

How To Add and Use Tagged and Untagged VLANs Trunks on pfSense Router Interfaces

(Complatible and tested with Cisco switches)

Updated May 13, 2018: Configuration can be done completely within the pfSense GUI

Objective:

Using VLANs and Trunking to provide subnet
192.168.10.0 tagged on interfaces em3 & em4
to trunked interfaces on switches.

Requirements:

Available Interfaces
em2 (OPT1), em3 (OPT2), em4 (OPT3)
3 subnets each on it's own router interface to its own switch
192.168.10.0 on em2 (VLAN10)
192.168.20.0 on em3 (VLAN20)
192.168.30.0 on em4 (VLAN30)

Note:

192.168.10.0 on em2 will be untagged
192.168.10.0 on em3 will be tagged
192.168.10.0 on em4 will be tagged
192.168.20.0 on em3 will be untagged
192.168.30.0 on em4 will be untagged

This was developed on pfSense
2.4.3-RELEASE (amd64)
built on Mon Mar 26 18:02:04 CDT 2018
FreeBSD 11.1-RELEASE-p7

(Click on screenshots to zoom, back button to return)

Configure Interfaces via pfSense GUI

Interfaces -> OPT1
Check Enable interface
IPv4 Configuration Type: IPv4
IPv4 Address: 192.168.10.1/24

The screenshot shows the pfSense web interface for configuring interface OPT1. The top navigation bar includes links for System, Interfaces, Firewall, Services, VPN, Status, Diagnostics, and Help. The main content area is titled "Interfaces / OPT1". Under the "General Configuration" section, the "Enable" checkbox is checked. The "Description" field is set to "OPT1". The "IPv4 Configuration Type" is set to "Static IPv4", and the "IPv6 Configuration Type" is set to "None". The "MAC Address" field is empty, with a note explaining its use for spoofing. The "MTU" and "MSS" fields are also empty. The "Speed and Duplex" is set to "Default (no preference, typically autoselect)". Below this, the "Static IPv4 Configuration" section shows the "IPv4 Address" as "192.168.10.1" with a subnet mask of "24". The "IPv4 Upstream gateway" is set to "None", and there is a green button labeled "Add a new gateway".

Click Save

Interfaces -> OPT2

Check Enable interface

IPv4 Configuration Type: IPv4

IPv4 Address: 192.168.20.1/24

This screenshot shows the configuration for interface OPT2. The "Enable" checkbox is checked. The "Description" field is set to "OPT2". The "IPv4 Configuration Type" is set to "Static IPv4", and the "IPv6 Configuration Type" is set to "None". The "MAC Address" field is empty. The "MTU" and "MSS" fields are empty. The "Speed and Duplex" is set to "Default (no preference, typically autoselect)". In the "Static IPv4 Configuration" section, the "IPv4 Address" is set to "192.168.20.1" with a subnet mask of "24". The "IPv4 Upstream gateway" is set to "None", and there is a green button labeled "Add a new gateway".

Click Save

Interfaces -> OPT3

Check Enable interface

IPv4 Configuration Type: IPv4

IPv4 Address: 192.168.30.1/24

Interfaces / OPT3

General Configuration

Enable ☒ Enable interface

Description OPT3
Enter a description (name) for the interface here.

IPv4 Configuration Type Static IPv4

IPv6 Configuration Type None

MAC Address xxxxxxxxxxxx
This field can be used to modify ("spoof") the MAC address of this interface. Enter a MAC address in the following format: xxxxxxxxxxxx or leave blank.

MTU
If this field is blank, the adapter's default MTU will be used. This is typically 1500 bytes but can vary in some circumstances.

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.

Speed and Duplex Default (no preference, typically autoselect)
Explicitly set speed and duplex mode for this interface. WARNING: MUST be set to autoselect (automatically negotiate speed) unless the port this interface connects to has its speed and duplex forced.

Static IPv4 Configuration

IPv4 Address 192.168.30.1 / 24

IPv4 Upstream gateway None [+ Add a new gateway](#)
If this interface is an Internet connection, select an existing Gateway from the list or add a new one using the "Add" button. On local area network interfaces the upstream gateway should be "none". Gateways can be managed by [clicking here](#).

Click Save

Click Apply Changes

Create VLANs via pfSense GUI

Interfaces -> Interface Assignments -> VLANs

Click Add

Parent Interface: em3

VLAN Tag: 10

VLAN Priority: <leave as is>

Description: vlan10

The screenshot shows the pfSense web interface. At the top, the navigation bar includes 'System', 'Interfaces', 'Firewall', 'Services', 'VPN', 'Status', 'Diagnostics', and 'Help'. The breadcrumb trail is 'Interfaces / VLANs / Edit'. The main section is titled 'VLAN Configuration'. It contains four fields: 'Parent Interface' (a dropdown menu showing 'em3 (00:e0:67:05:ab:09) - opt2'), 'VLAN Tag' (a text input field with '10'), 'VLAN Priority' (a text input field with '0'), and 'Description' (a text input field with 'em3 VLAN10'). Below these fields is a blue 'Save' button. The footer of the page states 'pfSense is © 2004 - 2018 by Rubicon Communications, LLC (Netgate). All Rights Reserved. [view license]'.

