

การใช้งาน pfSense Firewall เบื้องต้น

คมกริช คำสวัสดิ์

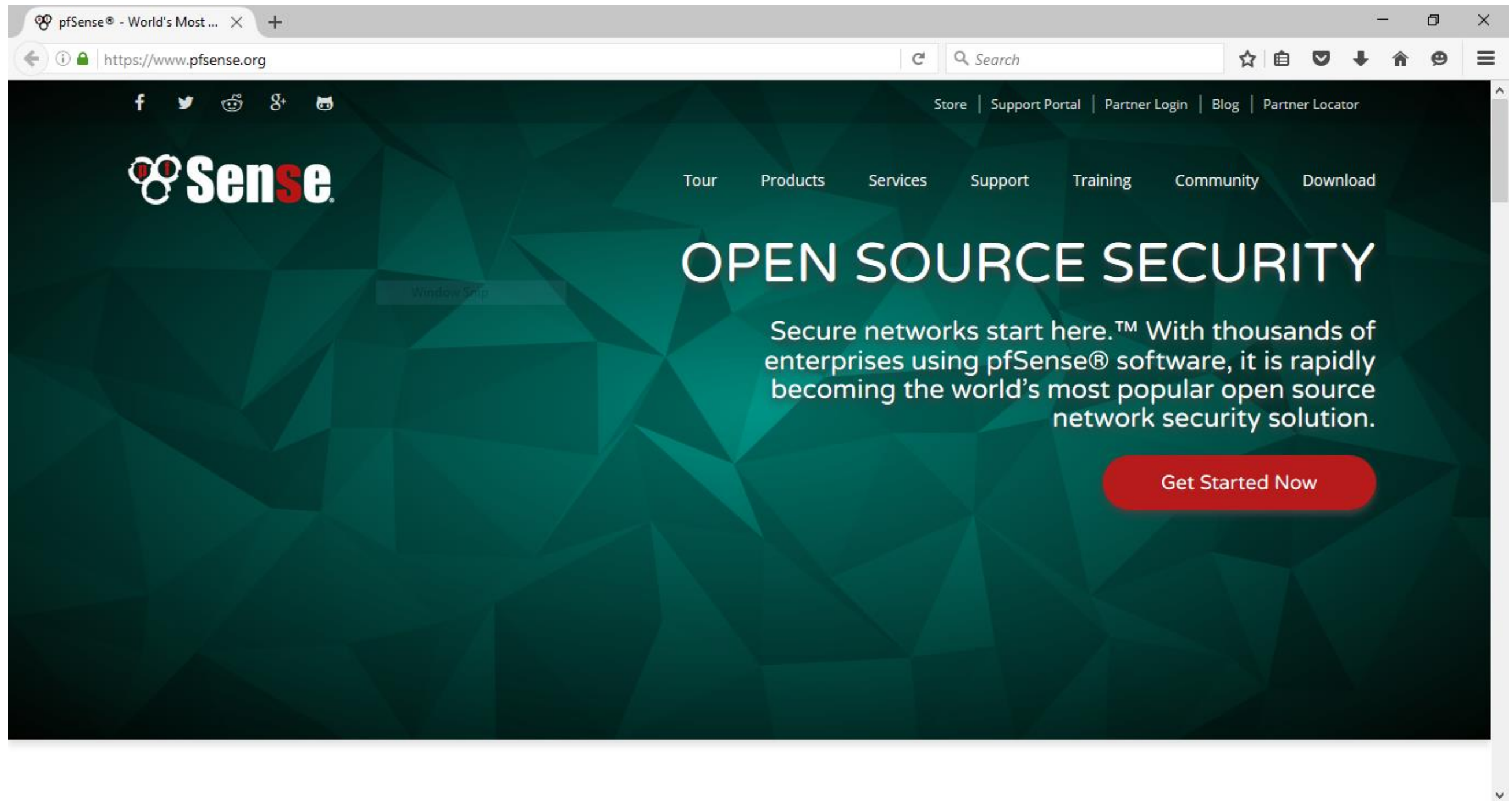
วิศวกรอาวุโส

สำนักงานรัฐบาลอิเล็กทรอนิกส์ (องค์การมหาชน)

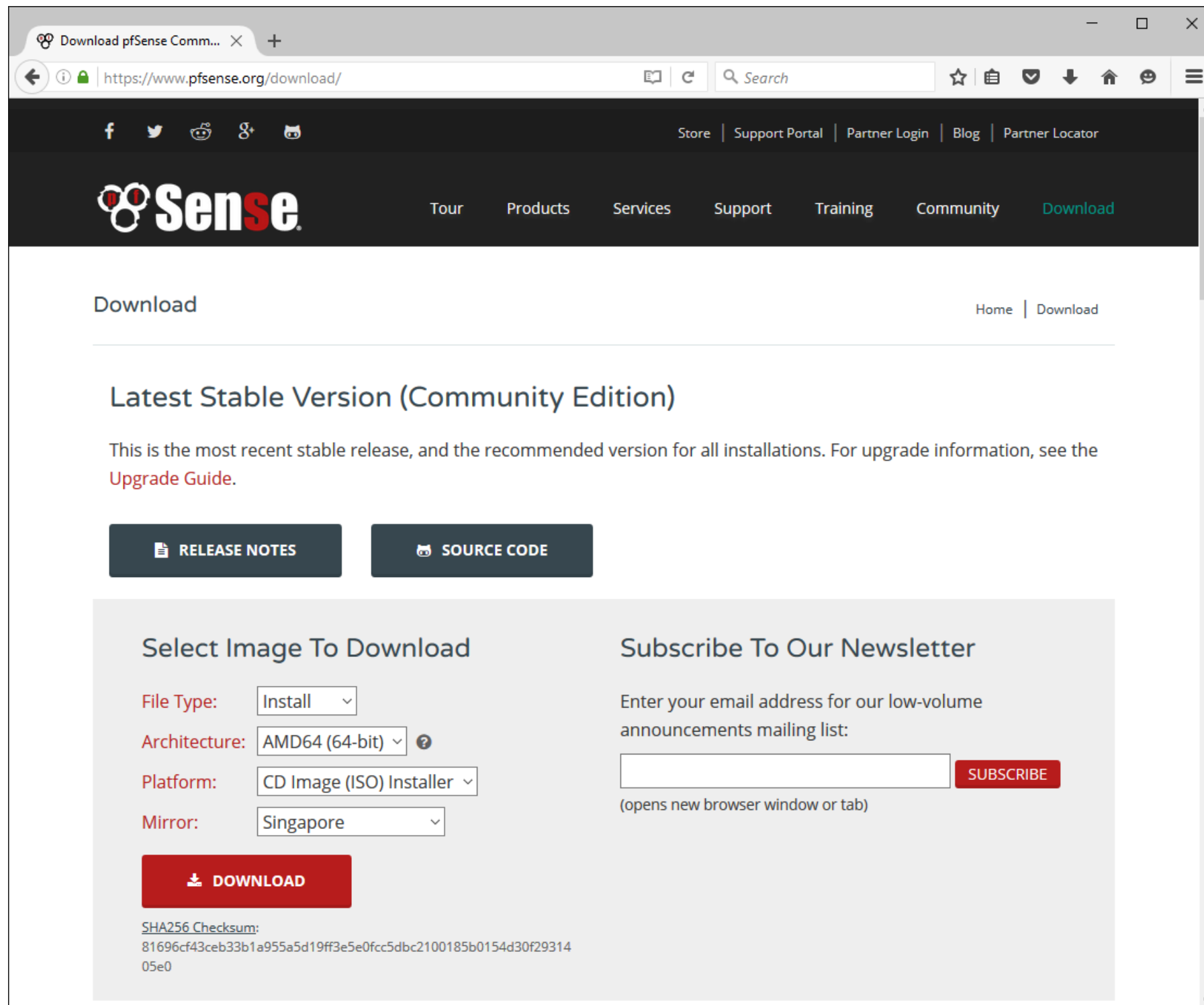
การใช้งาน pfSense Firewall เบื้องต้น

- Installation
- Network setup
- Web based Setup wizard
- Update System
- Package Manager
- Firewall Rules
- Object Aliases
- Firewall Schedules
- Logging
- Services on pfSense : NTP server
- User Manager
- Backup/Restore
- Config History

www.pfsense.org



www.pfsense.org



The screenshot shows the pfSense website's download page. The browser's address bar displays 'https://www.pfsense.org/download/'. The website's header includes the pfSense logo and navigation links: Tour, Products, Services, Support, Training, Community, and Download. Below the header, the page title is 'Download', and a breadcrumb trail shows 'Home | Download'. The main content area features the heading 'Latest Stable Version (Community Edition)' followed by a paragraph stating it is the most recent stable release and the recommended version for all installations, with a link to the 'Upgrade Guide'. Below this text are two buttons: 'RELEASE NOTES' and 'SOURCE CODE'. A section titled 'Select Image To Download' contains four dropdown menus: 'File Type' (set to 'Install'), 'Architecture' (set to 'AMD64 (64-bit)'), 'Platform' (set to 'CD Image (ISO) Installer'), and 'Mirror' (set to 'Singapore'). A large red 'DOWNLOAD' button is positioned below these menus. At the bottom of this section, the 'SHA256 Checksum' is provided: 81696cf43ceb33b1a955a5d19ff3e5e0fcc5dbc2100185b0154d30f2931405e0. To the right of the download options is a 'Subscribe To Our Newsletter' section with a text input field for an email address, a 'SUBSCRIBE' button, and a note that it 'opens new browser window or tab'.

Download pfSense Comm... X +

https://www.pfsense.org/download/

Search

Store | Support Portal | Partner Login | Blog | Partner Locator

pfSense

Tour Products Services Support Training Community **Download**

Download Home | Download

Latest Stable Version (Community Edition)

This is the most recent stable release, and the recommended version for all installations. For upgrade information, see the [Upgrade Guide](#).

RELEASE NOTES **SOURCE CODE**

Select Image To Download

File Type:

Architecture: ?

Platform:

Mirror:

DOWNLOAD

SHA256 Checksum:
81696cf43ceb33b1a955a5d19ff3e5e0fcc5dbc2100185b0154d30f2931405e0

Subscribe To Our Newsletter

Enter your email address for our low-volume announcements mailing list:

SUBSCRIBE

(opens new browser window or tab)

Installation



Installation

```
done.  
Launching the init system..... done.  
Initializing..... done.  
Starting device manager (devd)...done.  
  
[ Press R to enter recovery mode or ]  
[ press I to launch the installer ]  
  
(R)ecover mode can assist by rescuing config.xml  
from a broken hard disk installation, etc.  
  
(I)nstaller will be invoked  
Timeout before auto boot continues (seconds): 4i  
Installer mode selected...  
Launching pfSense Installer...  
  
kern.geom.debugflags: 0 -> 16  
VMware detected. The installer will make changes to tune this host.....  
One moment please...  
Launching Installer NCurses frontend...  
█
```

กด i

Installation

Configure Console

Your selected environment uses the following console settings, shown in parentheses. Select any that you wish to change.

< Change Video Font (default) >
< Change Screenmap (default) >
< Change Keymap (default) >
< Accept these Settings >

Select Task

Choose one of the following tasks to perform.

< Quick/Easy Install >
< Custom Install >
< Rescue config.xml >
< Reboot >
< Exit >

Are you SURE?

Easy Install will automatically install without asking any questions.

WARNING: This will erase all contents in your first hard disk! This action is irreversible. Do you really want to continue?

If you wish to have more control on your setup, choose Custom Installation from the Main Menu.

< OK > < Cancel >

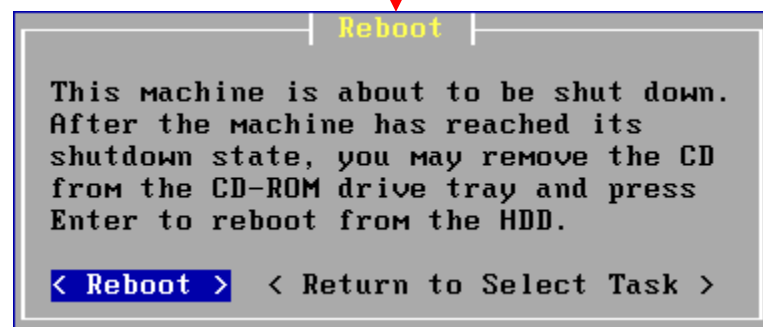
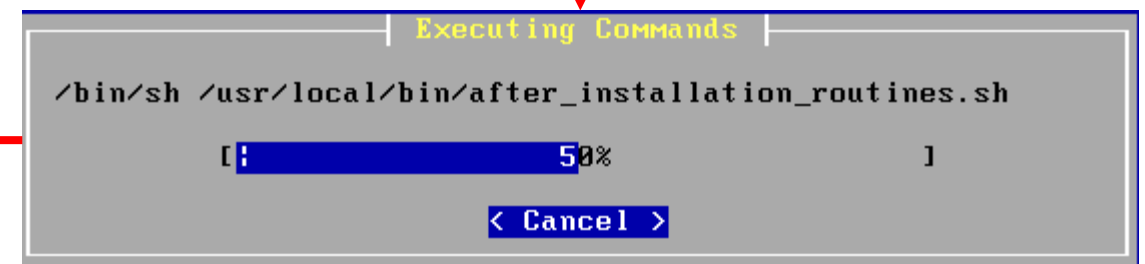
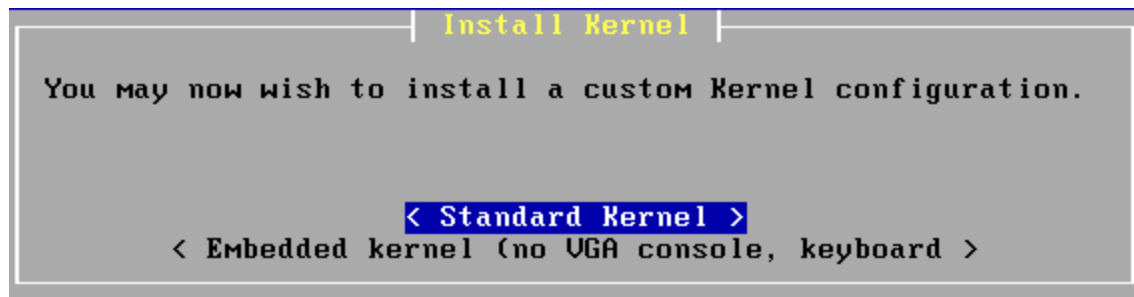
Executing Commands

```
/usr/bin/tar -C /mnt/ -xzpf /install/pfSense.txz
```

[N 5%]

< Cancel >

Installation



Installation

pfSense is now rebooting

After the reboot is complete, open a web browser and enter `https://192.168.1.1` (or the LAN IP Address) in the location bar.

You might need to acknowledge the HTTPS certificate if your browser reports it as untrusted. This is normal as a self-signed certificate is used by default.

DEFAULT Username: admin
DEFAULT Password: pfsense

Rebooting in 5 seconds. CTRL-C to abort.
Rebooting in 4 seconds. CTRL-C to abort.
Rebooting in 3 seconds. CTRL-C to abort.
Rebooting in 2 seconds. CTRL-C to abort.
Rebooting in 1 second.. CTRL-C to abort.

pfSense is now rebooting.



F1 pfSense

F6 PXE
Boot: F1

BTX loader 1.00 BTX version is 1.02
Consoles: internal video/keyboard
BIOS drive C: is disk0
BIOS 638kB/522176kB available memory

FreeBSD/x86 bootstrap loader, Revision 1.1
(root@ce23-amd64-builder, Tue May 17 19:20:22 CDT 2016)
Loading /boot/defaults/loader.conf
_

Installation

```
Generating RRD graphs...done.
Starting syslog...done.
Starting CRON... done.
pfSense (pfSense) 2.3.1-RELEASE amd64 Tue May 17 18:46:53 CDT 2016
Bootup complete

FreeBSD/amd64 (pfSense.localdomain) (ttyv0)

*** Welcome to pfSense 2.3.1-RELEASE (amd64 full-install) on pfSense ***

WAN (wan)      -> em0      -> v4/DHCP4: 192.168.146.144/24
LAN (lan)      -> em1      -> 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
3) Reset webConfigurator password 12) pfSense Developer Shell
4) Reset to factory defaults  13) Update from console
5) Reboot system              14) Enable Secure Shell (sshd)
6) Halt system                15) Restore recent configuration
7) Ping host                  16) Restart PHP-FPM
8) Shell

Enter an option: █
```

Network Setup

```
Generating RRD graphs...done.
Starting syslog...done.
Starting CRON... done.
pfSense (pfSense) 2.3.1-RELEASE amd64 Tue May 17 18:46:53 CDT 2016
Bootup complete

FreeBSD/amd64 (pfSense.localdomain) (ttyv0)

*** Welcome to pfSense 2.3.1-RELEASE (amd64 full-install) on pfSense ***

WAN (wan)      -> em0      -> v4/DHCP4: 192.168.146.144/24
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0) Logout (SSH only)          9) pfTop
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4) Reset to factory defaults  13) Update from console
5) Reboot system              14) Enable Secure Shell (sshd)
6) Halt system                 15) Restore recent configuration
7) Ping host                   16) Restart PHP-FPM
8) Shell

Enter an option: 2
```

```
*** Welcome to pfSense 2.3.1-RELEASE (amd64 full-install) on pfSense ***

WAN (wan)      -> em0      -> v4/DHCP4: 192.168.146.144/24
LAN (lan)      -> em1      -> v4: 192.168.1.1/24

0) Logout (SSH only)          9) pfTop
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5) Reboot system              14) Enable Secure Shell (sshd)
6) Halt system                 15) Restore recent configuration
7) Ping host                   16) Restart PHP-FPM
8) Shell

Enter an option: 2

Available interfaces:

1 - WAN (em0 - dhcp, dhcp6)
2 - LAN (em1 - static)

Enter the number of the interface you wish to configure: 2
```

Network Setup

```
WAN (wan)      -> em0      -> v4/DHCP4: 192.168.146.144/24
LAN (lan)      -> em1      -> v4: 192.168.1.1/24

0) Logout (SSH only)          9) pfTop
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5) Reboot system              14) Enable Secure Shell (sshd)
6) Halt system                 15) Restore recent configuration
7) Ping host                   16) Restart PHP-FPM
8) Shell

Enter an option: 2

Available interfaces:

1 - WAN (em0 - dhcp, dhcp6)
2 - LAN (em1 - static)

Enter the number of the interface you wish to configure: 2

Enter the new LAN IPv4 address. Press <ENTER> for none:
> 192.168.89.254
```

```
5) Reboot system              14) Enable Secure Shell (sshd)
6) Halt system                 15) Restore recent configuration
7) Ping host                   16) Restart PHP-FPM
8) Shell

Enter an option: 2

Available interfaces:

1 - WAN (em0 - dhcp, dhcp6)
2 - LAN (em1 - static)

Enter the number of the interface you wish to configure: 2

Enter the new LAN IPv4 address. Press <ENTER> for none:
> 192.168.89.254

Subnet masks are entered as bit counts (as in CIDR notation) in pfSense.
e.g. 255.255.255.0 = 24
     255.255.0.0   = 16
     255.0.0.0     = 8

Enter the new LAN IPv4 subnet bit count (1 to 31):
> 24
```

Network Setup

```
Enter an option: 2

Available interfaces:

1 - WAN (em0 - dhcp, dhcp6)
2 - LAN (em1 - static)

Enter the number of the interface you wish to configure: 2

Enter the new LAN IPv4 address. Press <ENTER> for none:
> 192.168.89.254

Subnet masks are entered as bit counts (as in CIDR notation) in pfSense.
e.g. 255.255.255.0 = 24
     255.255.0.0   = 16
     255.0.0.0     = 8

Enter the new LAN IPv4 subnet bit count (1 to 31):
> 24

For a WAN, enter the new LAN IPv4 upstream gateway address.
For a LAN, press <ENTER> for none:
> 
```

```
Available interfaces:

1 - WAN (em0 - dhcp, dhcp6)
2 - LAN (em1 - static)

Enter the number of the interface you wish to configure: 2

Enter the new LAN IPv4 address. Press <ENTER> for none:
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Enter the new LAN IPv4 subnet bit count (1 to 31):
> 24

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

Enter the new LAN IPv6 address. Press <ENTER> for none:
> 
```

Network Setup

```
1 - WAN (em0 - dhcp, dhcp6)
2 - LAN (em1 - static)

Enter the number of the interface you wish to configure: 2

Enter the new LAN IPv4 address. Press <ENTER> for none:
> 192.168.89.254

Subnet masks are entered as bit counts (as in CIDR notation) in pfSense.
e.g. 255.255.255.0 = 24
     255.255.0.0   = 16
     255.0.0.0     = 8

Enter the new LAN IPv4 subnet bit count (1 to 31):
> 24

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

Enter the new LAN IPv6 address. Press <ENTER> for none:
>

Do you want to enable the DHCP server on LAN? (y/n) n
```

```
2 - LAN (em1 - static)

Enter the number of the interface you wish to configure: 2

Enter the new LAN IPv4 address. Press <ENTER> for none:
> 192.168.89.254

Subnet masks are entered as bit counts (as in CIDR notation) in pfSense.
e.g. 255.255.255.0 = 24
     255.255.0.0   = 16
     255.0.0.0     = 8

Enter the new LAN IPv4 subnet bit count (1 to 31):
> 24

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

Enter the new LAN IPv6 address. Press <ENTER> for none:
>

Do you want to enable the DHCP server on LAN? (y/n) n
Do you want to revert to HTTP as the webConfigurator protocol? (y/n) n
```

