Lab#2

NetGate pfSense

NACT-261 Network Security

2024-2025 Spring Semester

Submitted by Jibreal Id-deen

Due by February 16

Professor Mark Jeremy

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OBJECTIVE

To be able to understand how does the pfSense Router SG-3100 works and learn how to install pfBlockerNG. So, with that, I can learn how to block the website as whatever I want on this router and understand what the features appear on this.

PROCEDURE

- Walked to the ICS Equipment room
- Got the SG-3100 model Router, MAC.
- Got WAN and LAN cable to connect with the router and Internet
- Learned how to reset the Router
- Opened the GUI on the website
- Learned how to install pfBlockerNG on it
- Block the website
- Take the items what I took from ICS Equipment to give it back

NETWORK DIAGRAM

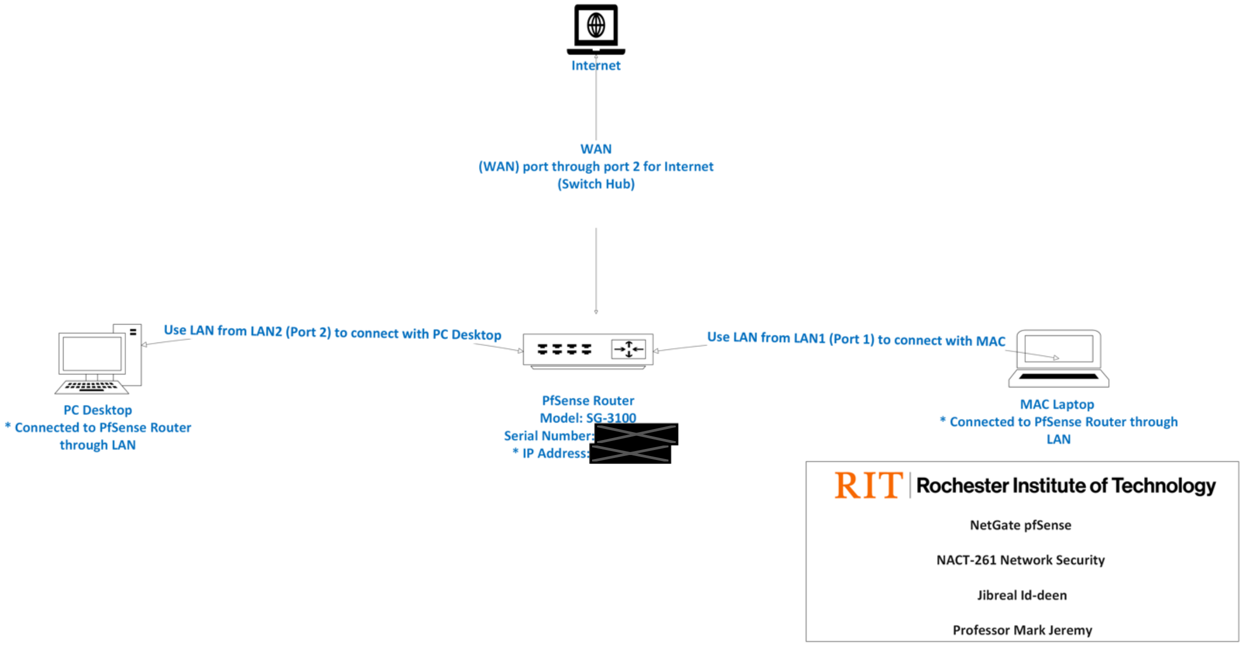
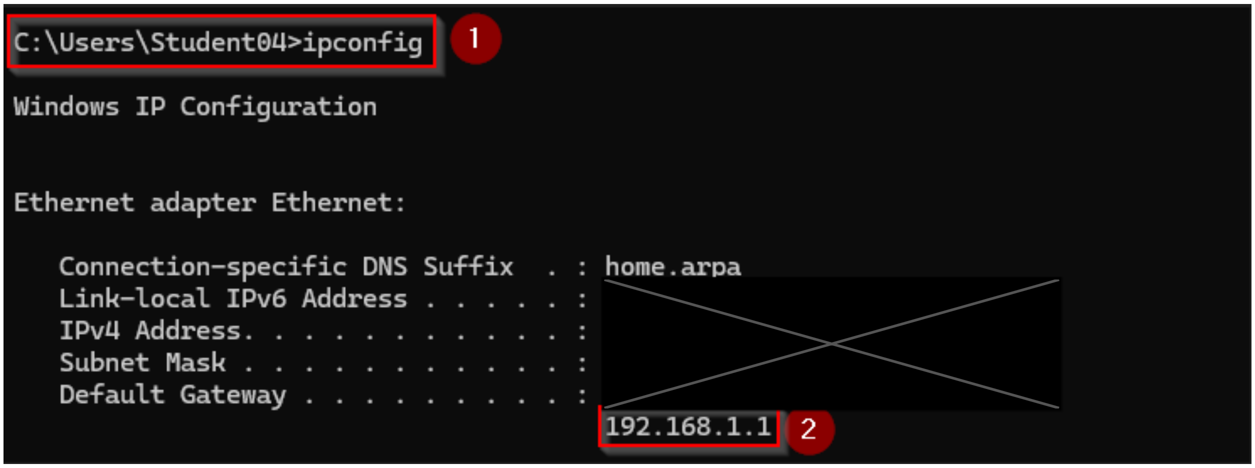
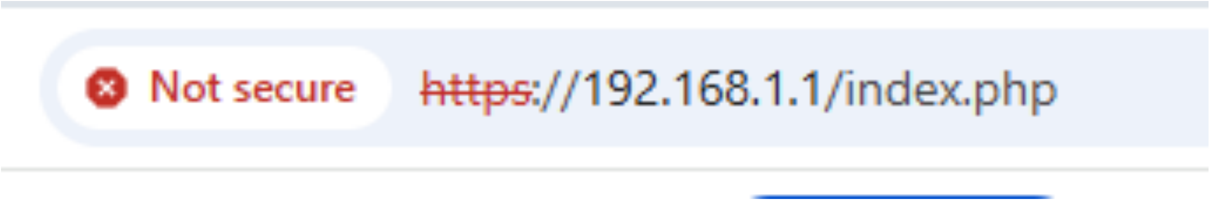

Internet
WAN
(WAN) port through port 2 for Internet
(Switch Hub)
Use LAN from LAN2 (Port 2) to connect with PC Desktop
Use LAN from LAN1 (Port 1) to connect with MAC
PC Desktop
* Connected to PfSense Router through LAN
PfSense Router
Model: SG-3100
Serial Number: [redacted]
* IP Address: [redacted]
MAC Laptop
* Connected to PfSense Router through LAN
RIT | Rochester Institute of Technology
NetGate pfSense
NACT-261 Network Security
Jibreal Id-deen
Professor Mark Jeremy

FIGURE 1 - NETWORK DIAGRAM



```
C:\Users\Student04>ipconfig

Windows IP Configuration


Ethernet adapter Ethernet:

   Connection-specific DNS Suffix  . : home.arpa
   Link-local IPv6 Address . . . . . : [redacted]
   IPv4 Address. . . . . . . . . . . :
   Subnet Mask . . . . . . . . . . . :
   Default Gateway . . . . . . . . . :
                                       192.168.1.1
```

Figure 2 - Check the router's IP address from CMD



Not secure ~~https~~://192.168.1.1/index.php

Figure 3 - Use that IP address on the website to look

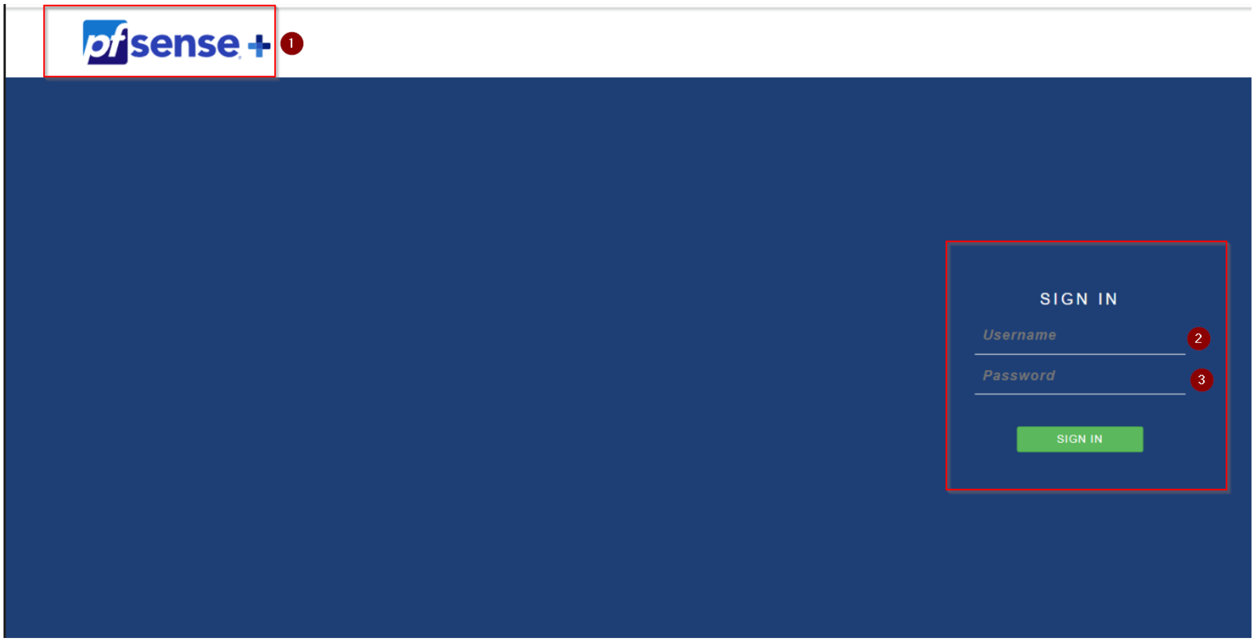
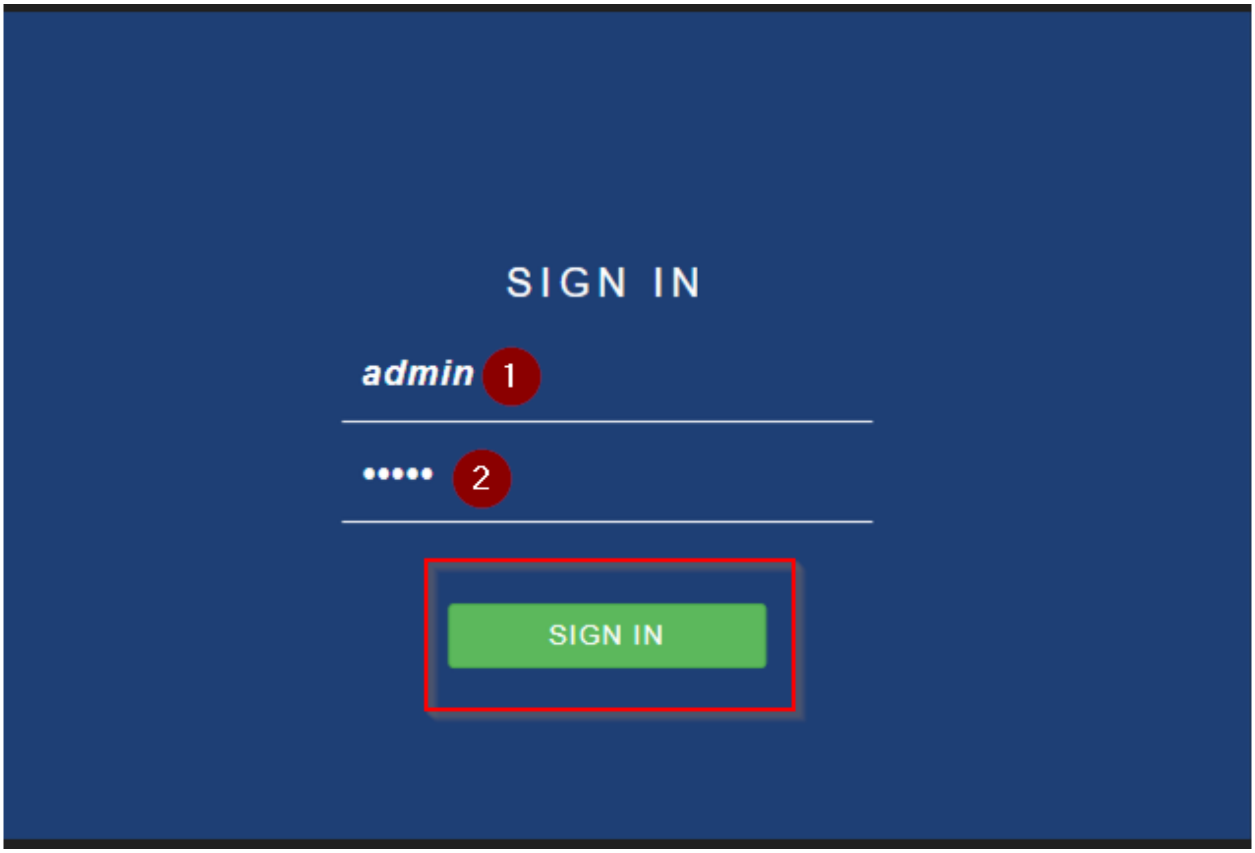


Figure 4 - Seeing the account on the website

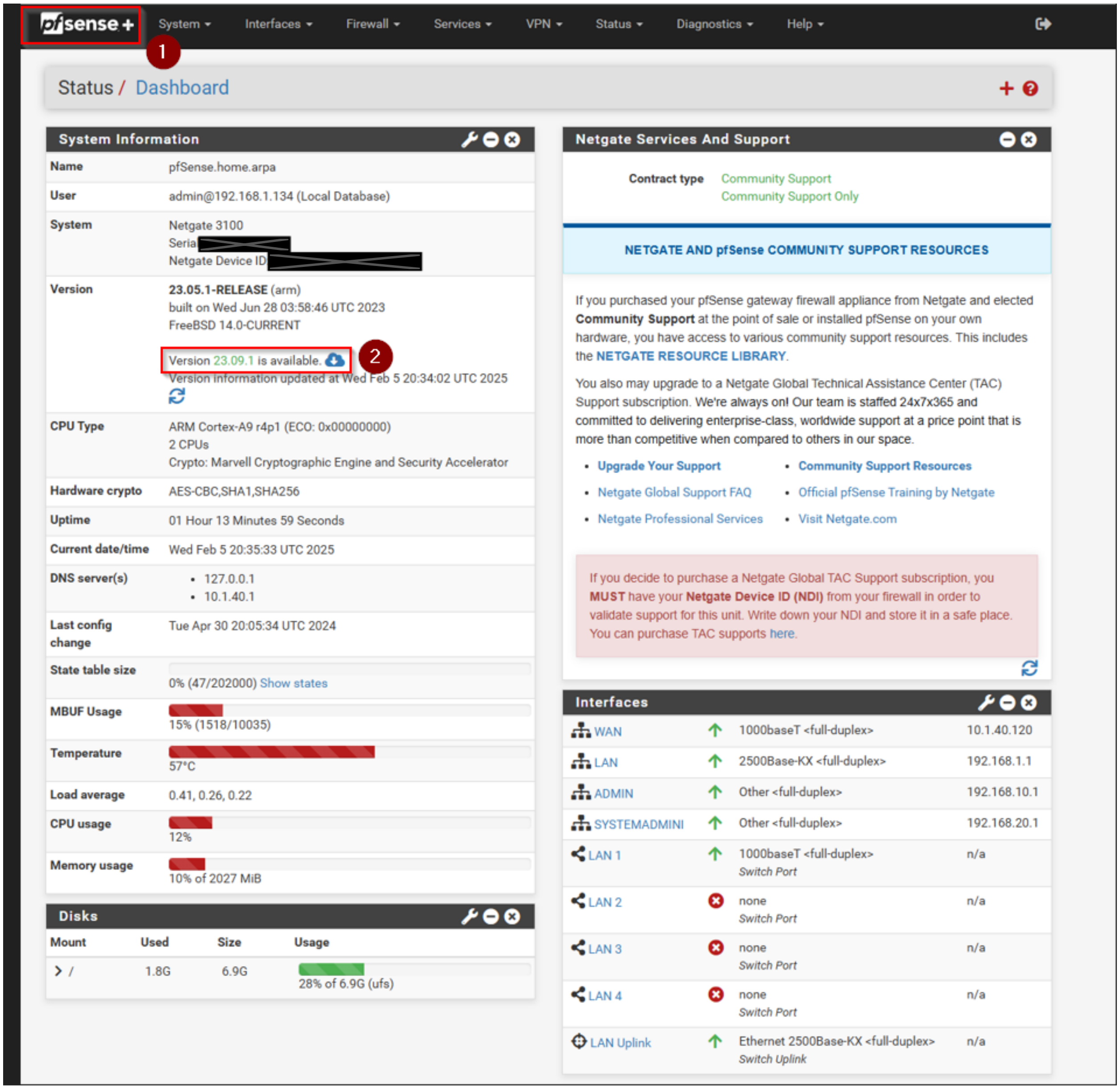


SIGN IN

admin

•••••

FIGURE 5 - LOGGING THE ACCOUNT ON THE WEBSITE



Status / Dashboard

System Information

Name	pfSense.home.arpa
User	admin@192.168.1.134 (Local Database)
System	Netgate 3100 Serial [redacted] Netgate Device ID [redacted]
Version	**23.05.1-RELEASE** (arm) built on Wed Jun 28 03:58:46 UTC 2023 FreeBSD 14.0-CURRENT Version 23.09.1 is available. Version information updated at Wed Feb 5 20:34:02 UTC 2025
CPU Type	ARM Cortex-A9 r4p1 (ECO: 0x00000000) 2 CPUs Crypto: Marvell Cryptographic Engine and Security Accelerator
Hardware crypto	AES-CBC,SHA1,SHA256
Uptime	01 Hour 13 Minutes 59 Seconds
Current date/time	Wed Feb 5 20:35:33 UTC 2025
DNS server(s)	• 127.0.0.1 • 10.1.40.1
Last config change	Tue Apr 30 20:05:34 UTC 2024
State table size	0% (47/202000) Show states
MBUF Usage	15% (1518/10035)
Temperature	57°C
Load average	0.41, 0.26, 0.22
CPU usage	12%
Memory usage	10% of 2027 MiB

Disks

Mount	Used	Size	Usage
> /	1.8G	6.9G	28% of 6.9G (ufs)

Netgate Services And Support

Contract type Community Support
Community Support Only

NETGATE AND pfSense COMMUNITY SUPPORT RESOURCES

If you purchased your pfSense gateway firewall appliance from Netgate and elected **Community Support** at the point of sale or installed pfSense on your own hardware, you have access to various community support resources. This includes the **NETGATE RESOURCE LIBRARY**.

You also may upgrade to a Netgate Global Technical Assistance Center (TAC) Support subscription. We're always on! Our team is staffed 24x7x365 and committed to delivering enterprise-class, worldwide support at a price point that is more than competitive when compared to others in our space.