Click Save

Click Add

Parent Interface: em4

VLAN Tag: 10

VLAN Priority: <leave as is>

Description: vlan10

This screenshot shows the 'Add' form for a new VLAN in pfSense. The breadcrumb trail is 'Interfaces / VLANs / Edit'. The 'VLAN Configuration' section has the following values: 'Parent Interface' is set to 'em4 (00:e0:67:05:ab:0a) - opt3'; 'VLAN Tag' is '10'; 'VLAN Priority' is '0'; and 'Description' is 'em4 VLAN10'. A blue 'Save' button is located at the bottom of the form. The footer text is identical to the previous screenshot: 'pfSense is © 2004 - 2018 by Rubicon Communications, LLC (Netgate). All Rights Reserved. [view license]'.

Click Save

Created VLANs

The screenshot shows the pfSense web interface with the 'Interfaces / VLANs' page selected. The top navigation bar includes links for System, Interfaces, Firewall, Services, VPN, Status, Diagnostics, and Help. Below the navigation bar, there are tabs for Interface Assignments, Interface Groups, Wireless, VLANs (which is active), QinQs, PPPs, GREs, GIFs, Bridges, and LAGGs. The main content area displays a table titled 'VLAN Interfaces' with the following data:

Interface	VLAN tag	Priority	Description	Actions
em3 (opt2)	10		em3 VLAN10	
em4 (opt3)	10		em4 VLAN10	

Below the table, there is an 'Add' button with a green plus icon. At the bottom of the page, a footer indicates 'pfSense is © 2004 - 2018 by Rubicon Communications, LLC (Netgate). All Rights Reserved. [view license]'.

Interfaces -> Interface Assignments

Available network ports: From drop down box choose new em3 VLAN created (Assuming OPT5)

The screenshot shows the pfSense web interface with the 'Interfaces / Interface Assignments' page selected. The top navigation bar is the same as the previous screenshot. Below the navigation bar, there are tabs for Interface Assignments (which is active), Interface Groups, Wireless, VLANs, QinQs, PPPs, GREs, GIFs, Bridges, and LAGGs. The main content area displays a table with the following data:

Interface	Network port	Actions
WAN	em0 (00:e0:67:05:ab:06)	
LAN	em1 (00:e0:67:05:ab:07)	
OPT1	em2 (00:e0:67:05:ab:08)	
OPT2	em3 (00:e0:67:05:ab:09)	
OPT3	em4 (00:e0:67:05:ab:0a)	
OPT4	em5 (00:e0:67:05:ab:0b)	

Below the table, there is an 'Available network ports:' section with a dropdown menu showing 'VLAN 10 on em3 - opt2 (em3 VLAN10)' and an 'Add' button with a green plus icon. A 'Save' button is also present. A light blue box contains the following text:

Interfaces that are configured as members of a lagg(4) interface will not be shown.
Wireless interfaces must be created on the Wireless tab before they can be assigned.

At the bottom of the page, a footer indicates 'pfSense is © 2004 - 2018 by Rubicon Communications, LLC (Netgate). All Rights Reserved. [view license]'.

Click Add

Interfaces / Interface Assignments

Interface has been added.

Interface Assignments Interface Groups Wireless VLANs QinQs PPPs GREs GIFs Bridges LAGGs

Interface	Network port
WAN	em0 (00:e0:67:05:ab:06)
LAN	em1 (00:e0:67:05:ab:07) Delete
OPT1	em2 (00:e0:67:05:ab:08) Delete
OPT2	em3 (00:e0:67:05:ab:09) Delete
OPT3	em4 (00:e0:67:05:ab:0a) Delete
OPT4	em5 (00:e0:67:05:ab:0b) Delete
OPT5	VLAN 10 on em3 - opt2 (em3 VLAN10) Delete
Available network ports:	ovpns1 (Curtronics Dot Com VPN) + Add

Save

Interfaces that are configured as members of a lagg(4) interface will not be shown.
Wireless interfaces must be created on the Wireless tab before they can be assigned.

Interfaces -> Interface Assignments

Available network ports: From drop down box choose new em4 VLAN created (Assuming OPT6)

Interfaces / Interface Assignments

Interface has been added.

Interface Assignments Interface Groups Wireless VLANs QinQs PPPs GREs GIFs Bridges LAGGs

Interface	Network port
WAN	em0 (00:e0:67:05:ab:06)
LAN	em1 (00:e0:67:05:ab:07) Delete
OPT1	em2 (00:e0:67:05:ab:08) Delete
OPT2	em3 (00:e0:67:05:ab:09) Delete
OPT3	em4 (00:e0:67:05:ab:0a) Delete
OPT4	em5 (00:e0:67:05:ab:0b) Delete
OPT5	VLAN 10 on em3 - opt2 (em3 VLAN10) Delete
Available network ports:	VLAN 10 on em4 - opt3 (em4 VLAN10) + Add

Save

Interfaces that are configured as members of a lagg(4) interface will not be shown.
Wireless interfaces must be created on the Wireless tab before they can be assigned.

