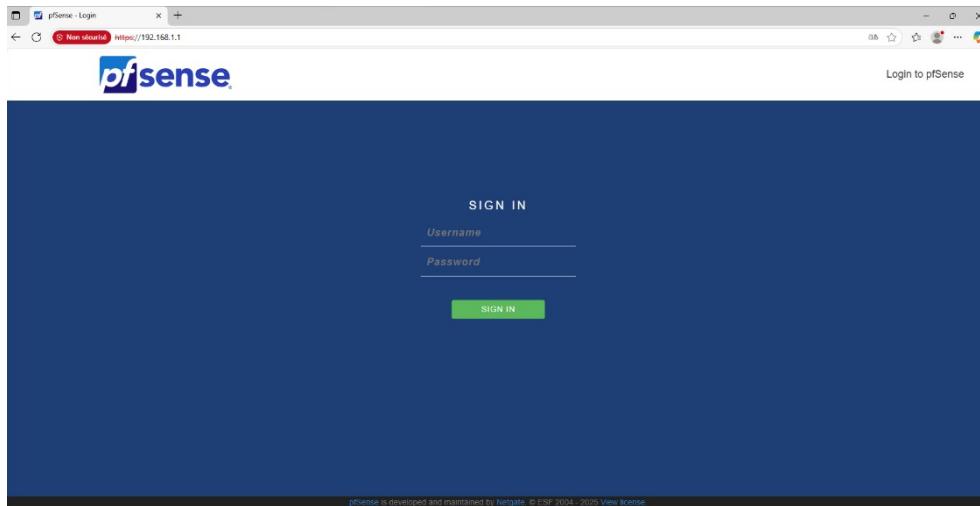


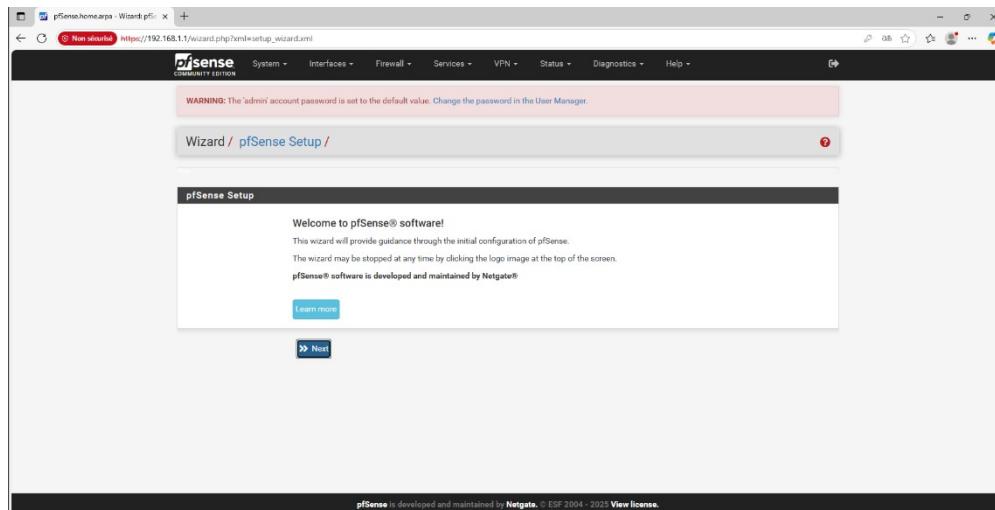
Mini-projet 2 : DHCP sur Pfsense

Mise en place des services DHCP et test de connectivité clients.

Installation de Pfsense :



Une fois l'installation terminée, nous pouvons nous rendre à la page web du pfSense. Cela sera plus simple pour le configurer. Nous pouvons donc se connecter avec admin comme username et pfsense comme password.



Une fois connecté nous allons pouvoir suivre l'assistant de configuration.

Step 2 of 9

General Information

On this screen the general pfSense parameters will be set.

Hostname: pfSense-Router
Name of the firewall host, without domain part.
Examples: pfSense, firewall, edgefw

Domain: enterpriseBTlocal
Domain name for the firewall.
Examples: home.arpa, example.com

Do not end the domain name with 'local' as the final part (Top Level Domain, TLD). The 'local' TLD is widely used by mDNS (e.g. Avahi, Bonjour, Rendezvous, Airprint, Airplay) and some Windows systems and networked devices. These will not network correctly if the router uses 'local' as its TLD. Alternatives such as 'home.arpa', 'local.lan', or 'mylocal' are safe.

The default behavior of the DNS Resolver will ignore manually configured DNS servers for client queries and query root DNS servers directly. To use the manually configured DNS servers below for client queries, visit Services > DNS Resolver and enable DNS Query Forwarding after completing the wizard.

Primary DNS Server:

Secondary DNS Server:

Override DNS Allow DNS servers to be overridden by DHCP/PPP on WAN

>> Next

Mise en place du nouveau nom du routeur

WARNING: The 'admin' account password is set to the default value. Change the password in the User Manager.