- **Upgrade Your Support**
- Netgate Global Support FAQ
- Netgate Professional Services
- **Community Support Resources**
- Official pfSense Training by Netgate
- Visit Netgate.com

If you decide to purchase a Netgate Global TAC Support subscription, you **MUST** have your **Netgate Device ID (NDI)** from your firewall in order to validate support for this unit. Write down your NDI and store it in a safe place. You can purchase TAC supports here.

Interfaces

WAN	↑	1000baseT <full-duplex>	10.1.40.120
LAN	↑	2500Base-KX <full-duplex>	192.168.1.1
ADMIN	↑	Other <full-duplex>	192.168.10.1
SYSTEMADMINI	↑	Other <full-duplex>	192.168.20.1
LAN 1	↑	1000baseT <full-duplex> *Switch Port*	n/a
LAN 2	⊗	none *Switch Port*	n/a
LAN 3	⊗	none *Switch Port*	n/a
LAN 4	⊗	none *Switch Port*	n/a
LAN Uplink	↑	Ethernet 2500Base-KX <full-duplex> *Switch Uplink*	n/a

Figure 6 - Looking at the GUI of the pfSense Router

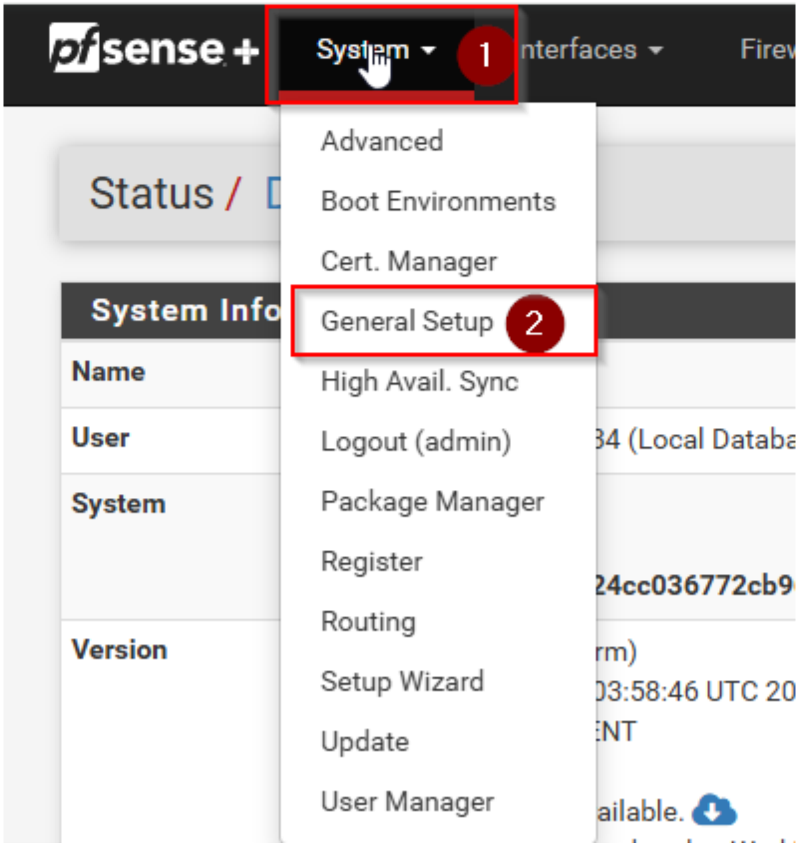
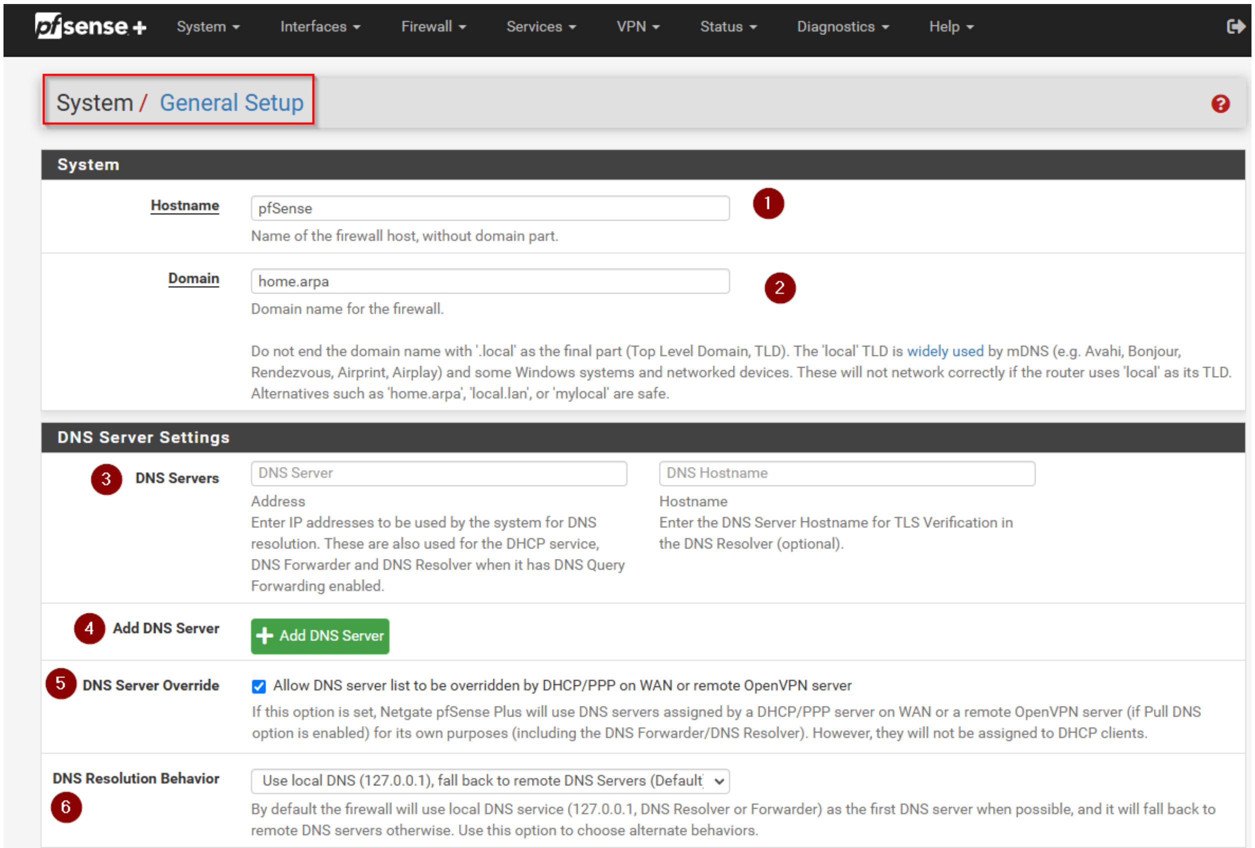


Figure 7 - Open the system then click General Setup



System / General Setup

System

Hostname: pfSense
Name of the firewall host, without domain part.

Domain: home.arpa
Domain name for the firewall.

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.

DNS Server Settings

DNS Servers: DNS Server | DNS Hostname

Address
Enter IP addresses to be used by the system for DNS resolution. These are also used for the DHCP service, DNS Forwarder and DNS Resolver when it has DNS Query Forwarding enabled.

Hostname
Enter the DNS Server Hostname for TLS Verification in the DNS Resolver (optional).

Add DNS Server: + Add DNS Server

DNS Server Override: ☑ Allow DNS server list to be overridden by DHCP/PPP on WAN or remote OpenVPN server
If this option is set, Netgate pfSense Plus will use DNS servers assigned by a DHCP/PPP server on WAN or a remote OpenVPN server (if Pull DNS option is enabled) for its own purposes (including the DNS Forwarder/DNS Resolver). However, they will not be assigned to DHCP clients.

DNS Resolution Behavior: Use local DNS (127.0.0.1), fall back to remote DNS Servers (Default
By default the firewall will use local DNS service (127.0.0.1, DNS Resolver or Forwarder) as the first DNS server when possible, and it will fall back to remote DNS servers otherwise. Use this option to choose alternate behaviors.

Figure 8 - Looking around the gernal setup

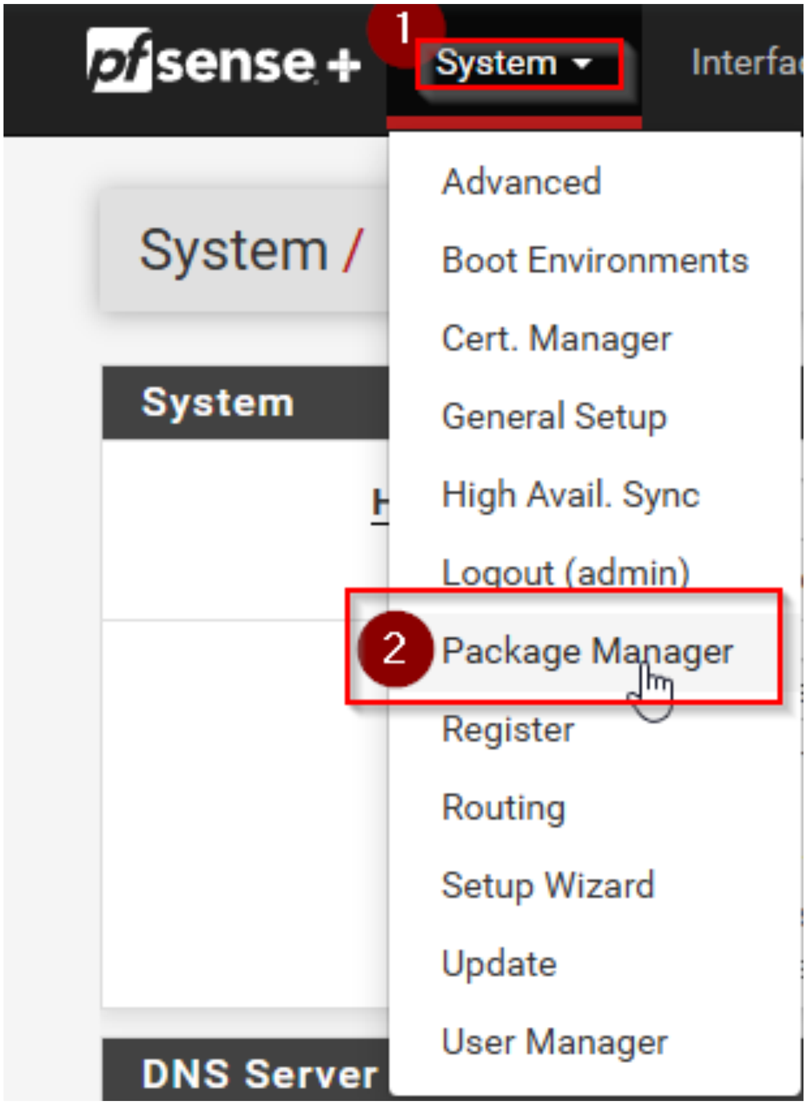
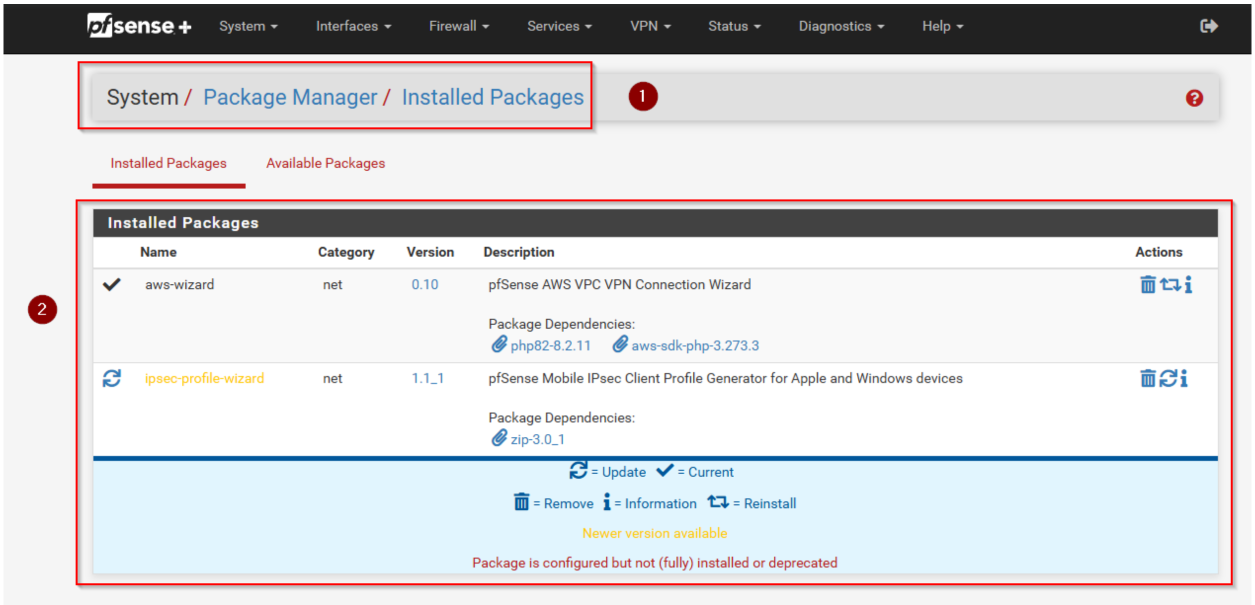


FIGURE 9 - OPEN THE SYSTEM AND CLICK PACKAGE MANAGER



System / Package Manager / Installed Packages

Installed Packages

	Name	Category	Version	Description	Actions
✓	aws-wizard	net	0.10	pfSense AWS VPC VPN Connection Wizard Package Dependencies: php82-8.2.11 aws-sdk-php-3.273.3	
⟳	ipsec-profile-wizard	net	1.1_1	pfSense Mobile IPsec Client Profile Generator for Apple and Windows devices Package Dependencies: zip-3.0_1	

⟳ = Update ✓ = Current

= Remove i = Information = Reinstall

Newer version available

Package is configured but not (fully) installed or deprecated

FIGURE 10 - LOOKING AROUND THE PACKAGE MANAGER

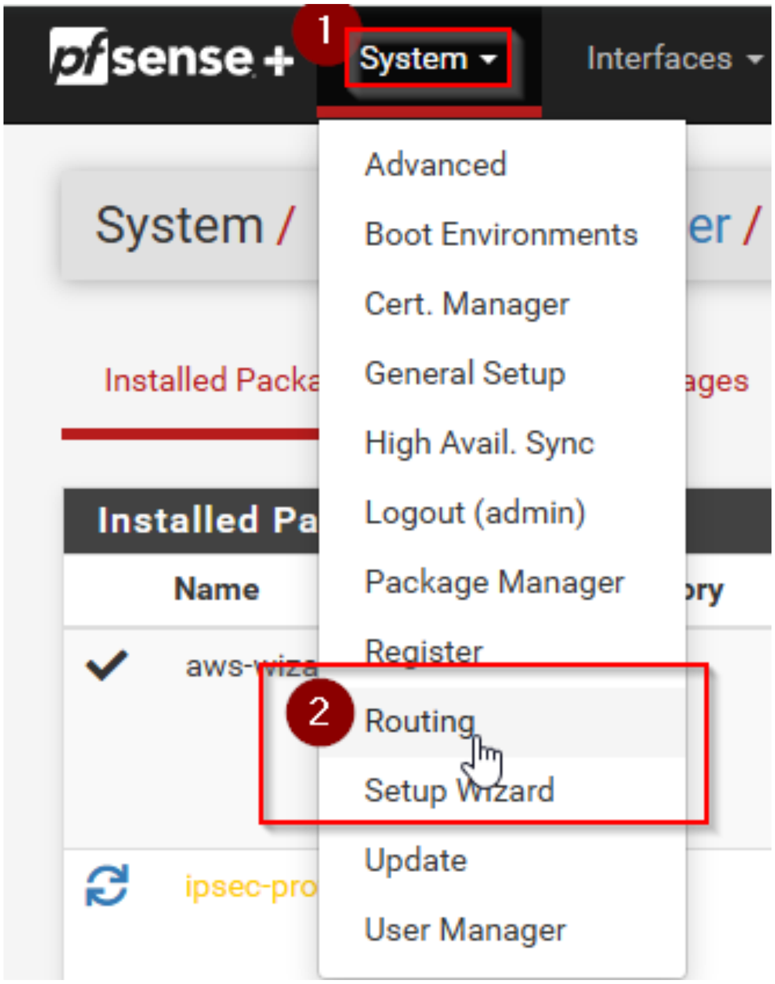
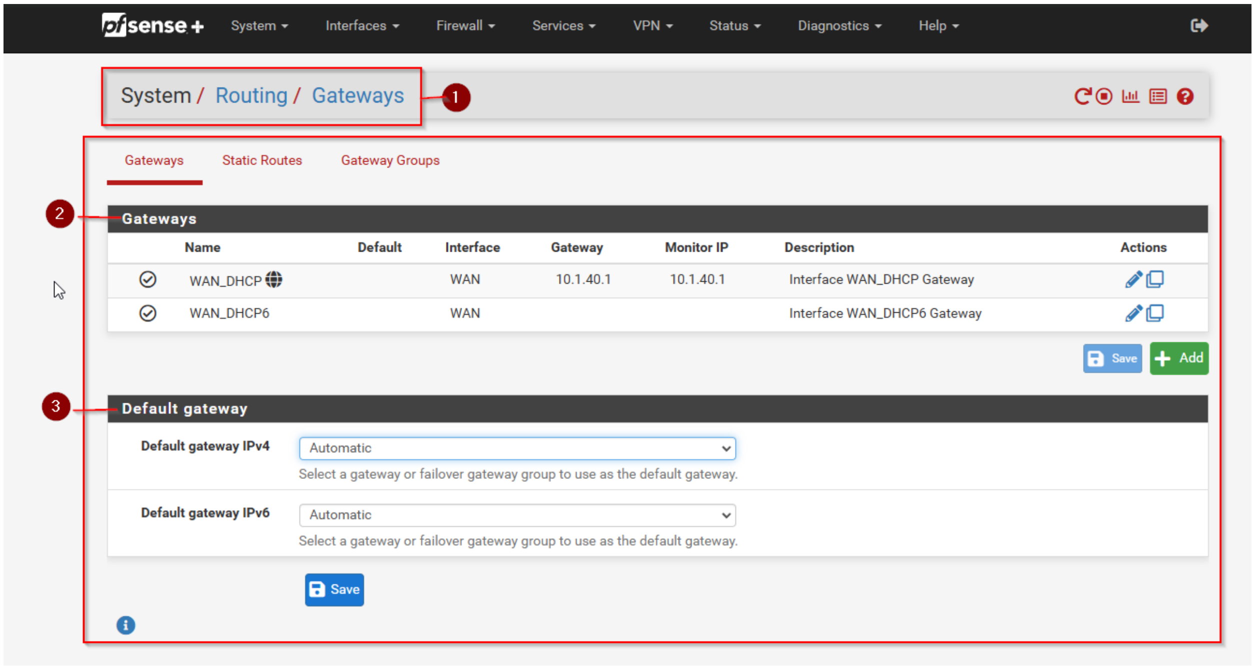


FIGURE 11 - OPEN THE SYSTEM AGAIN AND CLICK ROUTING



System / Routing / Gateways

Gateways

	Name	Default	Interface	Gateway	Monitor IP	Description	Actions
✓	WAN_DHCP 🌐		WAN	10.1.40.1	10.1.40.1	Interface WAN_DHCP Gateway	
✓	WAN_DHCP6		WAN			Interface WAN_DHCP6 Gateway	

Default gateway

Default gateway IPv4: Automatic

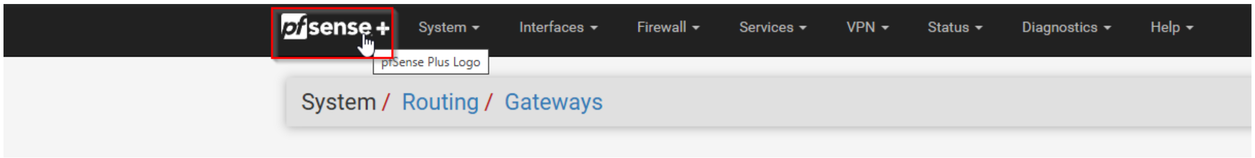
Select a gateway or failover gateway group to use as the default gateway.