Click Add

Interfaces / Interface Assignments

Interface has been added.

Interface Assignments Interface Groups Wireless VLANs QinQs PPPs GREs GIFs Bridges LAGGs

Interface	Network port
WAN	em0 (00:e0:67:05:ab:06)
LAN	em1 (00:e0:67:05:ab:07) Delete
OPT1	em2 (00:e0:67:05:ab:08) Delete
OPT2	em3 (00:e0:67:05:ab:09) Delete
OPT3	em4 (00:e0:67:05:ab:0a) Delete
OPT4	em5 (00:e0:67:05:ab:0b) Delete
OPT5	VLAN 10 on em3 - opt2 (em3 VLAN10) Delete
OPT6	VLAN 10 on em4 - opt3 (em4 VLAN10) Delete

Available network ports: ovpn1 (Curtronics Dot Com VPN) + Add

Save

Interface that are configured as members of a lagg(4) interface will not be shown

Click on Interface associated with em3 VLAN (Assuming OPT5)

Interfaces / OPT5

General Configuration

Enable ☒ Enable interface

Description OPT5
Enter a description (name) for the interface here.

IPv4 Configuration Type None

IPv6 Configuration Type None

MAC Address xxxxxxxxxxxx
This field can be used to modify ("spoof") the MAC address of this interface.
Enter a MAC address in the following format: xxxxxxxxxxxx or leave blank.

MTU 1500
If this field is blank, the adapter's default MTU will be used. This is typically 1500 bytes but can vary in some circumstances.

MSS 1460
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.

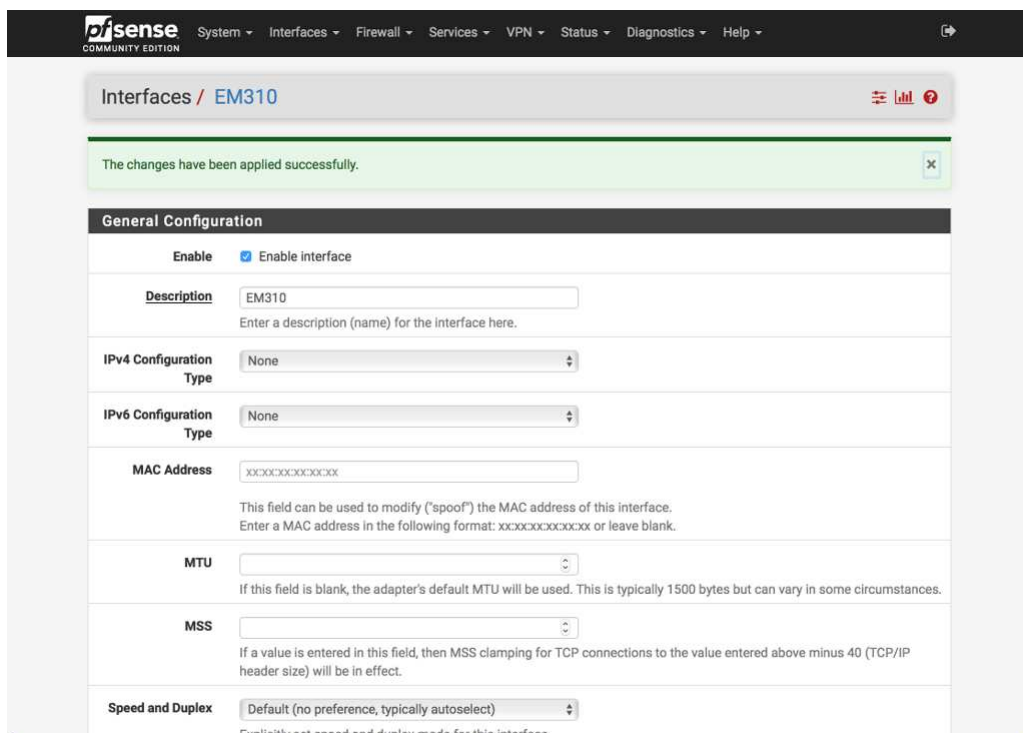
Speed and Duplex Default (no preference, typically autoselect)
Explicitly set speed and duplex mode for this interface.
WARNING: MUST be set to autoselect (automatically negotiate speed) unless the port this interface connects to has its speed and duplex forced.

