

Lab-1

The screenshot shows the pfSense web interface at 192.168.56.103/interfaces assign.php. The top navigation bar includes links for System, Interfaces, Firewall, Services, VPN, Status, Diagnostics, Help, and a notification bell with one alert. A warning message in a pink box states: "The password for this account is insecure. Password is currently set to the default value (pfsense). Change the password as soon as possible." The main content area is titled "Interfaces / Interface Assignments". It displays a table with two rows: "WAN" assigned to "em0 (08:00:27:e0:90:1b)" and "LAN" assigned to "em1 (08:00:27:1d:67:df)". There is a "Delete" button next to the LAN assignment. A "Save" button is located below the table. Below the table, there are two informational messages: "Interfaces that are configured as members of a lagg(4) interface will not be shown." and "Wireless interfaces must be created on the Wireless tab before they can be assigned."

The screenshot shows the "General Configuration" page for the LAN interface. The "Enable" checkbox is checked. The "Description" field is set to "LAN". The "IPv4 Configuration Type" is "Static IPv4" and the "IPv6 Configuration Type" is "DHCP6". The "MAC Address" field contains "xx:xx:xx:xx:xx:xx" with a note about spoofing. The "MTU" field is empty with a note about default values. The "MSS" field is empty with a note about TCP clamping. The "Speed and Duplex" field is set to "Default (no preference, typically autoselect)". A note at the bottom states: "WARNING: MUST be set to autoselect (automatically negotiate speed) unless the port this interface connects to has its speed and duplex forced." Below this is the "Static IPv4 Configuration" section, which includes fields for "IPv4 Address" (192.168.10.1), "IPv4 Subnet mask" (255.255.255.0), "IPv4 Gateway" (None), and a green "Add a new gateway" button.

pfSense® COMMUNITY EDITION

System Interfaces Firewall Services VPN Status Diagnostics Help

WARNING:
The password for this account is insecure. Password is currently set to the default value (pfsense).
Change the password as soon as possible.

Interfaces / LANcore (em1)

General Configuration

Enable	<input checked="" type="checkbox"/> Enable interface
Description	LANcore Enter a description (name) for the interface here.
IPv4 Configuration Type	DHCP
IPv6 Configuration Type	DHCP6
MAC Address	XXXXXXXXXXXXXX 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 for IPv4 (TCP/IP header size) and minus 60 for IPv6 (TCP/IP header size) will be in effect.

Change the password as soon as possible.

Interfaces / WANLINK (em0)

The WANLINK 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	<input checked="" type="checkbox"/> Enable interface
Description	WANLINK Enter a description (name) for the interface here.
IPv4 Configuration Type	DHCP
IPv6 Configuration Type	DHCP6
MAC Address	XXXXXXXXXXXXXX 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 for IPv4 (TCP/IP header size) and minus 60 for IPv6 (TCP/IP header size) will be in effect.

Interfaces / LANcore (em1)