Default gateway IPv6: Automatic

Select a gateway or failover gateway group to use as the default gateway.

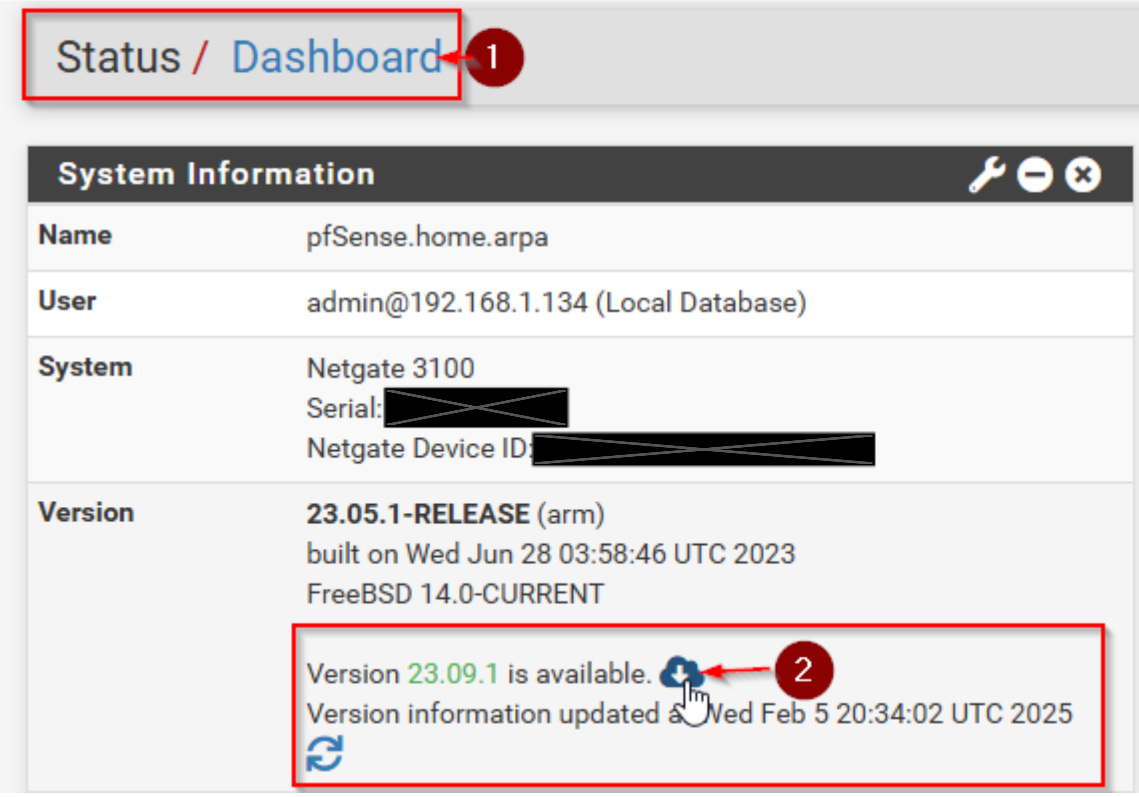
Save

Figure 12 - Looking around routing



System / Routing / Gateways

Figure 13 Click the pfSense to go back

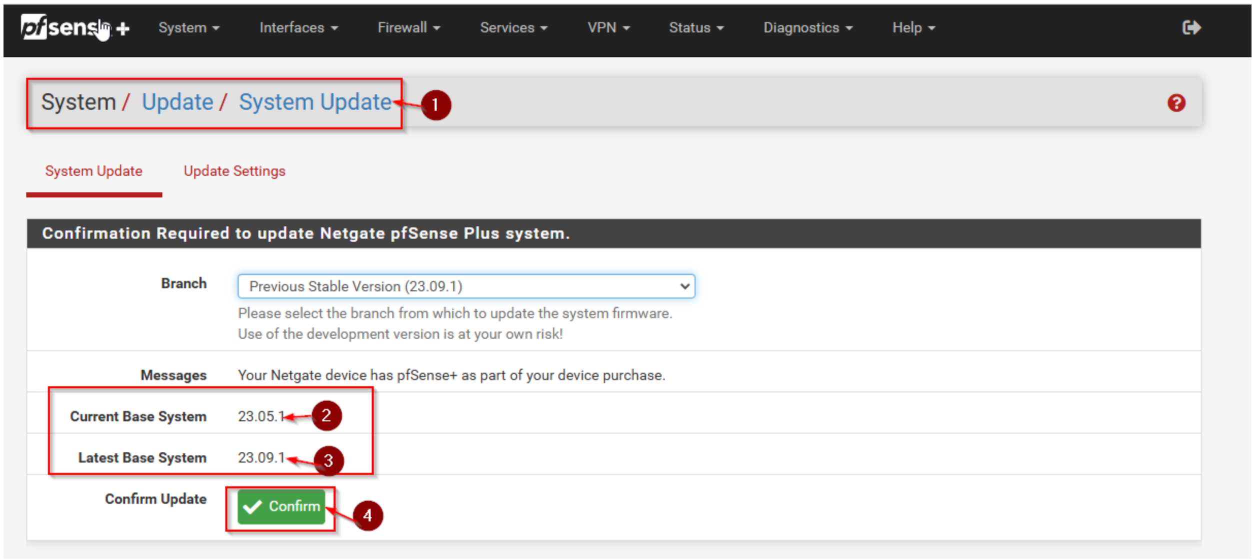


Status / Dashboard

System Information

Name	pfSense.home.arpa
User	admin@192.168.1.134 (Local Database)
System	Netgate 3100 Serial: [redacted] Netgate Device ID: [redacted]
Version	**23.05.1-RELEASE** (arm) built on Wed Jun 28 03:58:46 UTC 2023 FreeBSD 14.0-CURRENT Version 23.09.1 is available. Version information updated at Wed Feb 5 20:34:02 UTC 2025

Figure 14 - Update the version of pfSense Router

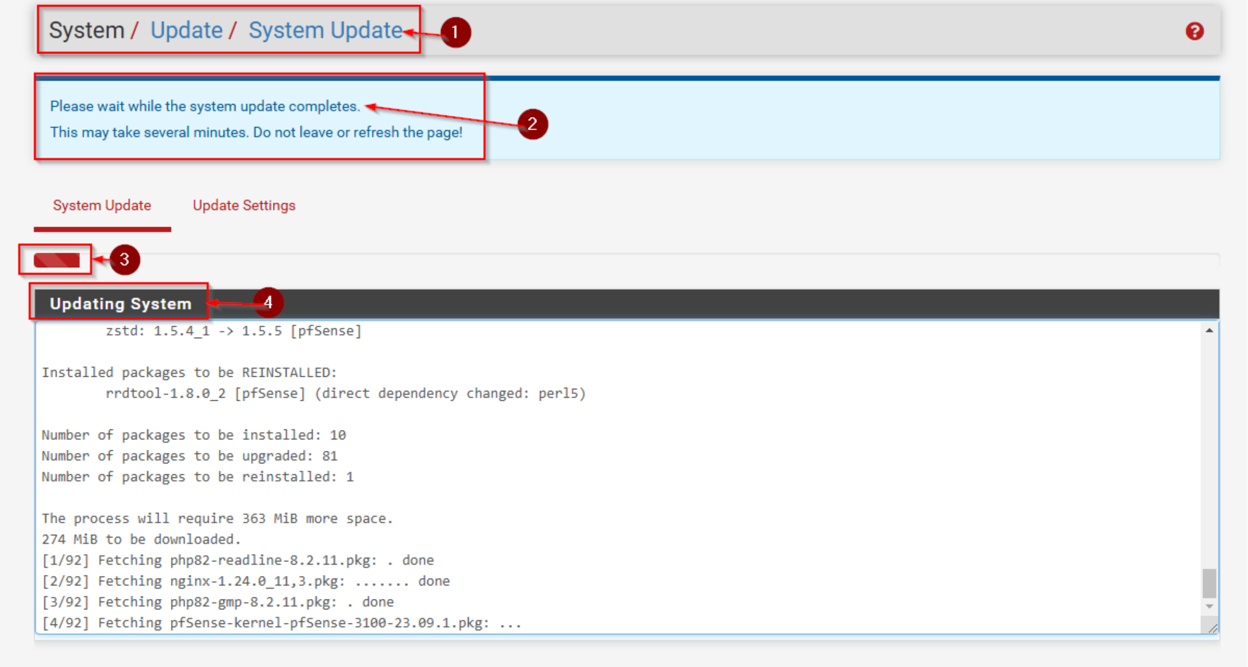


System / Update / System Update

Confirmation Required to update Netgate pfSense Plus system.

Branch	Previous Stable Version (23.09.1) Please select the branch from which to update the system firmware. Use of the development version is at your own risk!
Messages	Your Netgate device has pfSense+ as part of your device purchase.
Current Base System	23.05.1
Latest Base System	23.09.1
Confirm Update	✓ Confirm

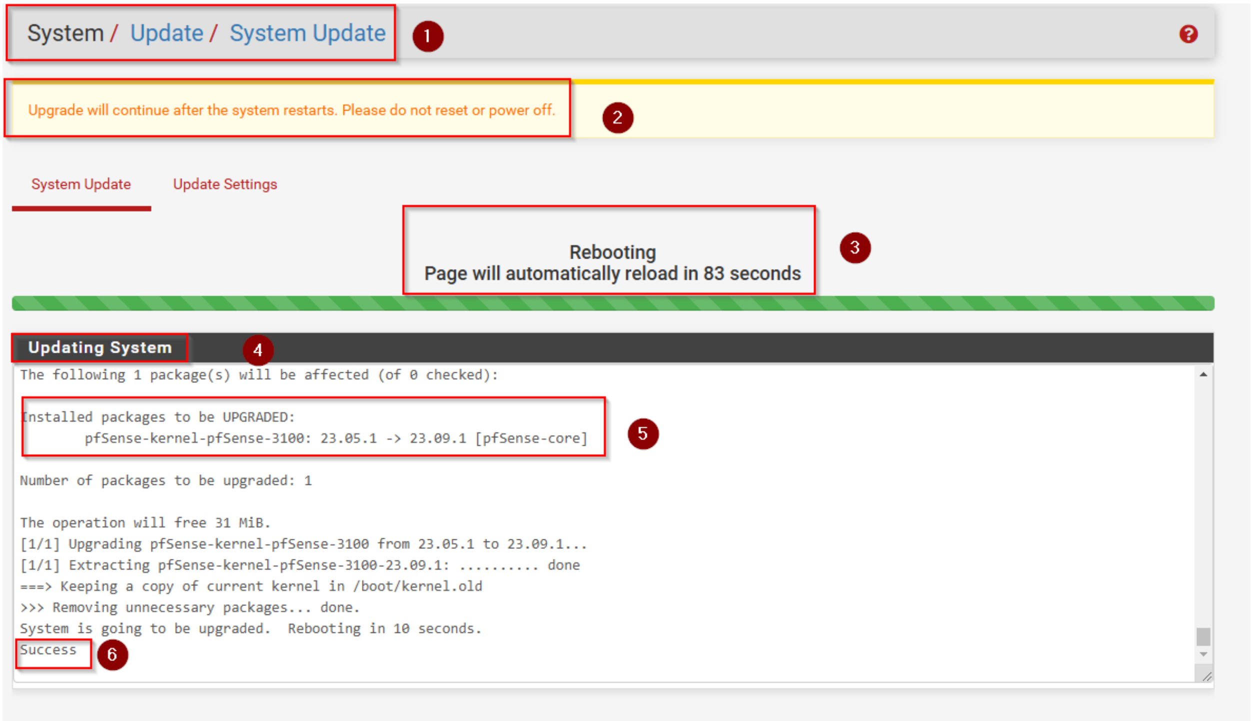
Figure 15 - Confirm the update



Please wait while the system update completes.
This may take several minutes. Do not leave or refresh the page!

```
        zstd: 1.5.4_1 -> 1.5.5 [pfSense]

Installed packages to be REINSTALLED:
        rrdtool-1.8.0_2 [pfSense] (direct dependency changed: perl5)

Number of packages to be installed: 10
Number of packages to be upgraded: 81
Number of packages to be reinstalled: 1

The process will require 363 MiB more space.
274 MiB to be downloaded.
[1/92] Fetching php82-readline-8.2.11.pkg: . done
[2/92] Fetching nginx-1.24.0_11,3.pkg: ....... done
[3/92] Fetching php82-gmp-8.2.11.pkg: . done
[4/92] Fetching pfSense-kernel-pfSense-3100-23.09.1.pkg: ...
```

Figure 16 - Updating...



Upgrade will continue after the system restarts. Please do not reset or power off.

Rebooting
Page will automatically reload in 83 seconds

```
The following 1 package(s) will be affected (of 0 checked):

Installed packages to be UPGRADED:
        pfSense-kernel-pfSense-3100: 23.05.1 -> 23.09.1 [pfSense-core]

Number of packages to be upgraded: 1

The operation will free 31 MiB.
[1/1] Upgrading pfSense-kernel-pfSense-3100 from 23.05.1 to 23.09.1...
[1/1] Extracting pfSense-kernel-pfSense-3100-23.09.1: .......... done
===> Keeping a copy of current kernel in /boot/kernel.old
>>> Removing unnecessary packages... done.
System is going to be upgraded.  Rebooting in 10 seconds.
Success
```

Figure 17 - Rebooting....

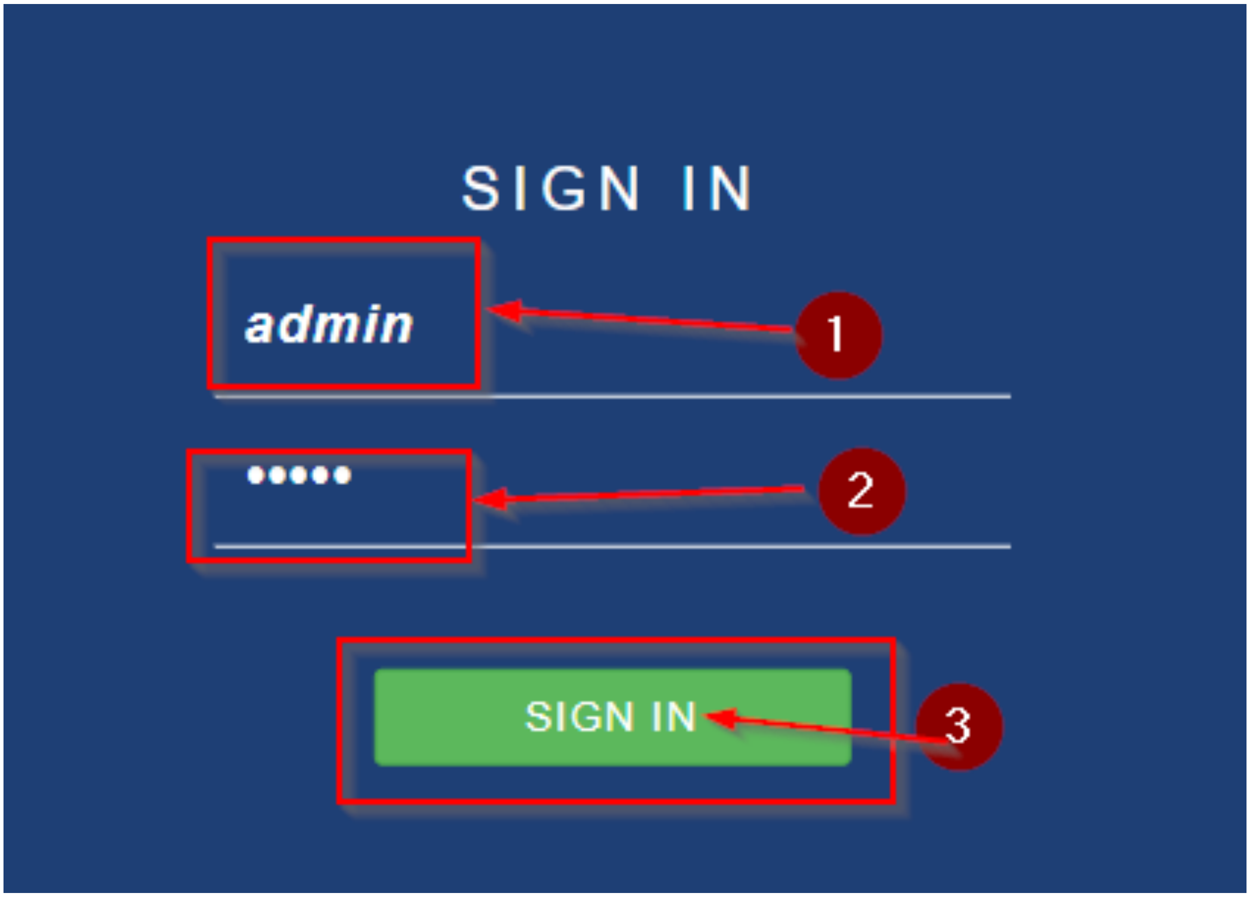
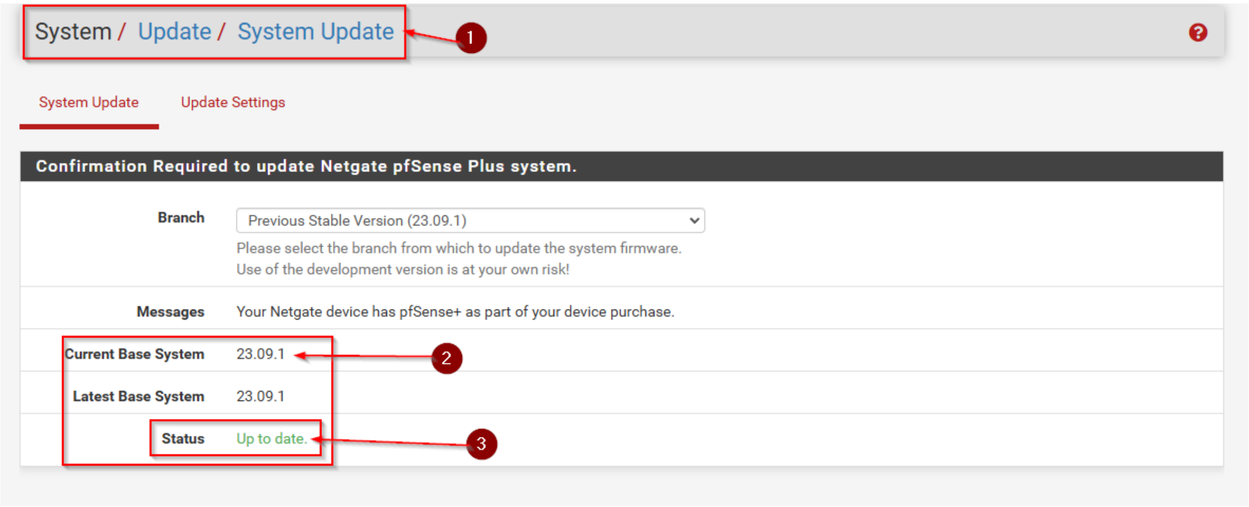


FIGURE 18 - LOGGING THE ACCOUNT AGAIN



Confirmation Required to update Netgate pfSense Plus system.