Reserved Networks

Check Enable interface
Change Description: OPT5 to em310

Click Save

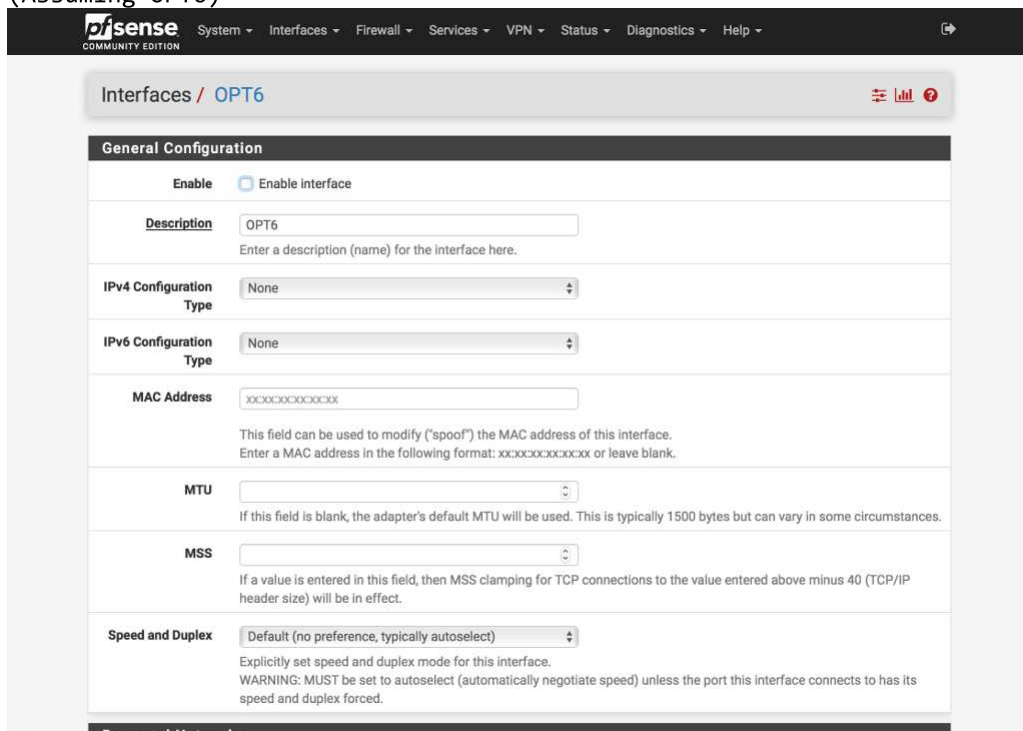
Click Apply Changes



The screenshot shows the pfSense web interface for configuring the EM310 interface. At the top, a navigation bar includes links for System, Interfaces, Firewall, Services, VPN, Status, Diagnostics, and Help. Below the navigation bar, the breadcrumb trail reads "Interfaces / EM310". A green message box at the top of the configuration area states "The changes have been applied successfully." The "General Configuration" section contains the following fields:

- Enable:** A checkbox labeled "Enable interface" which is checked.
- Description:** A text input field containing "EM310". Below the field is a hint: "Enter a description (name) for the interface here."
- IPv4 Configuration Type:** A dropdown menu set to "None".
- IPv6 Configuration Type:** A dropdown menu set to "None".
- MAC Address:** A text input field containing "xxxxxxxxxxxx". Below the field is a hint: "This field can be used to modify ('spoof') the MAC address of this interface. Enter a MAC address in the following format: xxxxxxxxxxxx or leave blank."
- MTU:** A text input field with a spinner icon.
- MSS:** A text input field with a spinner icon. Below the field is a hint: "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."
- Speed and Duplex:** A dropdown menu set to "Default (no preference, typically autoselect)". Below the field is a hint: "Explicitly set speed and duplex mode for this interface."

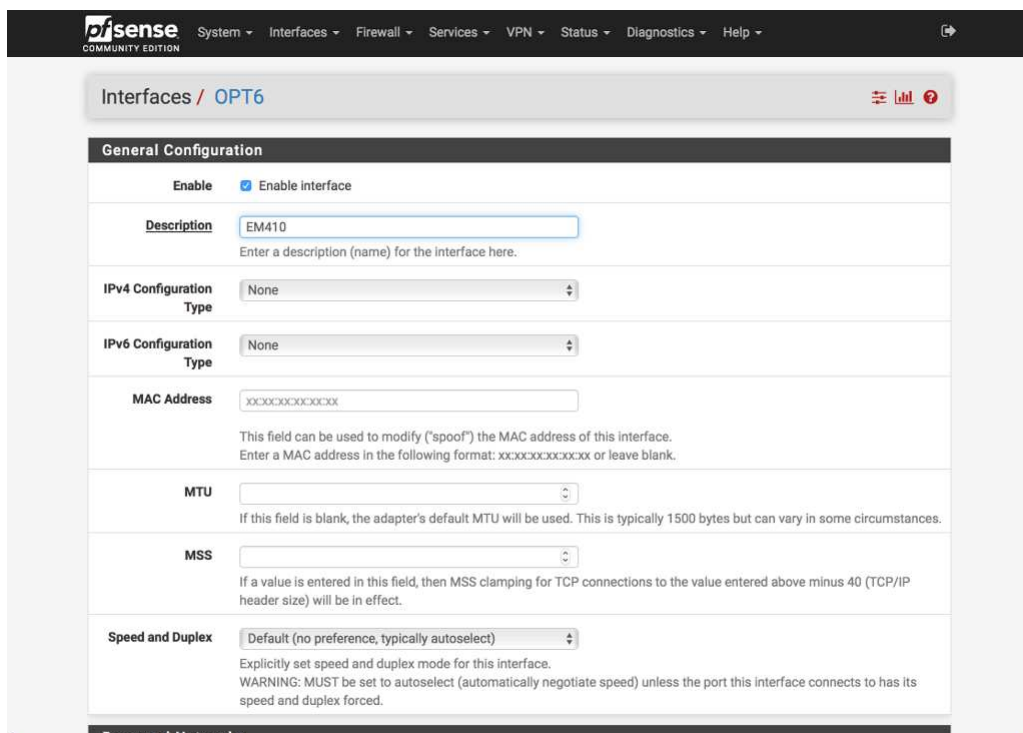
Click on Interface associated with em4 VLAN
(Assuming OPT6)