The LANcore 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

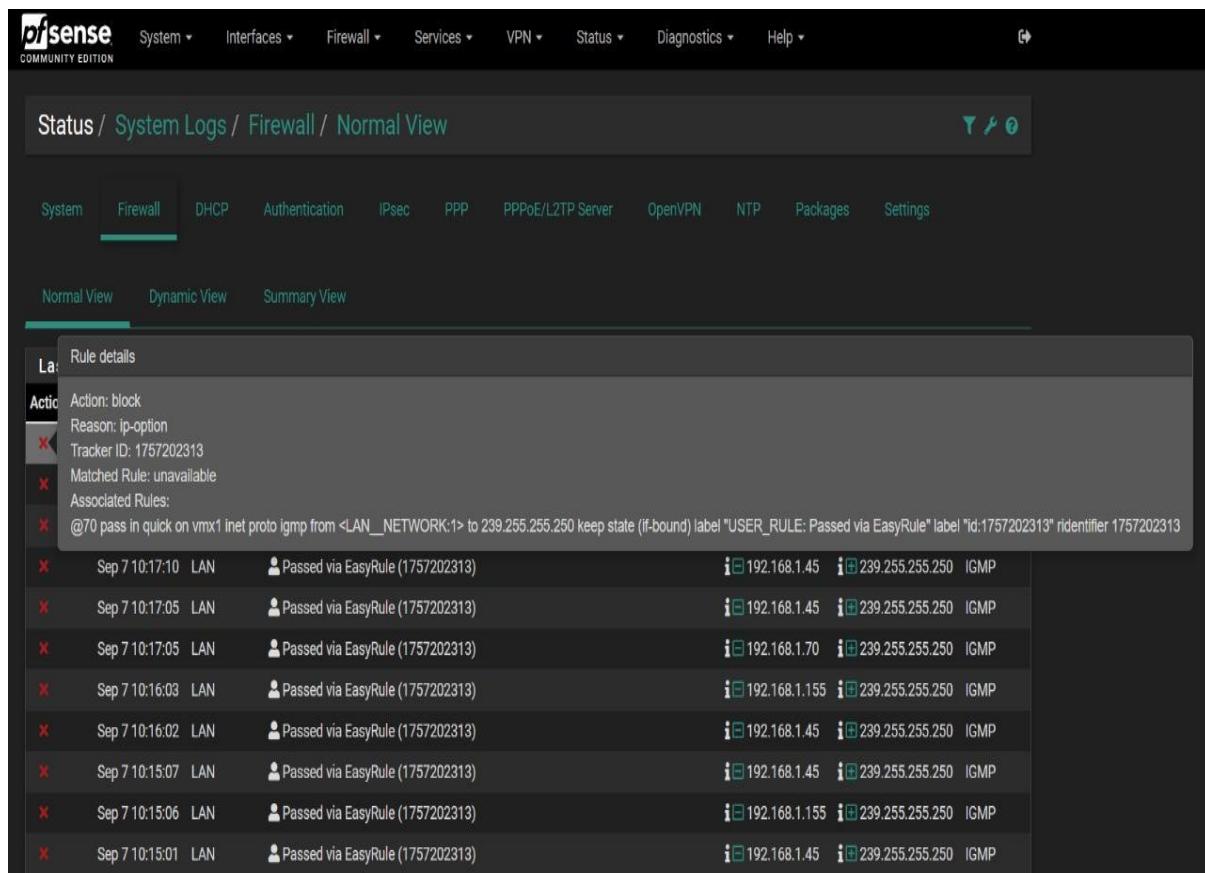
IPv6 Configuration Type

MAC Address
This field can be used to modify ("spoof") the MAC address of this interface.
Enter a MAC address in the following format: xx:xx:xx:xx:xx:xx 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 for IPv4 (TCP/IP header size) and minus 60 for IPv6 (TCP/IP header size) will be in effect.

Lab-2



The screenshot shows the pfSense Firewall Rules details page. The top navigation bar includes links for System, Interfaces, Firewall, Services, VPN, Status, Diagnostics, and Help. Below the navigation is a breadcrumb trail: Status / System Logs / Firewall / Normal View. A toolbar with icons for search, refresh, and help is located at the top right. The main content area has tabs for System, Firewall (which is selected), DHCP, Authentication, IPsec, PPP, PPPoE/L2TP Server, OpenVPN, NTP, Packages, and Settings. Under the Firewall tab, there are three view options: Normal View (selected), Dynamic View, and Summary View. The main pane displays "Rule details" for a specific rule. The rule details are as follows:

Action	Reason	Associated Rules
Action: block	Reason: ip-option	@70 pass in quick on vmx1 inet proto igmp from <LAN_NETWORK:1> to 239.255.255.250 keep state (if-bound) label "USER_RULE: Passed via EasyRule" label "id:1757202313" identifier 1757202313

Below the rule details, a log table lists 8 entries of passed traffic. Each entry includes the timestamp, interface, action, source IP, destination IP, and protocol.

Time	Interface	Action	Source IP	Destination IP	Protocol
Sep 7 10:17:10	LAN	Passed via EasyRule (1757202313)	192.168.1.45	239.255.255.250	IGMP
Sep 7 10:17:05	LAN	Passed via EasyRule (1757202313)	192.168.1.45	239.255.255.250	IGMP
Sep 7 10:17:05	LAN	Passed via EasyRule (1757202313)	192.168.1.70	239.255.255.250	IGMP
Sep 7 10:16:03	LAN	Passed via EasyRule (1757202313)	192.168.1.155	239.255.255.250	IGMP
Sep 7 10:16:02	LAN	Passed via EasyRule (1757202313)	192.168.1.45	239.255.255.250	IGMP
Sep 7 10:15:07	LAN	Passed via EasyRule (1757202313)	192.168.1.45	239.255.255.250	IGMP
Sep 7 10:15:06	LAN	Passed via EasyRule (1757202313)	192.168.1.155	239.255.255.250	IGMP
Sep 7 10:15:01	LAN	Passed via EasyRule (1757202313)	192.168.1.45	239.255.255.250	IGMP