Branch: Previous Stable Version (23.09.1)

Please select the branch from which to update the system firmware.
Use of the development version is at your own risk!

Messages: Your Netgate device has pfSense+ as part of your device purchase.

Current Base System: 23.09.1

Latest Base System: 23.09.1

Status: Up to date.

FIGURE 19 - UPDATE COMPLETED

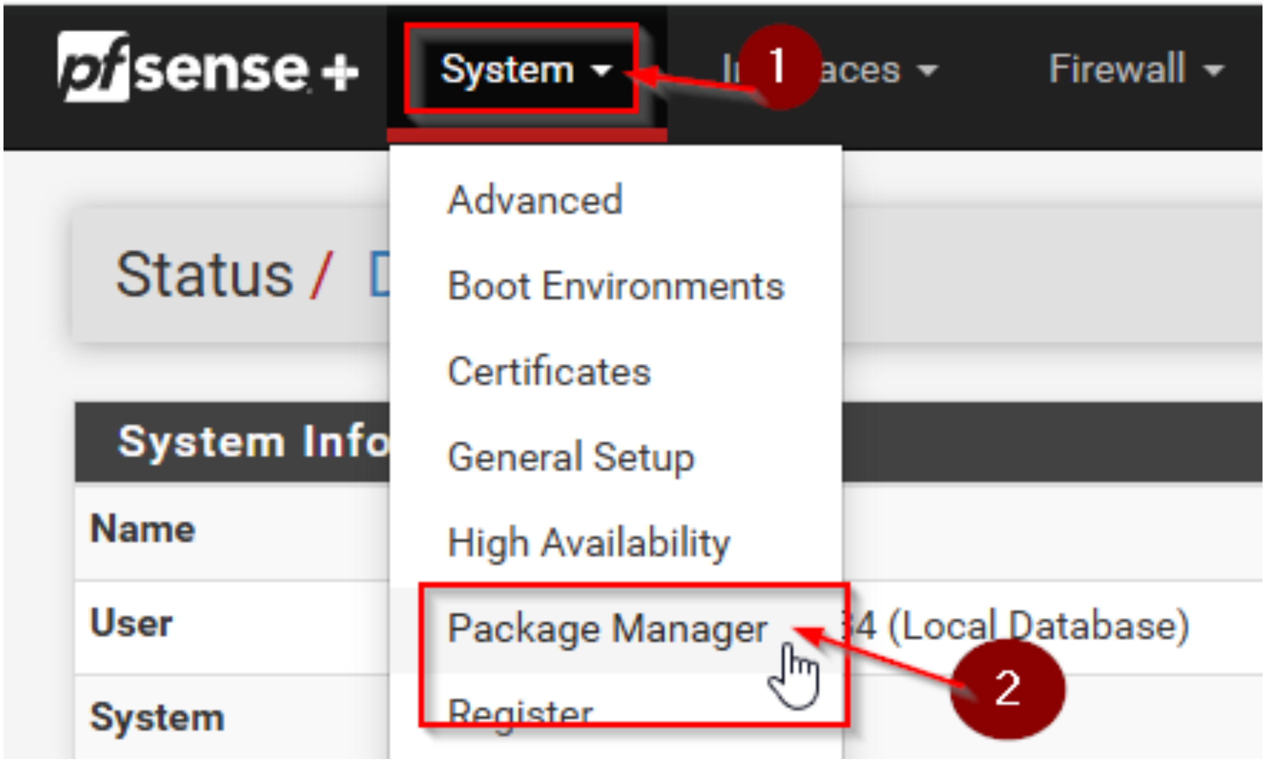
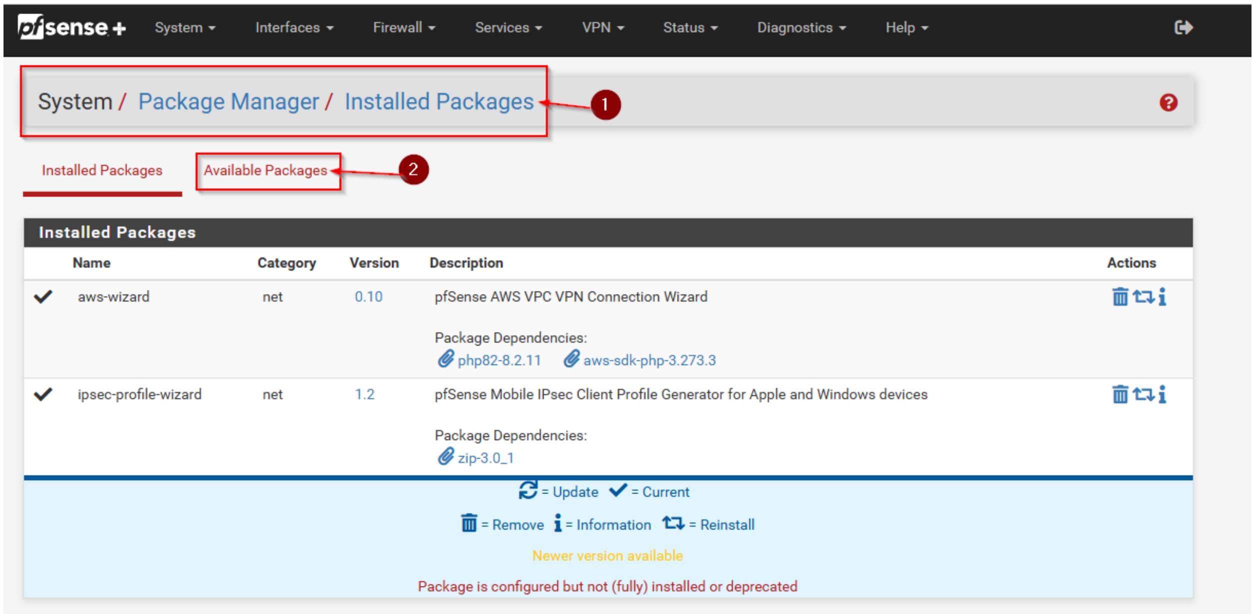


FIGURE 20 - OPEN THE SYSTEM AND CLICK PACKAGE MANAGER



System / Package Manager / Installed Packages

Installed Packages

	Name	Category	Version	Description	Actions
✓	aws-wizard	net	0.10	pfSense AWS VPC VPN Connection Wizard Package Dependencies: php82-8.2.11 aws-sdk-php-3.273.3	
✓	ipsec-profile-wizard	net	1.2	pfSense Mobile IPsec Client Profile Generator for Apple and Windows devices Package Dependencies: zip-3.0_1	

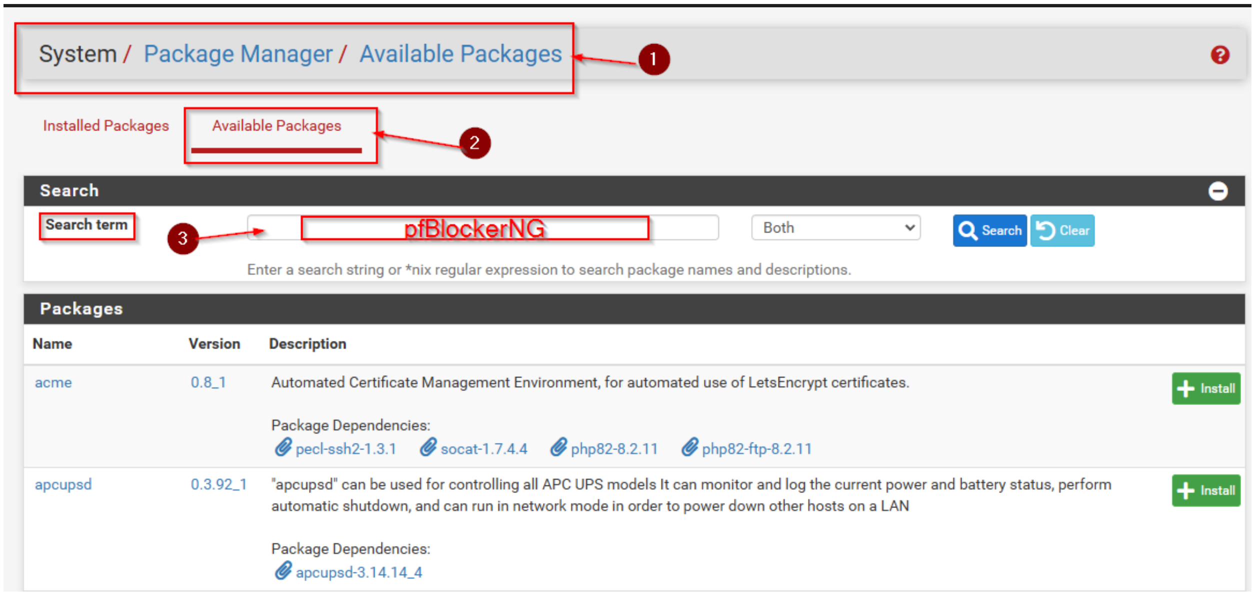
= Update ✓ = Current

= Remove = Information = Reinstall

Newer version available

Package is configured but not (fully) installed or deprecated

FIGURE 21 - CLICK THE AVAILABLE PACKAGES



System / Package Manager / Available Packages

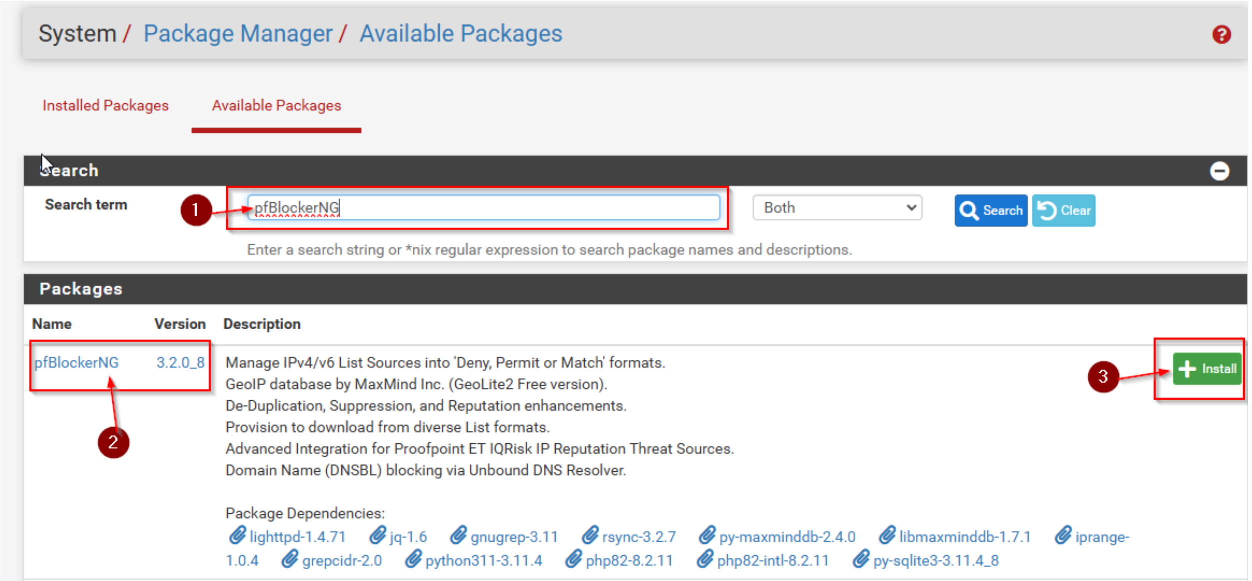
Search term: pfBlockerNG

Enter a search string or *nix regular expression to search package names and descriptions.

Packages

Name	Version	Description
acme	0.8_1	Automated Certificate Management Environment, for automated use of LetsEncrypt certificates. Package Dependencies: pecl-ssh2-1.3.1 socat-1.7.4.4 php82-8.2.11 php82-ftp-8.2.11
apcupsd	0.3.92_1	"apcupsd" can be used for controlling all APC UPS models It can monitor and log the current power and battery status, perform automatic shutdown, and can run in network mode in order to power down other hosts on a LAN Package Dependencies: apcupsd-3.14.14_4

FIGURE 22 - TYPE "PFBLOCKERNG" ON AVAILABLE PACKAGE



System / Package Manager / Available Packages

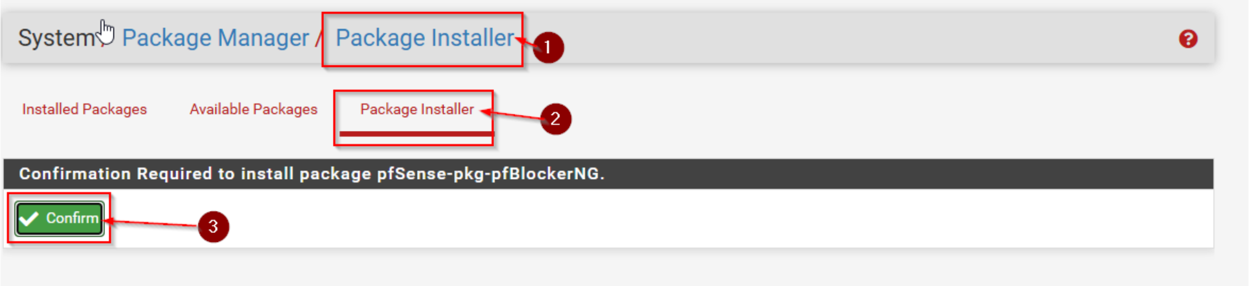
Search term: pfBlockerNG

Enter a search string or *nix regular expression to search package names and descriptions.

Packages

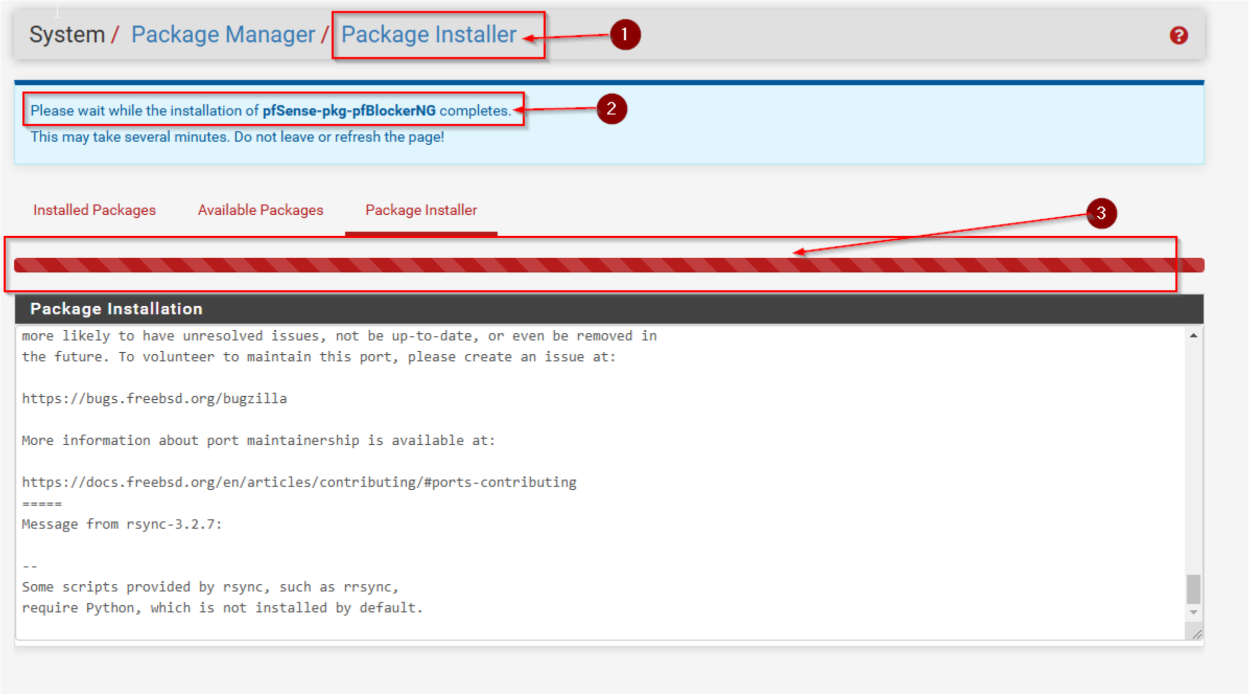
Name	Version	Description
pfBlockerNG	3.2.0_8	Manage IPv4/v6 List Sources into 'Deny, Permit or Match' formats. GeoIP database by MaxMind Inc. (GeoLite2 Free version). De-Duplication, Suppression, and Reputation enhancements. Provision to download from diverse List formats. Advanced Integration for Proofpoint ET IQRisk IP Reputation Threat Sources. Domain Name (DNSBL) blocking via Unbound DNS Resolver. Package Dependencies: lighttpd-1.4.71 jq-1.6 gnugrep-3.11 rsync-3.2.7 py-maxminddb-2.4.0 libmaxminddb-1.7.1 iprange-1.0.4 grepcidr-2.0 python311-3.11.4 php82-8.2.11 php82-intl-8.2.11 py-sqlite3-3.11.4_8

FIGURE 23 - INSTALL THE PFBLOCKERNG



Confirmation Required to install package pfSense-pkg-pfBlockerNG.