The screenshot shows the pfSense web interface for configuring the OPT6 interface. At the top, a navigation bar includes links for System, Interfaces, Firewall, Services, VPN, Status, Diagnostics, and Help. Below the navigation bar, the breadcrumb trail reads "Interfaces / OPT6". The "General Configuration" section contains the following fields:

- Enable:** A checkbox labeled "Enable interface" which is unchecked.
- Description:** A text input field containing "OPT6". Below the field is a hint: "Enter a description (name) for the interface here."
- IPv4 Configuration Type:** A dropdown menu set to "None".
- IPv6 Configuration Type:** A dropdown menu set to "None".
- MAC Address:** A text input field containing "xxxxxxxxxxxx". Below the field is a hint: "This field can be used to modify ('spoof') the MAC address of this interface. Enter a MAC address in the following format: xxxxxxxxxxxx or leave blank."
- MTU:** A text input field with a spinner icon.
- MSS:** A text input field with a spinner icon. Below the field is a hint: "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."
- Speed and Duplex:** A dropdown menu set to "Default (no preference, typically autoselect)". Below the field is a hint: "Explicitly set speed and duplex mode for this interface. WARNING: MUST be set to autoselect (automatically negotiate speed) unless the port this interface connects to has its speed and duplex forced."

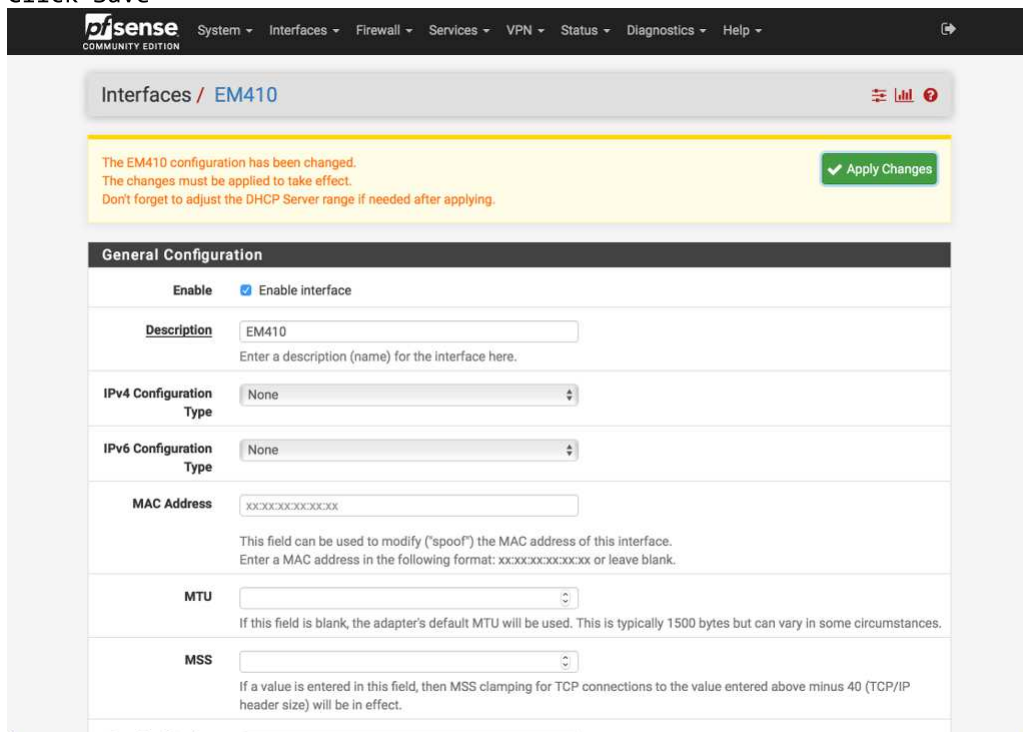
Check Enable interface
Change Description: OPT5 to em410



The screenshot shows the pfSense web interface for configuring the OPT6 interface. The breadcrumb trail is "Interfaces / OPT6". The "General Configuration" section is active, showing the following settings:

- Enable:** ☒ Enable interface
- Description:** EM410 (with a text input field and a note: "Enter a description (name) for the interface here.")
- IPv4 Configuration Type:** None
- IPv6 Configuration Type:** None
- MAC Address:** xxxxxxxxxx (with a text input field and a note: "This field can be used to modify ('spoof') the MAC address of this interface. Enter a MAC address in the following format: xxxxxxxxxx or leave blank.")
- MTU:** (with a text input field and a note: "If this field is blank, the adapter's default MTU will be used. This is typically 1500 bytes but can vary in some circumstances.")
- MSS:** (with a text input field and a note: "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.")
- Speed and Duplex:** Default (no preference, typically autoselect) (with a dropdown menu and a note: "Explicitly set speed and duplex mode for this interface. WARNING: MUST be set to autoselect (automatically negotiate speed) unless the port this interface connects to has its speed and duplex forced.")

Click Save



The screenshot shows the pfSense web interface for configuring the EM410 interface. The breadcrumb trail is "Interfaces / EM410". A yellow confirmation message is displayed at the top: "The EM410 configuration has been changed. The changes must be applied to take effect. Don't forget to adjust the DHCP Server range if needed after applying." with an "Apply Changes" button. The "General Configuration" section is active, showing the same settings as the previous screenshot.

Click Apply Changes

Interfaces / EM410

The changes have been applied successfully.

General Configuration

Enable ☒ Enable interface

Description
Enter a description (name) for the interface here.

IPv4 Configuration Type

IPv6 Configuration Type

MAC Address
This field can be used to modify ("spoof") the MAC address of this interface.
Enter a MAC address in the following format: xxxxxxxxxxxx or leave blank.

MTU
If this field is blank, the adapter's default MTU will be used. This is typically 1500 bytes but can vary in some circumstances.

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.

Speed and Duplex
Explicitly set speed and duplex mode for this interface.

Create Bridge via pfSense GUI

Interfaces -> Interface Assignments -> Bridges
Add

Interfaces / Bridges / Edit

Bridge Configuration

Member Interfaces
OPT2
OPT3
EM310
Interfaces participating in the bridge.

Description

Advanced Options

Member Interface: OPT1, em310, em410
Click Save

Note name of bridge created

The screenshot shows the pfSense web interface. At the top, there's a navigation bar with the pfSense logo and various menu items: System, Interfaces, Firewall, Services, VPN, Status, Diagnostics, and Help. Below this, a breadcrumb trail reads "Interfaces / Bridges". A secondary navigation bar contains links for Interface Assignments, Interface Groups, Wireless, VLANs, QinQs, PPPs, GREs, GIFs, Bridges (which is highlighted), and LAGGs. The main content area is titled "Bridge Interfaces" and contains a table with the following data:

Interface	Members	Description	Actions
BRIDGE0	OPT1, EM310, EM410		

Below the table is a green "+ Add" button. At the bottom of the page, a footer states: "pfSense is © 2004 - 2018 by Rubicon Communications, LLC (Netgate). All Rights Reserved. [view license]"

Interfaces -> Interface Assignments

Available network ports: From drop down box choose new bridge created (Assuming BRIDGE0)

The screenshot shows the pfSense web interface with the "Interface Assignments" tab selected. The breadcrumb trail is "Interfaces / Interface Assignments". The secondary navigation bar is the same as in the previous screenshot. The main content area shows a table with the following data:

Interface	Network port	Actions
WAN	em0 (00:e0:67:05:ab:06)	
LAN	em1 (00:e0:67:05:ab:07)	
OPT1	em2 (00:e0:67:05:ab:08)	
OPT2	em3 (00:e0:67:05:ab:09)	
OPT3	em4 (00:e0:67:05:ab:0a)	
OPT4	em5 (00:e0:67:05:ab:0b)	
EM310	VLAN 10 on em3 - opt2 (em3 VLAN10)	
EM410	VLAN 10 on em4 - opt3 (em4 VLAN10)	
Available network ports:	BRIDGE0	

Below the table is a blue "Save" button. At the bottom, a light blue box contains the following text:

Interfaces that are configured as members of a lagg(4) interface will not be shown.

Wireless interfaces must be created on the Wireless tab before they can be assigned.

Click Add

Interfaces / Interface Assignments

Interface has been added.

Interface Assignments Interface Groups Wireless VLANs QinQs PPPs GREs GIFs Bridges LAGGs

Interface	Network port	
WAN	em0 (00:e0:67:05:ab:06)	
LAN	em1 (00:e0:67:05:ab:07)	Delete
OPT1	em2 (00:e0:67:05:ab:08)	Delete
OPT2	em3 (00:e0:67:05:ab:09)	Delete
OPT3	em4 (00:e0:67:05:ab:0a)	Delete
OPT4	em5 (00:e0:67:05:ab:0b)	Delete
EM310	VLAN 10 on em3 - opt2 (em3 VLAN10)	Delete
EM410	VLAN 10 on em4 - opt3 (em4 VLAN10)	Delete
OPT7	BRIDGE0	Delete

Available network ports: ovpn1 (Curtronics Dot Com VPN) Add

Save

Click on Interface associated with bridge
(Assuming OPT7)

Interfaces / OPT7

General Configuration

Enable ☒ Enable interface

Description OPT7
Enter a description (name) for the interface here.