Network Setup

```
Enter the new LAN IPv4 subnet bit count (1 to 31):
> 24

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

Enter the new LAN IPv6 address. Press <ENTER> for none:
>

Do you want to enable the DHCP server on LAN? (y/n) n

Do you want to revert to HTTP as the webConfigurator protocol? (y/n) n

Please wait while the changes are saved to LAN...
Reloading filter...
Reloading routing configuration...
DHCPD...

The IPv4 LAN address has been set to 192.168.89.254/24
You can now access the webConfigurator by opening the following URL in your web
browser:
    https://192.168.89.254/

Press <ENTER> to continue. █
```

```
DHCPD...

The IPv4 LAN address has been set to 192.168.89.254/24
You can now access the webConfigurator by opening the following URL in your web
browser:
    https://192.168.89.254/

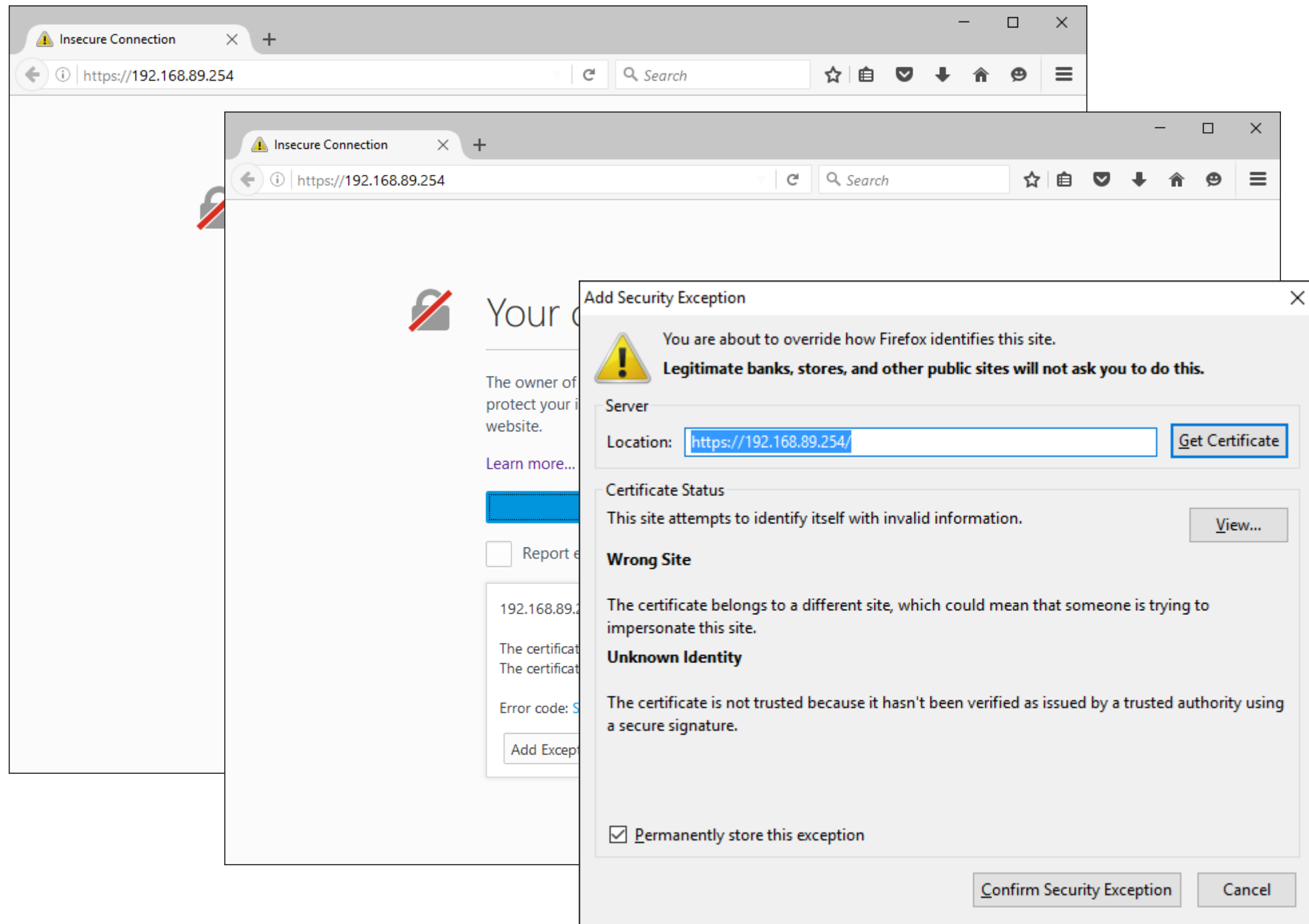
Press <ENTER> to continue.
*** Welcome to pfSense 2.3.1-RELEASE (amd64 full-install) on pfSense ***

WAN (wan)      -> em0      -> v4/DHCP4: 192.168.146.144/24
LAN (lan)      -> em1      -> v4: 192.168.89.254/24

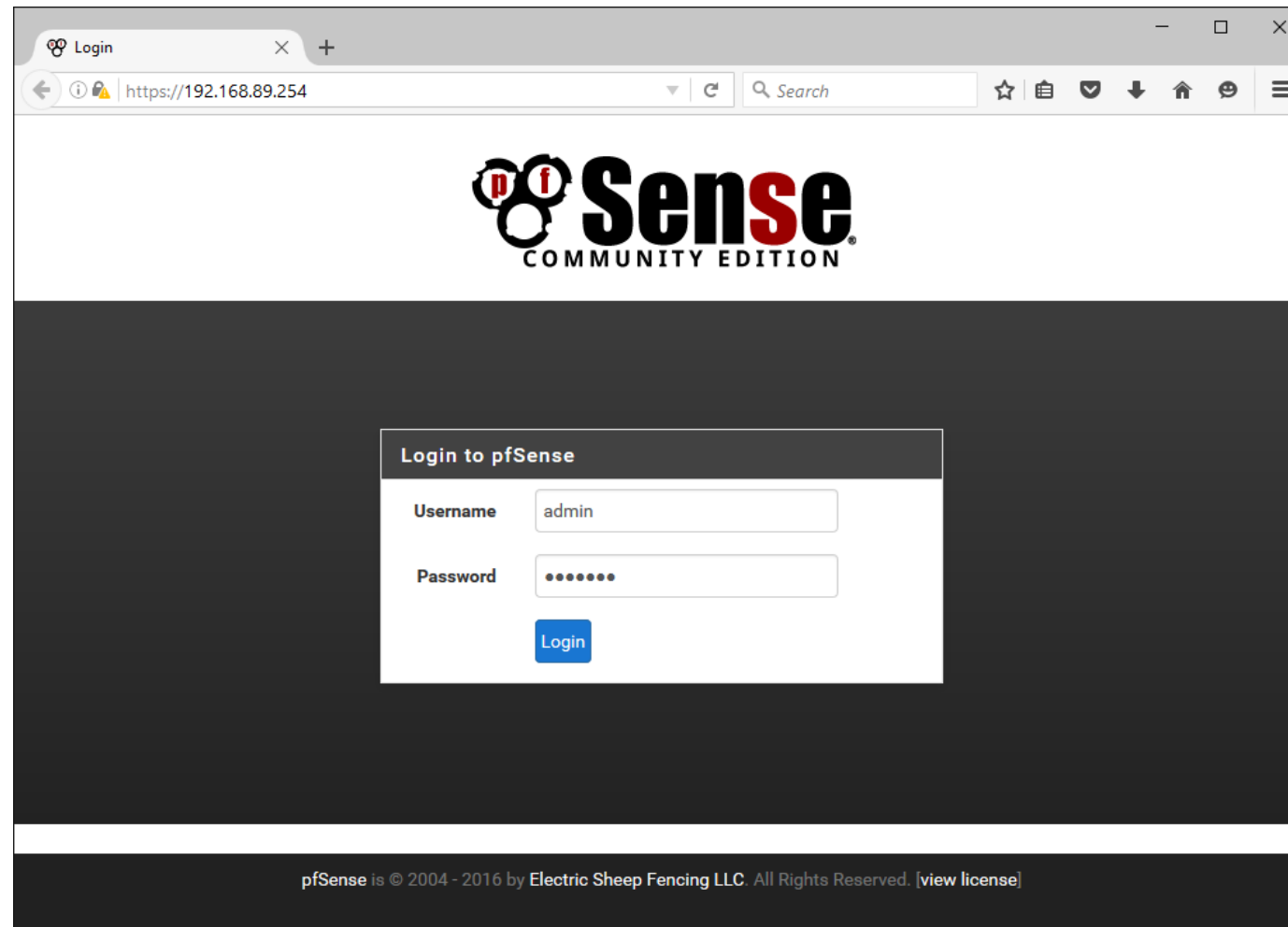
0) Logout (SSH only)          9) pfTop
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5) Reboot system             14) Enable Secure Shell (sshd)
6) Halt system               15) Restore recent configuration
7) Ping host                 16) Restart PHP-FPM
8) Shell

Enter an option: █
```

Setup Wizard

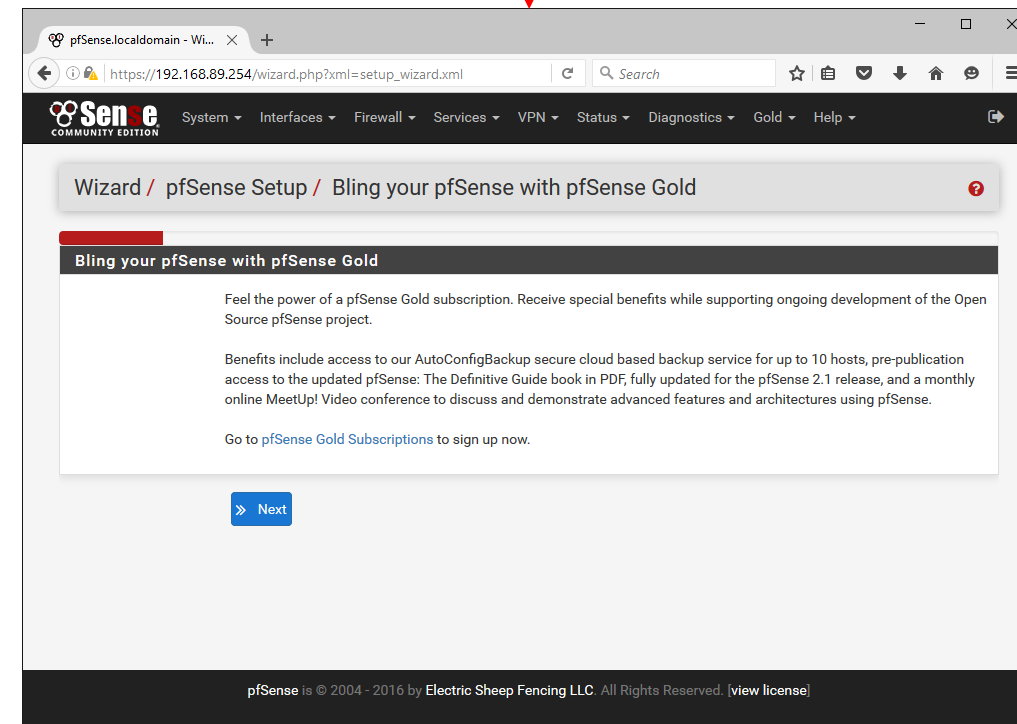
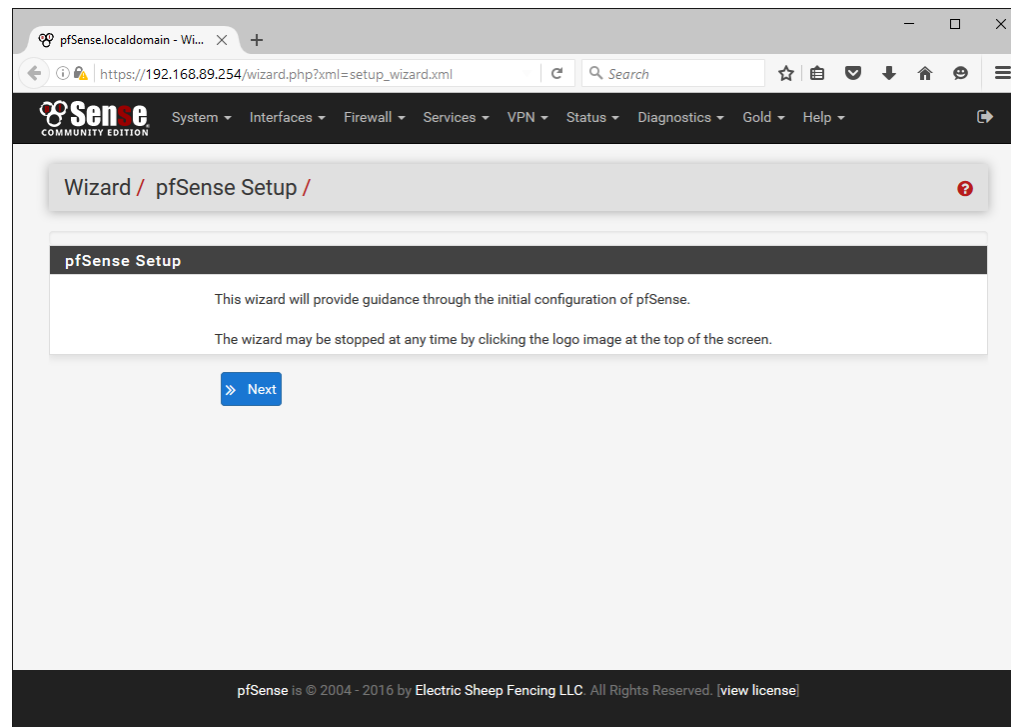


Setup Wizard



The screenshot shows a web browser window with the address bar displaying "https://192.168.89.254". The page features the pfSense logo at the top, which includes the text "pfSense" and "COMMUNITY EDITION". Below the logo is a login form titled "Login to pfSense". The form contains two input fields: "Username" with the value "admin" and "Password" with masked characters "••••••". A blue "Login" button is positioned below the password field. At the bottom of the page, a footer line reads: "pfSense is © 2004 - 2016 by Electric Sheep Fencing LLC. All Rights Reserved. [view license]"

Setup Wizard



Setup Wizard

pfSense.localdomain - Wi... X +

https://192.168.89.254/wizard.php?xml=setup_wizard.xml

System Interfaces Firewall Services VPN Status Diagnostics Gold Help

Wizard / pfSense Setup / General Information

General Information

On this screen the general pfSense parameters will be set.

Hostname
EXAMPLE: myserver

Domain
EXAMPLE: mydomain.com

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

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pfSense.localdomain - Wi... X +

https://192.168.89.254/wizard.php?xml=setup_wizard.xml

System Interfaces Firewall Services VPN Status Diagnostics Gold Help

Wizard / pfSense Setup / Time Server Information

Time Server Information

Please enter the time, date and time zone.

Time server hostname
Enter the hostname (FQDN) of the time server.

Timezone

» Next

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Setup Wizard

pfSense.localdomain - Wi... X +

https://192.168.89.254/wizard.php?xml=setup_wizard.xml

pfSense
COMMUNITY EDITION

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

Wizard / pfSense Setup / Configure WAN Interface ?

Configure WAN Interface

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

SelectedType Static ▾

General configuration

MAC Address
This field can be used to modify ("spoof") the MAC address of the WAN interface (may be required with some cable connections). Enter a MAC address in the following format: xx:xx:xx:xx:xx:xx or leave blank.

MTU
Set the MTU of the WAN interface. If this field is left blank, an MTU of 1492 bytes for PPPoE and 1500 bytes for all other connection types will be assumed.

MSS
If a value is entered in this field, then MSS clamping for TCP connections to the value entered above minus 40 (TCP/IP header size) will be in effect. If this field is left blank, an MSS of 1492 bytes for PPPoE and 1500 bytes for all other connection types will be assumed. This should match the above MTU value in most all cases.

Static IP Configuration

IP Address 192.168.146.144

Subnet Mask 24 ▾

Upstream Gateway 192.168.146.2

pfSense.localdomain - Wi... X +

https://192.168.89.254/wizard.php?xml=setup_wizard.xml

pfSense

PPTP Local IP Address

pptplocalsubnet 32 ▾

PPTP Remote IP Address

PPTP Dial on demand ☐ Enable Dial-On-Demand mode
This option causes the interface to operate in dial-on-demand mode, allowing a virtual full time connection. The interface is configured, but the actual connection of the link is delayed until qualifying outgoing traffic is detected.

PPTP Idle timeout
If no qualifying outgoing packets are transmitted for the specified number of seconds, the connection is brought down. An idle timeout of zero disables this feature.

RFC1918 Networks

Block RFC1918 Private Networks ☐ Block private networks from entering via WAN
When set, this option blocks traffic from IP addresses that are reserved for private networks as per RFC 1918 (10/8, 172.16/12, 192.168/16) as well as loopback addresses (127/8). This option should generally be left turned on, unless the WAN network lies in such a private address space, too.

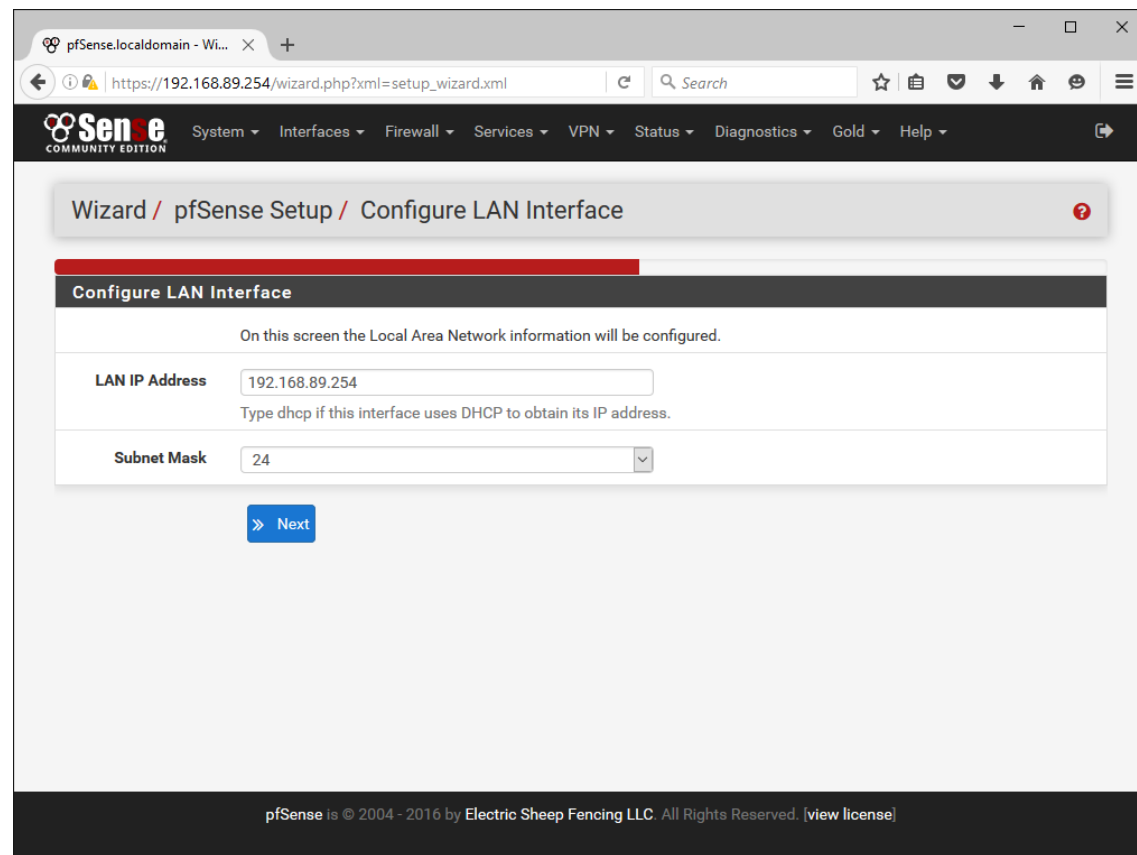
Block bogon networks

Block bogon networks ☐ Block non-Internet routed networks from entering via WAN
When set, this option blocks traffic from IP addresses that are reserved (but not RFC 1918) or not yet assigned by IANA. Bogons are prefixes that should never appear in the Internet routing table, and obviously should not appear as the source address in any packets received.

» Next

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Setup Wizard



pfSense.localdomain - Wi... X +

https://192.168.89.254/wizard.php?xml=setup_wizard.xml

Search

Sense COMMUNITY EDITION System Interfaces Firewall Services VPN Status Diagnostics Gold Help

Wizard / pfSense Setup / Configure LAN Interface

Configure LAN Interface

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

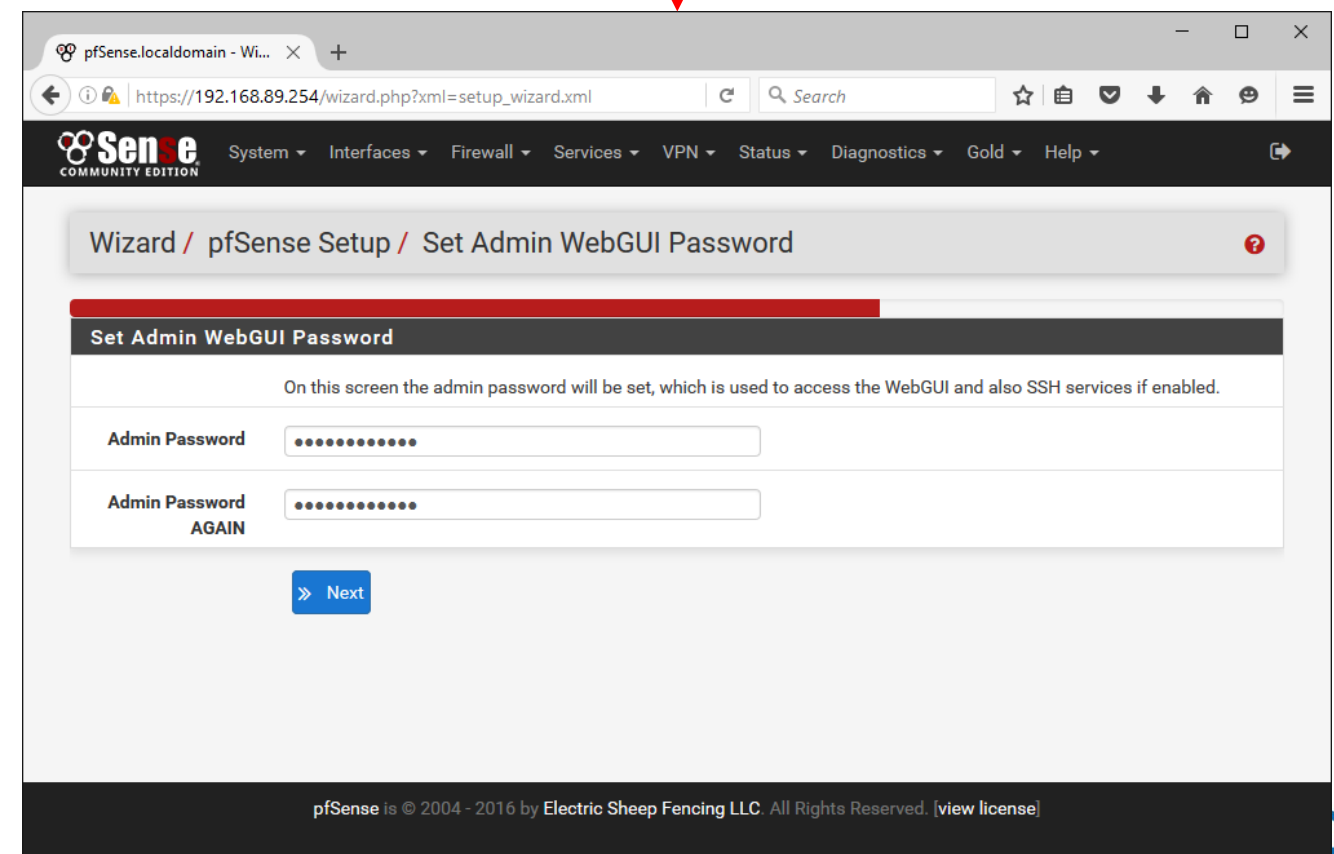
LAN IP Address 192.168.89.254

Type dhcp if this interface uses DHCP to obtain its IP address.

Subnet Mask 24

» Next

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pfSense.localdomain - Wi... X +

https://192.168.89.254/wizard.php?xml=setup_wizard.xml

Search

Sense COMMUNITY EDITION System Interfaces Firewall Services VPN Status Diagnostics Gold Help

Wizard / pfSense Setup / Set Admin WebGUI Password

Set Admin WebGUI Password

On this screen the admin password will be set, which is used to access the WebGUI and also SSH services if enabled.