FIGURE 24 - CONFIRM THE PFBLOCKERNG

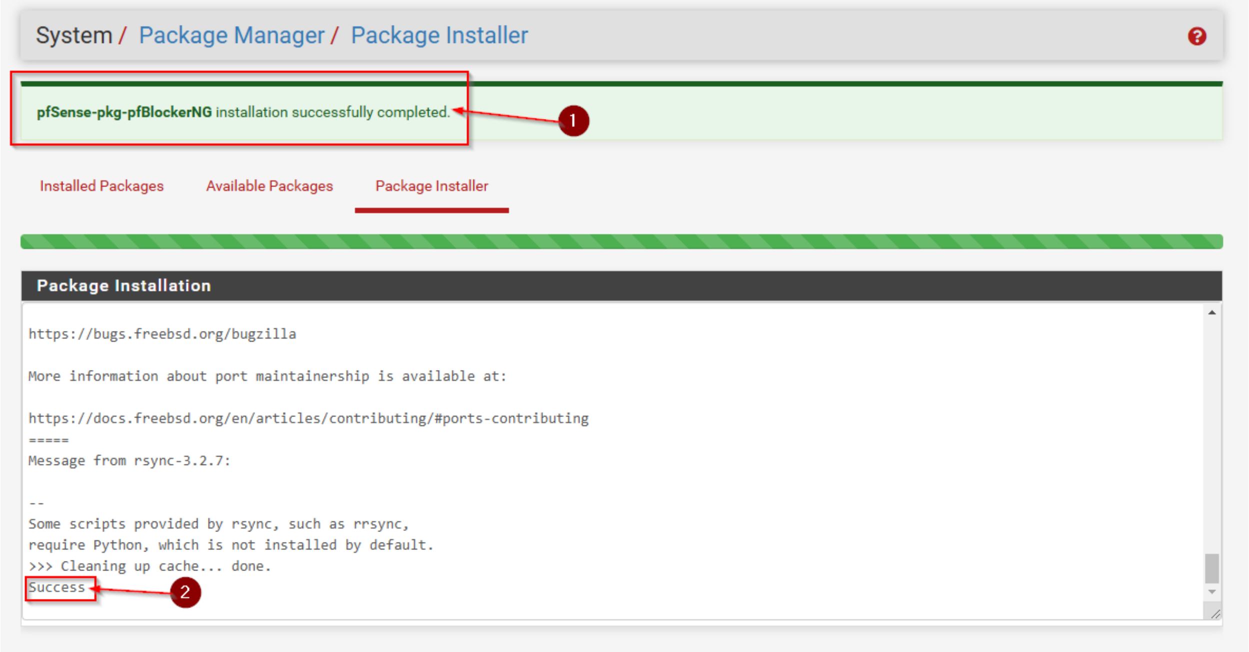


Please wait while the installation of **pfSense-pkg-pfBlockerNG** completes.
This may take several minutes. Do not leave or refresh the page!

Package Installation

```
more likely to have unresolved issues, not be up-to-date, or even be removed in
the future. To volunteer to maintain this port, please create an issue at:

https://bugs.freebsd.org/bugzilla

More information about port maintainership is available at:

https://docs.freebsd.org/en/articles/contributing/#ports-contributing
=====
Message from rsync-3.2.7:

--
Some scripts provided by rsync, such as rrsync,
require Python, which is not installed by default.
```

FIGURE 25 - INSTALLING....

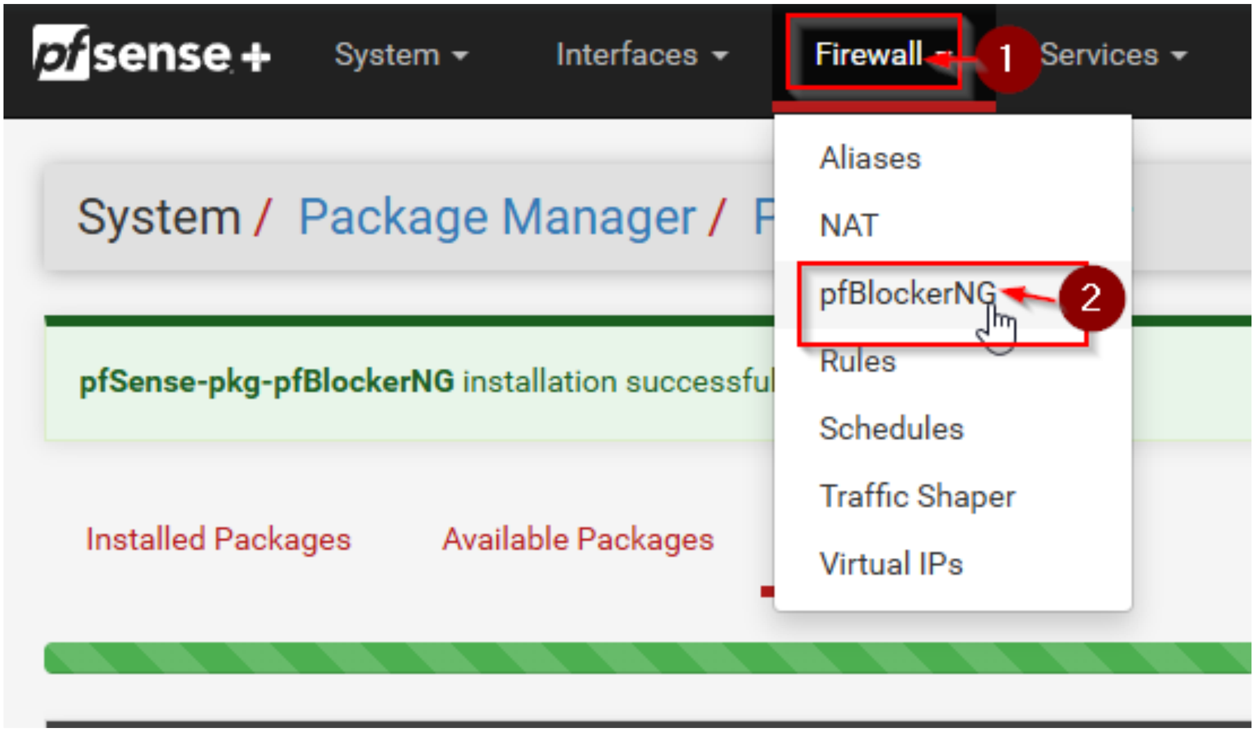


System / Package Manager / Package Installer

pfSense-pkg-pfBlockerNG installation successfully completed.

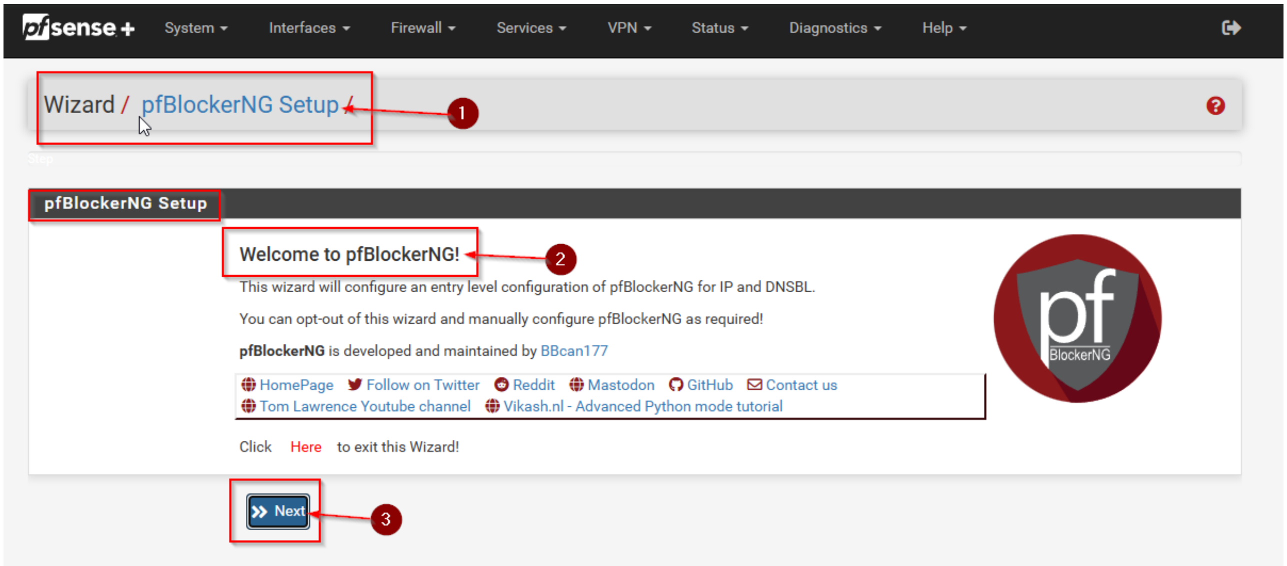
```
https://bugs.freebsd.org/bugzilla

More information about port maintainership is available at:

https://docs.freebsd.org/en/articles/contributing/#ports-contributing
=====
Message from rsync-3.2.7:

--
Some scripts provided by rsync, such as rrsync,
require Python, which is not installed by default.
>>> Cleaning up cache... done.
Success
```

Figure 26 - Installation successfully



pfSense-pkg-pfBlockerNG installation successful

Figure 27 - Open firewall then click pfBlockerNG



Wizard / pfBlockerNG Setup /

pfBlockerNG Setup

Welcome to pfBlockerNG!

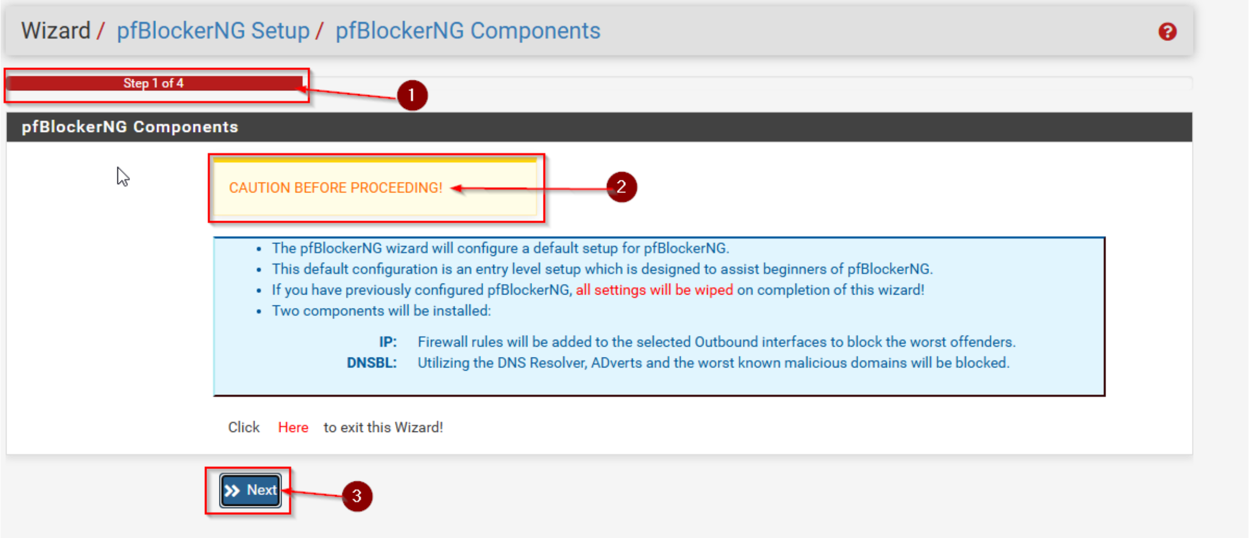
This wizard will configure an entry level configuration of pfBlockerNG for IP and DNSBL.

You can opt-out of this wizard and manually configure pfBlockerNG as required!

pfBlockerNG is developed and maintained by BBcan177

Click Here to exit this Wizard!

FIGURE 28 - SET THE PFBLOCKERNG UP



Wizard / pfBlockerNG Setup / pfBlockerNG Components

pfBlockerNG Components

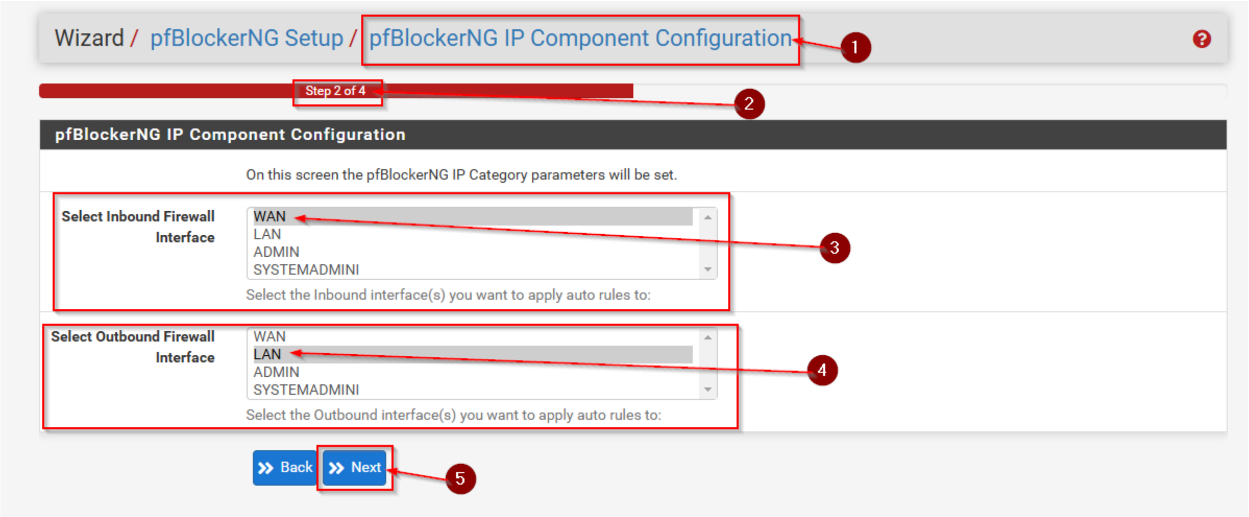
CAUTION BEFORE PROCEEDING!

- The pfBlockerNG wizard will configure a default setup for pfBlockerNG.
- This default configuration is an entry level setup which is designed to assist beginners of pfBlockerNG.
- If you have previously configured pfBlockerNG, all settings will be wiped on completion of this wizard!
- Two components will be installed:

IP: Firewall rules will be added to the selected Outbound interfaces to block the worst offenders.
DNSBL: Utilizing the DNS Resolver, ADverts and the worst known malicious domains will be blocked.

Click Here to exit this Wizard!

FIGURE 29 - PROCEEDING...



Wizard / pfBlockerNG Setup / pfBlockerNG IP Component Configuration

Step 2 of 4

pfBlockerNG IP Component Configuration

On this screen the pfBlockerNG IP Category parameters will be set.

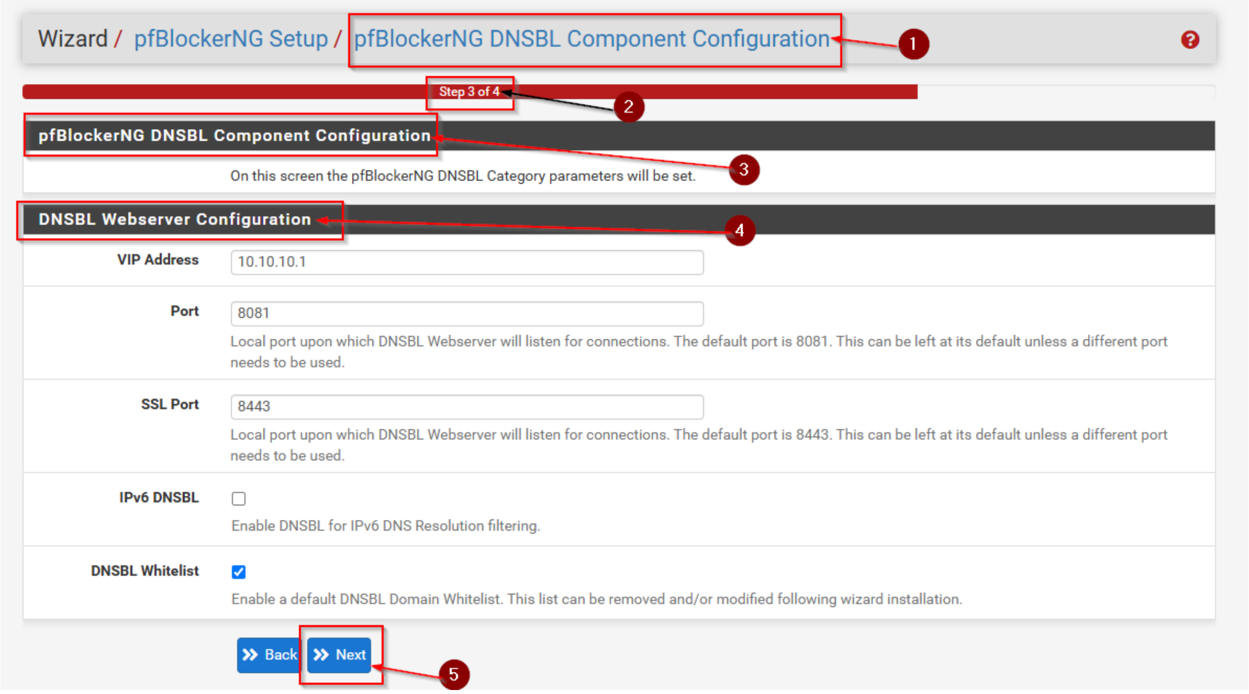
Select Inbound Firewall Interface: WAN (selected), LAN, ADMIN, SYSTEMADMINI

Select the Inbound interface(s) you want to apply auto rules to:

Select Outbound Firewall Interface: WAN, LAN (selected), ADMIN, SYSTEMADMINI

Select the Outbound interface(s) you want to apply auto rules to:

Figure 30 - Processing....



Wizard / pfBlockerNG Setup / pfBlockerNG DNSBL Component Configuration

Step 3 of 4

pfBlockerNG DNSBL Component Configuration

On this screen the pfBlockerNG DNSBL Category parameters will be set.

DNSBL Webserver Configuration

VIP Address: 10.10.10.1

Port: 8081

Local port upon which DNSBL Webserver will listen for connections. The default port is 8081. This can be left at its default unless a different port needs to be used.

SSL Port: 8443

Local port upon which DNSBL Webserver will listen for connections. The default port is 8443. This can be left at its default unless a different port needs to be used.

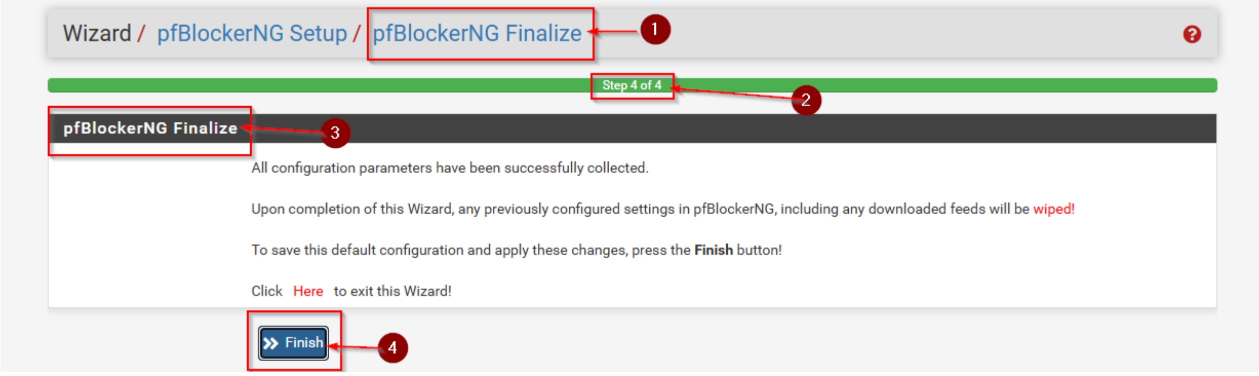
IPv6 DNSBL: □

Enable DNSBL for IPv6 DNS Resolution filtering.