IPv4 Configuration Type None

IPv6 Configuration Type None

MAC Address
This field can be used to modify ("spoof") the MAC address of this interface.
Enter a MAC address in the following format: xxxxxxxxxx or leave blank.

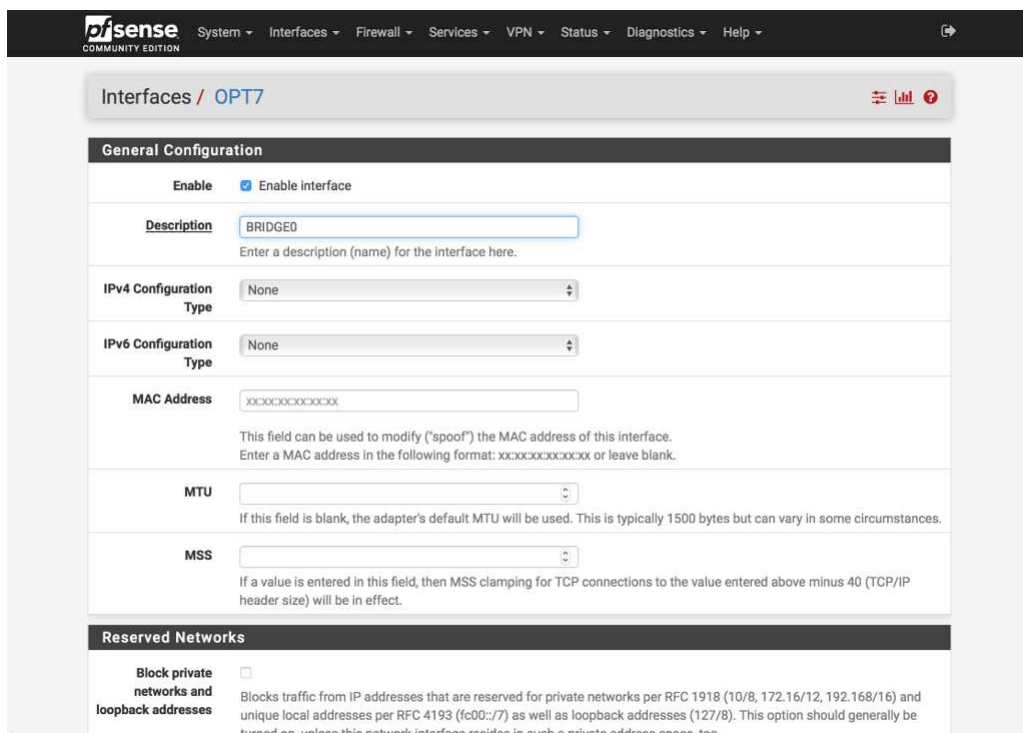
MTU
If this field is blank, the adapter's default MTU will be used. This is typically 1500 bytes but can vary in some circumstances.

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.

Reserved Networks

Block private networks and loopback addresses ☐
Blocks traffic from IP addresses that are reserved for private networks per RFC 1918 (10/8, 172.16/12, 192.168/16) and unique local addresses per RFC 4193 (fc00::/7) as well as loopback addresses (127/8). This option should generally be turned on, unless this network interface resides in such a private address space, too.

Check Enable interface
Change Description: OPT5 to BRIDGE0



The screenshot shows the pfSense Community Edition web interface. The top navigation bar includes links for System, Interfaces, Firewall, Services, VPN, Status, Diagnostics, and Help. The main content area is titled "Interfaces / OPT7". Below this, the "General Configuration" section is visible. It includes a checkbox for "Enable interface" which is checked. The "Description" field contains "BRIDGE0". The "IPv4 Configuration Type" and "IPv6 Configuration Type" are both set to "None". The "MAC Address" field is empty, with a note explaining its use for spoofing. The "MTU" and "MSS" fields are also empty, with explanatory text below them. A "Reserved Networks" section at the bottom has a checkbox for "Block private networks and loopback addresses" which is unchecked.

Interfaces / OPT7

General Configuration

Enable ☒ Enable interface

Description
Enter a description (name) for the interface here.

IPv4 Configuration Type

IPv6 Configuration Type

MAC Address
This field can be used to modify ("spoof") the MAC address of this interface.
Enter a MAC address in the following format: xxxxxxxxxxxx or leave blank.

