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ITN 263
2/20/2023

Lab 07: Configuring Custom Firewall Rules with pfSense

Lab #7 Screen Captures

Screen Capture 1, Section 1:

PFSENSE-FW-PLANNER.ods - OpenOffice Calc

File Edit View Insert Format Tools Data Window Help

Configuring Custom Firewall Rules with pfSense (3e)

Workstation

2023-02-12 16:25:04

James Tourtellotte

1	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S
2	Interface	Disabled	Interface	Address	Protocol	Invert	Type	Address	Subnet	Mask	Invert	Type	Address	Subnet	Mask	Port Range	Log	Description	Extra Options
3	Pass		LAN	IPv4	TCP		Any					Any				HTTP (80)	HTTP (80)	Allow Web Browsing	
4	Pass		LAN	IPv4	TCP/UDP		Any					Any				DNS (53)	DNS (53)	Allow Domain Name Service (DNS)	
5	Pass		LAN	IPv4	TCP		Any					Any				SSH (22)	SSH (22)	Allow Secure Shell (SSH)	
6	Pass		LAN	IPv4	TCP														
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51																			
52																			

Sheet 1 / 2

PageStyle: Firewall Rules

Sum=0

70%

1:25 PM 2/12/2023

Properties

Text

Lato

11

Alignment

Left indent: 0 pt

Text orientation: 0 degrees

Cell Appearance

Cell background:

Cell border:

Show cell grid lines

Number Format

Screen Capture 2, Section 1:

The screenshot shows the pfSense web interface for configuring firewall rules on the LAN interface. A yellow notification bar at the top states: "The firewall rule configuration has been changed. The changes must be applied for them to take effect." with an "Apply Changes" button. Below this, the "Rules (Drag to Change Order)" table is displayed. The table has columns for States, Protocol, Source, Port, Destination, Port, Gateway, Queue, Schedule, Description, and Actions. The rules listed are:

States	Protocol	Source	Port	Destination	Port	Gateway	Queue	Schedule	Description	Actions
0/0 B	*	*	*	LAN Address	80	*	*	*	Anti-Lockout Rule	[Settings]
0/0 B	IPv4-TCP	*	*	*	80 (HTTP)	*	none	*	Web Browsing	[Edit] [Copy] [Delete]
0/0 B	IPv4-TCP/UDP	*	*	*	53 (DNS)	*	none	*	Domain Name System (DNS)	[Edit] [Copy] [Delete]
0/0 B	IPv4-TCP	*	*	*	22 (SSH)	*	none	*	Secure Shell (SSH)	[Edit] [Copy] [Delete]
0/0 B	IPv4 ICMP any	*	*	*	*	*	none	*	ICMP Rule	[Edit] [Copy] [Delete]

At the bottom of the table are buttons for "Add", "Add", "Delete", "Save", and "Separator". The pfSense footer indicates it is developed and maintained by Netgate, © ESF 2004 - 2023. A Firefox notification at the bottom right says: "It looks like you haven't started Firefox in a while. Do you want to clean it up for a fresh, like-new experience? And by the way, welcome back!" with a "Refresh Firefox..." button. The system clock shows 1:30 PM on 2/12/2023.

Screen Capture 3, Section 1:

This screenshot shows the same pfSense Firewall Rules configuration page as Screen Capture 2, but with a Windows Command Prompt window overlaid on the left side. The Command Prompt shows the results of a ping test to corporationontechs.com (172.40.0.20).

```
C:\Users\Administrator>ping corporationontechs.com

Pinging corporationontechs.com [172.40.0.20] with 32 bytes of data:
Request timed out.
Request timed out.
Request timed out.
Request timed out.

Ping statistics for 172.40.0.20:
    Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),

C:\Users\Administrator>ping corporationontechs.com

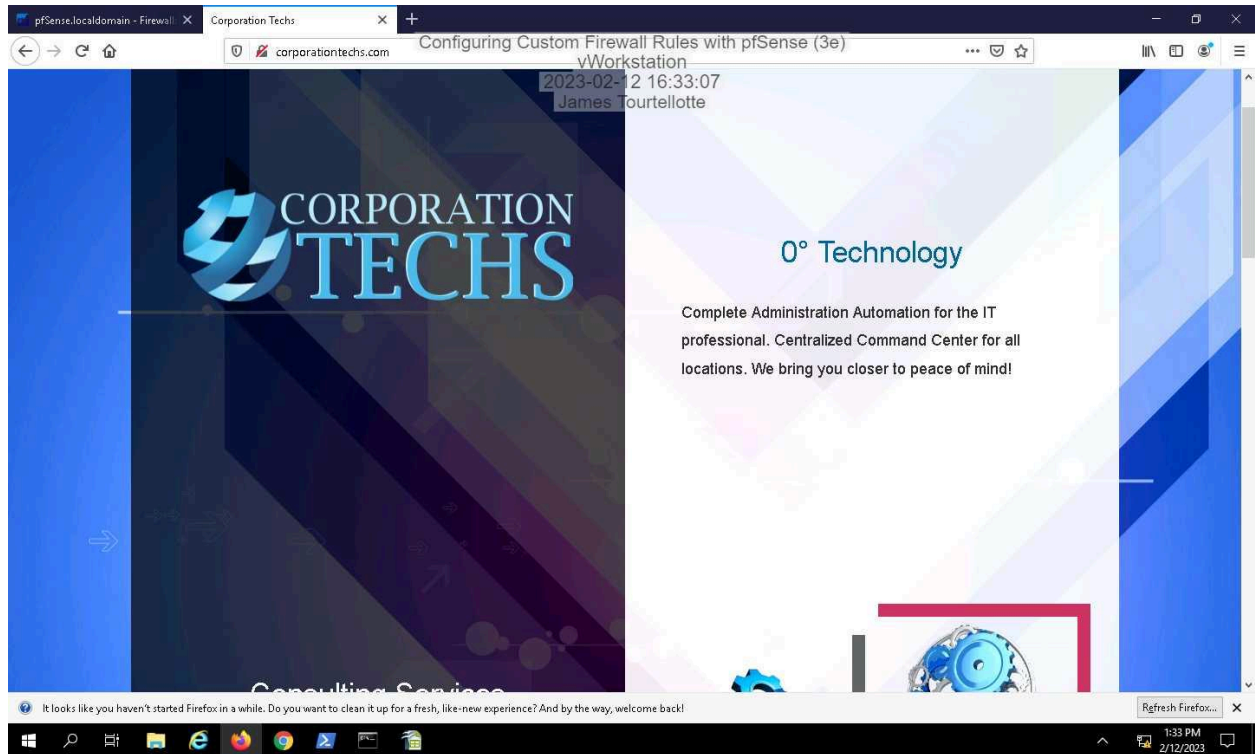
Pinging corporationontechs.com [172.40.0.20] with 32 bytes of data:
Reply from 172.40.0.20: bytes=32 time=0ms TTL=63
Reply from 172.40.0.20: bytes=32 time=0ms TTL=63
Reply from 172.40.0.20: bytes=32 time=0ms TTL=63
Reply from 172.40.0.20: bytes=32 time=0ms TTL=63

Ping statistics for 172.40.0.20:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms

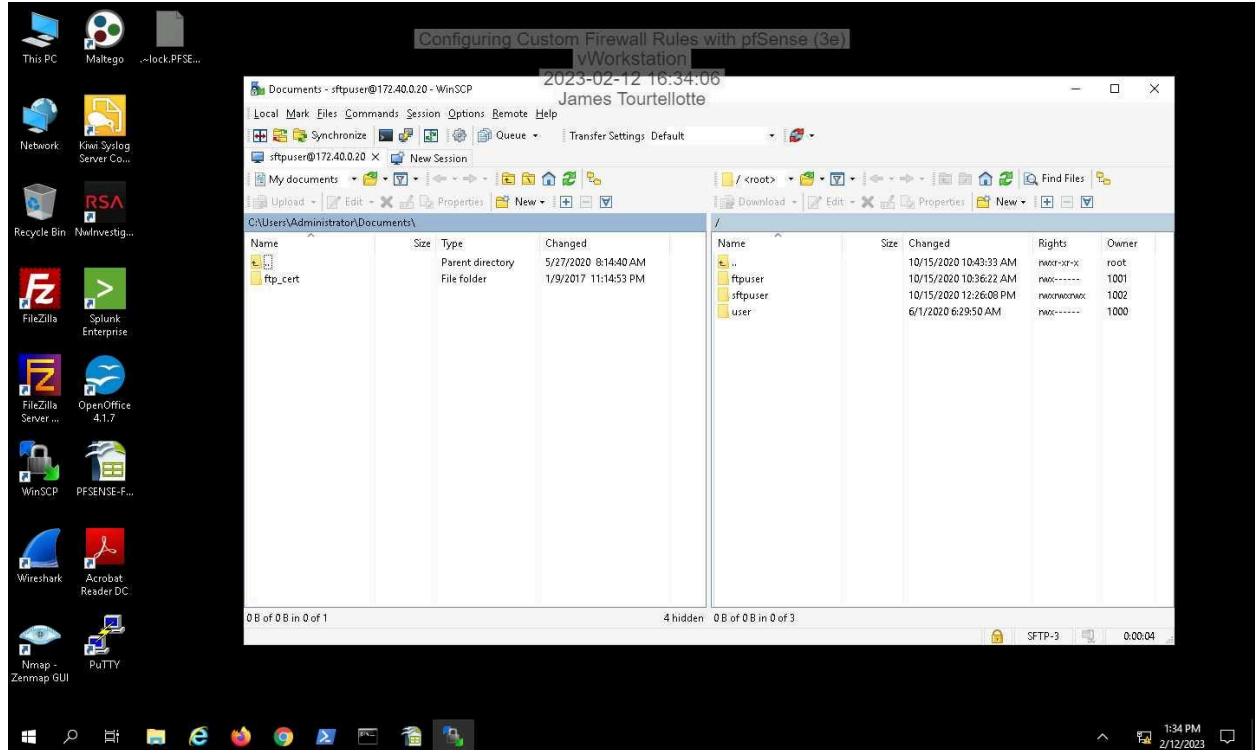
C:\Users\Administrator>
```