Wizard / pfSense Setup / Time Server Information

Step 3 of 9

Time Server Information

Please enter the time, date and time zone.

Time server hostname: 2.pfsense.pool.ntp.org
Enter the hostname (FQDN) of the time server.

Timezone: Europe/Paris

>> Next

Mise en place de la Timezone Paris

WARNING: The 'admin' account password is set to the default value. Change the password in the User Manager.

Wizard / pfSense Setup / Configure LAN Interface

Step 5 of 9

Configure LAN Interface

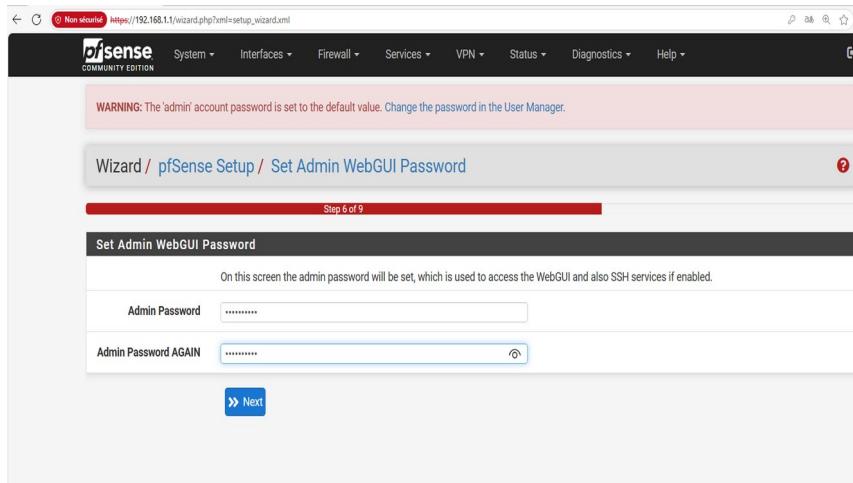
On this screen the Local Area Network information will be configured.

LAN IP Address: 10.0.0.1
Type dhcp if this interface uses DHCP to obtain its IP address.

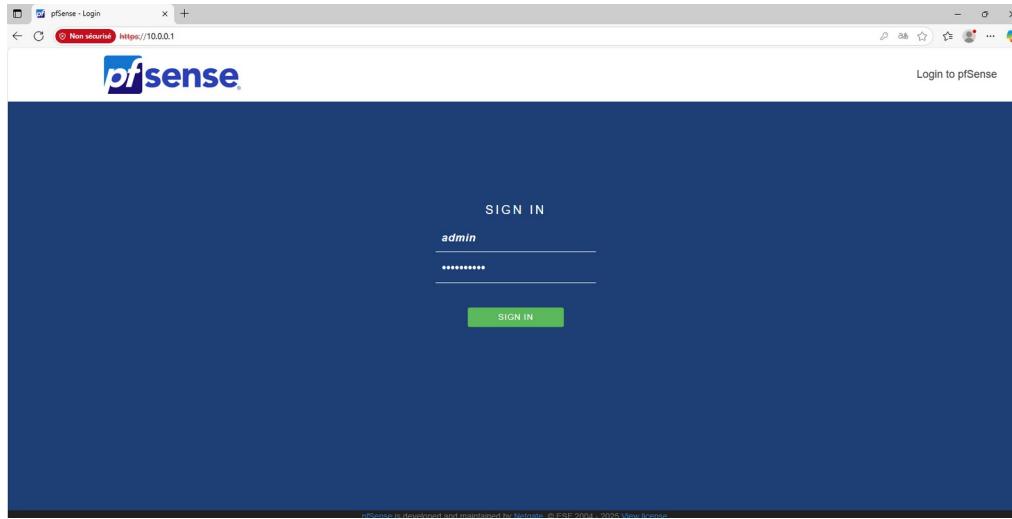
Subnet Mask: 24

>> Next

Mise en place d'une nouvelle adresse ip afin de personnaliser notre réseau



Changement du mot de passe en « adminadmin »



Nous voici sur la nouvelle page de connexion avec la nouvelle ip 10.0.0.1

Non sécurisé | https://10.0.0.1/services_dhcp.php

Dnsense COMMUNITY EDITION

Services / DHCP Server / LAN

ISC DHCP has reached end-of-life and will be removed in a future version of pfSense. Visit System > Advanced > Networking to switch DHCP backend.

LAN

General DHCP Options

DHCP Backend: ISC DHCP

Enable: Enable DHCP server on LAN interface

BOOTP: Ignore BOOTP queries

Deny Unknown Clients: Allow all clients

Ignore Denied Clients: Ignore denied clients rather than reject

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

Primary Address Pool

Subnet: 10.0.0.0/24

Activation du DHCP

Primary Address Pool

Subnet: 10.0.0.0/24

Subnet Range: 10.0.0.1 - 10.0.0.254

Address Pool Range: From 10.0.0.50 To 10.0.0.60

The specified range for this pool must not be within the range configured on any other address pool for this interface.

Additional Pools [+ Add Address Pool](#)

If additional pools of addresses are needed inside of this subnet outside the above range, they may be specified here.