DNSBL Whitelist: ☑

Enable a default DNSBL Domain Whitelist. This list can be removed and/or modified following wizard installation.

Figure 31 - Looking around the step 3 of 4



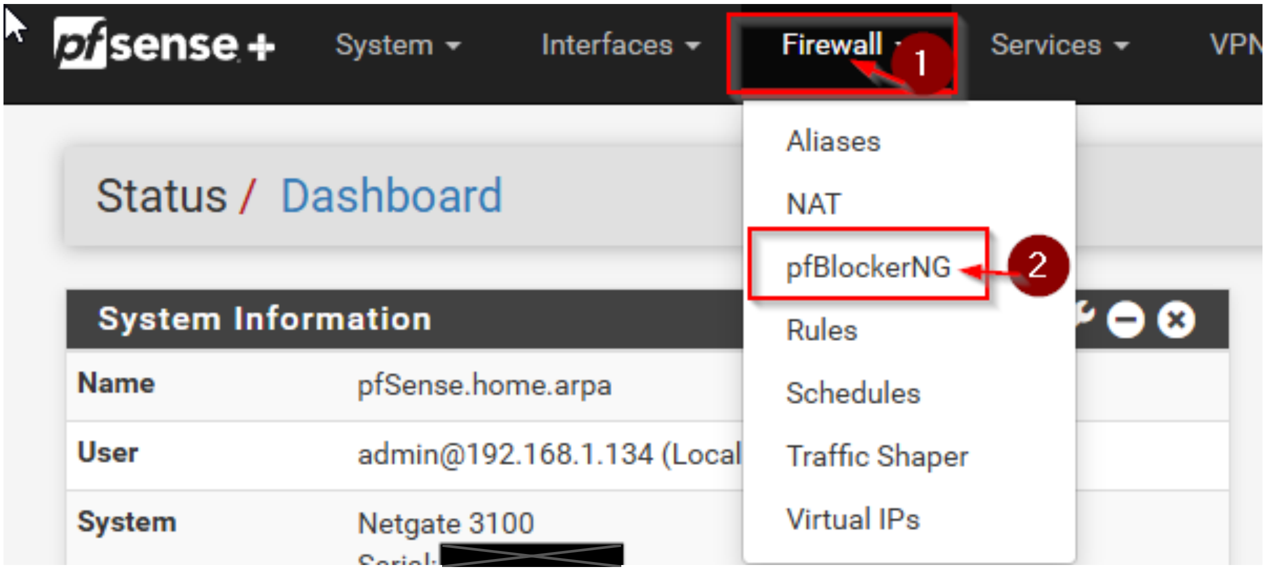
All configuration parameters have been successfully collected.

Upon completion of this Wizard, any previously configured settings in pfBlockerNG, including any downloaded feeds will be wiped!

To save this default configuration and apply these changes, press the **Finish** button!

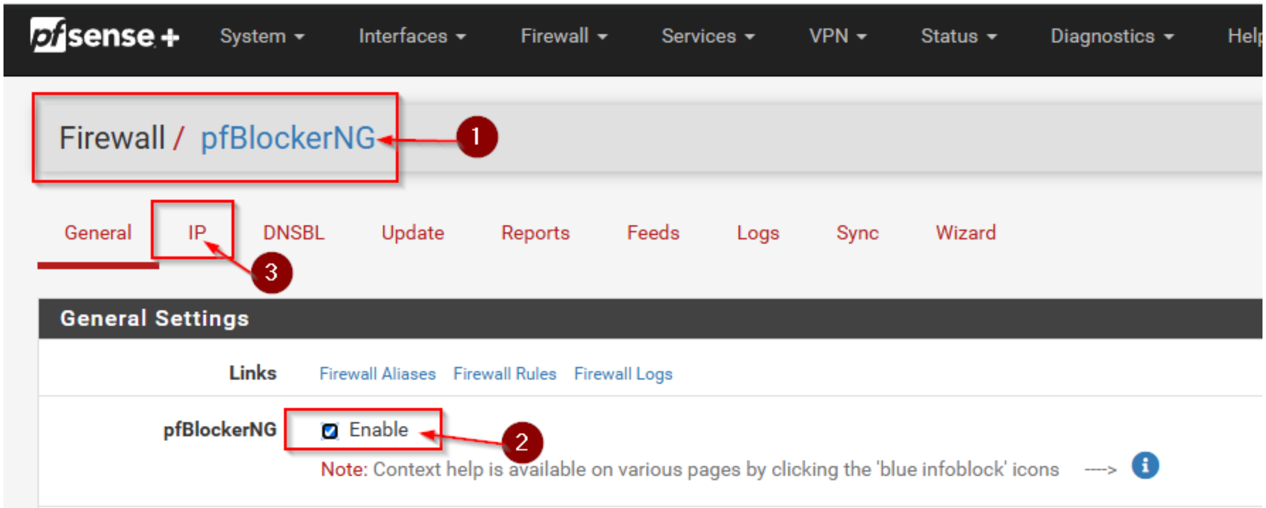
Click Here to exit this Wizard!

FIGURE 32 - FINISH THE PFBLOCERNG FINALIZE



Name	pfSense.home.arpa
User	admin@192.168.1.134 (Local
System	Netgate 3100 Serial: [redacted]

FIGURE 33 - OPEN FIREWALL THEN PFBLOCKERNG



pfBlockerNG ☑ Enable

Note: Context help is available on various pages by clicking the 'blue infoblock' icons ---->

FIGURE 34 - ENABLE PFBLOCKERNG THEN CLICK IP

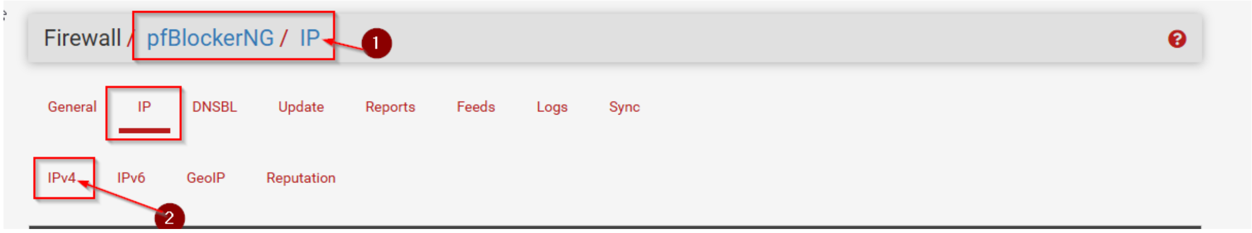
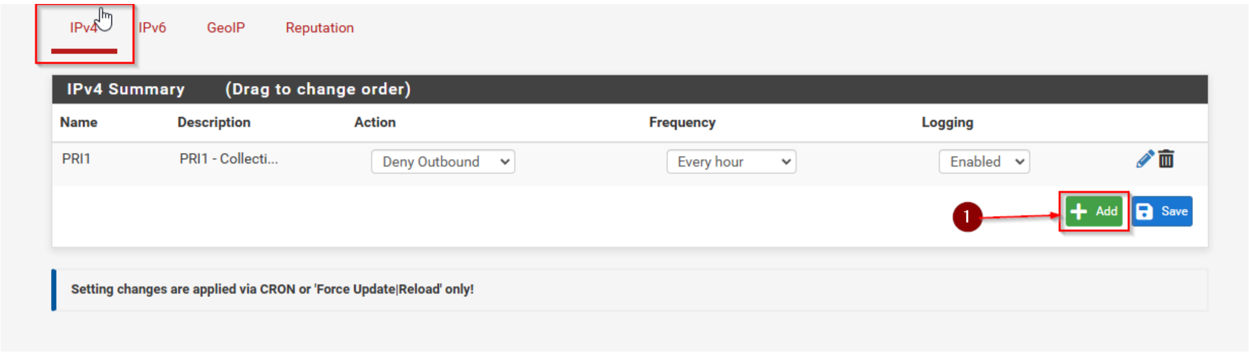


FIGURE 35 - CLICK IPV4

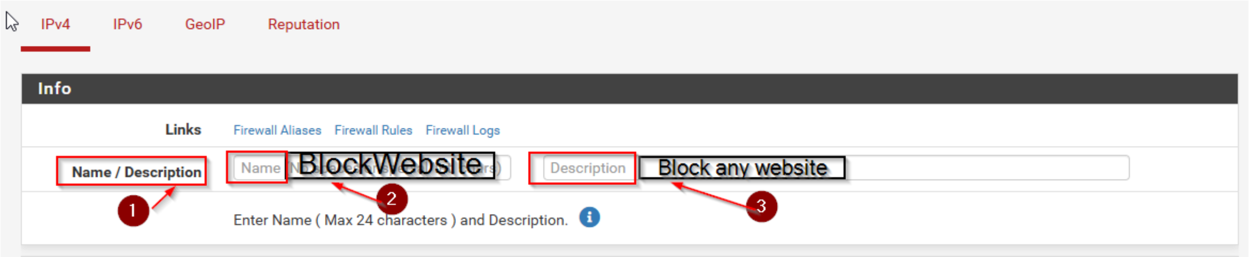


IPv4 Summary (Drag to change order)

Name	Description	Action	Frequency	Logging
PRI1	PRI1 - Collecti...	Deny Outbound	Every hour	Enabled

Setting changes are applied via CRON or 'Force Update|Reload' only!

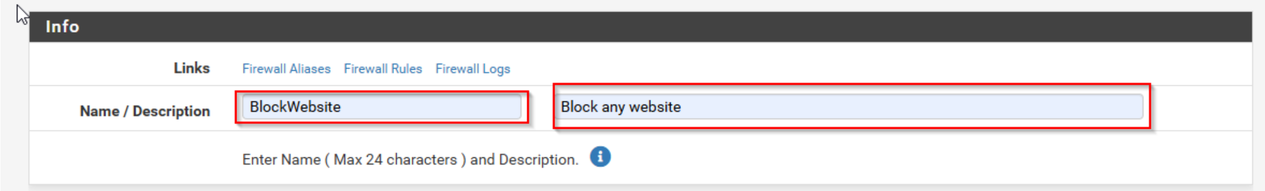
FIGURE 36 - CLICK "ADD"



Name / Description: Name BlockWebsite | Description Block any website

Enter Name (Max 24 characters) and Description.

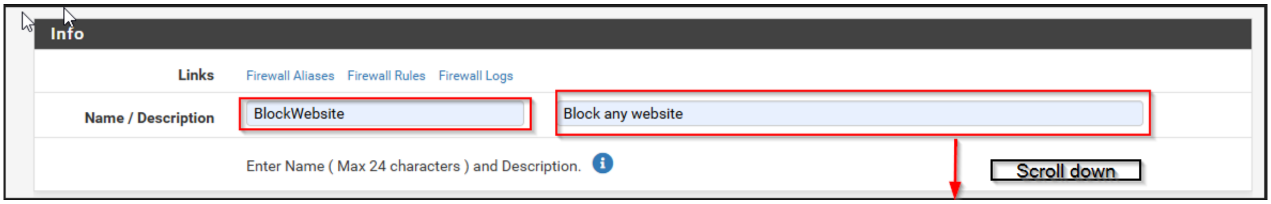
FIGURE 37 - TYPE THE BLOCKWEBSITE AND DESCRIBE WHAT IT IS FOR



Name / Description: BlockWebsite | Block any website

Enter Name (Max 24 characters) and Description.

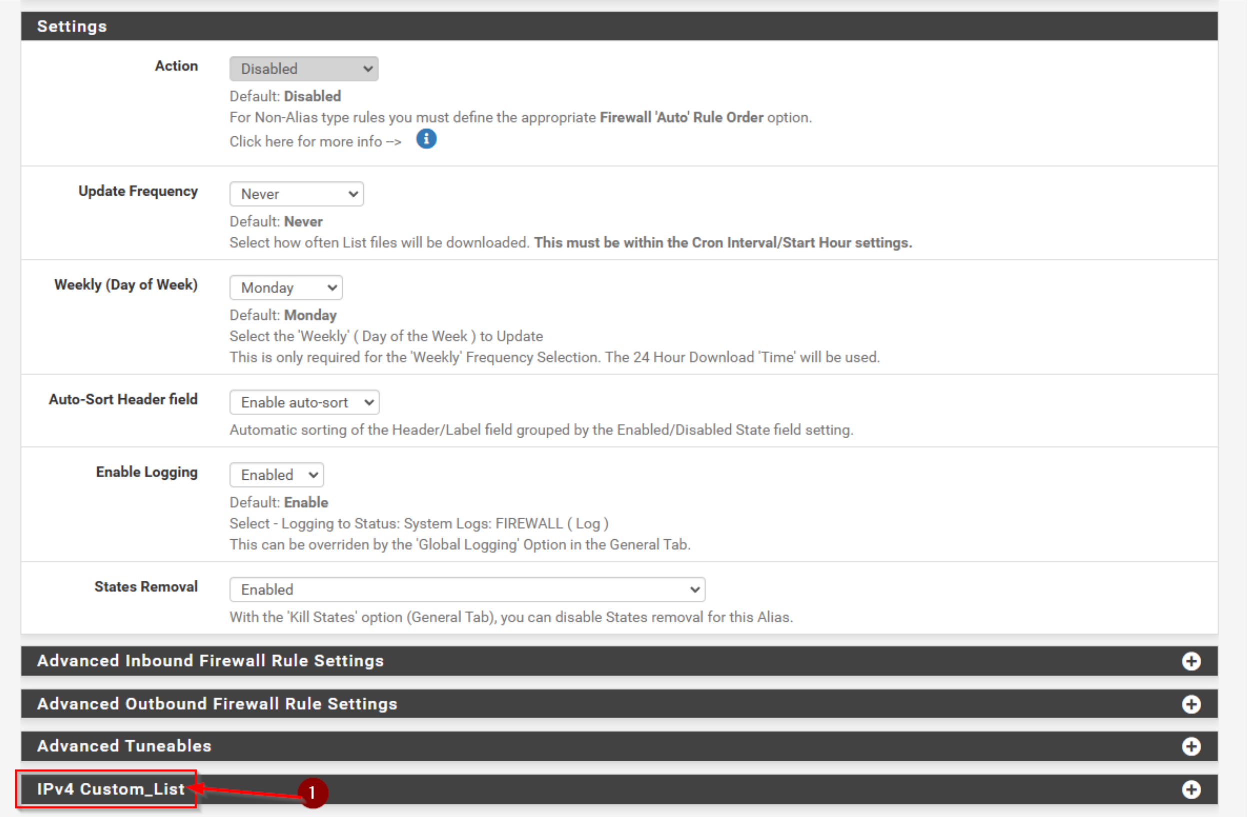
FIGURE 38 - TYPING...



Name / Description: BlockWebsite | Block any website

Enter Name (Max 24 characters) and Description.

FIGURE 39 - SCROLLING DOWN...



Settings

Action: Disabled
Default: **Disabled**
For Non-Alias type rules you must define the appropriate **Firewall 'Auto' Rule Order** option.
Click here for more info -->

Update Frequency: Never
Default: **Never**
Select how often List files will be downloaded. **This must be within the Cron Interval/Start Hour settings.**

Weekly (Day of Week): Monday
Default: **Monday**
Select the 'Weekly' (Day of the Week) to Update
This is only required for the 'Weekly' Frequency Selection. The 24 Hour Download 'Time' will be used.

Auto-Sort Header field: Enable auto-sort
Automatic sorting of the Header/Label field grouped by the Enabled/Disabled State field setting.

Enable Logging: Enabled
Default: **Enable**
Select - Logging to Status: System Logs: FIREWALL (Log)
This can be overriden by the 'Global Logging' Option in the General Tab.

States Removal: Enabled
With the 'Kill States' option (General Tab), you can disable States removal for this Alias.

Advanced Inbound Firewall Rule Settings
Advanced Outbound Firewall Rule Settings
Advanced Tuneables
IPv4 Custom_List
1