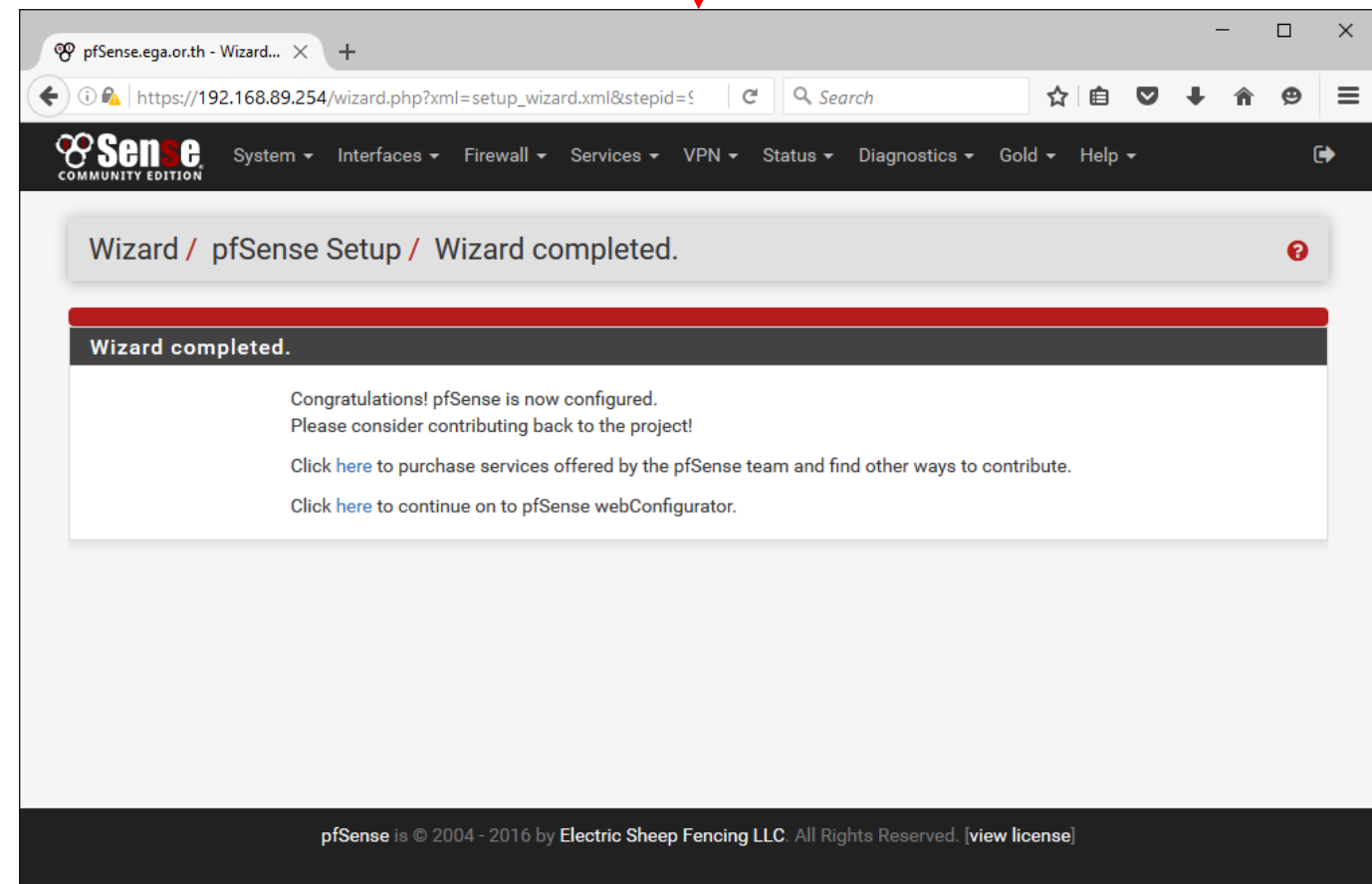
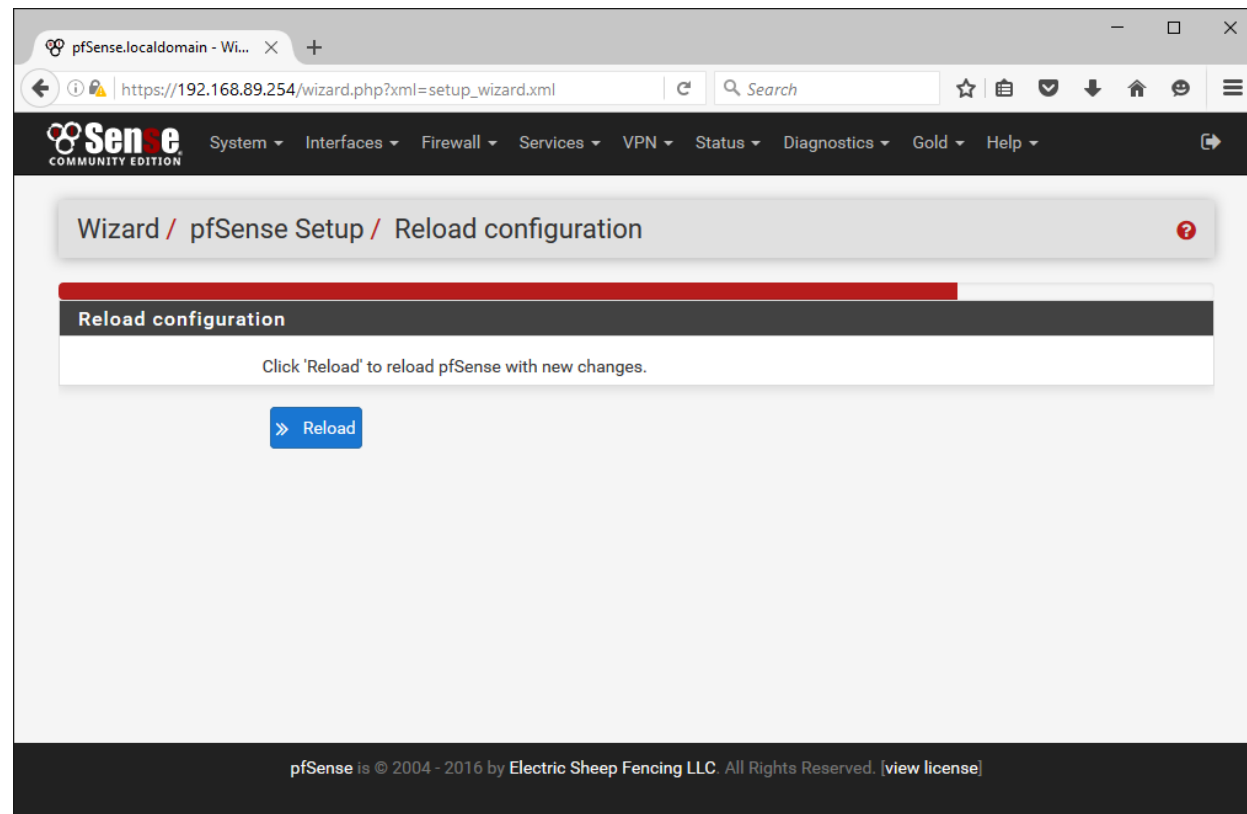
Admin Password

Admin Password AGAIN

» Next

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Setup Wizard



Setup Wizard

The screenshot displays the pfSense Status / Dashboard page. The browser address bar shows the URL <https://192.168.89.254>. The page header includes the pfSense logo and navigation links: System, Interfaces, Firewall, Services, VPN, Status, Diagnostics, Gold, and Help.

The main content area is divided into two panels:

- System Information:** A table listing various system details.

Name	Value
Name	pfSense.ega.or.th
Version	2.3.1-RELEASE (amd64) built on Tue May 17 18:46:53 CDT 2016 FreeBSD 10.3-RELEASE-p3 Version 2.3.1_5 is available.
Platform	pfSense
CPU Type	Intel(R) Core(TM) i5-3230M CPU @ 2.60GHz 2 CPUs: 2 package(s) x 1 core(s)
Uptime	00 Hour 14 Minutes 49 Seconds
Current date/time	Tue Jul 12 12:21:41 ICT 2016
DNS server(s)	<ul style="list-style-type: none">127.0.0.1192.168.146.28.8.4.48.8.8.8
Last config change	Tue Jul 12 19:20:27 ICT 2016
State table size	0% (23/47000) Show states
MBUF Usage	5% (1526/29666)
Load average	0.10, 0.08, 0.08
CPU usage	0%
Memory usage	25% of 477 MiB
SWAP usage	0% of 1023 MiB
Disk usage (/)	3% of 18GiB - ufs
Disk usage (/var/run)	2% of 3.4MiB - ufs in RAM
- Interfaces:** A table listing network interfaces.

Interface	Speed	IP Address
WAN	1000baseT <full-duplex>	192.168.146.144
LAN	1000baseT <full-duplex>	192.168.89.254

The footer of the page contains the copyright notice: pfSense is © 2004 - 2016 by Electric Sheep Fencing LLC. All Rights Reserved. [\[view license\]](#)

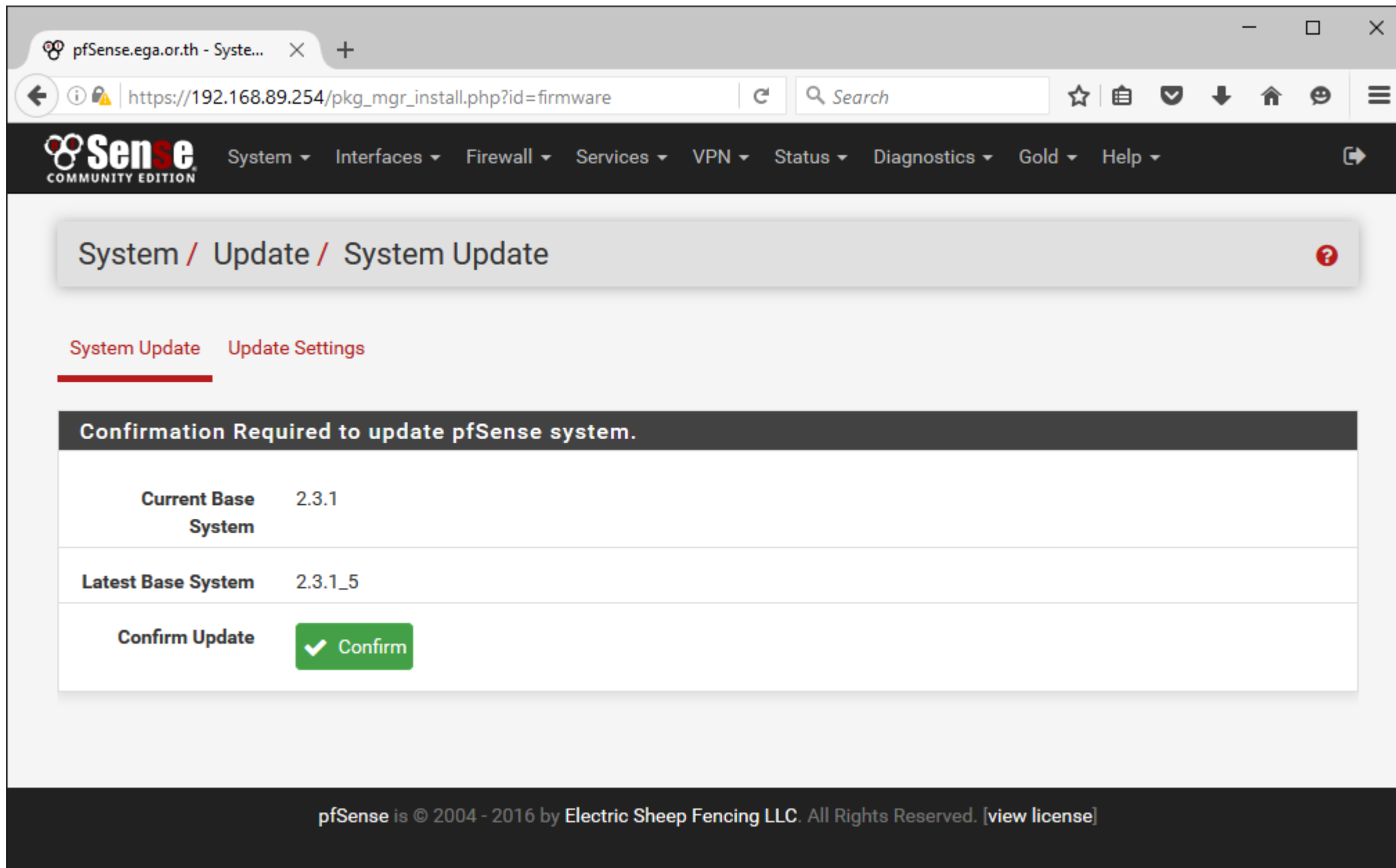
Update System

The screenshot shows the pfSense web interface. The browser address bar displays `https://192.168.89.254`. The top navigation bar includes the pfSense logo and a menu with items: System, Interfaces, Firewall, Services, VPN, Status, Diagnostics, Gold, and Help. The 'System' menu is open, showing a list of options: Advanced, Cert. Manager, General Setup, High Avail. Sync, Logout, Package Manager, Routing, Setup Wizard, Update (highlighted with a red circle), and User Manager. The main content area is divided into two panels. The left panel, titled 'System Info', contains a table with system details. The right panel, titled 'Interfaces', contains a table with network interface information.

System Info	
Name	
Version	amd64)
Platform	17 18:46:53 CDT 2016
CPU Type	Intel(R) Core(TM) i5-3230M CPU @ 2.60GHz 2 CPUs: 2 package(s) x 1 core(s)
Uptime	00 Hour 19 Minutes 06 Seconds
Current date/time	Tue Jul 12 12:25:58 ICT 2016
DNS server(s)	<ul style="list-style-type: none">• 127.0.0.1• 192.168.146.2• 8.8.4.4• 8.8.8.8
Last config change	Tue Jul 12 12:23:26 ICT 2016

Interfaces			
WAN	↑	1000baseT <full-duplex>	192.168.146.144
LAN	↑	1000baseT <full-duplex>	192.168.89.254

Update System

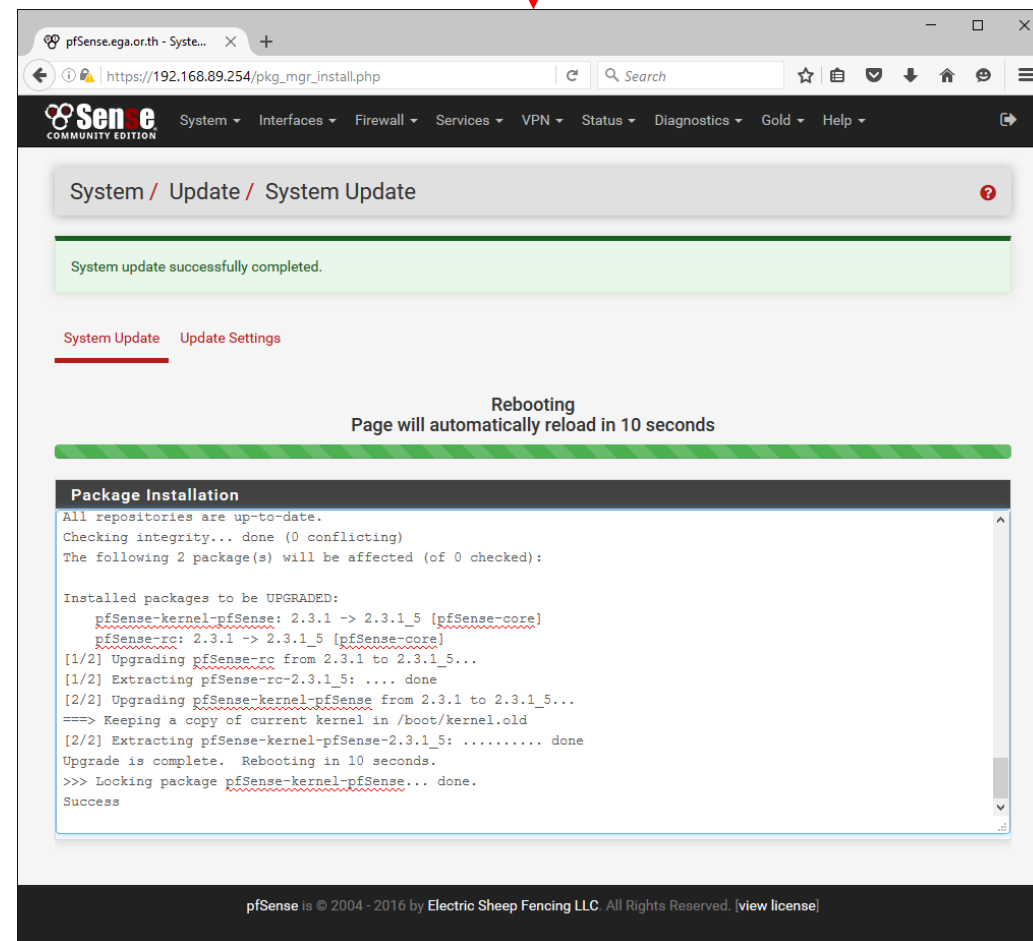
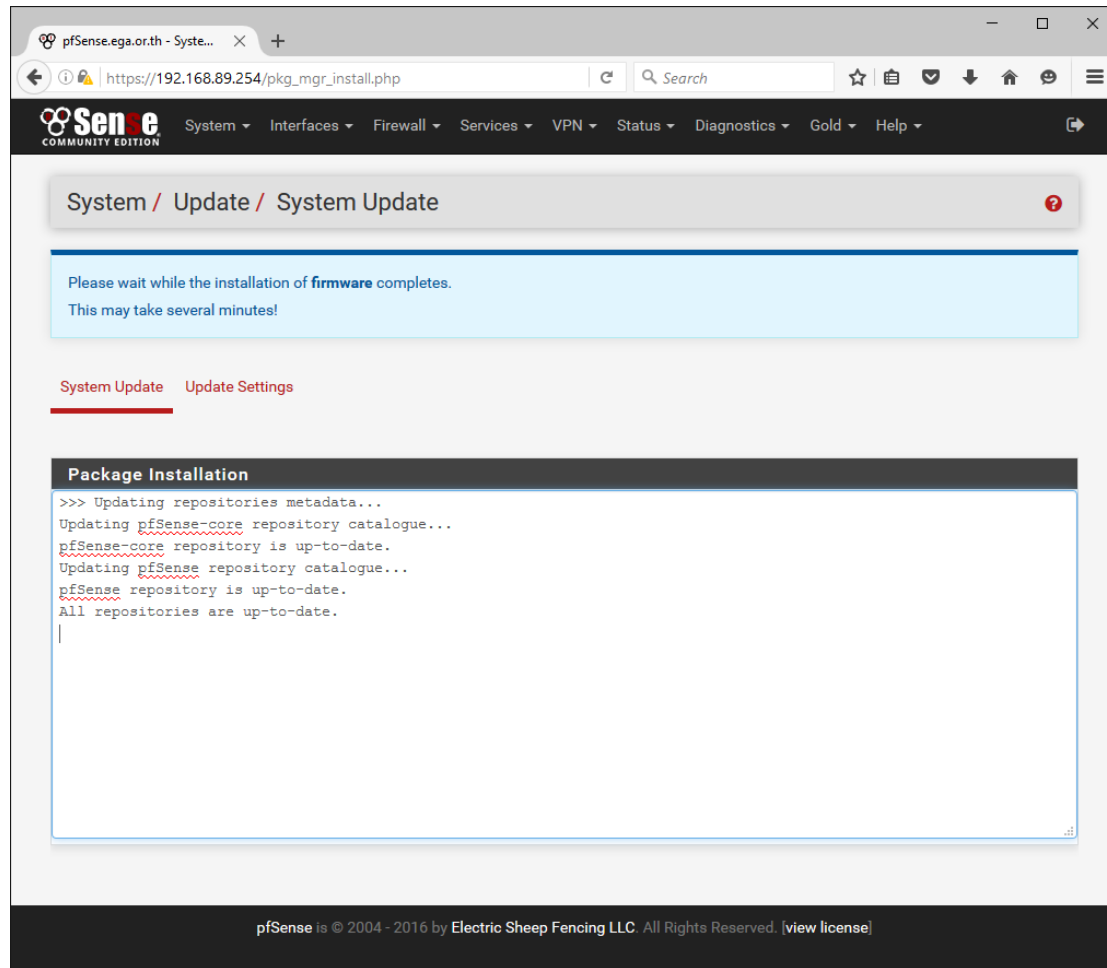


The screenshot shows the pfSense web interface in a browser window. The address bar displays the URL `https://192.168.89.254/pkg_mgr_install.php?id=firmware`. The page title is "System / Update / System Update". The navigation menu includes "System", "Interfaces", "Firewall", "Services", "VPN", "Status", "Diagnostics", "Gold", and "Help". The main content area shows the "System Update" tab selected, with a sub-tab "Update Settings". A confirmation message states: "Confirmation Required to update pfSense system." Below this, a table displays the current and latest system versions:

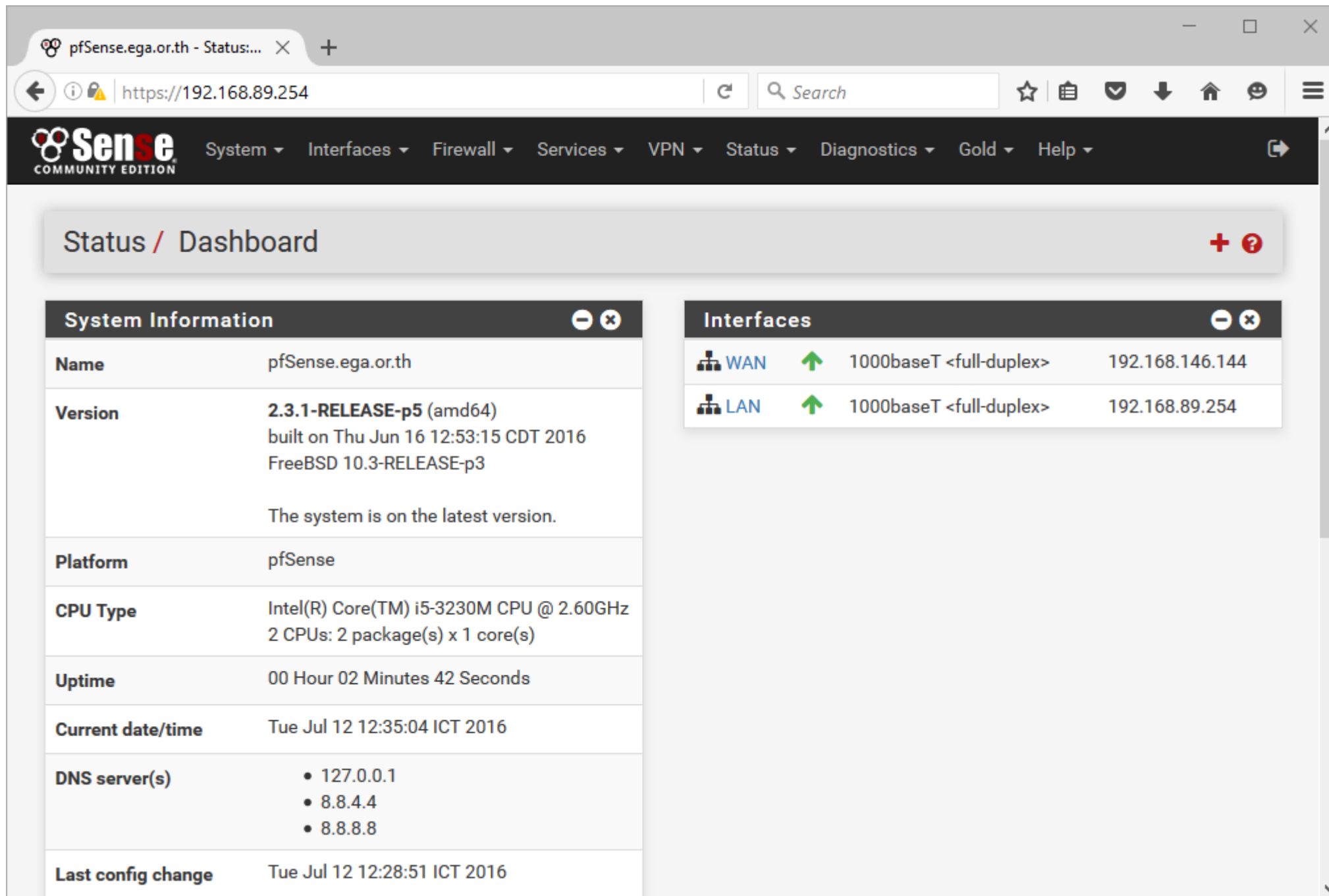
Current Base System	2.3.1
Latest Base System	2.3.1_5
Confirm Update	<input checked="" type="checkbox"/> Confirm

The footer of the page reads: "pfSense is © 2004 - 2016 by Electric Sheep Fencing LLC. All Rights Reserved. [view license]"

Update System



Update System



The screenshot shows the pfSense web interface. The browser address bar displays `https://192.168.89.254`. The navigation menu includes System, Interfaces, Firewall, Services, VPN, Status, Diagnostics, Gold, and Help. The main content area is titled "Status / Dashboard" and contains two panels:

- System Information**:
 - Name: pfSense.ega.or.th
 - Version: **2.3.1-RELEASE-p5** (amd64)
built on Thu Jun 16 12:53:15 CDT 2016
FreeBSD 10.3-RELEASE-p3
The system is on the latest version.
 - Platform: pfSense
 - CPU Type: Intel(R) Core(TM) i5-3230M CPU @ 2.60GHz
2 CPUs: 2 package(s) x 1 core(s)
 - Uptime: 00 Hour 02 Minutes 42 Seconds
 - Current date/time: Tue Jul 12 12:35:04 ICT 2016
 - DNS server(s):
 - 127.0.0.1
 - 8.8.4.4
 - 8.8.8.8
 - Last config change: Tue Jul 12 12:28:51 ICT 2016
- Interfaces**:
 - WAN: 1000baseT <full-duplex> 192.168.146.144
 - LAN: 1000baseT <full-duplex> 192.168.89.254

Update System

pfSense.ega.or.th - Syste...
https://192.168.89.254/system_update_settings.php

System / Update / Update Settings

System Update Update Settings

Firmware Branch

Branch: Stable (Default) (selected)
Stable (Default)
Development Snapshots (Experimental)

which to update the system firmware.