Server Options

WINS Servers: WINS Server 1, WINS Server 2

DNS Servers: 10.0.0.10, DNS Server 2, DNS Server 3, DNS Server 4

Mise en place de l'étendue pour la distribution d'adresses ip, puis on choisit le DNS qui sera notre Windows serveur

Diagnostics / Ping

Ping

Hostname: 8.8.8.8

IP Protocol: IPv4

Source address: Automatically selected (default)

Maximum number of pings: 3

Seconds between pings: 1

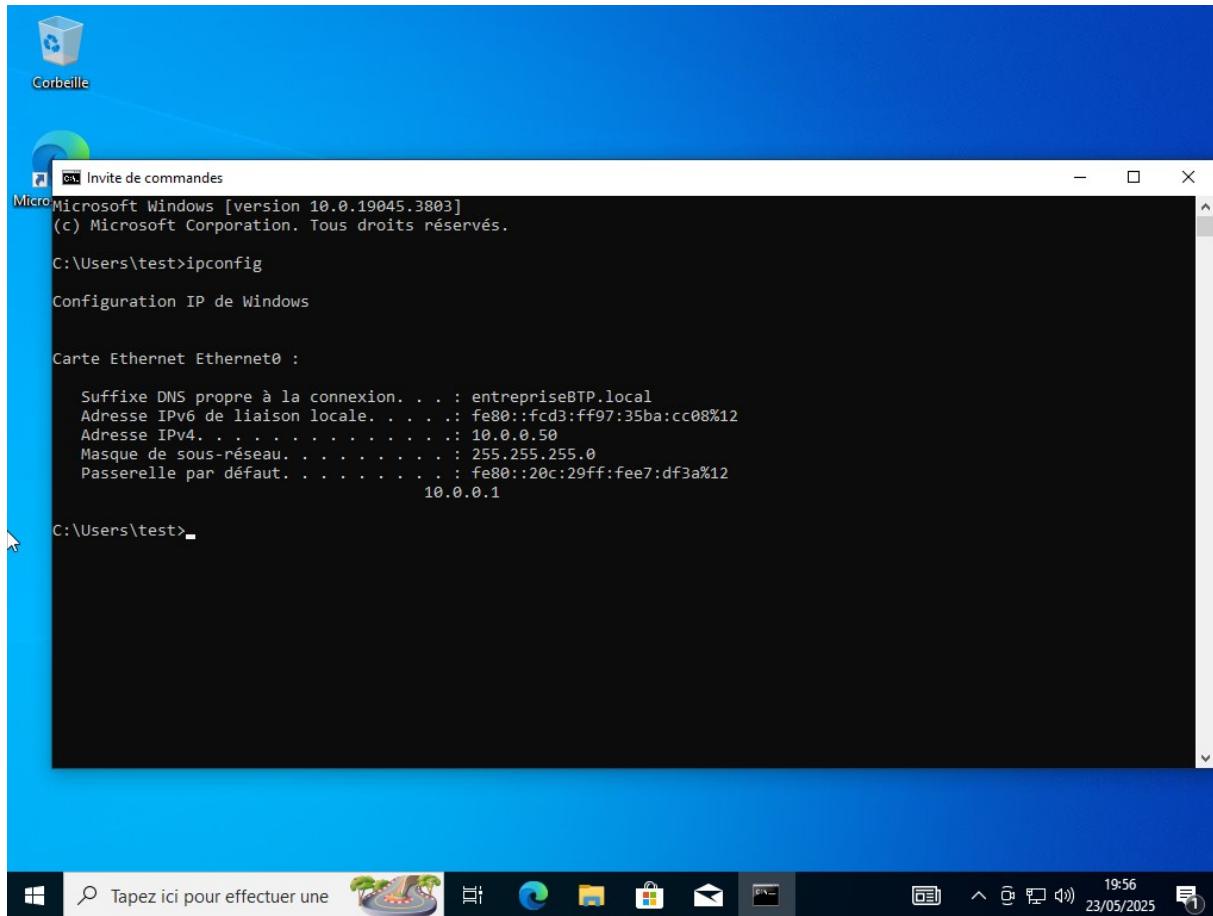
Results

```
PING 8.8.8.8 (8.8.8.8): 56 data bytes
64 bytes from 8.8.8.8: icmp_seq=0 ttl=128 time=13.461 ms
64 bytes from 8.8.8.8: icmp_seq=1 ttl=128 time=20.382 ms
64 bytes from 8.8.8.8: icmp_seq=2 ttl=128 time=12.677 ms

--- 8.8.8.8 ping statistics ---
3 packets transmitted, 3 packets received, 0.0% packet loss
round-trip min/avg/max/stddev = 12.677/15.507/20.382/3.462 ms
```

Test de ping vers le DNS de google, ce qui confirme que pfSense a bien accès à internet depuis l'interface WAN

Test du DHCP sur une machin client :



Une fois l'installation terminé, nous pouvons voir que le pc a bien pris la bonne adresse ip venant du DHCP