Figure 40 - Click IPv4 Custom_List

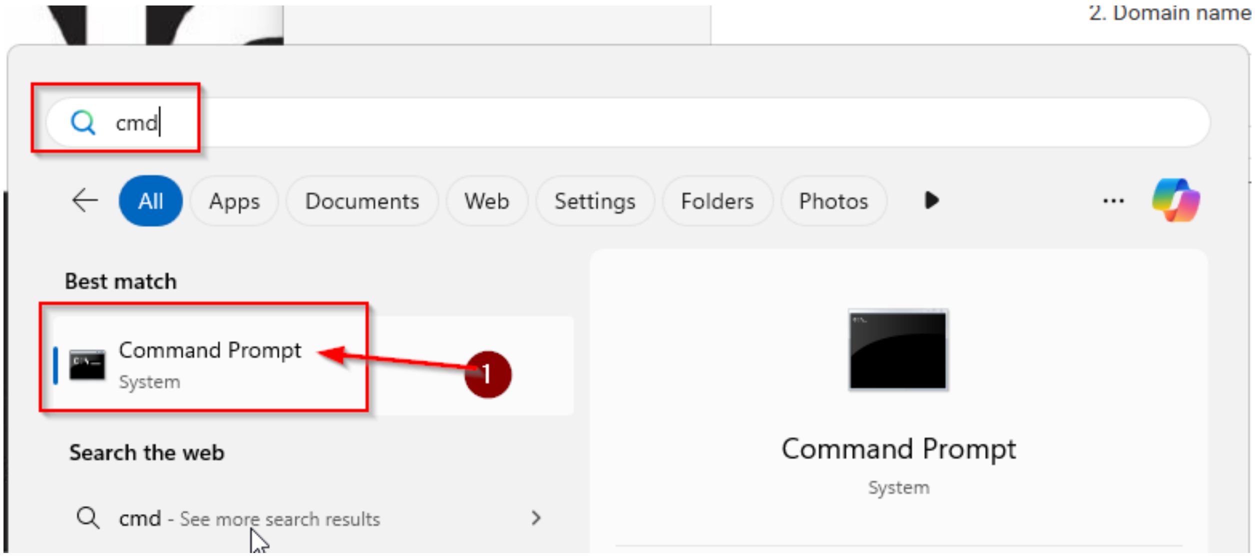
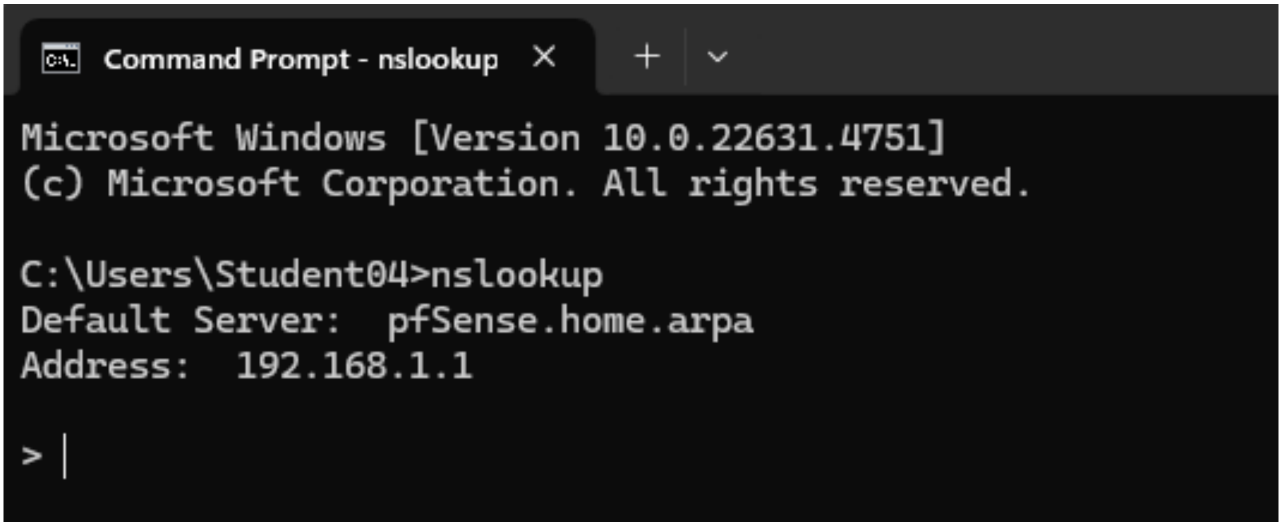
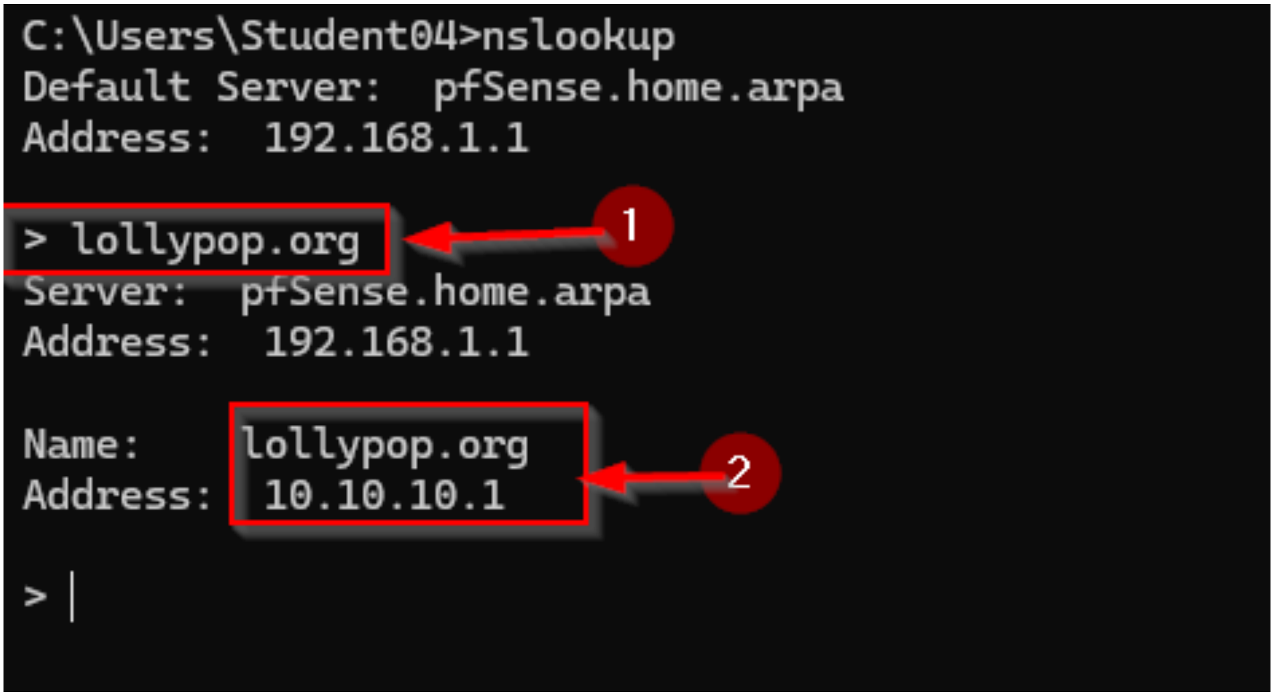


Figure 41 - Before that, open the CMD



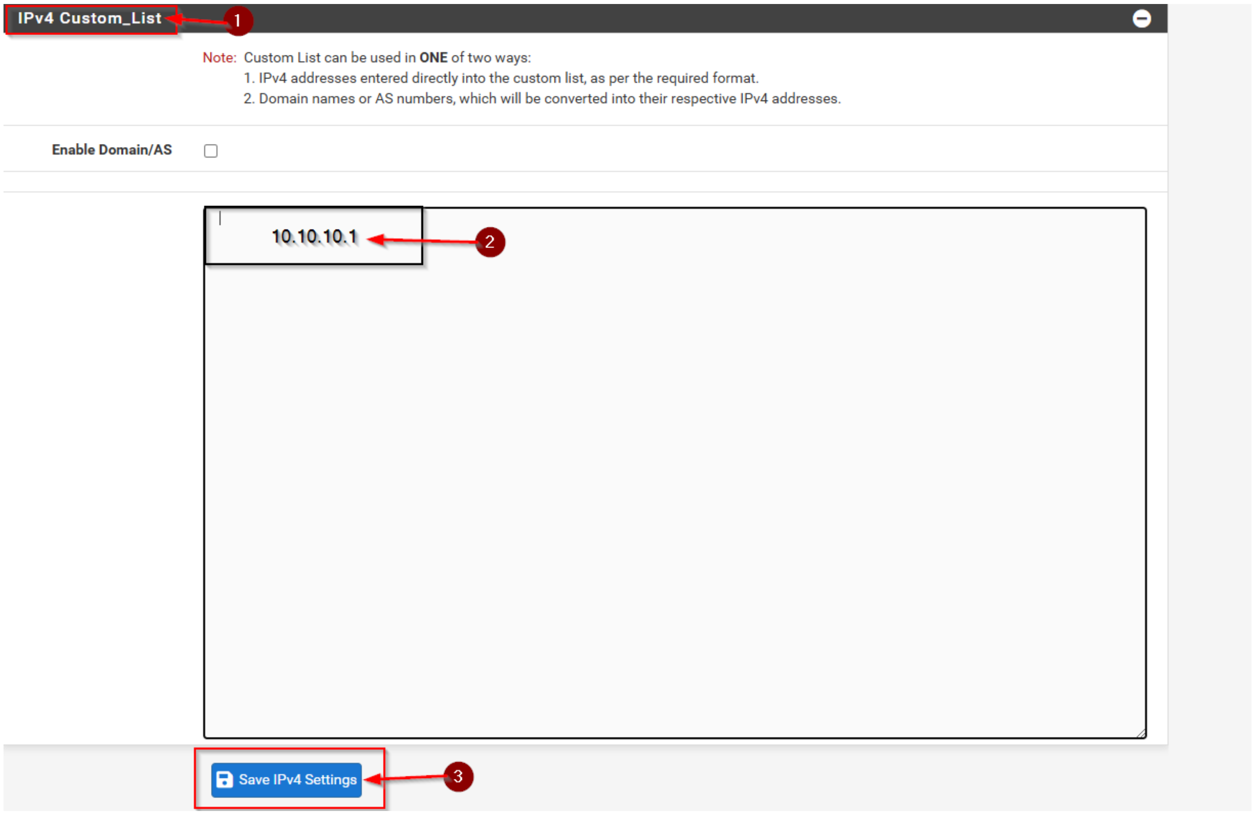
```
Microsoft Windows [Version 10.0.22631.4751]
(c) Microsoft Corporation. All rights reserved.

C:\Users\Student04>nslookup
Default Server:  pfSense.home.arpa
Address:  192.168.1.1

> |
```

FIGURE 42 - USING NSLOOKUP TO ASK THE ROUTER TO GET IP FROM IT



```
C:\Users\Student04>nslookup
Default Server:  pfSense.home.arpa
Address:  192.168.1.1

> lollypop.org
Server:  pfSense.home.arpa
Address:  192.168.1.1

Name:    lollypop.org
Address:  10.10.10.1

> |
```

FIGURE 43 - ASKING THE ROUTER TO SEND ME IP ADDRESS FROM THE LOLLUPOP.ORG WEBSITE



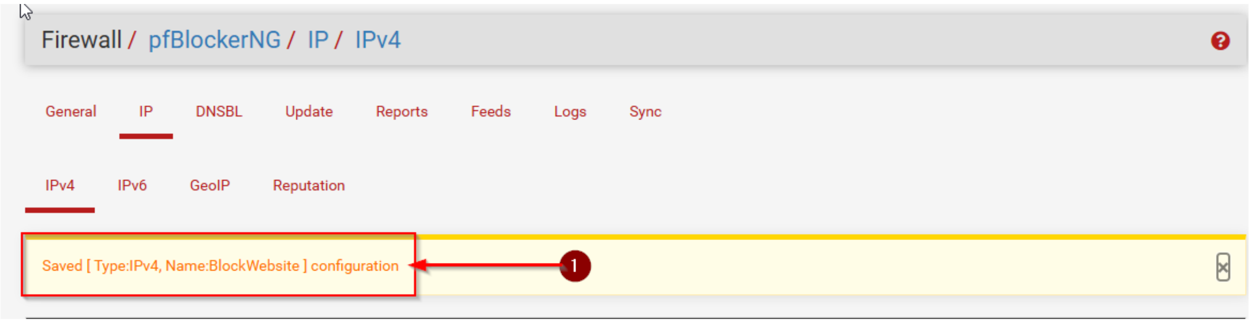
IPv4 Custom_List

Note: Custom List can be used in **ONE** of two ways:
1. IPv4 addresses entered directly into the custom list, as per the required format.
2. Domain names or AS numbers, which will be converted into their respective IPv4 addresses.

Enable Domain/AS □

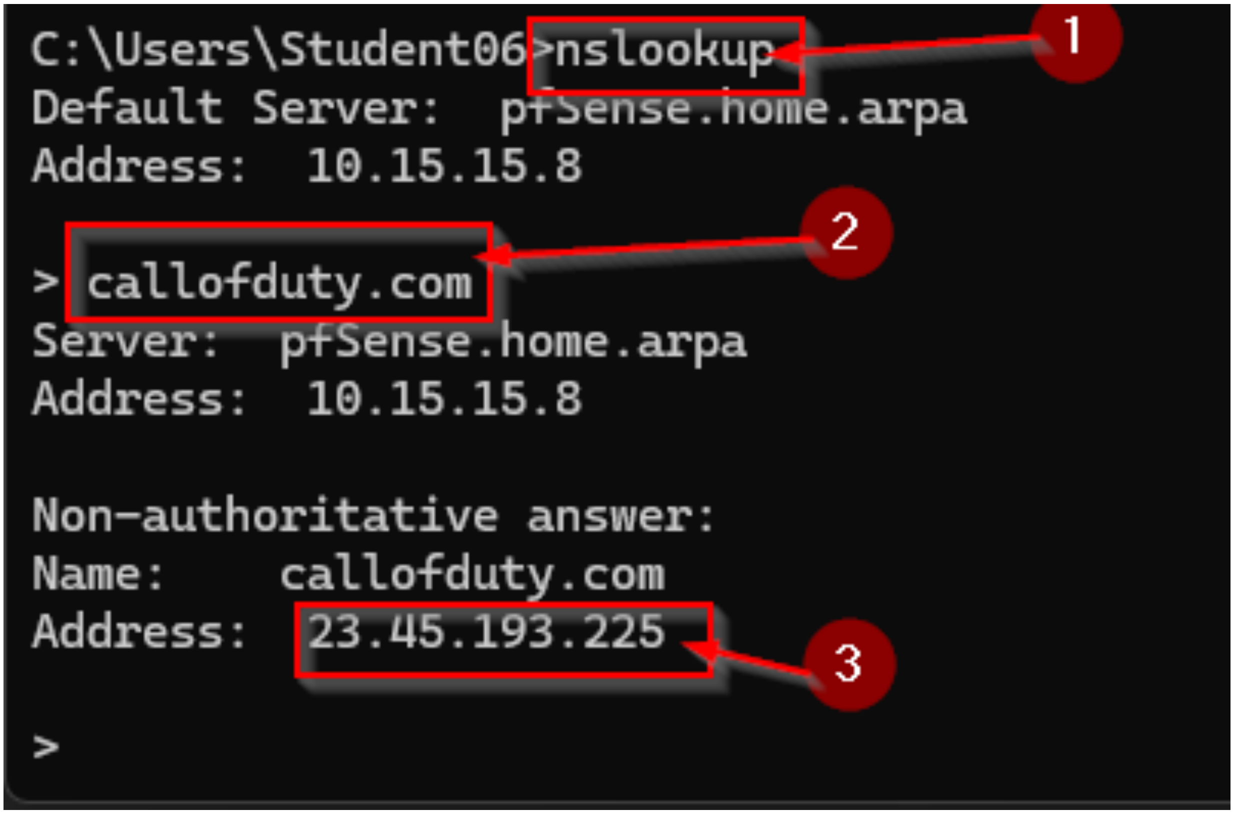
```
10.10.10.1
```

FIGURE 44 - PUTTING THE IP ADDRESS ON THE CUSTOM LIST



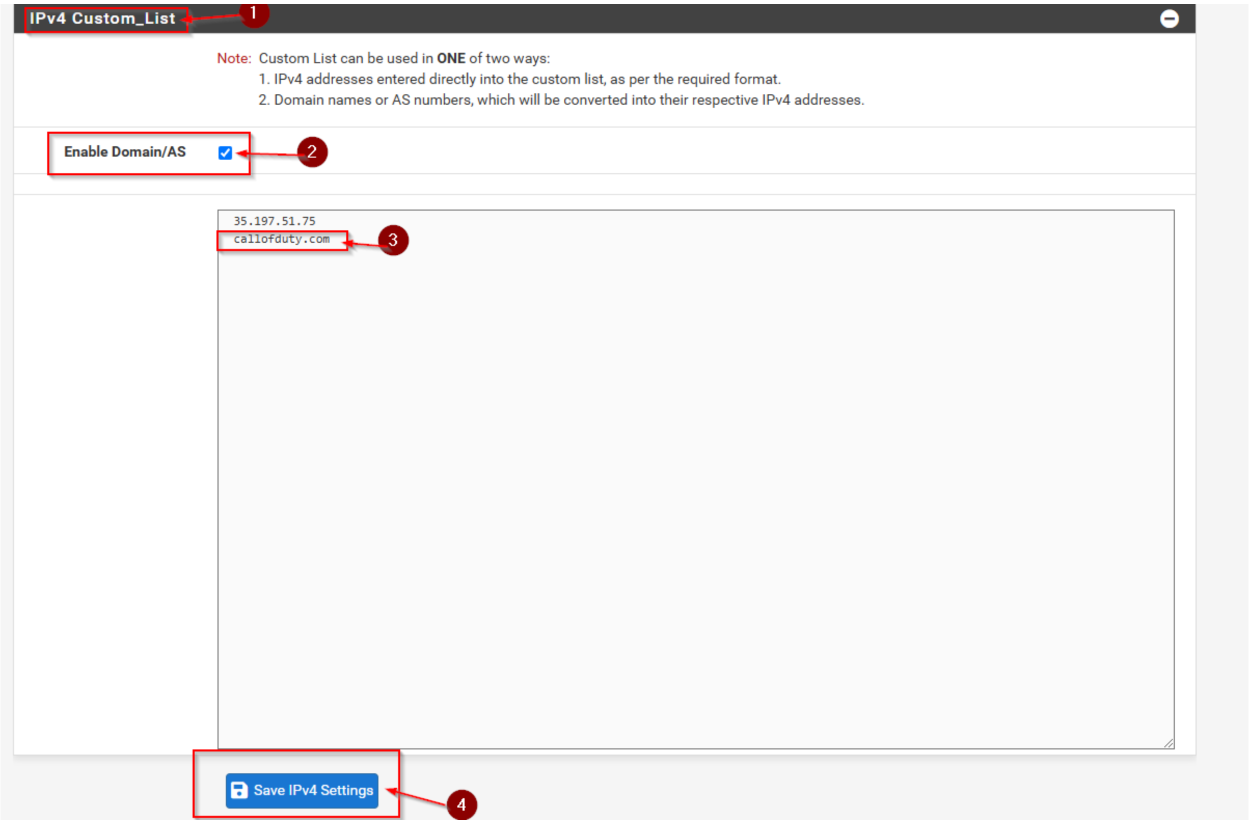
Saved [Type:IPv4, Name:BlockWebsite] configuration

FIGURE 45 - SAVED IPV4 SETTING TO CONFIRM



```
C:\Users\Student06>nslookup
Default Server:  pfSense.home.arpa
Address:  10.15.15.8

> callofduty.com
Server:  pfSense.home.arpa
Address:  10.15.15.8

Non-authoritative answer:
Name:    callofduty.com
Address:  23.45.193.225

>
```

Figure 46 - Using nslookup to ask the router to get IP address from call of duty website



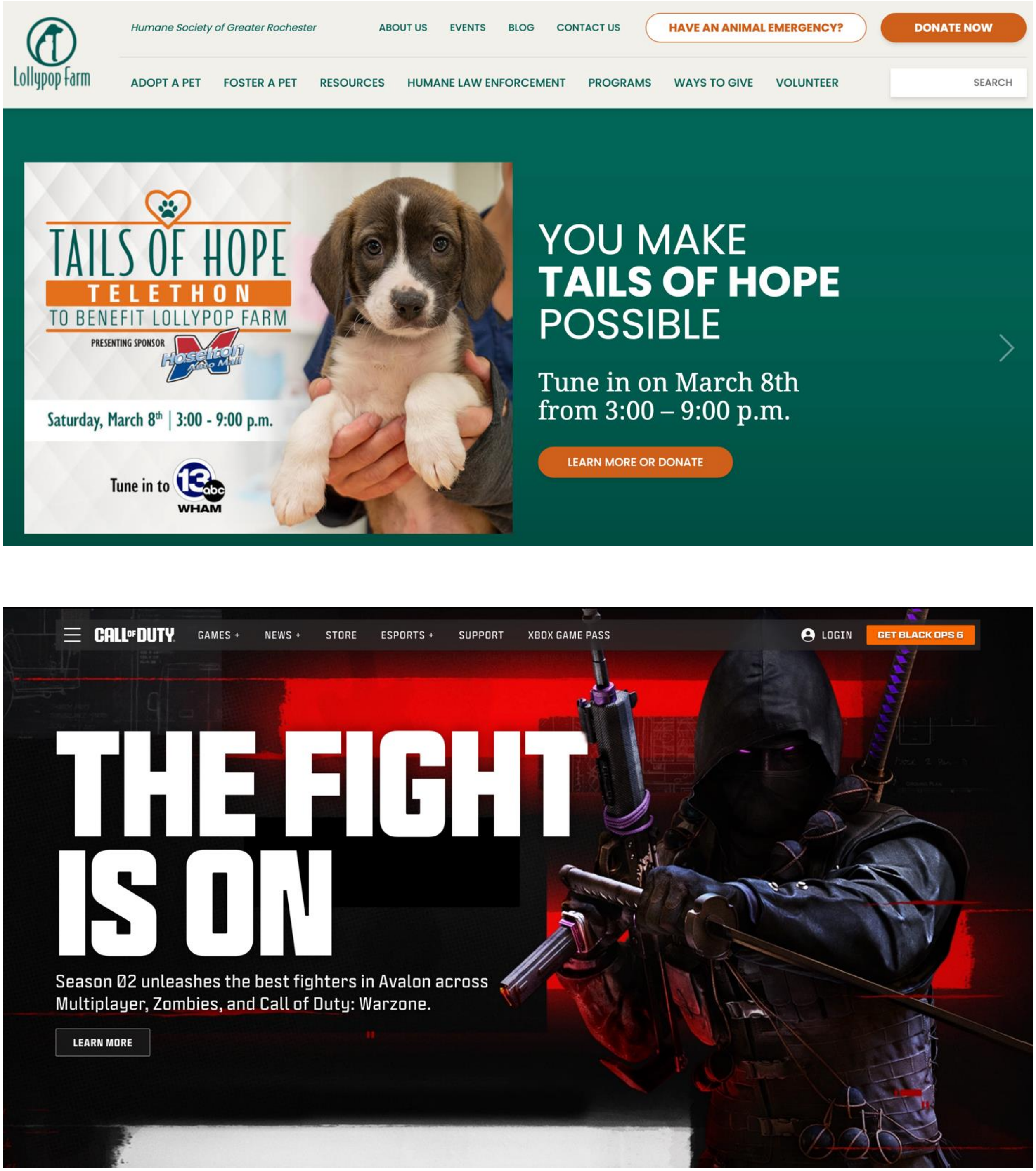
Note: Custom List can be used in **ONE** of two ways:
1. IPv4 addresses entered directly into the custom list, as per the required format.
2. Domain names or AS numbers, which will be converted into their respective IPv4 addresses.