Updates

Dashboard check ☐ Disable the automatic dashboard auto-update check

Save

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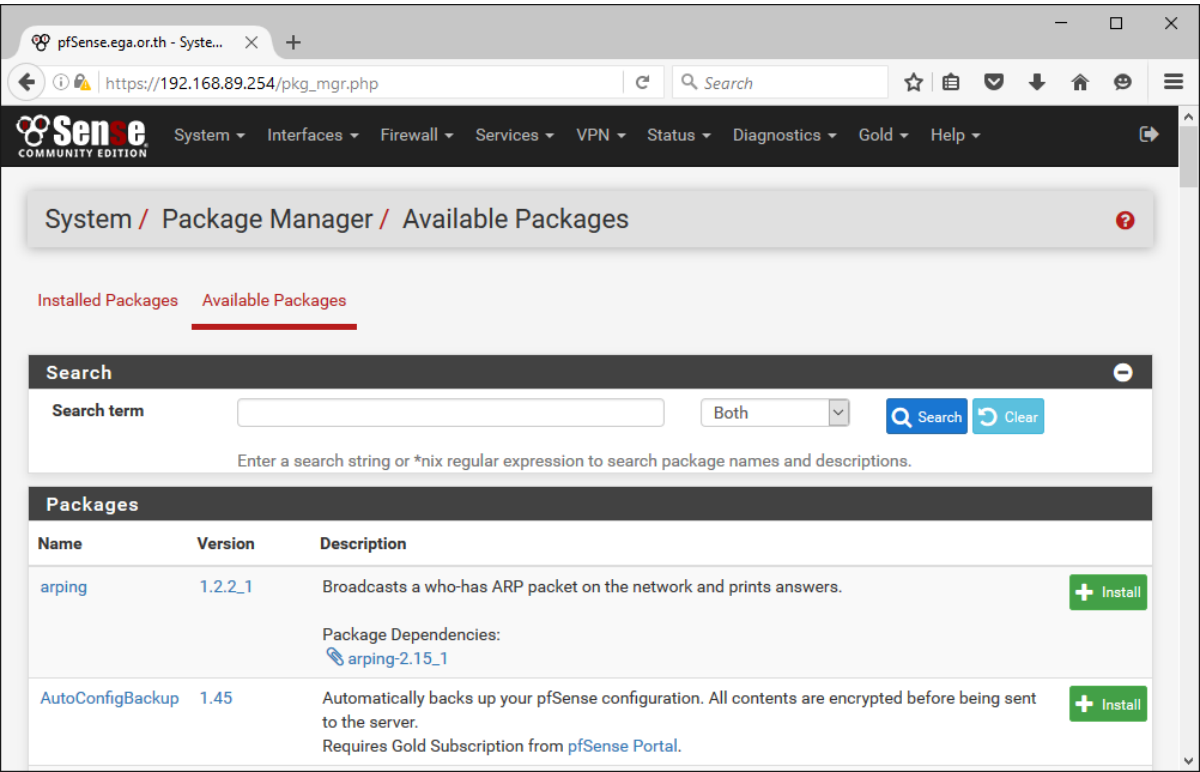
Package Manager

The screenshot shows the pfSense web interface. The top navigation bar includes the pfSense logo and a menu with items: System, Interfaces, Firewall, Services, VPN, Status, Diagnostics, Gold, and Help. The 'System' menu is open, showing options: Advanced, Cert. Manager, General Setup, High Avail. Sync, Logout, Package Manager (highlighted with a red circle), Routing, Setup Wizard, Update, and User Manager. The main content area is divided into two panels. The left panel, titled 'System Info', displays various system statistics and details. The right panel, titled 'Interfaces', shows a table of network interfaces.

System Info	
Name	pfSense.ega.or.th
Version	2.5.0-RELEASE-p5 (amd64) Jun 16 12:53:15 CDT 2016
Platform	amd64
CPU Type	Intel(R) Core(TM) i5-3230M CPU @ 2.60GHz 2 CPUs: 2 package(s) x 1 core(s)
Uptime	00 Hour 08 Minutes 35 Seconds
Current date/time	Tue Jul 12 12:40:57 ICT 2016
DNS server(s)	<ul style="list-style-type: none">127.0.0.18.8.4.48.8.8.8
Last config change	Tue Jul 12 12:28:51 ICT 2016
State table size	0% (47/47000) Show states
MBUF Usage	5% (1520/29666)
Load average	0.30, 0.31, 0.23
CPU usage	36%
Memory usage	32% of 477 MiB
SWAP usage	0% of 1023 MiB
Disk usage (/)	4% of 18GiB - ufs
Disk usage (/var/run)	3% of 3.4MiB - ufs in RAM

Interfaces	
WAN	1000baseT <full-duplex> 192.168.146.144
LAN	1000baseT <full-duplex> 192.168.89.254

Package Manager



Packages			
Name	Version	Description	
arping	1.2.2_1	Broadcasts a who-has ARP packet on the network and prints answers. Package Dependencies: arping-2.15_1	+ Install
AutoConfigBackup	1.45	Automatically backs up your pfSense configuration. All contents are encrypted before being sent to the server. Requires Gold Subscription from pfSense Portal.	+ Install
Avahi	1.11_2	Avahi is a system which facilitates service discovery on a local network via the mDNS/DNS-SD protocol suite. This enables you to plug your laptop or computer into a network and instantly be able to view other people who you can chat with, find printers to print to or find files being shared. In addition it supports some nifty things that have never been seen elsewhere like correct mDNS reflection across LAN segments. Compatible technology is found in Apple MacOS X (branded Bonjour and sometimes Zeroconf). Package Dependencies: avahi-app-0.6.31_5	+ Install
Backup	0.4_1	Tool to Backup and Restore files and directories.	+ Install
bind	9.10_8	pfSense GUI for BIND DNS server Package Dependencies: bind-pfsense-9.10.3P4	+ Install
blinkled	0.4.7_1	Allows you to use LEDs for monitoring network activity on supported platforms (ALIX, WRAP, Soekris, etc.) Package Dependencies: blinkled-0.1	+ Install
Cron	0.3.6_2	The cron utility is used to manage commands on a schedule.	+ Install
darkstat	3.1.2_1	darkstat is a network statistics gatherer. It's a packet sniffer that runs as a background process on a cable/DSL router, gathers all sorts of statistics about network usage, and serves them over HTTP. Package Dependencies: darkstat-3.0.719	+ Install
freeradius2	1.7.3_1	A free implementation of the RADIUS protocol. Support: MySQL, PostgreSQL, LDAP, Kerberos. FreeRADIUS and FreeRADIUS2 settings are not compatible so don't use them together or try to update. On pfSense docs there is a how-to which could help you on porting users. Package Dependencies: bash-4.3.42_1 freeradius2-2.2.9	+ Install

Package Manager

FTP_Client_Proxy	0.3_2	Basic FTP Client Proxy using ftp-proxy from FreeBSD.	+ Install
gwled	0.2.4_1	Allows you to use LEDs for monitoring gateway status on supported platforms (ALIX, WRAP, Soekris, etc.)	+ Install
haproxy	0.48	The Reliable, High Performance TCP/HTTP(S) Load Balancer. This package implements the TCP, HTTP and HTTPS balancing features from haproxy. Supports ACLs for smart backend switching. Package Dependencies: haproxy-1.6.4	+ Install
haproxy-devel	0.48	The Reliable, High Performance TCP/HTTP(S) Load Balancer. This package implements the TCP, HTTP and HTTPS balancing features from haproxy. Supports ACLs for smart backend switching. Package Dependencies: haproxy-devel-1.7.d2	+ Install
iftop	0.17_2	Realtime interface monitor (console/shell only). Package Dependencies: iftop-1.0.p4	+ Install
iperf	2.0.5.5_1	Iperf is a tool for testing network throughput, loss, and jitter. Package Dependencies: iperf-2.0.5	+ Install
LADVD	1.2.1_2	Send and decode link layer advertisements. Support for LLDP (Link Layer Discovery Protocol), CDP (Cisco Discovery Protocol), EDP (Extreme Discovery Protocol) and NDP (Nortel Discovery Protocol). Package Dependencies: ladvd-1.1.0	+ Install
Lightsquid	3.0.4	LightSquid is a high performance web proxy reporting tool. Includes proxy realtime statistics (SQStat). Requires Squid3 package. Package Dependencies: lightsquid-1.8_4 lighttpd-1.4.39_1	+ Install
mailreport	3.0_1	Allows you to setup periodic e-mail reports containing command output, and log file contents	+ Install
mtr-nox11	0.85.6_1	Enhanced traceroute replacement. mtr combines the functionality of the traceroute and ping programs in a single network diagnostic tool. Package Dependencies: mtr-nox11-0.86	+ Install

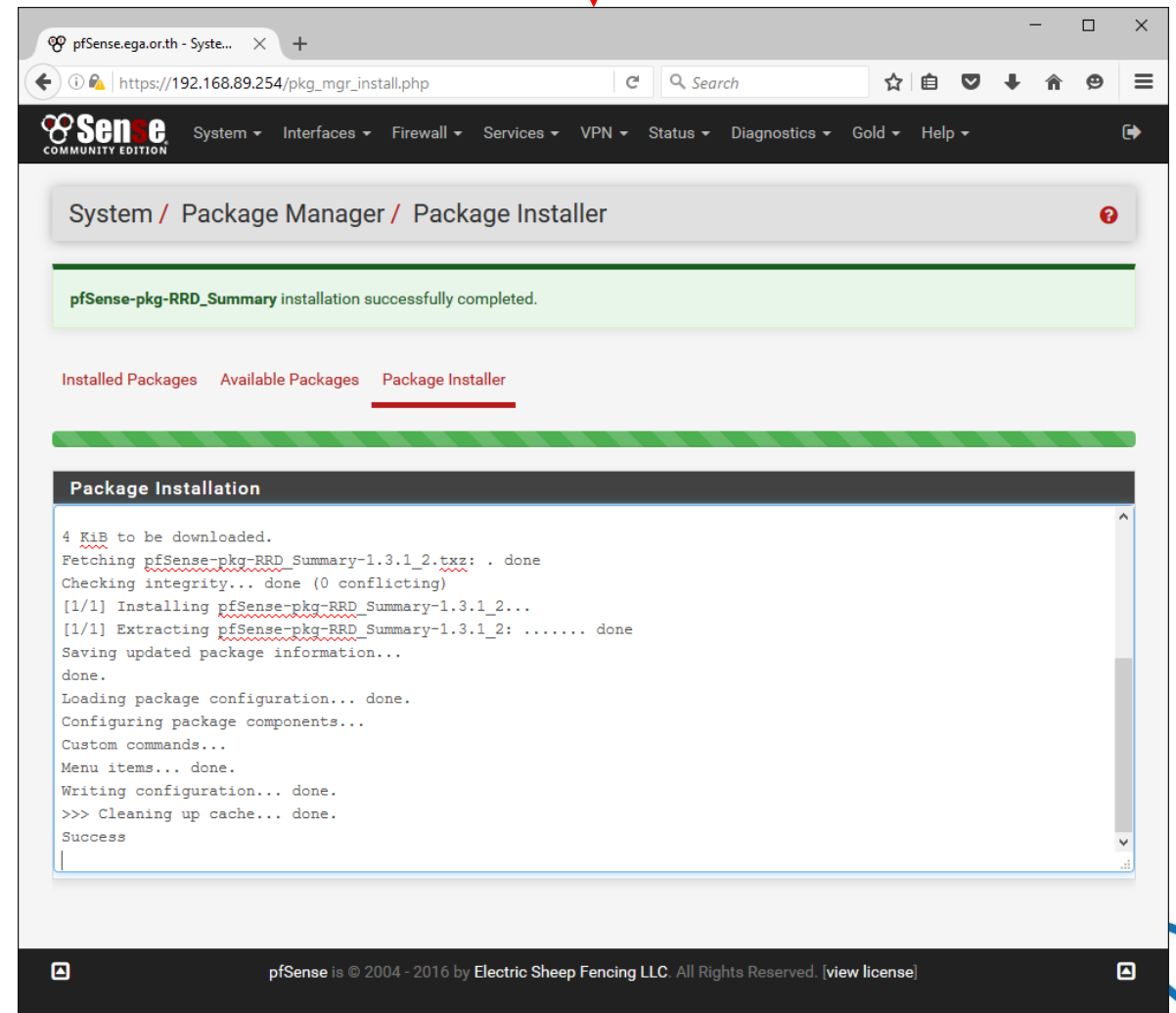
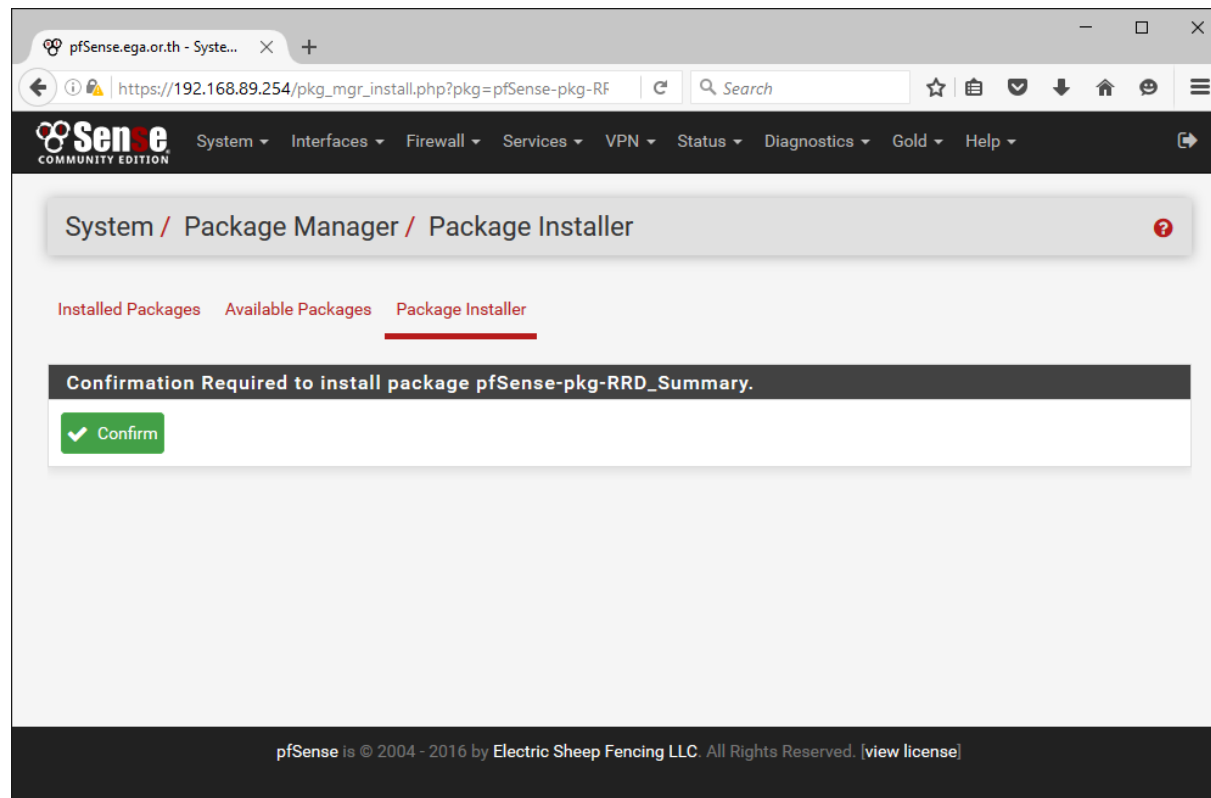
nmap	1.4.4_1	NMap is a utility for network exploration or security auditing. It supports ping scanning (determine which hosts are up), many port scanning techniques (determine what services the hosts are offering), version detection (determine what application/service is running on a port), and TCP/IP fingerprinting (remote host OS or device identification). It also offers flexible target and port specification, decoy/stealth scanning, SunRPC scanning, and more. Package Dependencies: nmap-7.12	+ Install
Notes	0.2.9_2	Track things you want to note for this system.	+ Install
nrpe	2.3.1_1	pfSense GUI for Nagios NRPE nrpe is used to execute Nagios plugins on remote hosts and report the results to the main Nagios server. From the Nagios homepage: Allows you to execute "local" plugins (like check_disk, check_procs, etc.) on remote hosts. The check_nrpe plugin is called from Nagios and actually makes the plugin requests to the remote host. Requires that nrpe be running on the remote host (either as a standalone daemon or as a service under inetd). Package Dependencies: nrpe-ssl-2.15_6	+ Install
nut	2.3.1	Network UPS Tools Package Dependencies: nut-2.7.4	+ Install
Open-VM-Tools	1280544.13.2	VMware Tools is a suite of utilities that enhances the performance of the virtual machine's guest operating system and improves management of the virtual machine. Package Dependencies: open-vm-tools-nox11-1280544_12.1	+ Install
OpenBGPD	0.11_4	OpenBGPD is a free implementation of the Border Gateway Protocol, version 4. It allows ordinary machines to be used as routers exchanging routes with other systems speaking the BGP protocol. WARNING! Installs files to the same place as Quagga OSPF. Installing both will result in a broken state, remove this package before installing Quagga OSPF. Package Dependencies: openbgpd-5.2.20121209_2	+ Install
openvpn-client-export	1.3.8	Allows a pre-configured OpenVPN Windows Client or Mac OS X's Viscosity configuration bundle to be exported directly from pfSense. Package Dependencies: zip-3.0_1 p7zip-15.14 openvpn-client-export-2.3.11	+ Install

Package Manager

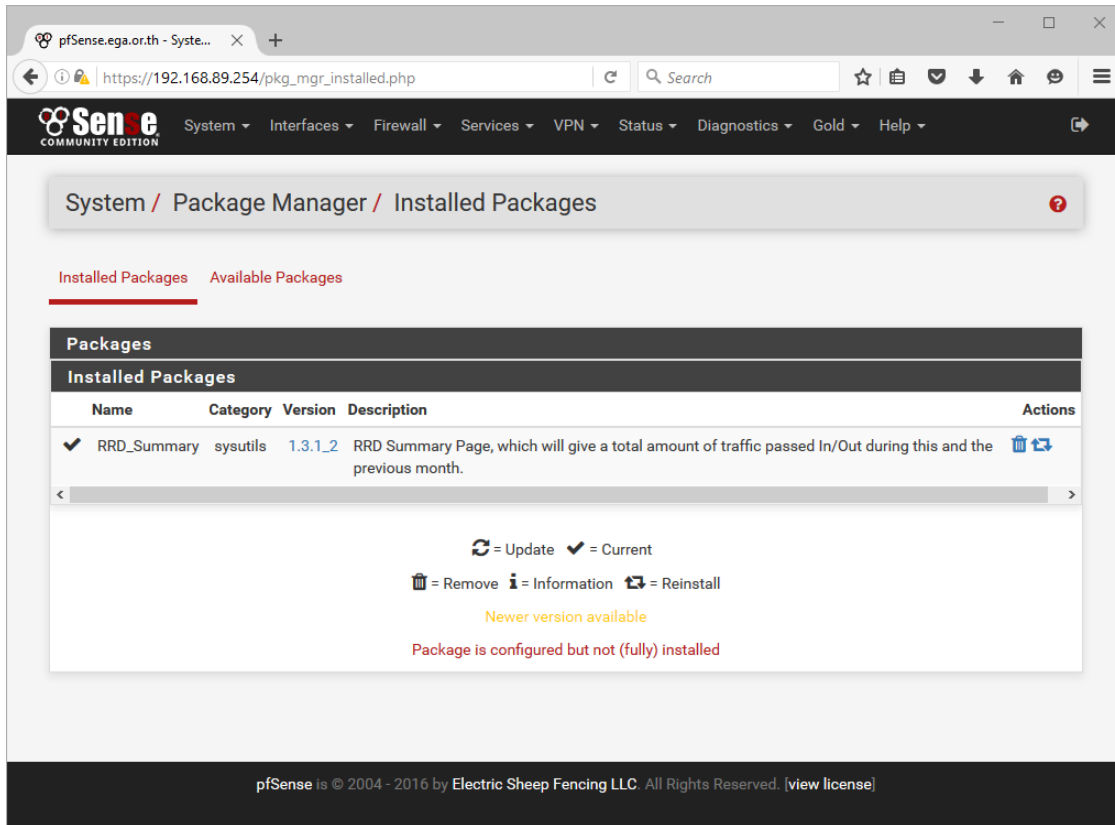
pfBlockerNG	2.0.17	pfBlockerNG is the Next Generation of pfBlocker. Manage IPv4/v6 List Sources into 'Deny, Permit or Match' formats. Country Blocking Database by MaxMind Inc. (GeoLite Free version). De-Duplication, Suppression, and Reputation enhancements. Provision to download from diverse List formats. Advanced Integration for Proofpoint ET IQRisk IP Reputation Threat Sources. Domain Name (DNSBL) blocking via Unbound DNS Resolver. Package Dependencies: whois-5.1.5 GeolIP-1.6.9 lighttpd-1.4.39_1 grepcidr-2.0 aggregate-1.6_1	+ Install
Quagga_OSPF	0.6.14	OSPF routing protocol using Quagga. WARNING! Installs files to the same place as OpenBGPD. Installing both will break things. Package Dependencies: quagga-1.0.20160315	+ Install
routed	1.2.3_2	RIP v1 and v2 daemon.	+ Install
RRD_Summary	1.3.1_2	RRD Summary Page, which will give a total amount of traffic passed In/Out during this and the previous month.	+ Install
Service_Watchdog	1.8.3	Monitors for stopped services and restarts them.	+ Install
Shellcmd	1.0.2_2	The shellcmd utility is used to manage commands on system startup.	+ Install
siproxd	1.1.2_2	Proxy for handling NAT of multiple SIP devices to a single public IP. Package Dependencies: siproxd-0.8.1	+ Install
snort	3.2.9.1_14	Snort is an open source network intrusion prevention and detection system (IDS/IPS). Combining the benefits of signature, protocol, and anomaly-based inspection. Package Dependencies: barnyard2-1.13 snort-2.9.8.3	+ Install
softflowd	1.2.1_2	Softflowd is flow-based network traffic analyser capable of Cisco NetFlow data export. Softflowd semi-statefully tracks traffic flows recorded by listening on a network interface or by reading a packet capture file. These flows may be reported via NetFlow to a collecting host or summarised within softflowd itself. Softflowd supports Netflow versions 1, 5 and 9 and is fully IPv6-capable - it can track IPv6 flows and send export datagrams via IPv6. It also supports export to multicast groups, allowing for redundant flow collectors. Package Dependencies: softflowd-0.9.8_2	+ Install

squid	0.4.21	High performance web proxy cache (3.5 branch). It combines Squid as a proxy server with its capabilities of acting as a HTTP / HTTPS reverse proxy. It includes an Exchange-Web-Access (OWA) Assistant, SSL filtering and antivirus integration via C-ICAP. Package Dependencies: squid_radius_auth-1.10 squid-3.5.19 squidclamav-6.14 c-icap-modules-0.4.2_1	+ Install
squidGuard	1.14_3	High performance web proxy URL filter. Package Dependencies: squidguard-1.4.15	+ Install
sudo	0.2.9_2	sudo allows delegation of privileges to users in the shell so commands can be run as other users, such as root. Package Dependencies: sudo-1.8.16	+ Install
suricata	3.0_7	High Performance Network IDS, IPS and Security Monitoring engine by OISF. Package Dependencies: suricata-3.0_2 barnyard2-1.13	+ Install
syslog-ng	1.1.2_3	Syslog-ng syslog server. This service is not intended to replace the default pfSense syslog server but rather acts as an independent syslog server. Package Dependencies: logrotate-3.9.2 syslog-ng-3.7.3_1	+ Install
System_Patches	1.1.4_1	A package to apply and maintain custom system patches.	+ Install
zabbix-agent	0.8.9_2	LTS (Long Term Support) release of Zabbix Monitoring agent. Zabbix LTS releases are supported for Zabbix customers during five (5) years i.e. 3 years of Full Support (general, critical and security issues) and 2 additional years of Limited Support (critical and security issues only). Zabbix LTS version release will result in change of the first version number. Package Dependencies: zabbix22-agent-2.2.11_1	+ Install
zabbix-proxy	0.8.9_2	LTS (Long Term Support) release of Zabbix Agent proxy. Zabbix LTS releases are supported for Zabbix customers during five (5) years i.e. 3 years of Full Support (general, critical and security issues) and 2 additional years of Limited Support (critical and security issues only). Zabbix LTS version release will result in change of the first version number. Package Dependencies: zabbix22-proxy-2.2.11_1	+ Install