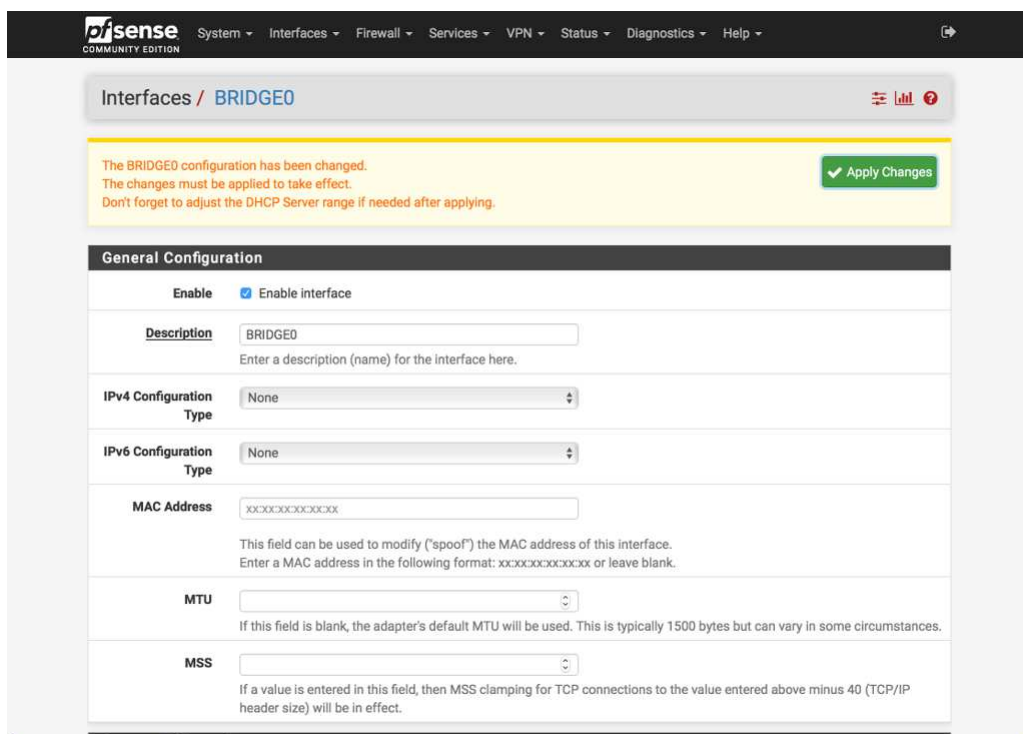
MTU
If this field is blank, the adapter's default MTU will be used. This is typically 1500 bytes but can vary in some circumstances.

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.

Reserved Networks

Block private networks and loopback addresses ☐
Blocks traffic from IP addresses that are reserved for private networks per RFC 1918 (10/8, 172.16/12, 192.168/16) and unique local addresses per RFC 4193 (fc00::/7) as well as loopback addresses (127/8). This option should generally be turned on, unless this network interface resides in such a private address space, too.

Click Save



The screenshot shows the pfSense Community Edition web interface after saving changes. A yellow message box at the top states: "The BRIDGE0 configuration has been changed. The changes must be applied to take effect. Don't forget to adjust the DHCP Server range if needed after applying." A green "Apply Changes" button is next to the message. The "General Configuration" section for "BRIDGE0" is visible, showing the same settings as the previous screenshot: "Enable interface" is checked, "Description" is "BRIDGE0", "IPv4 Configuration Type" and "IPv6 Configuration Type" are "None", "MAC Address" is "xxxxxxxxxxxx", "MTU" and "MSS" are empty.

Interfaces / BRIDGE0

The BRIDGE0 configuration has been changed.
The changes must be applied to take effect.
Don't forget to adjust the DHCP Server range if needed after applying.

☒ Apply Changes

General Configuration

Enable ☒ Enable interface

Description
Enter a description (name) for the interface here.

IPv4 Configuration Type

IPv6 Configuration Type

MAC Address
This field can be used to modify ("spoof") the MAC address of this interface.
Enter a MAC address in the following format: xxxxxxxxxxxx or leave blank.

MTU
If this field is blank, the adapter's default MTU will be used. This is typically 1500 bytes but can vary in some circumstances.

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.

Click Apply Changes

Interfaces / **BRIDGE0**

The changes have been applied successfully.

General Configuration

Enable ☒ Enable interface

Description
Enter a description (name) for the interface here.

IPv4 Configuration Type

IPv6 Configuration Type

MAC Address
This field can be used to modify ("spoof") the MAC address of this interface.
Enter a MAC address in the following format: xxxxxxxxxxxxxx or leave blank.

MTU
If this field is blank, the adapter's default MTU will be used. This is typically 1500 bytes but can vary in some circumstances.

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.

Reserved Networks

VLAN and Bridge setup complete

Add firewall rules for BRIDGE0 via pfSense GUI

Firewall -> Rules
Add
Save
Apply Changes
(As needed)

That's it. Assuming your switches are set up and connected.

Switch interfaces configuration:

switch connected to em2: Access, VLAN10 untagged

switch connected to em3: Trunk, VLAN10 tagged, VLAN20 untagged

switch connected to em4: Trunk, VLAN10 tagged, VLAN30 untagged

These are 3 separate independent switches, do not connected these 3 interfaces to the same switch or any combination of 2 of these interfaces to the same switch.

If anything was missed or there are questions, errors, or discrepancies please email me at:
pfs (at) curtronics (dot) com