Enable Domain/AS ☑

```
35.197.51.75
callofduty.com
```

Figure 47 - Enable Domain/AS and put the name of website on it

Figure 48 - Confirm the IPv4 Setting



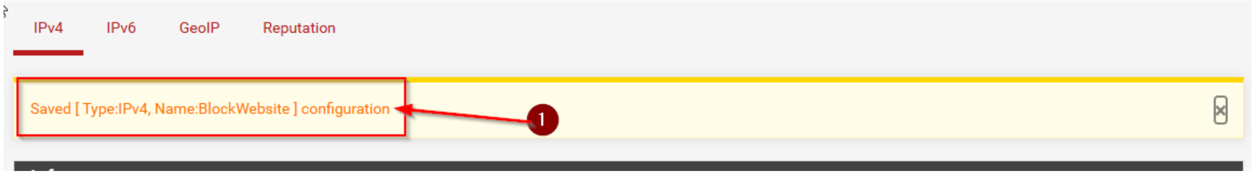
YOU MAKE TAILS OF HOPE POSSIBLE

Tune in on March 8th from 3:00 – 9:00 p.m.

THE FIGHT IS ON

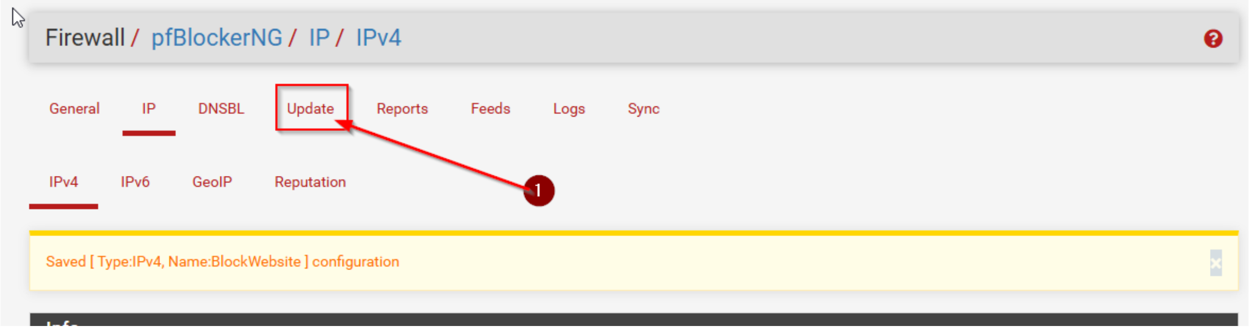
Season 02 unleashes the best fighters in Avalon across Multiplayer, Zombies, and Call of Duty: Warzone.

Figure 49 - Checking the websites before it get blocked



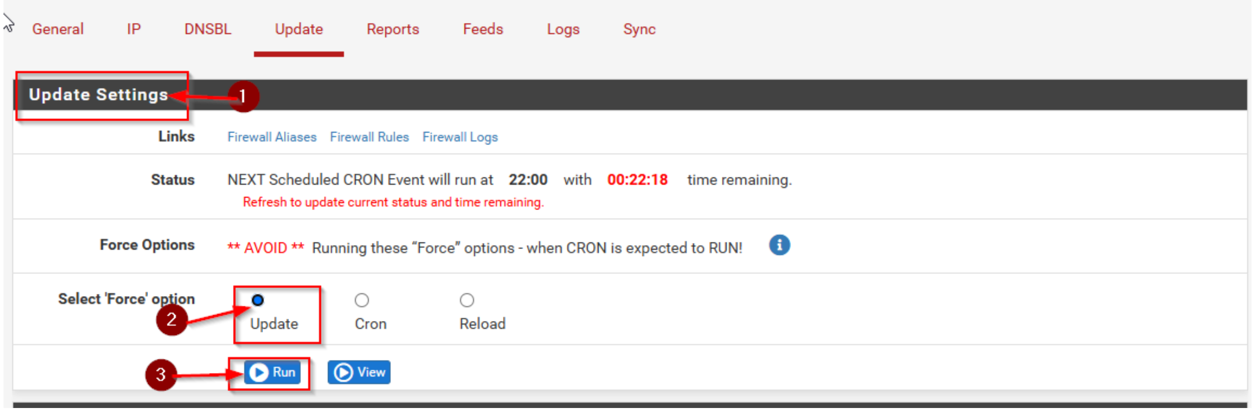
Saved [Type:IPv4, Name:BlockWebsite] configuration

Figure 50 - Saved the IPv4 configuration



Saved [Type:IPv4, Name:BlockWebsite] configuration

Figure 51 - Click Update



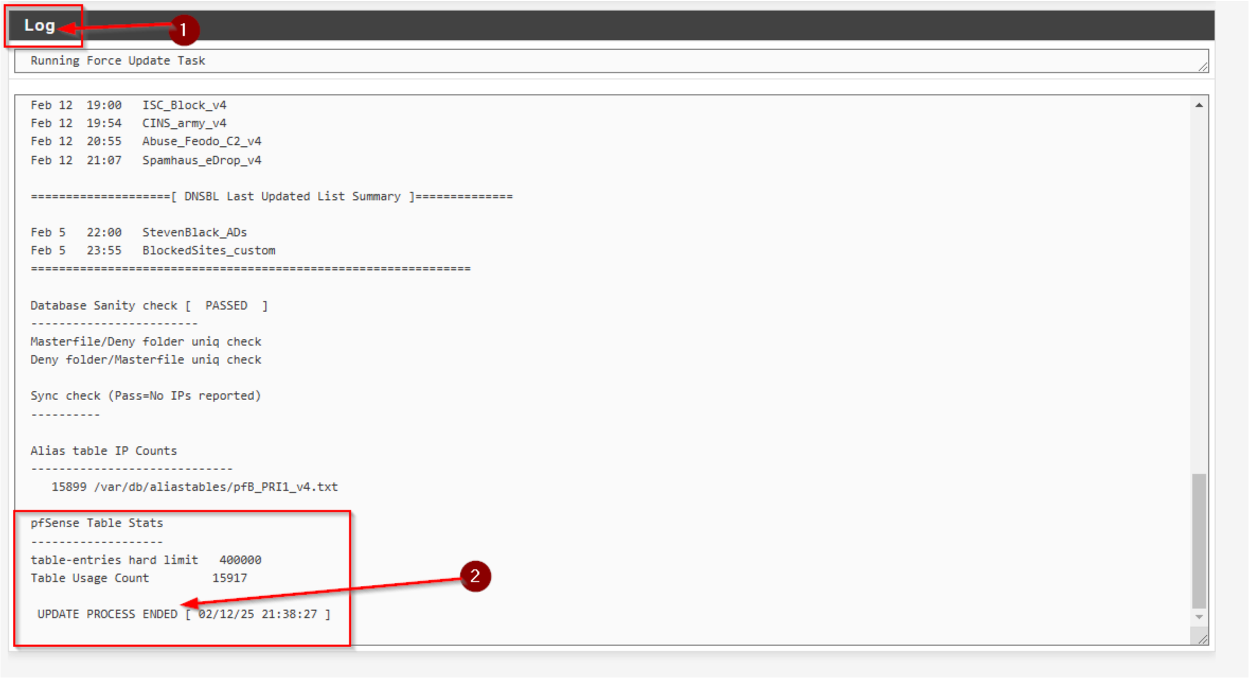
Links: Firewall Aliases Firewall Rules Firewall Logs

Status: NEXT Scheduled CRON Event will run at 22:00 with 00:22:18 time remaining.
Refresh to update current status and time remaining.

Force Options: ** AVOID ** Running these "Force" options - when CRON is expected to RUN!

Select 'Force' option: ● Update ○ Cron ○ Reload

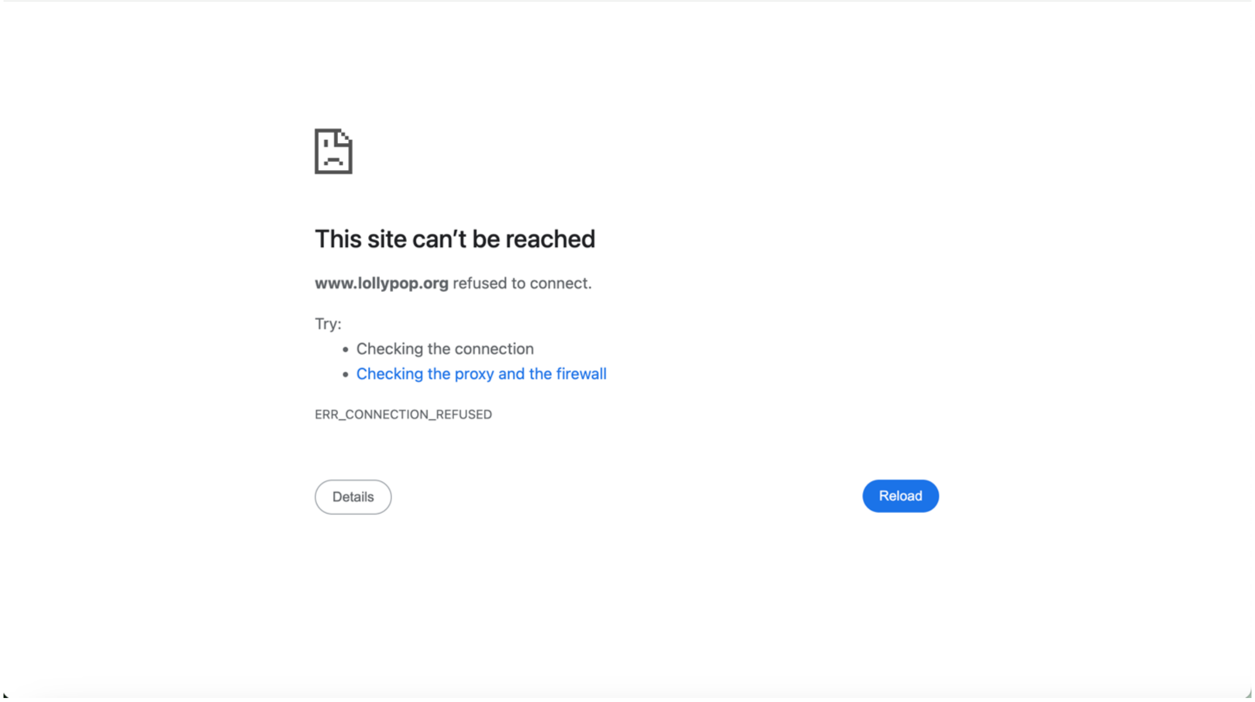
Figure 52 - Run the update status



```
Running Force Update Task
```

```
Feb 12  19:00   ISC_Block_v4
Feb 12  19:54   CINS_army_v4
Feb 12  20:55   Abuse_Feodo_C2_v4
Feb 12  21:07   Spamhaus_eDrop_v4

====================[ DNSBL Last Updated List Summary ]==============

Feb 5   22:00   StevenBlack_ADs
Feb 5   23:55   BlockedSites_custom
=================================================================

Database Sanity check [  PASSED  ]
------------------------
Masterfile/Deny folder uniq check
Deny folder/Masterfile uniq check

Sync check (Pass=No IPs reported)
----------

Alias table IP Counts
-----------------------------
   15899 /var/db/aliastables/pfB_PRI1_v4.txt

pfSense Table Stats
-------------------
table-entries hard limit   400000
Table Usage Count          15917

 UPDATE PROCESS ENDED [ 02/12/25 21:38:27 ]
```

FIGURE 53 - COMPLETE THE UPDATE LOG



This site can’t be reached

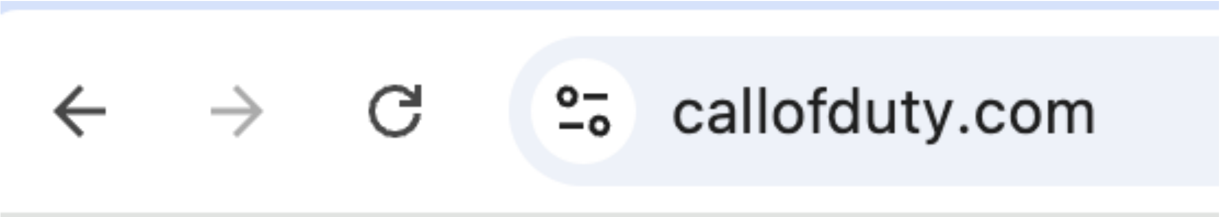
www.lollypop.org refused to connect.

Try:

- Checking the connection
- Checking the proxy and the firewall

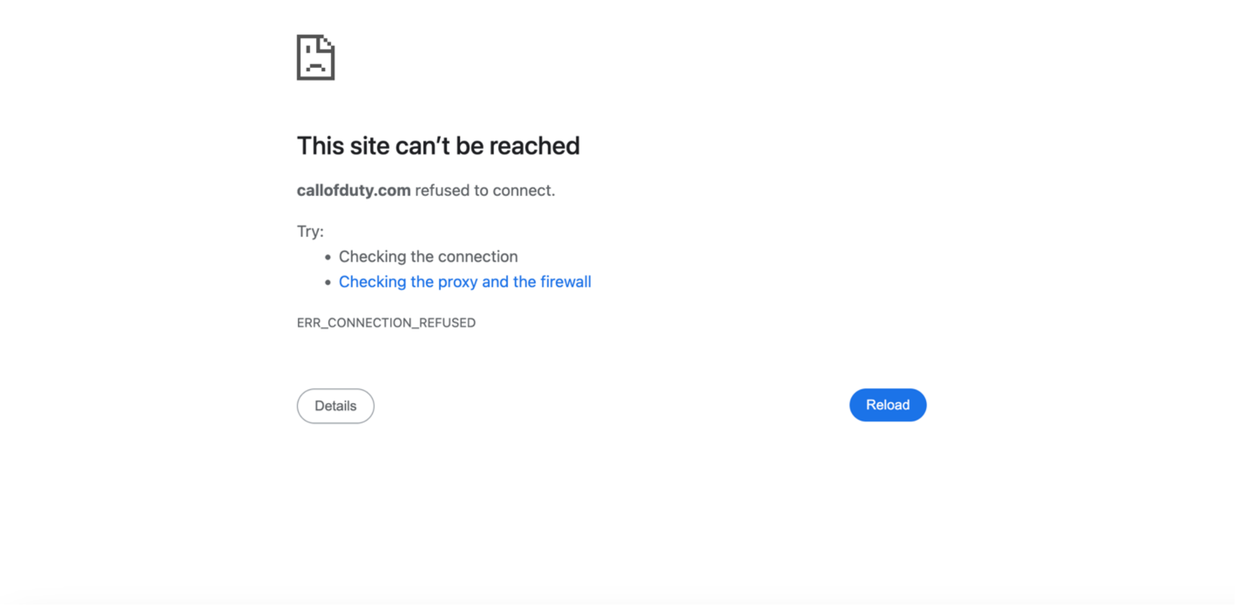
ERR_CONNECTION_REFUSED

FIGURE 54 - LOLLYPOP IS BLOCKED NOW



callofduty.com

Figure 55 - type the call of duty url on google



This site can’t be reached

callofduty.com refused to connect.

Try:

- Checking the connection
- Checking the proxy and the firewall

ERR_CONNECTION_REFUSED

Figure 56 - Call of Duty website is now blocked

QUESTIONS AND ANSWERS

PART 2 –

1. Pick three different features that I like and describe each three features.
    - Please have look at #6 to #12 for the three features.

- General Setup
    - This feature is for configuring it as firewall and router for securing and managing network traffic.
- Package Manager
    - It allows you to easily install and manage additional software packages to extend its functionality.
- Routing
    - It involves setting up rules to determine how data packets are directed between different networks or subnets, ensuring proper communication across your network infrastructure.

2. Does the NetGate device have the firmware version? If not, what version do you have and what is the most recent version? Also, how do you upgrade?

    - Please have look at #13 to #18 for the upgrade.
    - For the old version before it became new, it was 23.05.1 old version. Now is the 23.09.1 new recent version of pfSense Router.
    - Yes, it has the firmware version.

PART 4 –

Please have look at #19 to #26 for installing pfBlockerNG.

PART 5 –

- In terms of product support, what do "End of Sales" (EOS) and "End-of-Life" (EOL) mean?

- End of Sales" (EOS) means the product is no longer available for purchase from the manufacturer, while "End-of-Life" (EOL) means the product will no longer receive updates, support, or maintenance from the manufacturer.

- Is there any EOS and/or EOL scheduled for your NetGate model?

- The Netgate SG-3100 has reached its End of Sale (EOS) and is approaching its End of Life (EOL). While the exact dates for these milestones are not publicly specified, but here is the reference link;

The Netgate SG-3100

OBSERVATIONS

At first of all, it was difficult to understand the concept of using WAN and LAN through the pfSense Router. But as time passed, I started to understand how it works. The Network diagram really helped me out.