Package Manager



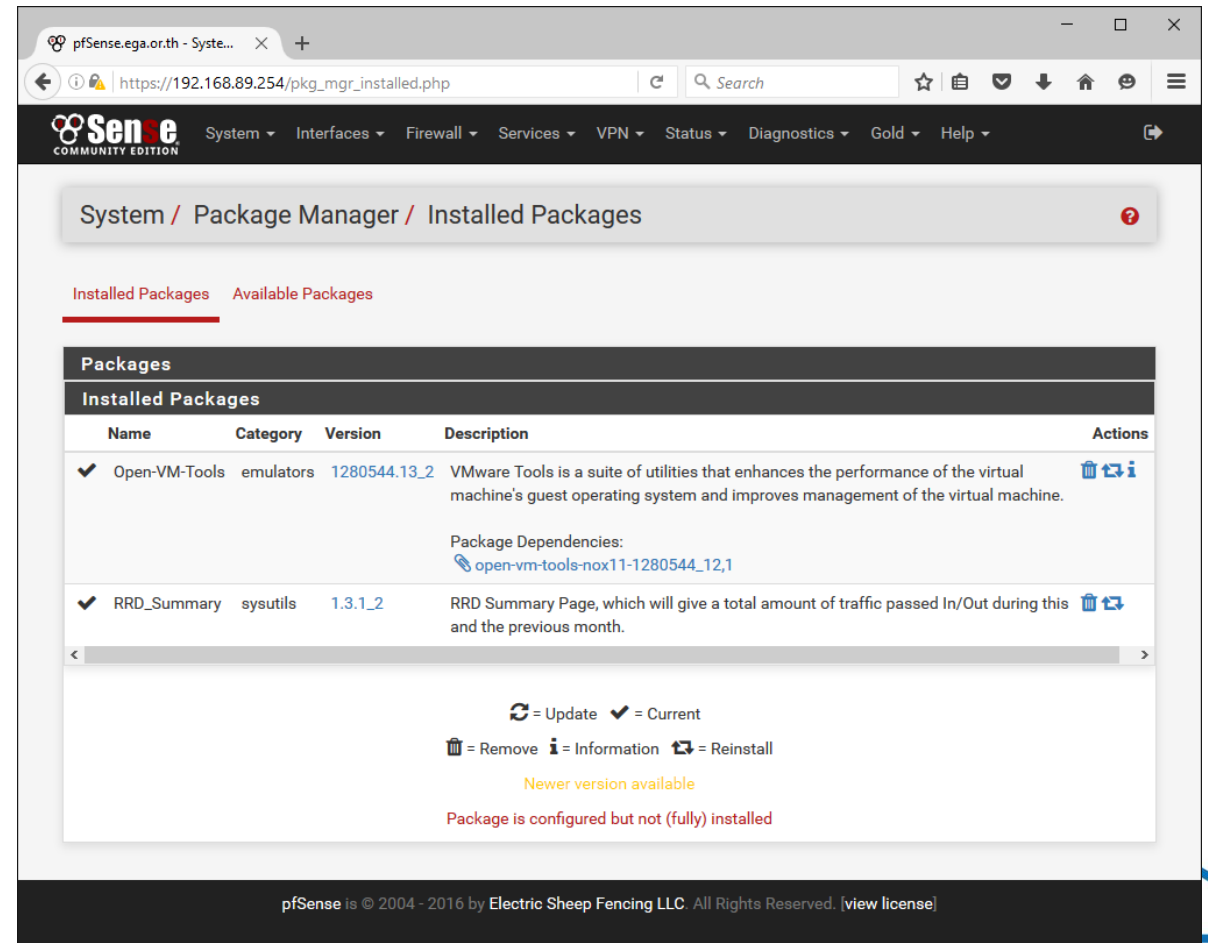
Package Manager








The screenshot shows the pfSense web interface at the URL `https://192.168.89.254/pkg_mgr_installed.php`. The breadcrumb navigation is `System / Package Manager / Installed Packages`. The `Installed Packages` tab is active. A table lists installed packages:

Name	Category	Version	Description	Actions
✓ RRD_Summary	sysutils	1.3.1_2	RRD Summary Page, which will give a total amount of traffic passed In/Out during this and the previous month.	 

Below the table, a legend indicates: `↻ = Update`, `✓ = Current`, `🗑 = Remove`, `i = Information`, and `↺ = Reinstall`. A yellow message states `Newer version available`, and a red message states `Package is configured but not (fully) installed`. The footer includes the copyright notice: `pfSense is © 2004 - 2016 by Electric Sheep Fencing LLC. All Rights Reserved. [view license]`.

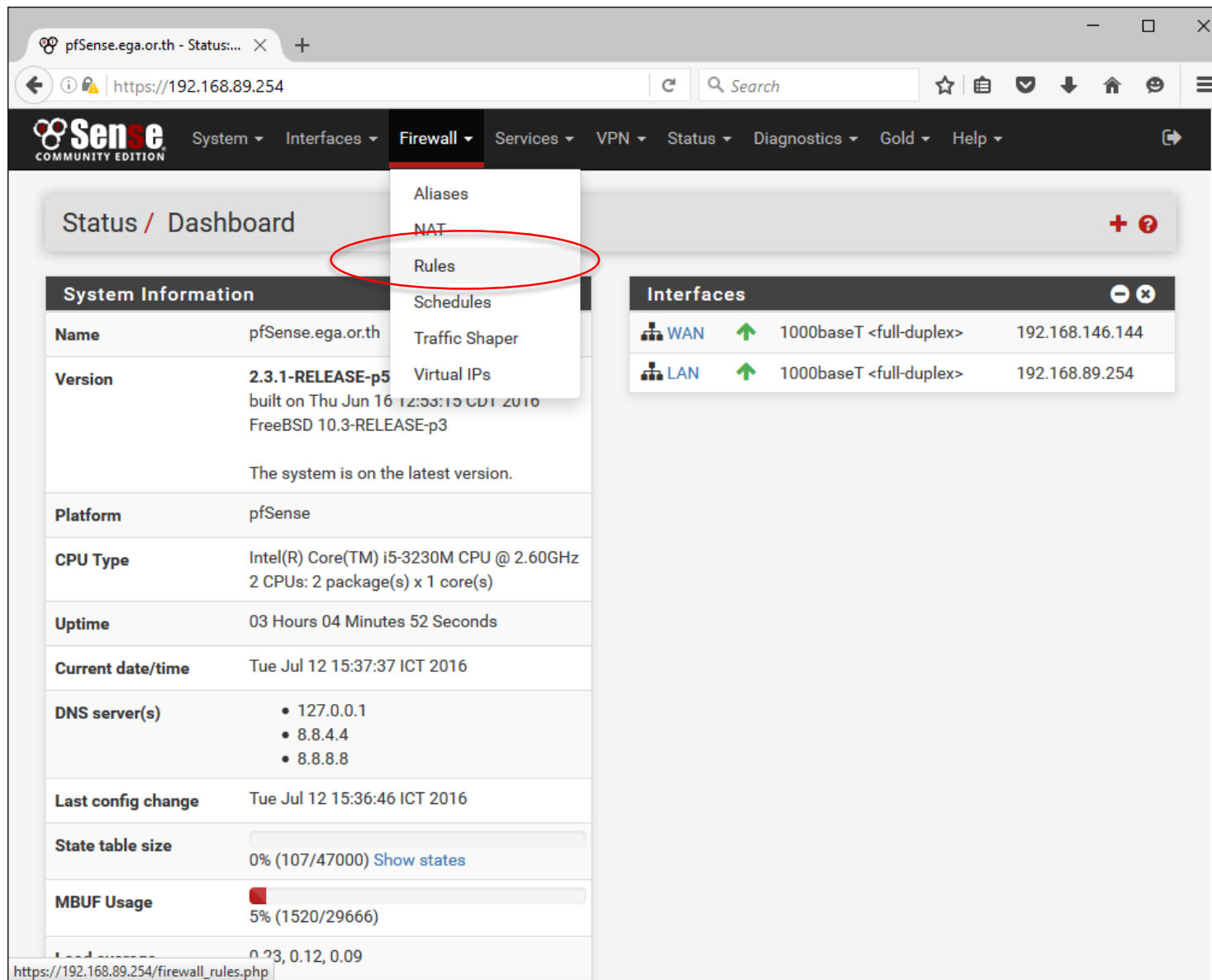


This screenshot shows the same pfSense web interface, but with two packages installed. The table lists:

Name	Category	Version	Description	Actions
✓ Open-VM-Tools	emulators	1280544.13_2	VMware Tools is a suite of utilities that enhances the performance of the virtual machine's guest operating system and improves management of the virtual machine. Package Dependencies: open-vm-tools-nox11-1280544_12,1	  
✓ RRD_Summary	sysutils	1.3.1_2	RRD Summary Page, which will give a total amount of traffic passed In/Out during this and the previous month.	 

The legend and messages are identical to the first screenshot. The footer also includes the copyright notice: `pfSense is © 2004 - 2016 by Electric Sheep Fencing LLC. All Rights Reserved. [view license]`.

Firewall Rules



The screenshot shows the pfSense web interface. The top navigation bar includes links for System, Interfaces, Firewall, Services, VPN, Status, Diagnostics, Gold, and Help. The Firewall menu is expanded, showing options for Aliases, NAT, Rules (highlighted with a red circle), Schedules, and Traffic Shaper. The main content area is divided into two sections: System Information and Interfaces.

System Information

Name	pfSense.ega.or.th
Version	2.3.1-RELEASE-p5 built on Thu Jun 16 12:55:15 CDT 2016 FreeBSD 10.3-RELEASE-p3
Platform	pfSense
CPU Type	Intel(R) Core(TM) i5-3230M CPU @ 2.60GHz 2 CPUs: 2 package(s) x 1 core(s)
Uptime	03 Hours 04 Minutes 52 Seconds
Current date/time	Tue Jul 12 15:37:37 ICT 2016
DNS server(s)	<ul style="list-style-type: none">127.0.0.18.8.4.48.8.8.8
Last config change	Tue Jul 12 15:36:46 ICT 2016
State table size	0% (107/47000) Show states
MBUF Usage	5% (1520/29666)

Interfaces

Interface	Status	Speed	MAC Address	IP Address
WAN	Up	1000baseT <full-duplex>		192.168.146.144
LAN	Up	1000baseT <full-duplex>		192.168.89.254

Firewall Rules

pfSense.ega.or.th - Firewal... X +

https://192.168.89.254/firewall_rules.php?if=FloatingRules

Sense COMMUNITY EDITION System Interfaces Firewall Services VPN Status Diagnostics Gold Help

Firewall / Rules / Floating

Floating WAN LAN

Rules (Drag to Change Order)

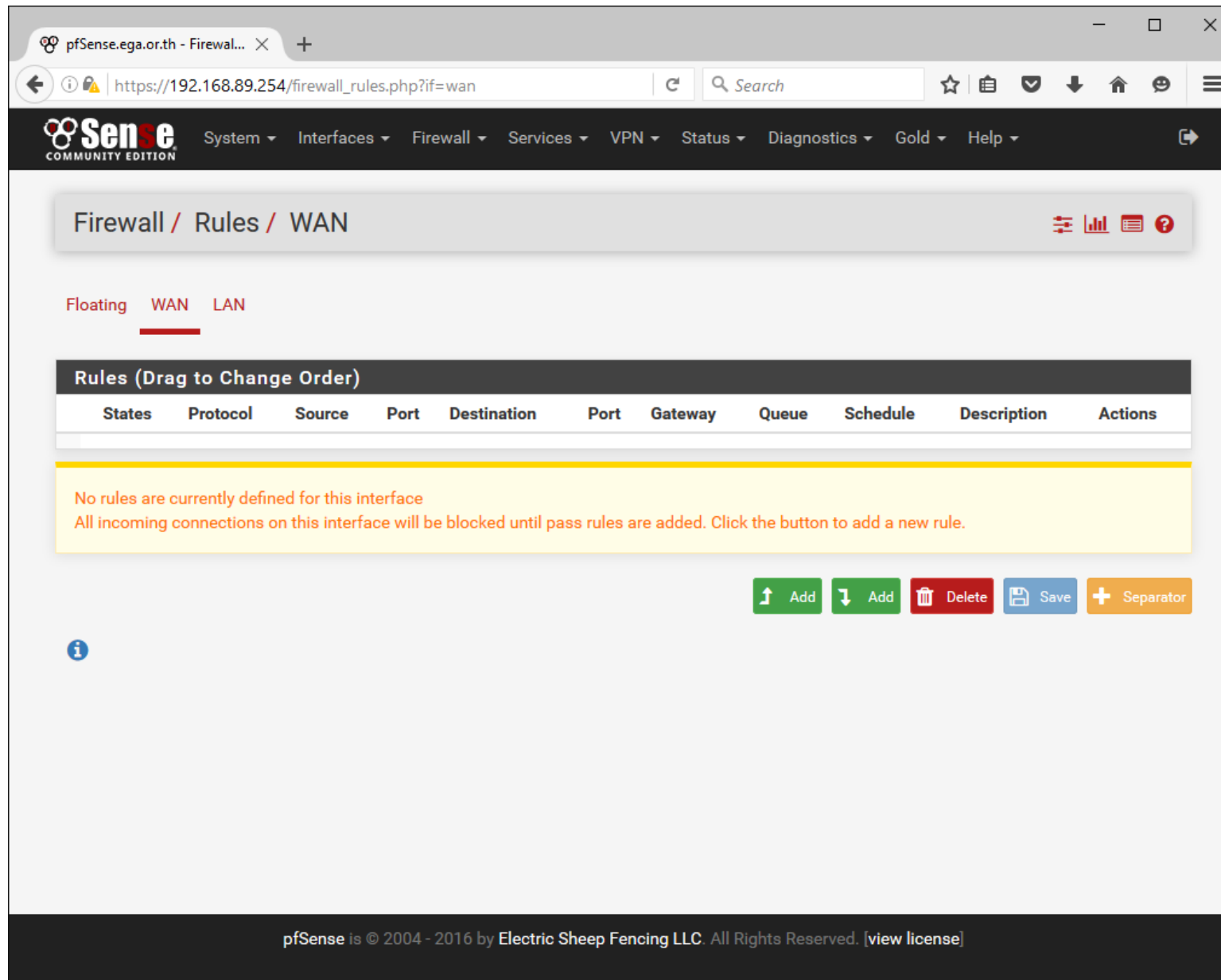
States	Protocol	Source	Port	Destination	Port	Gateway	Queue	Schedule	Description	Actions
--------	----------	--------	------	-------------	------	---------	-------	----------	-------------	---------

No floating rules are currently defined. Click the button to add a new rule.

↑ Add ↓ Add Delete Save + Separator

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Firewall Rules



The screenshot shows the pfSense web interface for configuring Firewall Rules on the WAN interface. The browser address bar shows the URL `https://192.168.89.254/firewall_rules.php?if=wan`. The page title is "Firewall / Rules / WAN". Below the title, there are tabs for "Floating", "WAN", and "LAN", with "WAN" being the active tab. A table titled "Rules (Drag to Change Order)" is displayed, but it is empty. A yellow warning box states: "No rules are currently defined for this interface. All incoming connections on this interface will be blocked until pass rules are added. Click the button to add a new rule." Below the warning box, there are five buttons: "Add" (up arrow), "Add" (down arrow), "Delete", "Save", and "Separator". An information icon (i) is located at the bottom left of the main content area. The footer of the page reads: "pfSense is © 2004 - 2016 by Electric Sheep Fencing LLC. All Rights Reserved. [view license]"

Firewall / Rules / WAN

Floating WAN LAN

Rules (Drag to Change Order)

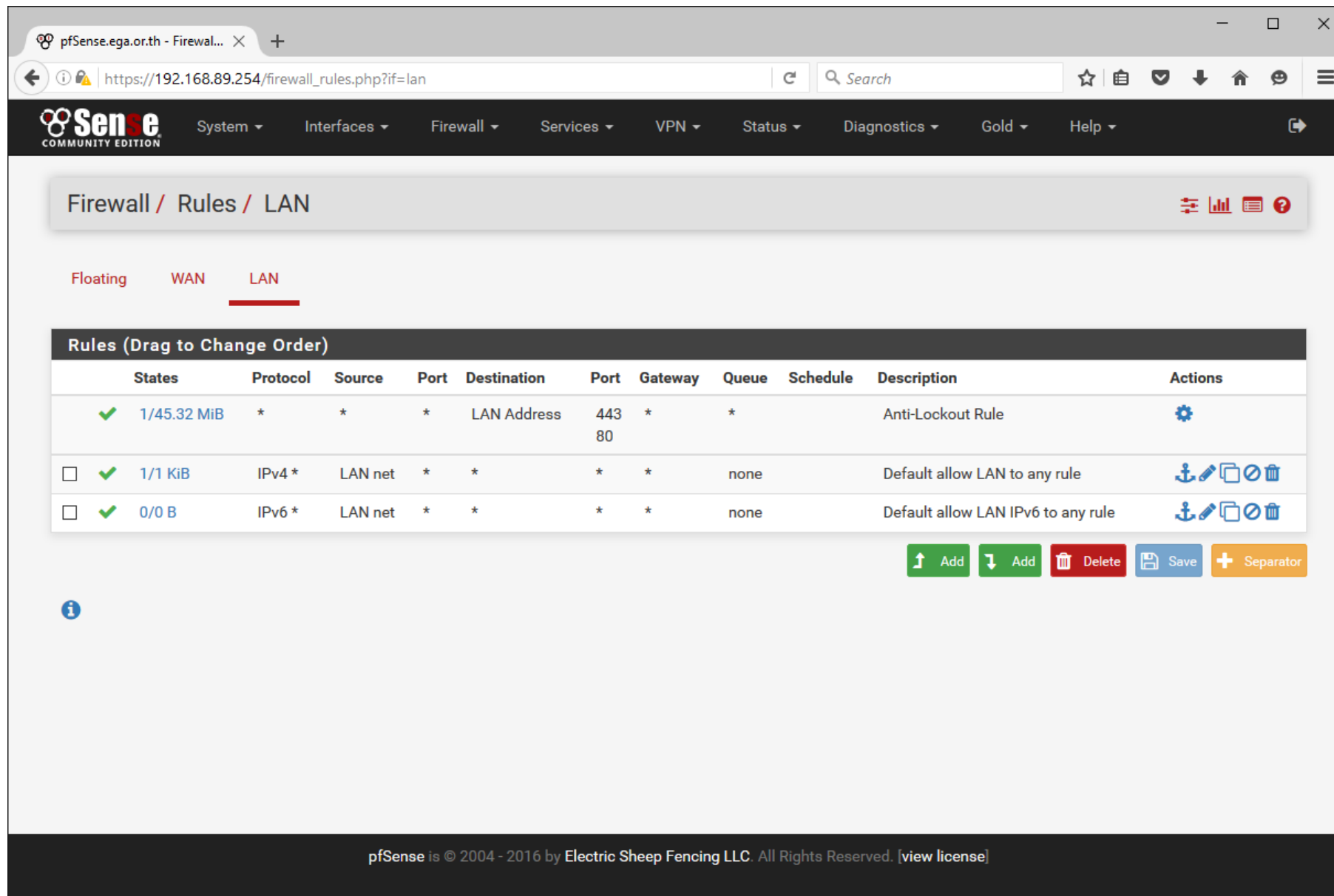
States	Protocol	Source	Port	Destination	Port	Gateway	Queue	Schedule	Description	Actions
--------	----------	--------	------	-------------	------	---------	-------	----------	-------------	---------

No rules are currently defined for this interface
All incoming connections on this interface will be blocked until pass rules are added. Click the button to add a new rule.

↑ Add ↓ Add Delete Save + Separator

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Firewall Rules



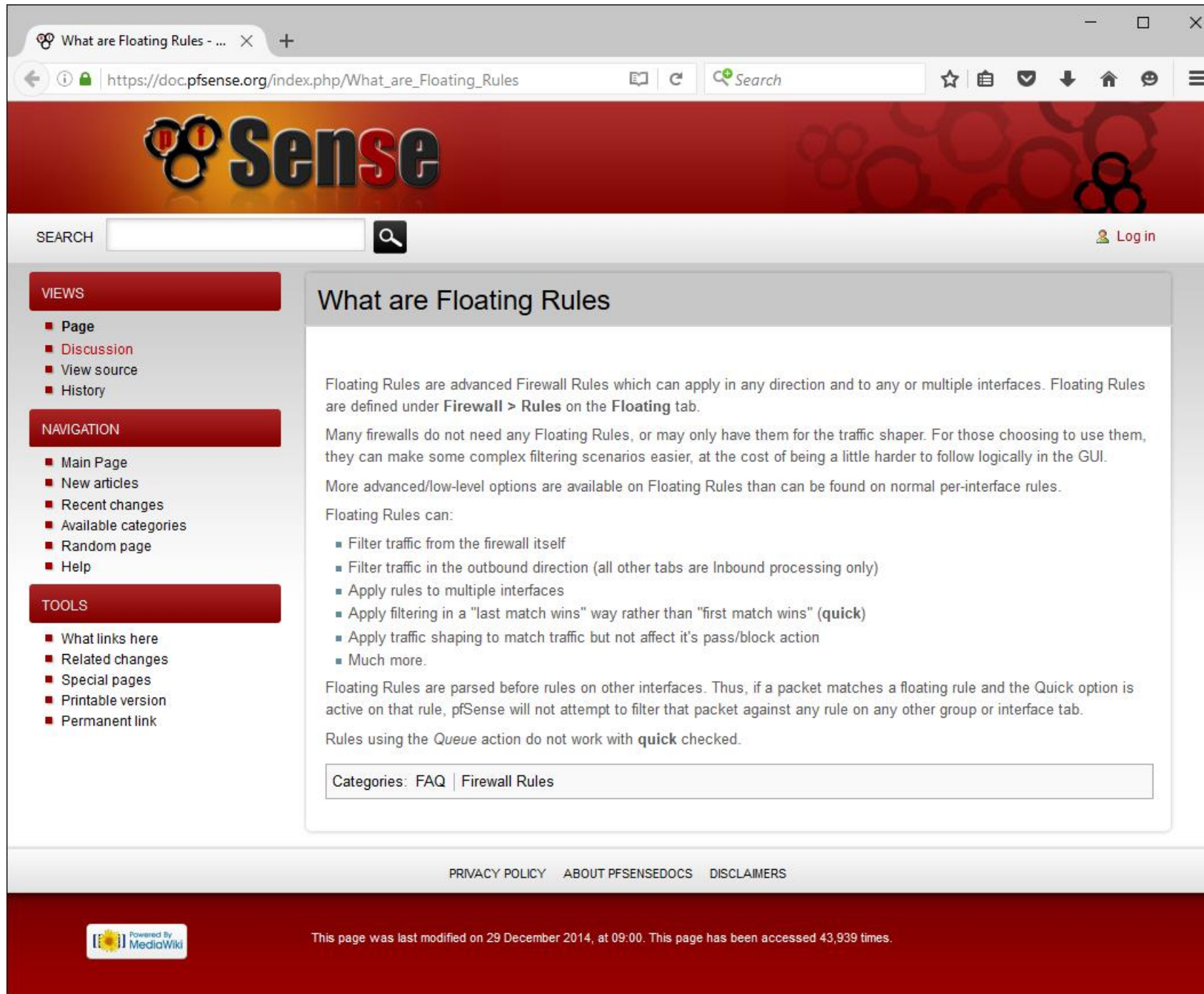
The screenshot shows the pfSense web interface for configuring Firewall Rules on the LAN interface. The browser address bar shows the URL `https://192.168.89.254/firewall_rules.php?if=lan`. The page title is "Firewall / Rules / LAN". Below the title, there are tabs for "Floating", "WAN", and "LAN", with "LAN" being the active tab. The main content area displays a table of rules with the following columns: States, Protocol, Source, Port, Destination, Port, Gateway, Queue, Schedule, Description, and Actions.

States	Protocol	Source	Port	Destination	Port	Gateway	Queue	Schedule	Description	Actions
✓ 1/45.32 MiB	*	*	*	LAN Address	443 80	*	*		Anti-Lockout Rule	⚙️
<input type="checkbox"/> ✓ 1/1 KiB	IPv4 *	LAN net	*	*	*	*	none		Default allow LAN to any rule	📌✎📄🗑️
<input type="checkbox"/> ✓ 0/0 B	IPv6 *	LAN net	*	*	*	*	none		Default allow LAN IPv6 to any rule	📌✎📄🗑️

Below the table, there are buttons for "Add" (up arrow), "Add" (down arrow), "Delete" (trash), "Save" (floppy disk), and "Separator" (plus sign).