Schedule Information

Schedule Name	BusinessHours																																										
Description	Normal Business Hours																																										
Month	August_16																																										
Date	August_2016 <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Mon</th> <th>Tue</th> <th>Wed</th> <th>Thu</th> <th>Fri</th> <th>Sat</th> <th>Sun</th> </tr> </thead> <tbody> <tr><td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td></tr> <tr><td>8</td><td>9</td><td>10</td><td>11</td><td>12</td><td>13</td><td>14</td></tr> <tr><td>15</td><td>16</td><td>17</td><td>18</td><td>19</td><td>20</td><td>21</td></tr> <tr><td>22</td><td>23</td><td>24</td><td>25</td><td>26</td><td>27</td><td>28</td></tr> <tr><td>29</td><td>30</td><td>31</td><td></td><td></td><td></td><td></td></tr> </tbody> </table>	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				
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1	2	3	4	5	6	7																																					
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22	23	24	25	26	27	28																																					
29	30	31																																									
<p>Click individual date to select that date only. Click the appropriate weekday Header to select all occurrences of that weekday.</p>																																											
Time	9	00	17	00																																							
Time range description	Work Week																																										
<input type="button" value="Add Time"/> <input type="button" value="Clear selection"/>																																											

17 matched log entries. Max(50)

Act	Time	If	Source	Destination	Proto
▶	Oct 19 01:51:46	LAN	① ② ③ 192.168.1.10	① ② ③ 159.153.226.105	ICMP
▶	Oct 19 01:51:45	LAN	① ② ③ 192.168.1.10	① ② ③ 159.153.225.30	ICMP
▶	Oct 19 01:51:43	LAN	① ② ③ 192.168.1.10	① ② ③ 159.153.93.2	ICMP
▶	Oct 19 01:51:42	LAN	① ② ③ 192.168.1.10	① ② ③ 64.125.199.186	ICMP
▶	Oct 19 01:51:40	LAN	① ② ③ 192.168.1.10	① ② ③ 64.125.31.206	ICMP
▶	Oct 19 01:51:39	LAN	① ② ③ 192.168.1.10	① ② ③ 64.125.25.113	ICMP
▶	Oct 19 01:51:37	LAN	① ② ③ 192.168.1.10	① ② ③ 64.125.25.46	ICMP
▶	Oct 19 01:51:36	LAN	① ② ③ 192.168.1.10	① ② ③ 64.125.30.233	ICMP
▶	Oct 19 01:51:34	LAN	① ② ③ 192.168.1.10	① ② ③ 64.125.31.234	ICMP
▶	Oct 19 01:51:33	LAN	① ② ③ 192.168.1.10	① ② ③ 64.125.24.5	ICMP
▶	Oct 19 01:51:32	LAN	① ② ③ 192.168.1.10	① ② ③ 75.149.228.134	ICMP
▶	Oct 19 01:51:30	LAN	① ② ③ 192.168.1.10	① ② ③ 68.86.87.18	ICMP
▶	Oct 19 01:51:29	LAN	① ② ③ 192.168.1.10	① ② ③ 68.86.91.229	ICMP
▶	Oct 19 01:51:27	LAN	① ② ③ 192.168.1.10	① ② ③ 68.85.155.14	ICMP
▶	Oct 19 01:51:26	LAN	① ② ③ 192.168.1.10	① ② ③ 68.85.154.10	ICMP
▶	Oct 19 01:51:24	LAN	① ② ③ 192.168.1.10	① ② ③ 162.151.1.141	ICMP
▶	Oct 19 01:51:23	LAN	① ② ③ 192.168.1.10	① ② ③ 67.160.236.1	ICMP

pfSense COMMUNITY EDITION

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

Status / System Logs / Firewall / Normal View

Firewall

Normal View Dynamic View Summary View

Rule details

Action: block

Reason: ip-option

Tracker ID: 1757202313

Matched Rule: unavailable

Associated Rules:

@70 pass in quick on vmx1 inet proto igmp from <LAN_NETWORK:1> to 239.255.255.250 keep state (if-bound) label "USER_RULE: Passed via EasyRule" label "id:1757202313" ridentifier 1757202313

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Sep 7 10:15:06	LAN	192.168.1.155	239.255.255.250	IGMP
Sep 7 10:15:01	LAN	192.168.1.45	239.255.255.250	IGMP