At the bottom of the page, a footer states: "pfSense is © 2004 - 2016 by Electric Sheep Fencing LLC. All Rights Reserved. [view license]"

Firewall Rules



The screenshot shows a web browser window displaying the pfSense documentation page for "What are Floating Rules". The browser's address bar shows the URL https://doc.pfsense.org/index.php/What_are_Floating_Rules. The page features the pfSense logo at the top. On the left side, there is a sidebar with sections: "VIEWS" (Page, Discussion, View source, History), "NAVIGATION" (Main Page, New articles, Recent changes, Available categories, Random page, Help), and "TOOLS" (What links here, Related changes, Special pages, Printable version, Permanent link). The main content area is titled "What are Floating Rules" and contains the following text:

Floating Rules are advanced Firewall Rules which can apply in any direction and to any or multiple interfaces. Floating Rules are defined under **Firewall > Rules** on the **Floating** tab.

Many firewalls do not need any Floating Rules, or may only have them for the traffic shaper. For those choosing to use them, they can make some complex filtering scenarios easier, at the cost of being a little harder to follow logically in the GUI.

More advanced/low-level options are available on Floating Rules than can be found on normal per-interface rules.

Floating Rules can:

- Filter traffic from the firewall itself
- Filter traffic in the outbound direction (all other tabs are Inbound processing only)
- Apply rules to multiple interfaces
- Apply filtering in a "last match wins" way rather than "first match wins" (**quick**)
- Apply traffic shaping to match traffic but not affect it's pass/block action
- Much more.

Floating Rules are parsed before rules on other interfaces. Thus, if a packet matches a floating rule and the Quick option is active on that rule, pfSense will not attempt to filter that packet against any rule on any other group or interface tab.

Rules using the *Queue* action do not work with **quick** checked.

Categories: [FAQ](#) | [Firewall Rules](#)

At the bottom of the page, there are links for [PRIVACY POLICY](#), [ABOUT PFSENSEDOCS](#), and [DISCLAIMERS](#). A footer bar indicates the page was last modified on 29 December 2014, at 09:00, and has been accessed 43,939 times. A "Powered By MediaWiki" logo is also present.

Firewall Rules

pfSense.ega.or.th - Firewal... X +

https://192.168.89.254/firewall_rules.php?if=FloatingRules

Sense COMMUNITY EDITION

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

Firewall / Rules / Floating

Floating WAN LAN

Rules (Drag to Change Order)

States	Protocol	Source	Port	Destination	Port	Gateway	Queue	Schedule	Description	Actions
--------	----------	--------	------	-------------	------	---------	-------	----------	-------------	---------

No floating rules are currently defined. Click the button to add a new rule.

↑ Add ↓ Add Delete Save + Separator

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Firewall Rules

Firewall / Rules / Floating / Edit

Edit Firewall Rule

Action

Pass

Choose what to do with packets that match the criteria specified below.
Hint: the difference between block and reject is that with reject, a packet (TCP RST or ICMP port unreachable for UDP) is returned to the sender, whereas with block the packet is dropped silently. In either case, the original packet is discarded.

Disabled

☐ Disable this rule

Set this option to disable this rule without removing it from the list.

Quick

☒ Apply the action immediately on match.

Set this option to apply this action to traffic that matches this rule immediately.

Interface

WAN
LAN

Choose the interface(s) for this rule.

Direction

any

Floating

Address Family

IPv4

Select the Internet Protocol version this rule applies to.

Protocol

UDP

Choose which IP protocol this rule should match.

Firewall Rules

Source			
Source	<input type="checkbox"/> Invert match.	any	Source Address
Display Advanced <input type="button" value="Display Advanced"/>			
Destination			
Destination	<input type="checkbox"/> Invert match.	Single host or alias	8.8.4.4
Destination port range	DNS (53)		DNS (53)
	From	Custom	To Custom
Specify the destination port or port range for this rule. The "To" field may be left empty if only filtering a single port.			
Extra Options			
Log	<input checked="" type="checkbox"/> Log packets that are handled by this rule Hint: the firewall has limited local log space. Don't turn on logging for everything. If doing a lot of logging, consider using a remote syslog server (see the Status: System Logs: Settings page).		
Description	allow to Google's DNS server. A description may be entered here for administrative reference.		
Advanced Options	<input type="button" value="Display Advanced"/>		
Rule Information			
Created	7/12/16 16:57:00 by admin@192.168.89.1		
Updated	7/12/16 16:57:00 by admin@192.168.89.1		
<input type="button" value="Save"/>			

Firewall Rules

pfSense.ega.or.th - Firewall... X

https://192.168.89.254/firewall_rules.php?if=FloatingRules

System Interfaces Firewall Services VPN Status Diagnostics Gold Help

Firewall / Rules / Floating

The firewall rule configuration has been changed.
The changes must be applied for them to take effect.

Apply Changes

Floating WAN LAN

Rules (Drag to Change Order)

	States	Protocol	Source	Port	Destination	Port	Gateway	Queue	Schedule	Description	Actions
<input type="checkbox"/>	✓	0/0 B	IPv4 UDP	*	*	8.8.4.4	53 (DNS)	*	none	allow to Google's DNS server.	

Add Add Delete Save Separator

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Firewall Rules

pfSense.ega.or.th - Firewal... X +

https://192.168.89.254/firewall_rules.php?if=FloatingRules

Sense COMMUNITY EDITION

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

Firewall / Rules / Floating

Floating WAN LAN

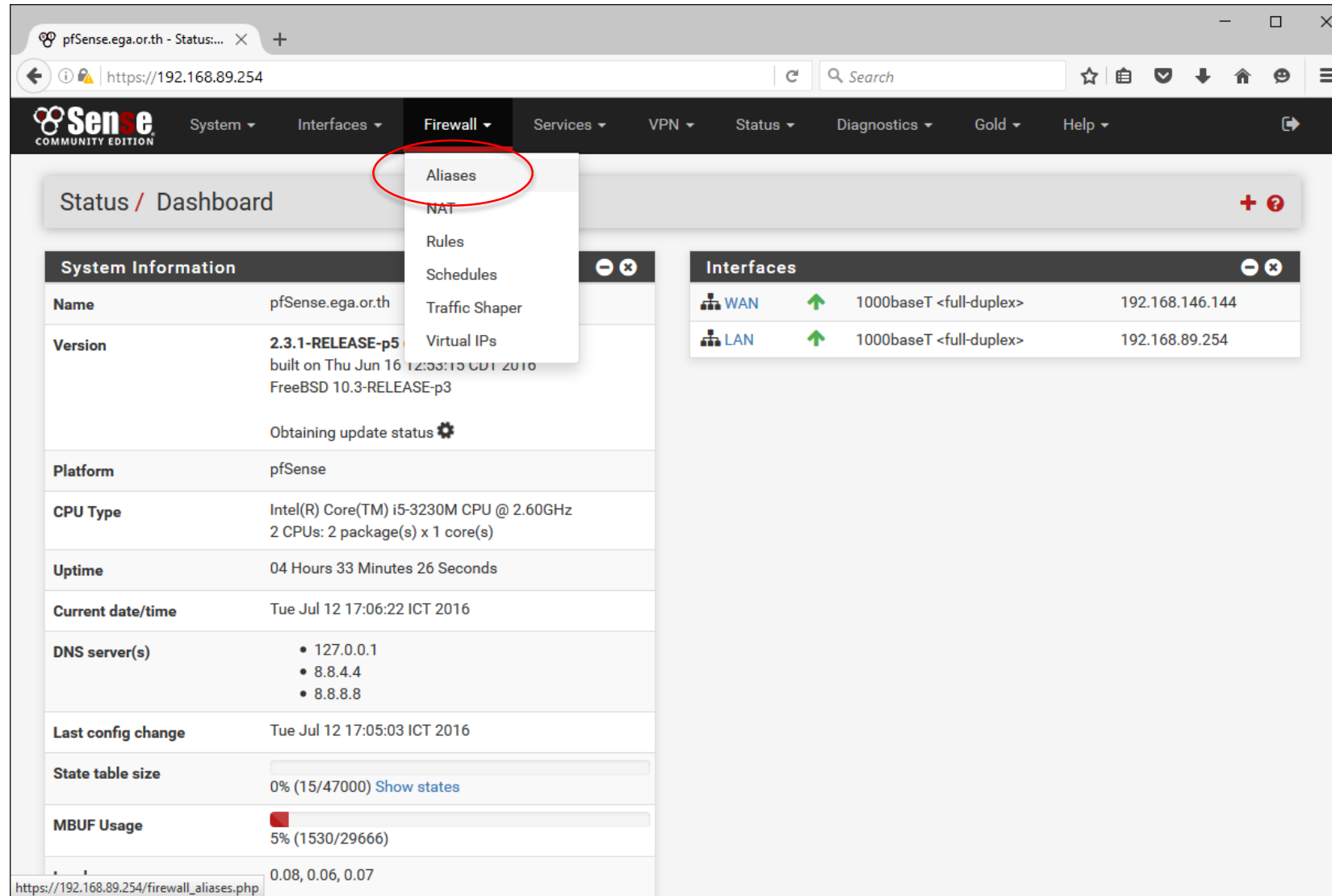
Rules (Drag to Change Order)

	States	Protocol	Source	Port	Destination	Port	Gateway	Queue	Schedule	Description	Actions
<input type="checkbox"/>	✓▶▶▶	0/0 B	IPv4 UDP	*	*	8.8.4.4	53 (DNS)	*	none	allow to Google's DNS server.	
<input type="checkbox"/>	✓▶▶▶	0/0 B	IPv4 UDP	LAN net	*	*	123 (NTP)	*	none		
<input type="checkbox"/>	✓▶▶▶	0/0 B	IPv4 TCP	LAN net	*	*	3306	*	none	allow users to MySQL service	

↑ Add ↓ Add Delete Save + Separator

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Object Aliases



The screenshot shows the pfSense web interface. The top navigation bar includes links for System, Interfaces, Firewall, Services, VPN, Status, Diagnostics, Gold, and Help. The 'Firewall' menu is open, and 'Aliases' is highlighted with a red circle. The main content area is divided into two sections: 'System Information' on the left and 'Interfaces' on the right.

System Information

Name	pfSense.ega.or.th
Version	2.3.1-RELEASE-p5 built on Thu Jun 16 12:53:13 CDT 2016 FreeBSD 10.3-RELEASE-p3
Platform	pfSense
CPU Type	Intel(R) Core(TM) i5-3230M CPU @ 2.60GHz 2 CPUs: 2 package(s) x 1 core(s)
Uptime	04 Hours 33 Minutes 26 Seconds
Current date/time	Tue Jul 12 17:06:22 ICT 2016
DNS server(s)	<ul style="list-style-type: none">127.0.0.18.8.4.48.8.8.8
Last config change	Tue Jul 12 17:05:03 ICT 2016
State table size	0% (15/47000) Show states
MBUF Usage	5% (1530/29666)

Interfaces

WAN	1000baseT <full-duplex>	192.168.146.144
LAN	1000baseT <full-duplex>	192.168.89.254

Object Aliases

The screenshot shows the pfSense web interface for configuring Firewall Aliases. The breadcrumb trail is "Firewall / Aliases / IP". Below the breadcrumb, there are tabs for "IP", "Ports", "URLs", and "All", with "IP" being the active tab. A table titled "Firewall Aliases IP" has columns for "Name", "Values", "Description", and "Actions". Below the table, there is a green "+ Add" button and a blue "Import" button. The "+ Add" button is circled in red. At the bottom of the page, there is a footer that reads "pfSense is © 2004 - 2016 by Electric Sheep Fencing LLC. All Rights Reserved. [view license]".

pfSense.eqa.or.th - Firewal... X

https://192.168.89.254/firewall_aliases.php

Search

Sense COMMUNITY EDITION

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

Firewall / Aliases / IP

IP Ports URLs All

Firewall Aliases IP

Name	Values	Description	Actions
------	--------	-------------	---------

+ Add Import

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Object Aliases

pfSense.ega.or.th - Firewal... X +

https://192.168.89.254/firewall_aliases_edit.php?id=0

Sense COMMUNITY EDITION

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

Firewall / Aliases / Edit ?

Properties

Name
The name of the alias may only consist of the characters "a-z, A-Z, 0-9 and _".

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

Type

Host(s)

Hint Enter as many hosts as desired. Hosts must be specified by their IP address or fully qualified domain name (FQDN). FQDN hostnames are periodically re-resolved and updated. If multiple IPs are returned by a DNS query, all are used. An IP range such as 192.168.1.1-192.168.1.10 or a small subnet such as 192.168.1.16/28 may also be entered and a list of individual IP addresses will be generated.

IP or FQDN	<input type="text" value="8.8.4.4"/>	<input type="text" value="Entry added Tue, 12 Jul 2016 17:07:55 +0700"/>	<input type="button" value="Delete"/>
	<input type="text" value="8.8.8.8"/>	<input type="text" value="Entry added Tue, 12 Jul 2016 17:07:55 +0700"/>	<input type="button" value="Delete"/>

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Object Aliases

Firewall / Aliases / IP

The alias list has been changed.
The changes must be applied for them to take effect.

Apply Changes

IP Ports URLs All

Name	Values	Description	Actions
Google_DNS_servers	8.8.4.4, 8.8.8.8	Google DNS servers	

+ Add Import

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Object Aliases

Source

Source ☐ Invert match. any Source Address /

Display Advanced Display Advanced

Destination

Destination ☐ Invert match. Single host or alias Google_DNS_servers /

Destination port range DNS (53) DNS (53)
From Custom To Custom

Specify the destination port or port range for this rule. The "To" field may be left empty if only filtering a single port.

Rules (Drag to Change Order)

	States	Protocol	Source	Port	Destination		Actions						
<input type="checkbox"/>				0/0 B	IPv4 UDP	* *	Google DNS servers						
<input type="checkbox"/>				0/0 B	IPv4 UDP	LAN net *	*						
<input type="checkbox"/>				0/0 B	IPv4 TCP	LAN net *	*						

Alias details

Value	Description
8.8.4.4	Entry added Tue, 12 Jul 2016 17:07:55 +0700
8.8.8.8	Entry added Tue, 12 Jul 2016 17:07:55 +0700

3306	*	none	allow users to MySQL service					
------	---	------	------------------------------	--	--	--	--	--

Add

Add

Delete

Save

Separator



Object Aliases

Firewall / Aliases / IP ⚙️ 📊 ?

Cannot delete alias. Currently in use by allow to Google's DNS server.. ×

IP Ports URLs All

Firewall Aliases IP





Name	Values	Description	Actions
Google_DNS_servers	8.8.4.4, 8.8.8.8	Google DNS servers	 



+ Add 📁 Import

Object Aliases

Firewall / Aliases / All

IP Ports URLs All

Firewall Aliases All			
Name	Values	Description	Actions
Google_DNS_servers	8.8.4.4, 8.8.8.8	Google DNS servers	 
Mail_port	25, 110, 143, 465, 587, 993, 995	Mail ports	 

 Add  Import

Object Aliases

Source

Source

☐ Invert match.

any

Source Address

/

Display Advanced

Display Advanced

Destination

Destination

☐ Invert match.

any

Destination Address

/

Destination port range

(other)

Mail_port

(other)

From

Custom

To

Custom

Specify the destination port or port range for this rule. The "To" field may be left empty if only filtering a single port.

Rules (Drag to Change Order)

	States	Protocol	Source	Port	Destination	Port	Gateway	Queue	Schedule	Description	Actions
<input type="checkbox"/>	✓▶▶▶	0/0 B	IPv4 UDP	*	*	Google DNS servers	53 (DNS)	*		allow to Google's DNS server.	⚓✎📄🚫🗑
<input type="checkbox"/>	✓▶▶▶	0/0 B	IPv4 UDP	LAN net	*	*	123 (NTP)			allow users to MySQL service	⚓✎📄🚫🗑
<input type="checkbox"/>	✓▶▶▶	0/0 B	IPv4 TCP	LAN net	*	*	3306			allow Mail services	⚓✎📄🚫🗑
<input type="checkbox"/>	✓▶▶▶	0/0 B	IPv4 TCP	*	*	*	Mail port				⚓✎📄🚫🗑

Alias details

Value	Description
25	SMTP
110	POP3
143	IMAP
465	SMTP-SSL
587	SMTP-TLS
993	IMAP-SSL
995	POP3-SSL

↑ Add

↓ Add

🗑 Delete

💾 Save







+ Separator



Object Aliases

Firewall / Aliases / All





















IP Ports URLs All

Firewall Aliases All

Name	Values	Description	Actions
Google_DNS_servers	8.8.4.4, 8.8.8.8	Google DNS servers	 
MailGoThai	outgoing.mail.go.th, incoming.mail.go.th		 
Mail_port	25, 110, 143, 465, 587, 993, 995	Mail ports	 




 Add  Import

Rules (Drag to Change Order)

	States	Protocol	Source	Port	Destination	Port	Gateway	Queue	Schedule	Description	Actions
<input checked="" type="checkbox"/>		0/0 B	IPv4 UDP	*	*	Google DNS servers	53 (DNS)	*	none	allow to Google's DNS server.	   
<input type="checkbox"/>		0/0 B	IPv4 UDP	LAN net	*	*	123 (NTP)	*	none		   
<input type="checkbox"/>		0/0 B	IPv4 TCP	LAN net	*	*				MySQL service	   
<input type="checkbox"/>		0/0 B	IPv4 TCP	*	*	MailGoThai				ices	   

Alias details

Value	Description
outgoing.mail.go.th	Entry added Tue, 12 Jul 2016 17:33:41 +0700
incoming.mail.go.th	Entry added Tue, 12 Jul 2016 17:33:41 +0700

 Delete  Save  Separator

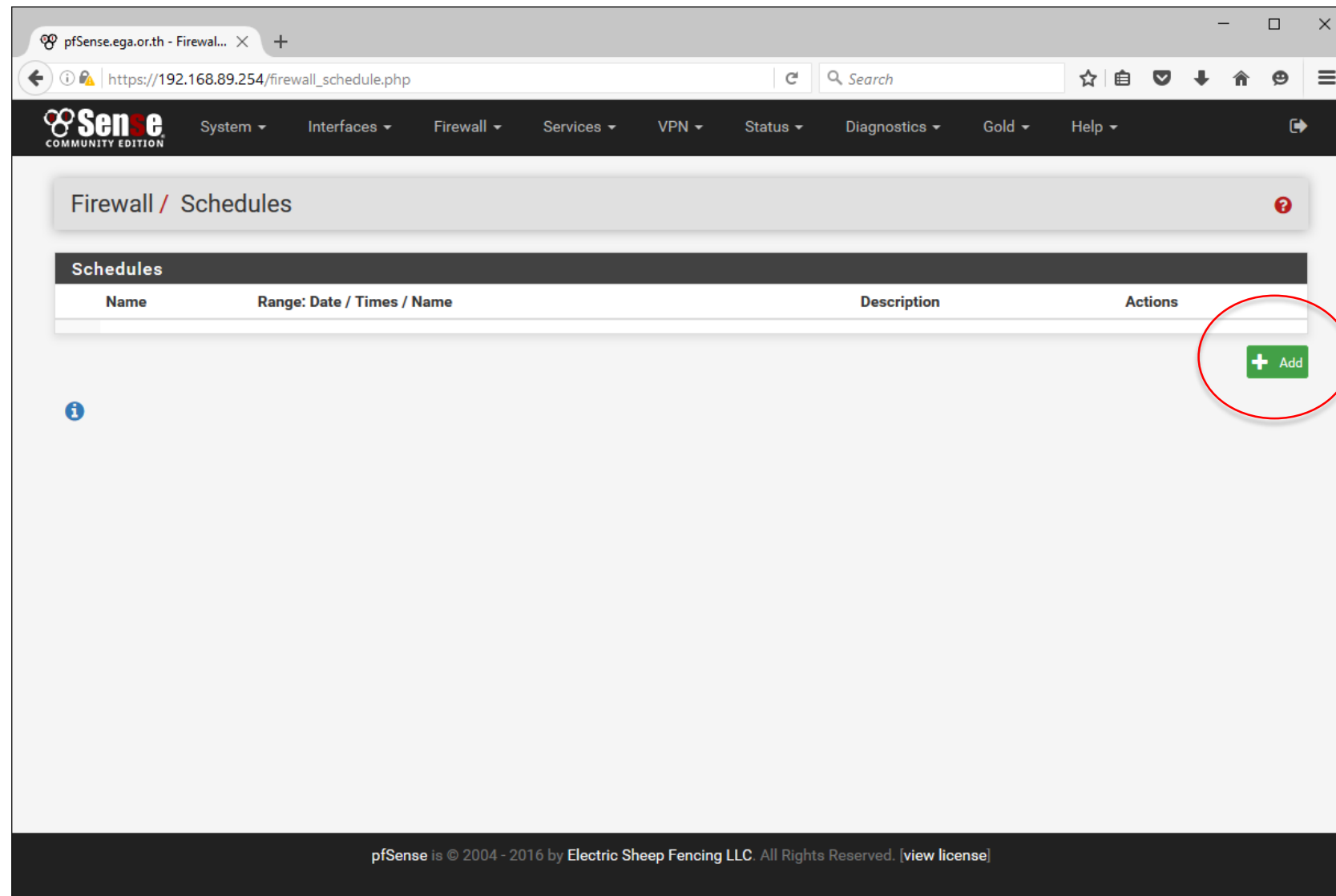
Firewall Schedules

The screenshot shows the pfSense web interface. The top navigation bar includes links for System, Interfaces, Firewall, Services, VPN, Status, Diagnostics, Gold, and Help. The 'Firewall' menu is open, showing options: Aliases, NAT, Rules, Schedules (highlighted with a red circle), Traffic Shaper, and Virtual IPs. The main content area is divided into two panels. The left panel, titled 'System Information', displays details about the pfSense system, including its name, version (2.3.1-RELEASE-p5), platform, CPU type, uptime, current date/time, DNS servers, last config change, state table size, and MBUF usage. The right panel, titled 'Interfaces', shows a table of network interfaces with their status, speed/duplex, and IP addresses.

System Information	
Name	pfSense.ega.or.th
Version	2.3.1-RELEASE-p5 built on Thu Jun 16 12:33:15 CDT 2016 FreeBSD 10.3-RELEASE-p3 The system is on the latest version.
Platform	pfSense
CPU Type	Intel(R) Core(TM) i5-3230M CPU @ 2.60GHz 2 CPUs: 2 package(s) x 1 core(s)
Uptime	06 Hours 53 Minutes 17 Seconds
Current date/time	Tue Jul 12 19:26:32 ICT 2016
DNS server(s)	<ul style="list-style-type: none">• 127.0.0.1• 8.8.4.4• 8.8.8.8
Last config change	Tue Jul 12 18:05:23 ICT 2016
State table size	0% (108/47000) Show states
MBUF Usage	5% (1530/29666)

Interfaces			
WAN	↑	1000baseT <full-duplex>	192.168.146.144
LAN	↑	1000baseT <full-duplex>	192.168.89.254

Firewall Schedules



Firewall Schedules

Firewall / Schedules / Edit ?

Schedule Information

Schedule Name

Allow_Vendor_Remote_to_MySQL

Description

Month

July_16

Date

July_2016

Mon	Tue	Wed	Thu	Fri	Sat	Sun
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

Click individual date to select that date only. Click the appropriate weekday Header to select all occurrences of that weekday.

Time

8

30

16

30

Time range description

ช่วงเวลาอนุญาตให้ Vendor ทำการ remote มายังเครื่อง MySQL server

+ Add Time

Clear selection

Configured Ranges

Save

Firewall Schedules

Firewall / Schedules / Edit

Schedule Information

Schedule Name

Allow_Vendor_Remote_to_MySQL

The name of the schedule may only consist of the characters "a-z, A-Z, 0-9 and _".

Description

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

Month

July_16

Date

July_2016

Mon	Tue	Wed	Thu	Fri	Sat	Sun
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

Click individual date to select that date only. Click the appropriate weekday Header to select all occurrences of that weekday.

Time

0

00

23

59

Start HrsStart MinsStop HrsStop Mins

Select the time range for the day(s) selected on the Month(s) above. A full day is 0:00-23:59.

Time range description

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

+ Add Time

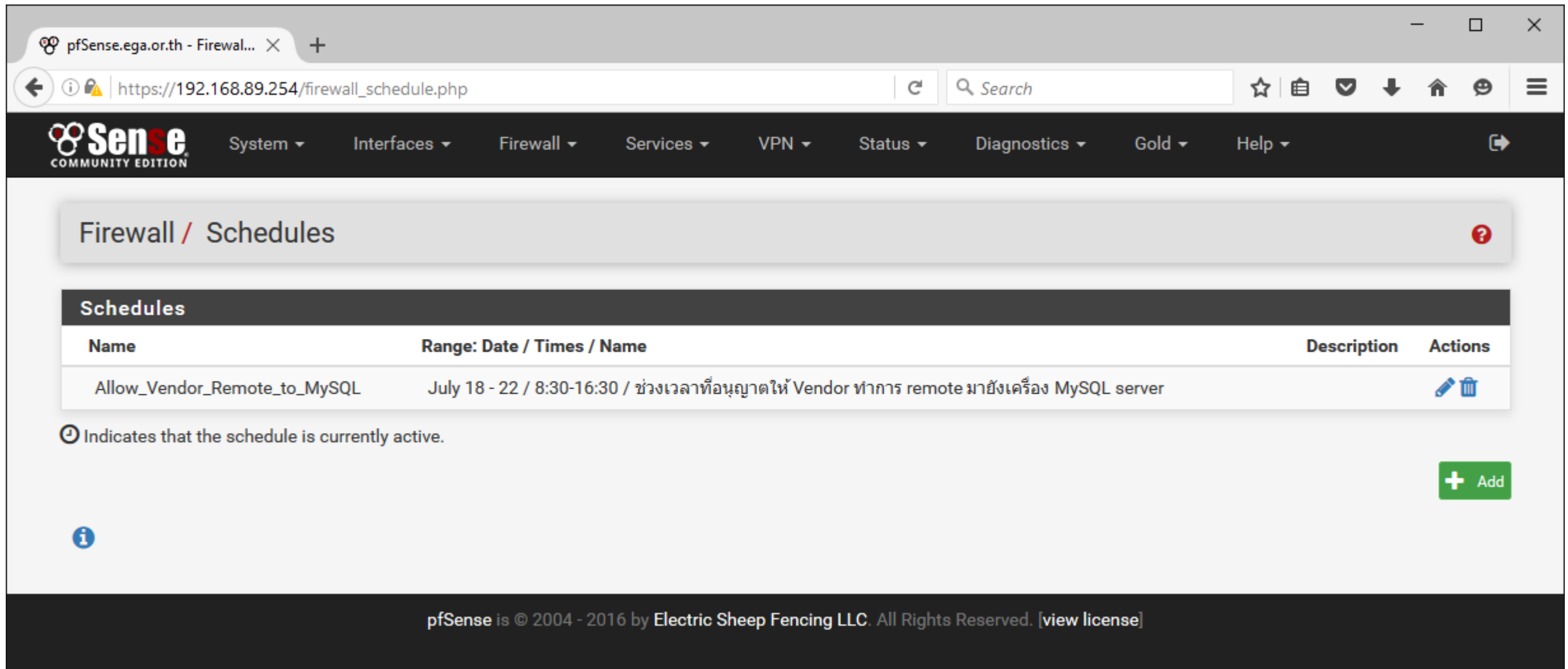
Clear selection

Configured Ranges

July 18 - 22	8:30	16:30	ช่วงเวลาอนุญาตให้ Ven	Delete
Day(s)	Start time	Stop time	Description	



Save


Firewall Schedules





The screenshot shows the pfSense web interface for managing Firewall Schedules. The browser address bar indicates the URL `https://192.168.89.254/firewall_schedule.php`. The navigation menu includes System, Interfaces, Firewall, Services, VPN, Status, Diagnostics, Gold, and Help. The main heading is "Firewall / Schedules".

Schedules

Name	Range: Date / Times / Name	Description	Actions
Allow_Vendor_Remote_to_MySQL	July 18 - 22 / 8:30-16:30 / ช่วงเวลาที่อนุญาตให้ Vendor ทำการ remote มายังเครื่อง MySQL server		 

 Indicates that the schedule is currently active.



 Add

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Firewall Schedules

Source

Source

☐ Invert match.

Single host or alias

Vendor_subnets

Display Advanced

Display Advanced

Destination

Destination

☐ Invert match.

Single host or alias

MySQL_server

Destination port range

(other)

3306

(other)

From

Custom

To

Custom

Specify the destination port or port range for this rule. The "To" field may be left empty if only filtering a single port.

Extra Options

Log

☒ Log packets that are handled by this rule

Hint: the firewall has limited local log space. Don't turn on logging for everything. If doing a lot of logging, consider using a remote syslog server (see the [Status: System Logs: Settings](#) page).

Description

Allow Vendors to MySQL server

A description may be entered here for administrative reference.


Advanced Options

Display Advanced

Save

Firewall Schedules

VLAN Prio Set	<input type="text" value="none"/>	
Choose 802.1p priority to apply.		
Schedule	<input type="text" value="Allow_Vendor_Remote_to_MySQL"/>	
Leave as 'none' to leave the rule enabled all the time.		
Gateway	<input type="text" value="default"/>	
Leave as 'default' to use the system routing table. Or choose a gateway to utilize policy based routing.		
In / Out pipe	<input type="text" value="none"/>	<input type="text" value="none"/>
Choose the Out queue/Virtual interface only if In is also selected. The Out selection is applied to traffic leaving the interface where the rule is created, the In selection is applied to traffic coming into the chosen interface. If creating a floating rule, if the direction is In then the same rules apply, if the direction is Out the selections are reversed, Out is for incoming and In is for outgoing.		
Ackqueue / Queue	<input type="text" value="none"/>	<input type="text" value="none"/>
Choose the Acknowledge Queue only if there is a selected Queue.		

 Save

Firewall Schedules

pfSense.ega.or.th - Firewall... X

https://192.168.89.254/firewall_rules.php?if=FloatingRules

























Sense COMMUNITY EDITION

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

Firewall / Rules / Floating

Floating WAN LAN

Rules (Drag to Change Order)

	States	Protocol	Source	Port	Destination	Port	Gateway	Queue	Schedule	Description	Actions
<input type="checkbox"/>	✓▶▶	0/0 B	IPv4 UDP	*	Google DNS servers	53 (DNS)	*	none		allow to Google's DNS server.	   
<input type="checkbox"/>	✓▶▶	0/0 B	IPv4 UDP	LAN net	*	123 (NTP)	*	none			   
<input type="checkbox"/>	✓▶▶	0/0 B	IPv4 TCP	LAN net	*	3306	*	none		allow users to MySQL service	   
<input type="checkbox"/>	✓▶▶	0/0 B	IPv4 TCP	*	MailGoThai	Mail port	*	none		allow Mail services	   
<input type="checkbox"/>	✓▶▶	0/5 KiB	IPv4 ICMP	*	*	*	*	none			   
<input type="checkbox"/>	✓▶▶	0/0 B	IPv4 TCP	Vendor subnets	MySQL server	3306	*	none	▶ Allow Vendor Remote to MySQL	Allow Vendors to MySQL server	   

↑ Add ↓ Add Delete Save + Separator

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Logging

The screenshot shows the pfSense web interface. The browser address bar displays `https://192.168.89.254`. The top navigation bar includes the pfSense logo and several menu items: System, Interfaces, Firewall, Services, VPN, Status, Diagnostics, Gold, and Help. The 'Status' menu is open, showing a list of options: Captive Portal, CARP (failover), Dashboard, DHCP Leases, DHCPv6 Leases, Filter Reload, Gateways, Interfaces, IPsec, Load Balancer, Monitoring, NTP, OpenVPN, Package Logs, Queues, RRD Summary, Services, System Logs (highlighted with a red circle), Traffic Graph, and UPnP & NAT-PMP. On the left, the 'Status / Dashboard' section is visible, containing a 'System Information' table.

System Information	
Name	pfSense.ega.or.th
Version	2.3.1-RELEASE-p5 (amd64) built on Thu Jun 16 12:53:15 CDT 2016 FreeBSD 10.3-RELEASE-p3 Obtaining update status
Platform	pfSense
CPU Type	Intel(R) Core(TM) i5-3230M CPU @ 2.60GHz 2 CPUs: 2 package(s) x 1 core(s)
Uptime	03 Hours 41 Minutes 58 Seconds
Current date/time	Wed Jul 13 15:48:29 ICT 2016
DNS server(s)	<ul style="list-style-type: none">127.0.0.18.8.4.48.8.8.8
Last config change	Tue Jul 12 19:43:38 ICT 2016
State table size	0% (70/47000) Show states

At the bottom left of the dashboard, the URL `https://192.168.89.254/status_logs.php` is visible.

Logging

pfSense.ega.or.th - Status:...

https://192.168.89.254/status_logs_filter.php

Sense COMMUNITY EDITION

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

Status / System Logs / Firewall / Normal View

System Firewall DHCP Captive Portal Auth IPsec PPP VPN Load Balancer OpenVPN NTP Settings

Normal View Dynamic View Summary View

Last 50 Firewall Log Entries. (Maximum 50)

Action	Time	Interface	Source	Destination	Protocol
×	Jul 13 15:24:56	LAN	i 192.168.89.1:68	i 192.168.89.254:67	UDP
×	Jul 13 15:24:59	LAN	i 192.168.89.1:68	i 192.168.89.254:67	UDP
×	Jul 13 15:25:03	LAN	i 192.168.89.1:68	i 192.168.89.254:67	UDP
×	Jul 13 15:25:12	LAN	i 192.168.89.1:68	i 192.168.89.254:67	UDP
×	Jul 13 15:26:24	LAN	i 192.168.89.1:68	i 192.168.89.254:67	UDP
×	Jul 13 15:26:28	LAN	i 192.168.89.1:68	i 192.168.89.254:67	UDP
×	Jul 13 15:26:32	LAN	i 192.168.89.1:68	i 192.168.89.254:67	UDP
×	Jul 13 15:26:40	LAN	i 192.168.89.1:68	i 192.168.89.254:67	UDP
×	Jul 13 15:27:08	LAN	i 192.168.89.1:68	i 192.168.89.254:67	UDP
×	Jul 13 15:27:13	LAN	i 192.168.89.1:68	i 192.168.89.254:67	UDP

Logging

Status / System Logs / Settings

System

Firewall

DHCP

Captive Portal Auth

IPsec

PPP

VPN

Load Balancer

OpenVPN

NTP

Settings

General Logging Options

Forward/Reverse Display

☒ Show log entries in reverse order (newest entries on top)

GUI Log Entries

100

This is only the number of log entries displayed in the GUI. It does not affect how many entries are contained in the actual log files.

Where to show rule descriptions


Display as column

Show the applied rule description below or in the firewall log rows.
Displaying rule descriptions for all lines in the log might affect performance with large rule sets.

Local Logging

☐ Disable writing log files to the local disk

Reset Log Files

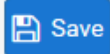
 Reset Log Files

Clears all local log files and reinitializes them as empty logs. This also restarts the DHCP daemon. Use the Save button first if any setting changes have been made.

Remote Logging Options

Enable Remote Logging

☐ Send log messages to remote syslog server

 Save

Logging

pfSense.ega.or.th - Status:...

https://192.168.89.254/status_logs_filter.php

Sense COMMUNITY EDITION

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

Status / System Logs / Firewall / Normal View

System Firewall DHCP Captive Portal Auth IPsec PPP VPN Load Balancer OpenVPN NTP Settings

Normal View Dynamic View Summary View

Last 100 Firewall Log Entries. (Maximum 100)

Action	Time	Interface	Rule	Source	Destination	Protocol
✗	Jul 13 15:53:45	LAN	Default deny rule IPv4 (1000000103)	192.168.89.1:68	255.255.255.255:67	UDP
✗	Jul 13 15:53:38	LAN	Default deny rule IPv4 (1000000103)	192.168.89.1:68	192.168.89.254:67	UDP
✗	Jul 13 15:53:34	LAN	Default deny rule IPv4 (1000000103)	192.168.89.1:68	192.168.89.254:67	UDP
✗	Jul 13 15:53:30	LAN	Default deny rule IPv4 (1000000103)	192.168.89.1:68	192.168.89.254:67	UDP
✗	Jul 13 15:53:04	LAN	Default deny rule IPv4 (1000000103)	192.168.89.1:68	192.168.89.254:67	UDP
✗	Jul 13 15:52:55	LAN	Default deny rule IPv4 (1000000103)	192.168.89.1:68	192.168.89.254:67	UDP
✗	Jul 13 15:52:50	LAN	Default deny rule IPv4 (1000000103)	192.168.89.1:68	192.168.89.254:67	UDP
✗	Jul 13 15:52:45	LAN	Default deny rule IPv4 (1000000103)	192.168.89.1:68	192.168.89.254:67	UDP
✗	Jul 13 15:51:34	LAN	Default deny rule IPv4 (1000000103)	192.168.89.1:68	192.168.89.254:67	UDP
✗	Jul 13 15:51:25	LAN	Default deny rule IPv4 (1000000103)	192.168.89.1:68	192.168.89.254:67	UDP

Logging

Status / System Logs / Firewall / Normal View

System Firewall DHCP Captive Portal Auth IPsec PPP VPN Load Balancer OpenVPN NTP Settings

Normal View Dynamic View Summary View

Advanced Log Filter

	<input type="text"/>	<input type="text" value="111.111.111.111"/>		
	Source IP Address	Destination IP Address		
<input type="checkbox"/> Pass	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text" value="100"/>
	Time	Source Port	Protocol	Quantity
<input type="checkbox"/> Block	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="button" value="Apply Filter"/>
	Interface	Destination Port	Protocol Flags	

[Regular expression reference](#) Precede with exclamation (!) to exclude match.

Logging

Status / System Logs / Firewall / Normal View

System **Firewall** DHCP Captive Portal Auth IPsec PPP VPN Load Balancer OpenVPN NTP Settings

Normal View **Dynamic View** Summary View

Advanced Log Filter

100 Matched Firewall Log Entries. (Maximum 100)

Action	Time	Interface	Rule	Source	Destination	Protocol
✓	Jul 13 16:07:53	▶ WAN	USER_RULE (1468321394)	192.168.146.144	111.111.111.111	ICMP
✓	Jul 13 16:07:53	LAN	USER_RULE (1468321394)	192.168.89.1	111.111.111.111	ICMP
✓	Jul 13 16:07:53	▶ WAN	USER_RULE (1468321394)	192.168.146.144	111.111.111.111	ICMP
✓	Jul 13 16:07:53	LAN	USER_RULE (1468321394)	192.168.89.1	111.111.111.111	ICMP
✓	Jul 13 16:07:53	▶ WAN	USER_RULE (1468321394)	192.168.146.144	111.111.111.111	ICMP
✓	Jul 13 16:07:53	LAN	USER_RULE (1468321394)	192.168.89.1	111.111.111.111	ICMP
✓	Jul 13 16:07:53	▶ WAN	USER_RULE (1468321394)	192.168.146.144	111.111.111.111	ICMP

Logging

Remote Logging Options

Enable Remote Logging

☒ Send log messages to remote syslog server

Source Address

LAN

This option will allow the logging daemon to bind to a single IP address, rather than all IP addresses. If a single IP is picked, remote syslog servers must all be of that IP type. To mix IPv4 and IPv6 remote syslog servers, bind to all interfaces.

NOTE: If an IP address cannot be located on the chosen interface, the daemon will bind to all addresses.

IP Protocol

IPv4

This option is only used when a non-default address is chosen as the source above. This option only expresses a preference; If an IP address of the selected type is not found on the chosen interface, the other type will be tried.

Remote log servers

192.168.89.253:514

IP[:port]

IP[:port]

Remote Syslog Contents

☒ Everything

☐ System Events

☐ Firewall Events

☐ DHCP service events

☐ Portal Auth events

☐ VPN (PPTP, IPsec, OpenVPN) events

☐ Gateway Monitor events

☐ Server Load Balancer events

☐ Wireless events

Syslog sends UDP datagrams to port 514 on the specified remote syslog server, unless another port is specified. Be sure to set syslogd on the remote server to accept syslog messages from pfSense.

Save

NTP server

The screenshot shows the pfSense web interface. The top navigation bar includes links for System, Interfaces, Firewall, Services, VPN, Status, Diagnostics, Gold, and Help. The 'Services' menu is open, displaying a list of services: Captive Portal, DHCP Relay, DHCP Server, DHCPv6 Relay, DHCPv6 Server & RA, DNS Forwarder, DNS Resolver, Dynamic DNS, IGMP Proxy, Load Balancer, NTP (highlighted with a red circle), PPPoE Server, SNMP, UPnP & NAT-PMP, and Wake-on-LAN. The main content area is divided into two sections: 'System Information' and 'Interfaces'. The 'System Information' section provides details about the pfSense system, including its name, version, platform, CPU type, uptime, current date/time, DNS servers, last config change, and state table size. The 'Interfaces' section shows the configuration for the WAN and LAN interfaces, including their status, speed, and IP addresses.

pfSense.ega.or.th - Status:...

https://192.168.89.254

Search

System Interfaces Firewall Services VPN Status Diagnostics Gold Help

Status / Dashboard

System Information

Name	pfSense.ega.or.th
Version	2.3.1-RELEASE-p5 (amd64) built on Thu Jun 16 12:53:15 CDT 2016 FreeBSD 10.3-RELEASE-p3 Obtaining update status
Platform	pfSense
CPU Type	Intel(R) Core(TM) i5-3230M CPU @ 2.50GHz 2 CPUs: 2 package(s) x 1 core(s)
Uptime	04 Hours 47 Minutes 05 Seconds
Current date/time	Wed Jul 13 16:53:45 ICT 2016
DNS server(s)	• 127.0.0.1 • 8.8.4.4 • 8.8.8.8
Last config change	Wed Jul 13 16:49:54 ICT 2016
State table size	0% (17/47000) Show states

Interfaces

WAN	↑	1000baseT <full-duplex>	192.168.146.144
LAN	↑	1000baseT <full-duplex>	192.168.89.254

https://192.168.89.254/services_ntpd.php

NTP server

Services / NTP / Settings

Settings

ACLs

Serial GPS

PPS

NTP Server Configuration

Interface

WAN

LAN

Interfaces without an IP address will not be shown.
Selecting no interfaces will listen on all interfaces with a wildcard.
Selecting all interfaces will explicitly listen on only the interfaces/IPs specified.

Time Servers	<div>time.ega.or.th</div>	<input checked="" type="checkbox"/> Prefer	<input type="checkbox"/> No Select	<div><div></div>Delete</div>
	<div>time.navy.mi.th</div>	<input checked="" type="checkbox"/> Prefer	<input type="checkbox"/> No Select	<div><div></div>Delete</div>
	<div>time1.nimt.or.th</div>	<input checked="" type="checkbox"/> Prefer	<input type="checkbox"/> No Select	<div><div></div>Delete</div>
	<div>time2.nimt.or.th</div>	<input checked="" type="checkbox"/> Prefer	<input type="checkbox"/> No Select	<div><div></div>Delete</div>
Add	<div><div>+</div>Add</div>			

NTP server

Orphan Mode	<input type="text"/>
Orphan mode allows the system clock to be used when no other clocks are available. The number here specifies the stratum reported during orphan mode and should normally be set to a number high enough to insure that any other servers available to clients are preferred over this server (default: 12).	
NTP Graphs	<input checked="" type="checkbox"/> Enable RRD graphs of NTP statistics (default: disabled).
Logging	<input checked="" type="checkbox"/> Log peer messages (default: disabled).
	<input checked="" type="checkbox"/> Log system messages (default: disabled). These options enable additional messages from NTP to be written to the System Log Status > System Logs > NTP .
Statistics Logging	<input checked="" type="checkbox"/> Hide Advanced
Warning: These options will create persistent daily log files in /var/log/ntp.	
	<input checked="" type="checkbox"/> Log reference clock statistics (default: disabled).
	<input checked="" type="checkbox"/> Log clock discipline statistics (default: disabled).
	<input checked="" type="checkbox"/> Log NTP peer statistics (default: disabled).
Leap seconds	<input checked="" type="checkbox"/> Display Advanced
A leap second file allows NTP to advertise an upcoming leap second addition or subtraction. Normally this is only useful if this server is a stratum 1 time server.	
<input type="button" value="Save"/>	

NTP server

The screenshot shows the pfSense web interface. The top navigation bar includes links for System, Interfaces, Firewall, Services, VPN, Status, Diagnostics, Gold, and Help. The 'Status' menu is expanded, showing options like Captive Portal, CARP (failover), Dashboard, DHCP Leases, DHCPv6 Leases, Filter Reload, Gateways, Interfaces, IPsec, Load Balancer, Monitoring (highlighted with a red circle), NTP, OpenVPN, Package Logs, Queues, RRD Summary, Services, System Logs, Traffic Graph, and UPnP & NAT-PMP. The main content area displays the 'Status / Dashboard' with a 'System Information' table on the left and a 'Network Information' table on the right.

System Information	
Name	pfSense.ega.or.th
Version	2.3.1-RELEASE-p5 (amd64) built on Thu Jun 16 12:53:15 CDT 2016 FreeBSD 10.3-RELEASE-p3 Obtaining update status ⚙
Platform	pfSense
CPU Type	Intel(R) Core(TM) i5-3230M CPU @ 2.60GHz 2 CPUs: 2 package(s) x 1 core(s)
Uptime	04 Hours 56 Minutes 20 Seconds
Current date/time	Wed Jul 13 17:03:01 ICT 2016
DNS server(s)	<ul style="list-style-type: none">• 127.0.0.1• 8.8.4.4• 8.8.8.8
Last config change	Wed Jul 13 17:02:20 ICT 2016
State table size	0% (113/47000) Show states

Network Information	
baseT <full-duplex>	192.168.146.144
baseT <full-duplex>	192.168.89.254
7:03:08 (GMT+0700)	
64.115.18.123 (stratum 1, .PPS.)	

NTP server

pfSense.ega.or.th - Status:...

https://192.168.89.254/status_ntpd.php

Sense COMMUNITY EDITION

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

Status / NTP







Network Time Protocol Status

Status	Server	Ref ID	Stratum	Type	When	Poll	Reach	Delay	Offset	Jitter
Active Peer	164.115.18.123	.PPS.	1	u	63	64	37	12.835	433.854	458.090
Candidate	113.53.247.3	.PPS.	1	u	61	64	37	15.165	576.115	460.056
Candidate	203.185.69.60	.GPS.	1	u	11	64	17	60.994	661.390	276.901
Candidate	203.185.69.59	.GPS.	1	u	60	64	37	7.006	582.450	464.687

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NTP server

Status / System Logs / NTP



System

Firewall

DHCP

Captive Portal Auth

IPsec

PPP

VPN

Load Balancer

OpenVPN

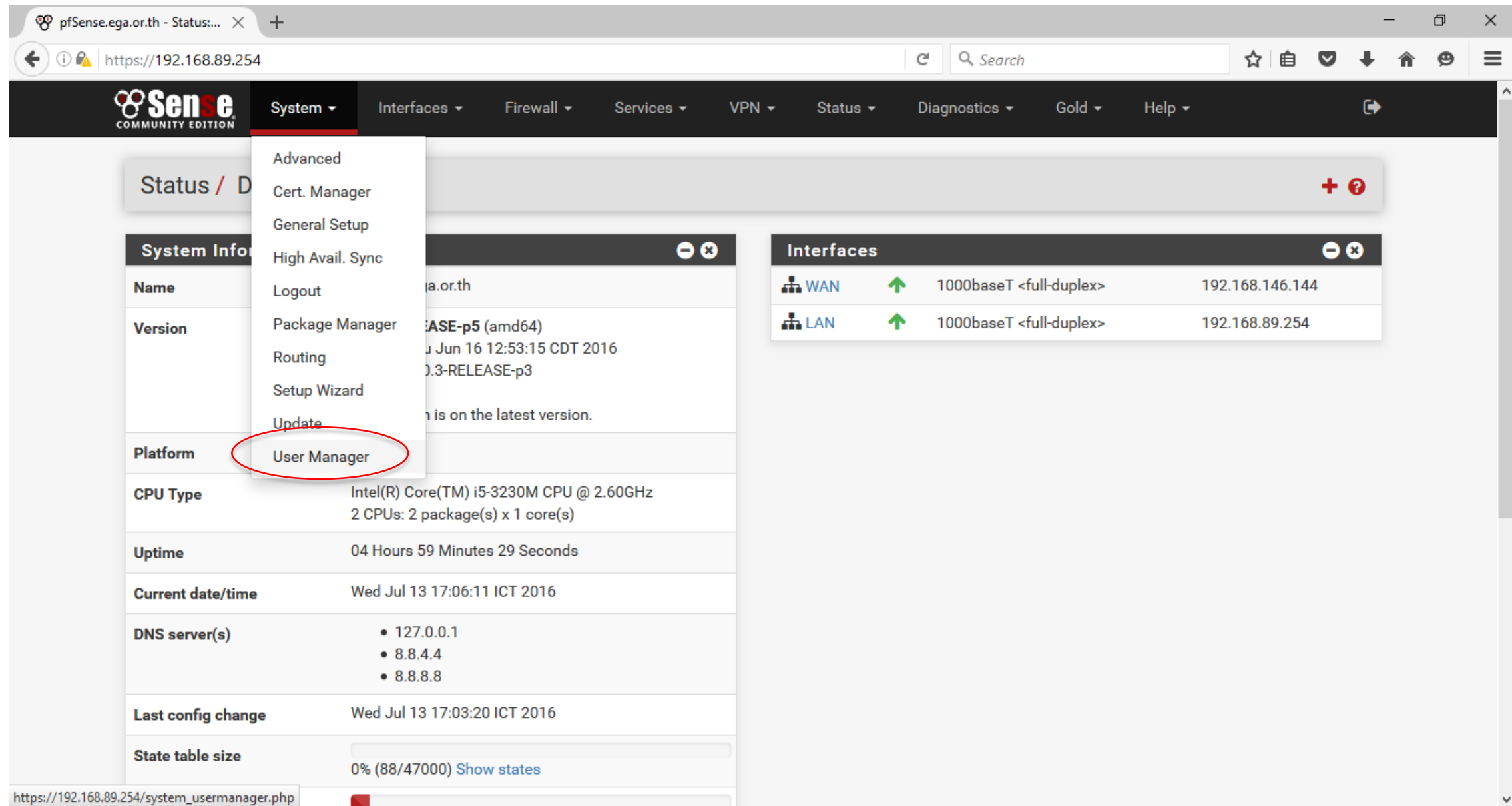
NTP

Settings

Last 84 NTP Log Entries. (Maximum 100)

Time	Process	PID	Message
Jul 13 17:00:09	ntpd	48102	0.0.0.0 0613 03 spike_detect +0.140868 s
Jul 13 17:00:05	ntpd	48102	203.185.69.60 8024 84 reachable
Jul 13 16:59:03	ntpd	48102	164.115.18.123 911a 8a sys_peer
Jul 13 16:58:07	ntpd	48102	113.53.247.3 905a 8a sys_peer
Jul 13 16:57:57	ntpd	48102	203.185.69.59 8024 84 reachable
Jul 13 16:57:57	ntpd	48102	113.53.247.3 8044 84 reachable
Jul 13 16:57:57	ntpd	48102	164.115.18.123 903a 8a sys_peer
Jul 13 16:57:57	ntpd	48102	164.115.18.123 8024 84 reachable
Jul 13 16:57:55	ntpd	48102	0.0.0.0 c618 08 no_sys_peer
Jul 13 16:57:52	ntpd	48102	0.0.0.0 c615 05 clock_sync
Jul 13 16:57:50	ntpd	48102	0.0.0.0 c61c 0c clock_step +1.757194 s

User Manager



The screenshot shows the pfSense web interface with the 'System' menu open. The 'User Manager' option is highlighted with a red circle. The main content area displays system information and network interfaces.

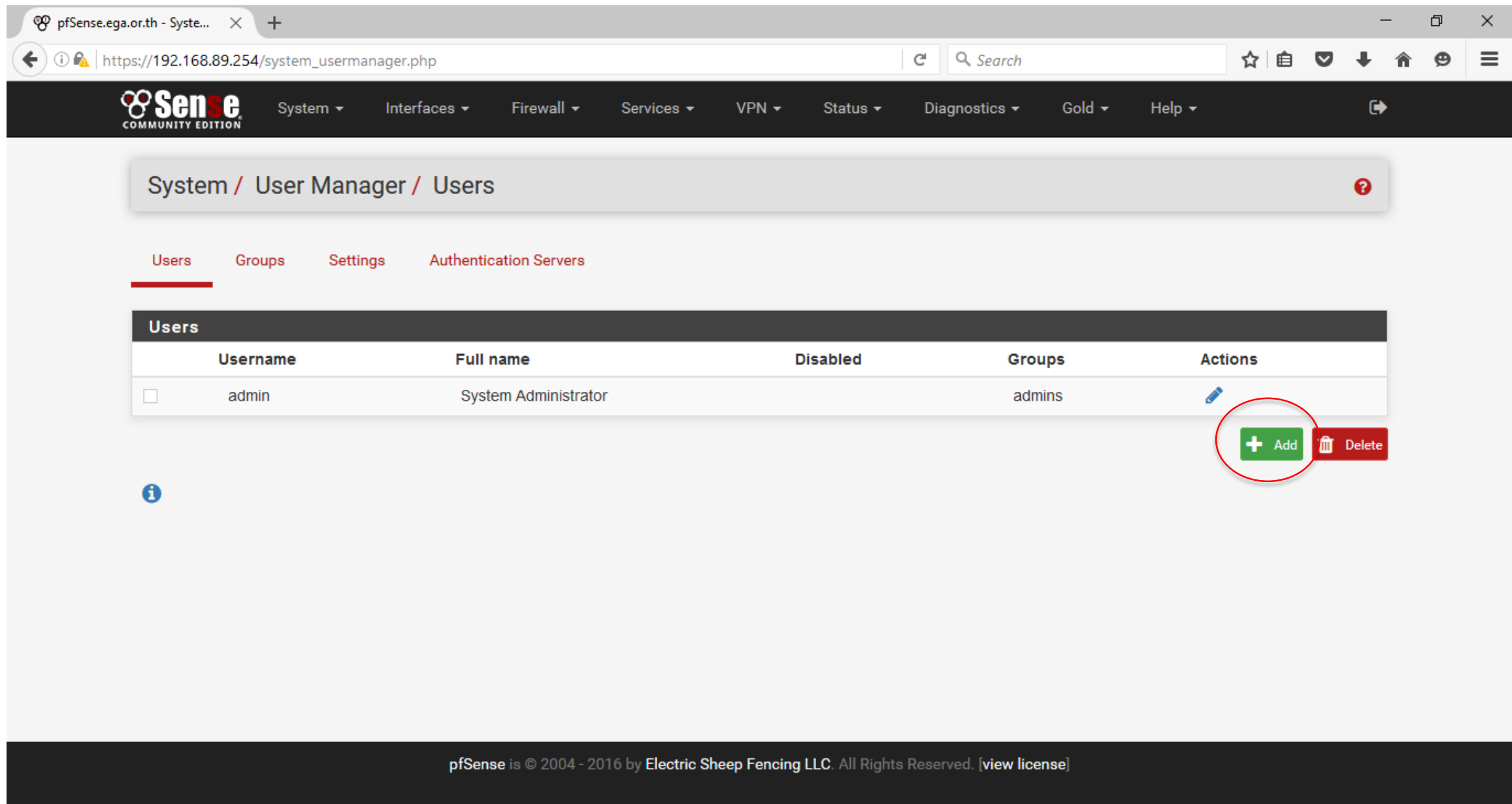
System Info

Name	Value
Version	2.3-RELEASE-p3
Platform	amd64
CPU Type	Intel(R) Core(TM) i5-3230M CPU @ 2.60GHz 2 CPUs: 2 package(s) x 1 core(s)
Uptime	04 Hours 59 Minutes 29 Seconds
Current date/time	Wed Jul 13 17:06:11 ICT 2016
DNS server(s)	<ul style="list-style-type: none">127.0.0.18.8.4.48.8.8.8
Last config change	Wed Jul 13 17:03:20 ICT 2016
State table size	0% (88/47000) Show states

Interfaces

Interface	Status	Speed	IP Address
WAN	Up	1000baseT <full-duplex>	192.168.146.144
LAN	Up	1000baseT <full-duplex>	192.168.89.254

User Manager



The screenshot shows the pfSense web interface for the User Manager section. The breadcrumb trail is "System / User Manager / Users". The "Users" tab is selected, showing a table with one user: "admin" (System Administrator) in the "admins" group. The "Add" button in the Actions column is circled in red.

	Username	Full name	Disabled	Groups	Actions
<input type="checkbox"/>	admin	System Administrator		admins	+ Add Delete

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User Manager

User Properties	
Defined by	USER
Disabled	<input type="checkbox"/> This user cannot login
Username	<input type="text" value="komkit"/>
Password	<input type="password" value="....."/> <input type="password" value="....."/>
Full name	<input type="text" value="KOMKIT KHAMSAWAT"/> <small>User's full name, for administrative information only</small>
Expiration date	<input type="text"/> <small>Leave blank if the account shouldn't expire, otherwise enter the expiration date</small>
Group membership	<div><div><input type="text"/></div><div>Not member of</div><div><input type="button" value="» Move to 'Member of' list"/></div></div> <div><div><input type="text" value="admins"/></div><div>Member of</div><div><input type="button" value="« Move to 'Not member of' list"/></div></div>
<small>Hold down CTRL (PC)/COMMAND (Mac) key to select multiple items.</small>	
Certificate	<input type="checkbox"/> Click to create a user certificate

User Manager

System / User Manager / Users ?

[Users](#) [Groups](#) [Settings](#) [Authentication Servers](#)



Users					
	Username	Full name	Disabled	Groups	Actions
<input type="checkbox"/>	admin	System Administrator		admins	
<input type="checkbox"/>	komkit	KOMKIT KHAMSAWAT		admins	


+ Add Delete

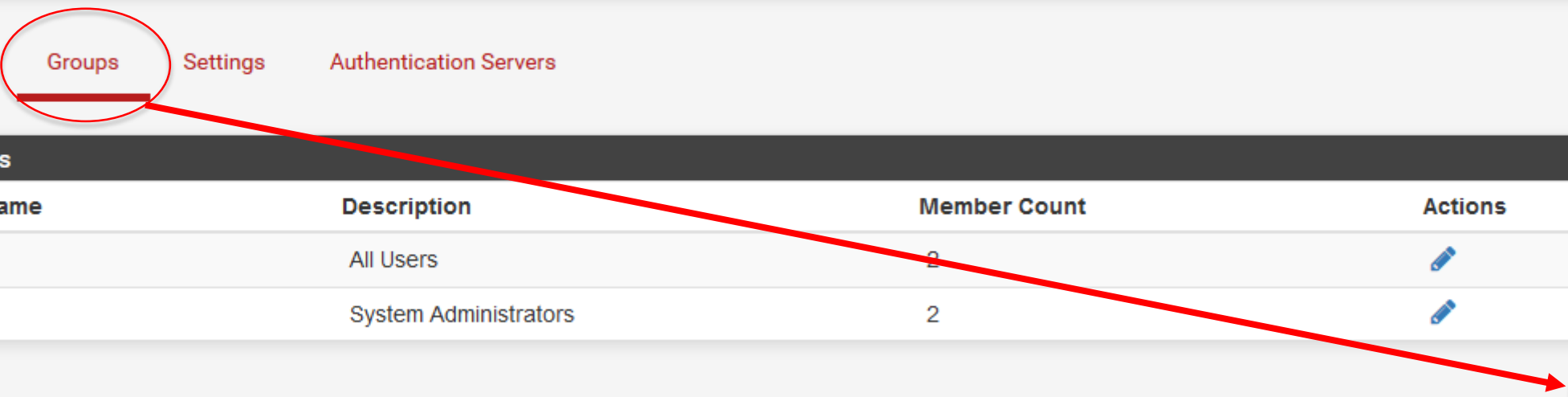
User Manager

System / User Manager / Groups ?

Users **Groups** Settings Authentication Servers

Groups			
Group name	Description	Member Count	Actions
all	All Users	2	
admins	System Administrators	2	

 Add



User Manager

System / User Manager / Groups / Edit ?

Users Groups Settings Authentication Servers

Group Properties

Group name

EGA_Admin

Scope

Local

▼

Description

EGA administrator

Group description, for administrative information only

Group membership

admin

komkit

Not members

Members

» Move to "Members"

« Move to "Not members"

Hold down CTRL (PC)/COMMAND (Mac) key to select multiple items.

Save

User Manager

System / User Manager / Groups ?

Users Groups Settings Authentication Servers

Groups

Group name	Description	Member Count	Actions
admins	System Administrators	2	
all	All Users	2	
EGA_Admin	EGA administrator	0	

+ Add

Assigned Privileges

Name	Description	Action

+ Add

User Manager

System / User Manager / Groups / Edit / Add Privileges ?

Users Groups Settings Authentication Servers

Add Privileges for EGA_Admin

Assigned privileges

User - Config: Deny Config Write

User - System: Copy files (scp)

User - VPN: IPsec xauth Dialin

User - VPN: L2TP Dialin

User - VPN: PPPOE Dialin

User - Services: Captive Portal login

User - System: Shell account access

User - System: SSH tunneling

WebCfg - All pages

WebCfg - Dashboard (all)

WebCfg - Dashboard widgets (direct access).

WebCfg - Diagnostics: ARP Table

WebCfg - Diagnostics: Authentication

WebCfg - Diagnostics: Backup & Restore

WebCfg - Diagnostics: Command

WebCfg - Diagnostics: Configuration History

WebCfg - Diagnostics: CPU Utilization

WebCfg - Crash reporter

WebCfg - Diagnostics: DNS Lookup

WebCfg - Diagnostics: Edit File

Hold down CTRL (PC)/COMMAND (Mac) key to select multiple items.

Filter




Show only the choices containing this term

Save

Filter

Clear

User Manager

Assigned Privileges		
Name	Description	Action
WebCfg - All pages	Allow access to all pages	
		 Add
 Save		

User Manager

[Users](#) [Groups](#) [Settings](#) [Authentication Servers](#)

Group Properties

Group name

Read-Only

Scope

Local

Description

Read only

Group description, for administrative information only

Group membership

admin

komkit

Not members












Members

>> Move to "Members"

<< Move to "Not members"

Hold down CTRL (PC)/COMMAND (Mac) key to select multiple items.

User Manager

Assigned Privileges		
Name	Description	Action
User - Config: Deny Config Write	If present, ignores requests from this user to write config.xml.	
WebCfg - Dashboard (all)	Allow access to all pages required for the dashboard.	
WebCfg - Diagnostics: ARP Table	Allow access to the 'Diagnostics: ARP Table' page.	
WebCfg - Diagnostics: Authentication	Allow access to the 'Diagnostics: Authentication' page.	
WebCfg - Diagnostics: CPU Utilization	Allow access to the 'Diagnostics: CPU Utilization' page.	
WebCfg - Diagnostics: DNS Lookup	Allow access to the 'Diagnostics: DNS Lookup' page.	
WebCfg - Firewall: Aliases	Allow access to the 'Firewall: Aliases' page.	
WebCfg - Firewall: Rules	Allow access to the 'Firewall: Rules' page.	
WebCfg - Status: NTP	Allow access to the 'Status: NTP' page.	
WebCfg - System: User Password Manager	Allow access to the 'System: User Password Manager' page.	
		 Add

User Manager

User Properties	
Defined by	USER
Disabled	<input type="checkbox"/> This user cannot login
Username	<input type="text" value="komkit"/>
Password	<input type="password" value="Password"/> <input type="password" value="Confirm Password"/>
Full name	<input type="text" value="KOMKIT KHAMSAWAT"/> <small>User's full name, for administrative information only</small>
Expiration date	<input type="text"/> <small>Leave blank if the account shouldn't expire, otherwise enter the expiration date</small>
Group membership	<div><div><input type="text" value="EGA_Admin"/> <input type="text" value="admins"/></div><div>Not member of</div></div> <div><div><input type="text" value="Read-Only"/></div><div>Member of</div></div>
<div><input type="button" value="» Move to 'Member of' list"/> <input type="button" value="« Move to 'Not member of' list"/></div> <div><small>Hold down CTRL (PC)/COMMAND (Mac) key to select multiple items.</small></div>	

User Manager

System / User Manager / Users ?

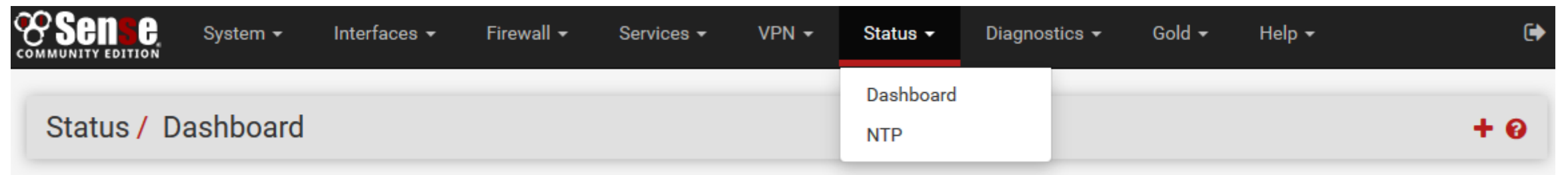
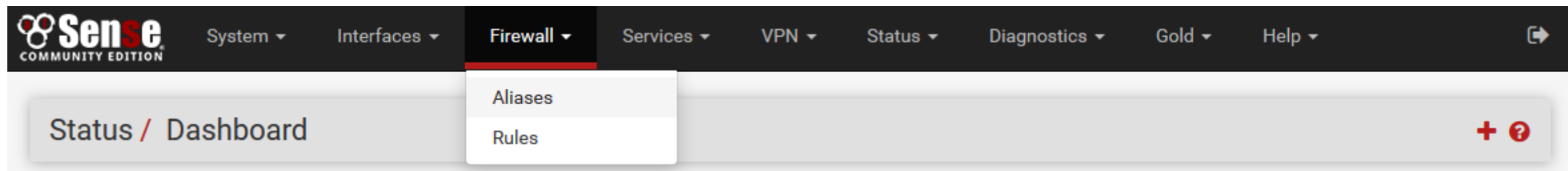
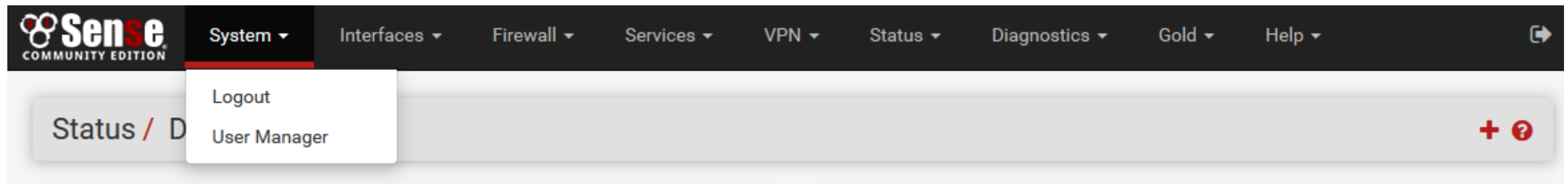
[Users](#) [Groups](#) [Settings](#) [Authentication Servers](#)

Users

	Username	Full name	Disabled	Groups	Actions
<input type="checkbox"/>	admin	System Administrator		admins	
<input type="checkbox"/>	komkit	KOMKIT KHAMSAWAT		Read-Only	

+ Add Delete

User Manager



Backup / Restore

The screenshot shows the pfSense web interface. The top navigation bar includes links for System, Interfaces, Firewall, Services, VPN, Status, Diagnostics, Gold, and Help. The 'Diagnostics' menu is open, and the 'Backup & Restore' option is highlighted with a red circle. The main content area is divided into two columns. The left column, titled 'System Information', contains a table with the following data:

System Information	
Name	pfSense.ega.or.th
Version	2.3.1-RELEASE-p5 (amd64) built on Thu Jun 16 12:53:15 CDT 2016 FreeBSD 10.3-RELEASE-p3 Version 2.3.2 is available. Cloud icon
Platform	pfSense
CPU Type	Intel(R) Core(TM) i5-3230M CPU @ 2.60GHz 2 CPUs: 2 package(s) x 1 core(s)
Uptime	00 Hour 02 Minutes 50 Seconds
Current date/time	Sat Aug 6 21:12:39 ICT 2016
DNS server(s)	<ul style="list-style-type: none">127.0.0.18.8.4.48.8.8.8
Last config change	Fri Jul 22 13:59:47 ICT 2016
State table size	0% (79/47000) Show states
MBUF Usage	4% (1270/29666)
Load average	0.45, 0.39, 0.18
CPU usage	0%
Memory usage	

The right column, titled 'Interfaces', shows a table with the following data:

Interfaces	
WAN	192.168.146.144
LAN	192.168.89.254

Backup / Restore

Diagnostics / Backup & Restore / Backup & Restore ?

Backup & Restore Config History


Backup Configuration

Backup area	All ▼
Skip packages	<input type="checkbox"/> Do not backup package information.
Skip RRD data	<input checked="" type="checkbox"/> Do not backup RRD data (NOTE: RRD Data can consume 4+ megabytes of config.xml space!)
Encryption	<input checked="" type="checkbox"/> Encrypt this configuration file.
Password
Download configuration as XML	

Backup / Restore

Restore Backup

Open a pfSense configuration XML file and click the button below to restore the configuration.

Restore area	<div>All</div>
Configuration file	<div>Choose File</div> config-pfSen...6211532.xml
Encryption	<div><input checked="" type="checkbox"/> Configuration file is encrypted.</div>
Password	<div>.....</div>
<div> Restore Configuration</div>	

The firewall will reboot after restoring the configuration.

Backup / Restore

Package Functions

 Reinstall Packages

Click this button to reinstall all system packages. This may take a while.

Config History

Diagnostics / Backup & Restore / Config History ?

Backup & Restore Config History

Saved Configurations +

i

To view the differences between an older configuration and a newer configuration, select the older configuration using the left column of radio options and select the newer configuration in the right column, then press the "Diff" button.

Config History

Diagnostics / Backup & Restore / Config History ?

Backup & Restore Config History

Saved Configurations +

i

To view the differences between an older configuration and a newer configuration, select the older configuration using the left column of radio options and select the newer configuration in the right column, then press the "Diff" button.

↔ Diff

	Date	Version	Size	Configuration Change	Actions
<input checked="" type="radio"/>	8/6/16 21:25:06	15.4	26 KiB	admin@192.168.89.1: Updated NTP Server Settings	Current configuration
<input checked="" type="radio"/>	7/22/16 13:59:47	15.4	26 KiB	admin@192.168.89.1: /firewall_nat_out_edit.php made unknown change	↶ ⬇ 🗑
<input type="radio"/>	7/22/16 13:59:04	15.4	26 KiB	admin@192.168.89.1: /firewall_nat_out.php made unknown change	↶ ⬇ 🗑
<input type="radio"/>	7/22/16 13:58:52	15.4	24 KiB	admin@192.168.89.1: /firewall_nat_out_edit.php made unknown change	↶ ⬇ 🗑

Config History

```
Configuration Diff from 7/22/16 13:59:47 to 8/6/16 21:25:06
-- /conf/backup/config-1469170787.xml 2016-08-06 21:25:06.791610000 +0700
+++ /conf/config.xml 2016-08-06 21:25:06.823335000 +0700
@@ -163,7 +163,7 @@
    <descr/>
    <target/>
    <targetip/>
-   <targetip_subnet/></targetip_subnet>
+   <targetip_subnet/>
    <interface>wan</interface>
    <poolopts/>
    <destination>
@@ -764,8 +764,8 @@
<prv>LS0tLS1CRUdJTiBQUklWQVRFIEtFWS0tLS0tCk1JSUV2UUlCQURBTkNa3Foa2lHOXcwQkFRRUZBQVNDQktjd2dnU2pBZ0VBQW9JQkFRQ3NhWG16b1VFNmhyYXgKREg4eVFBM01
  </cert>
  <revision>
-   <time>1469170787</time>
-   <description><![CDATA[admin@192.168.89.1: /firewall_nat_out_edit.php made unknown change]]></description>
+   <time>1470493506</time>
+   <description><![CDATA[admin@192.168.89.1: Updated NTP Server Settings]]></description>
    <username>admin@192.168.89.1</username>
  </revision>
  <ppps/>
@@ -868,13 +868,14 @@
    <gps>
      <type>Default</type>
    </gps>
-   <prefer>time.ega.or.th </prefer>
    <logpeer>yes</logpeer>
    <logsys>yes</logsys>
    <clockstats>yes</clockstats>
    <loopstats>yes</loopstats>
    <peerstats>yes</peerstats>
    <statsgraph>yes</statsgraph>
+   <interface>lan</interface>
+   <prefer>time.ega.or.th </prefer>
  </ntpd>
  <schedules>
    <schedule>
```

Questions ?