The pfSense interface in the background shows the same rules table as before. A small green notification box is visible on the right side of the interface. The system clock now shows 1:32 PM on 2/12/2023.

Screen Capture 4, Section 1:



Screen Capture 5, Section 1:



Screen Capture 1, Section 2:

PFSENSE-FW-PLANNER.ods - OpenOffice Calc

File Edit View Insert Format Tools Data Window Help

Configuring Custom Firewall Rules with pfSense (3e)

2023-02-12 16:39:16

James Tourtellotte

Lato 11 B / U

1	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
2	Action	Disabled	Interface	Address Family	Protocol	Invert	Type	Address	Subnet Mask	Invert	Type	Address	Subnet Mask	From	To	Log	Description	
3	Pass		WAN	IPv4	TCP		Any				Single Host	172.40.0.20		HTTP (80)	HTTP (80)		Web Server	
4	Pass		WAN	IPv4	TCP		Any				Single Host	172.40.0.20		SSH (22)	SSH (22)		Allow Remote Shell	
5	Pass		WAN	IPv4	UDP		Any				Single Host	172.40.0.20		VPN (1194)	VPN (1194)		Allow OpenVPN	

Sheet 2 / 2

PageStyle: Firewall Rules

STD

Sum=0

1:39 PM 2/12/2023

70%

Properties

Text

Lato 11

Alignment

Left indent: 0 pt

Text orientation: 0 degrees

Cell Appearance

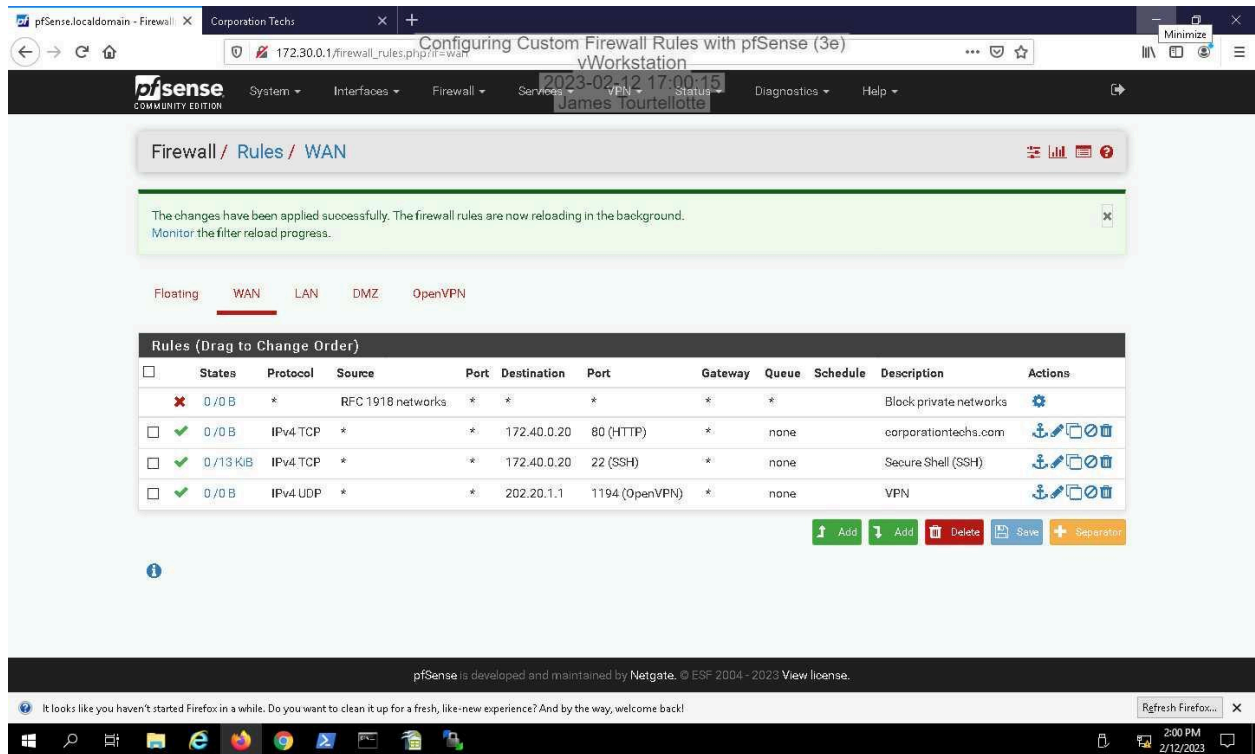
Cell background:

Cell border:

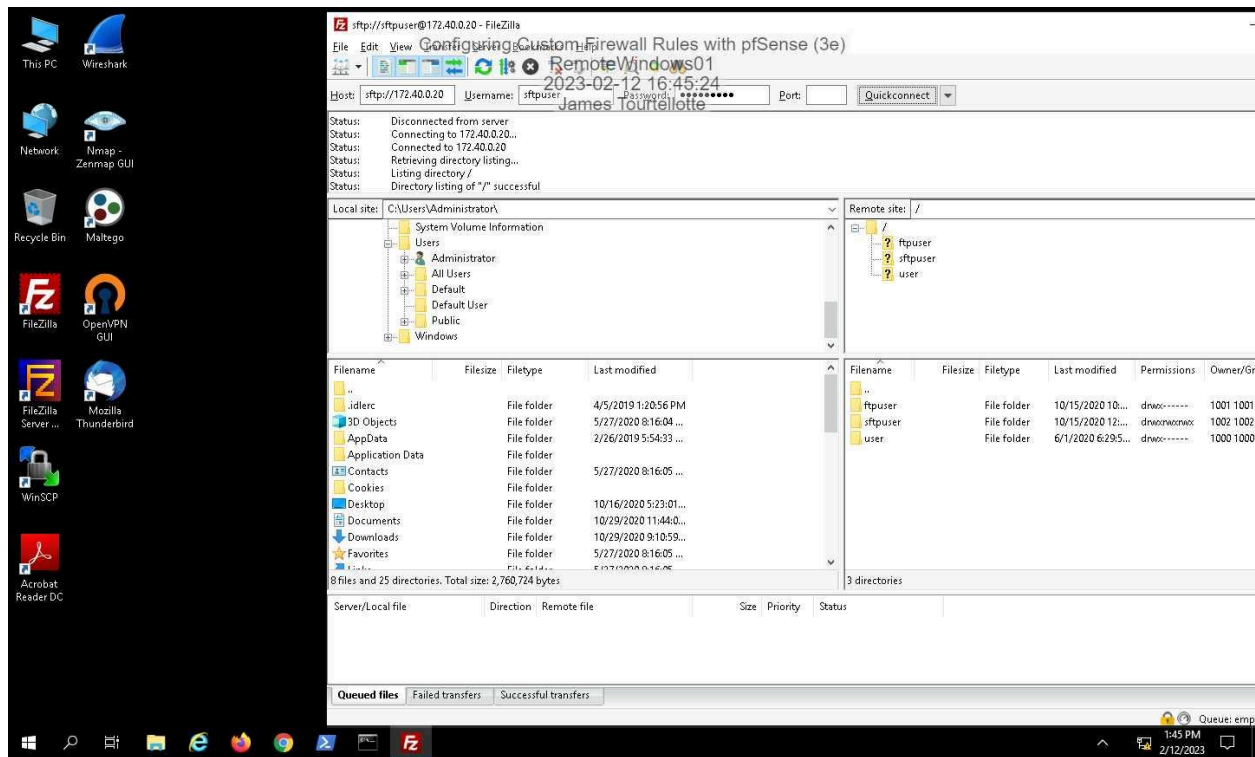
Show cell grid lines

Number Format

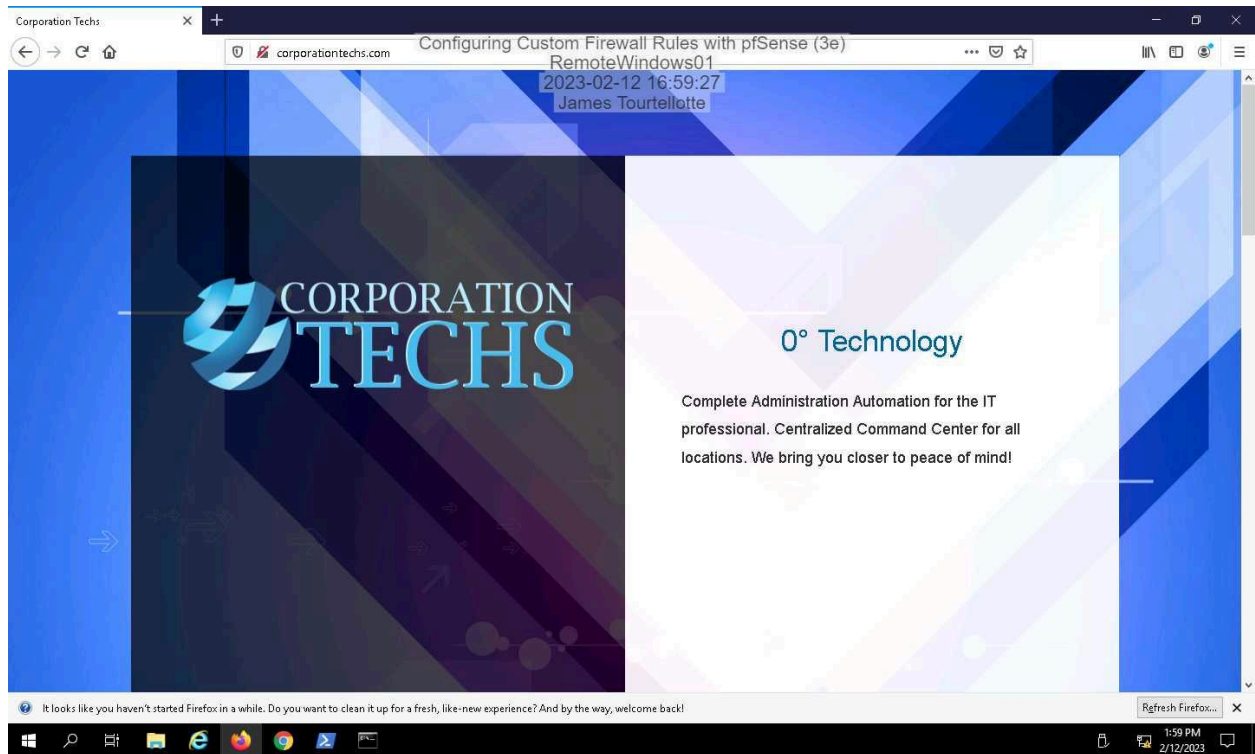
Screen Capture 2, Section 2:



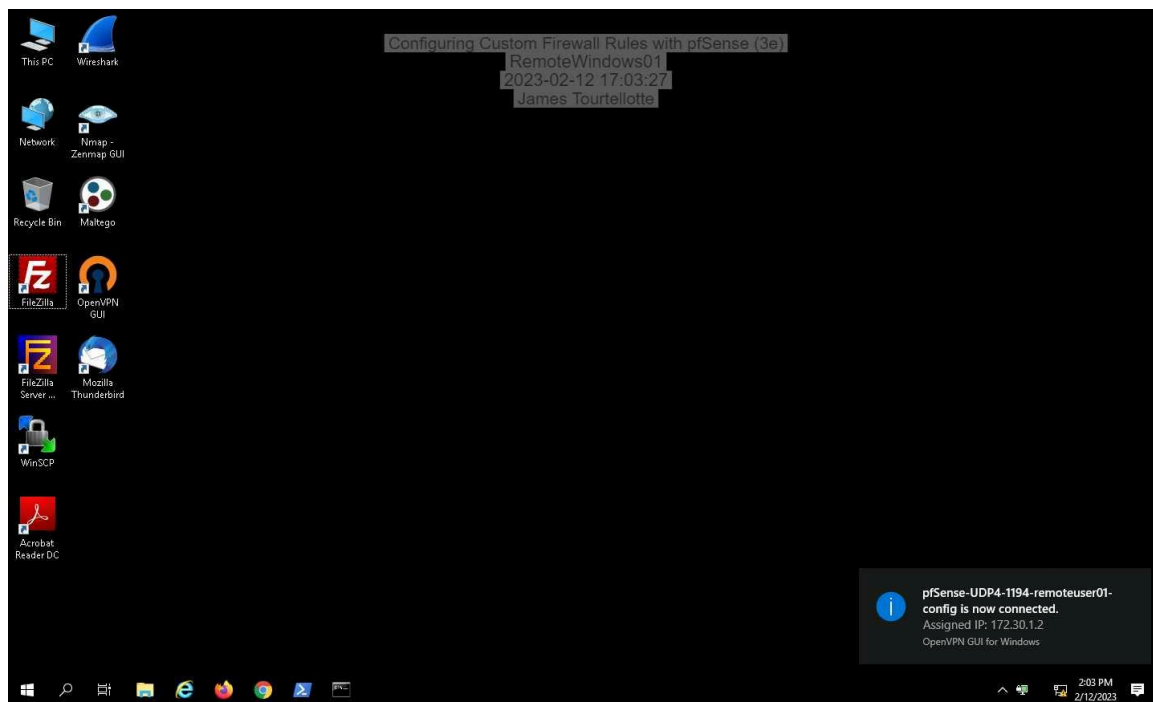
Screen Capture 3, Section 2:



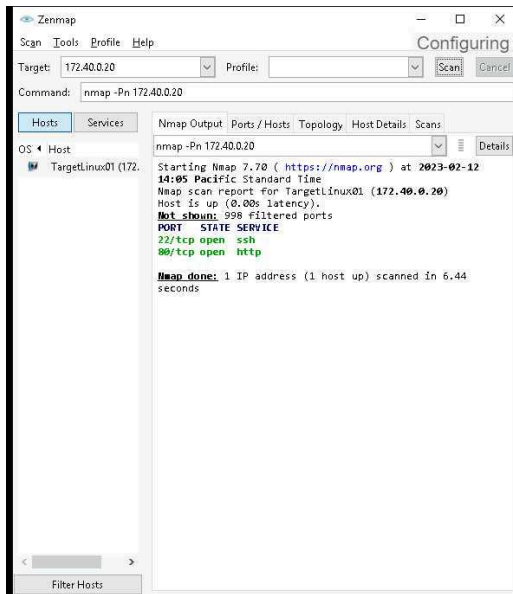
Screen Capture 4, Section 2:



Screen Capture 5, Section 2:



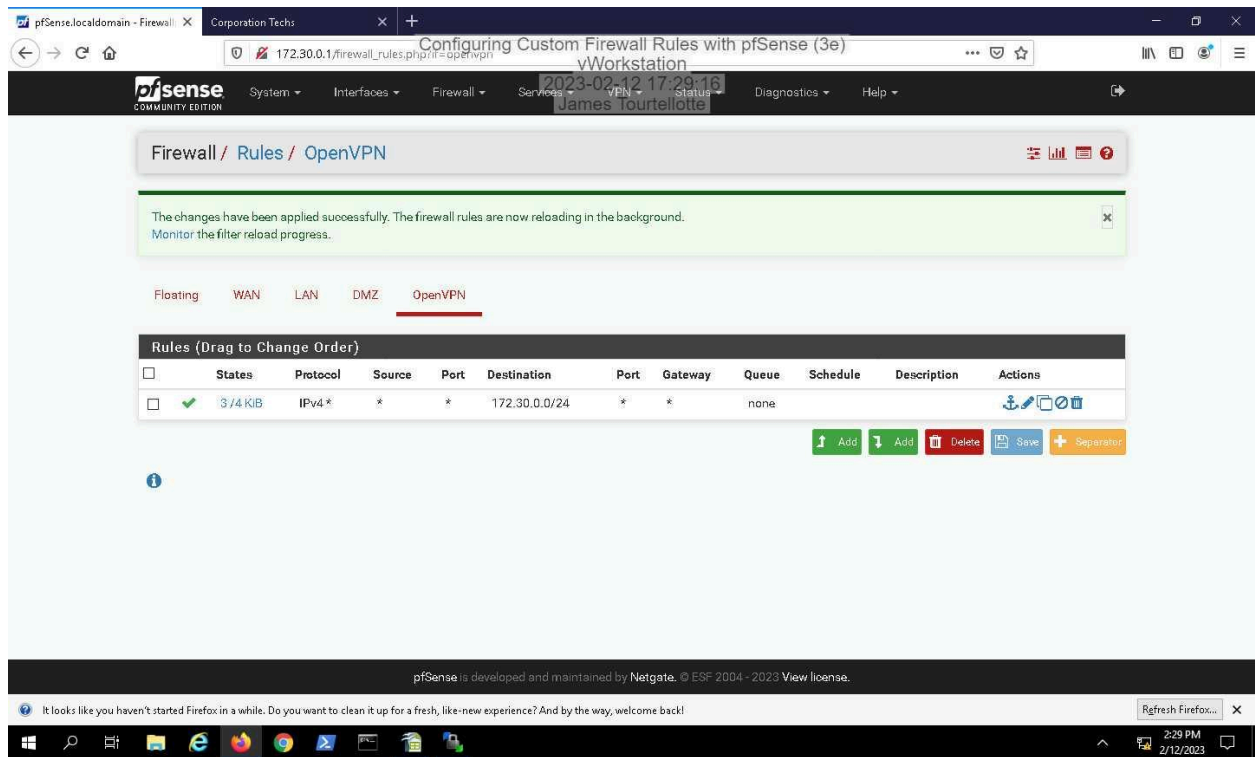
Screen Capture 6, section 2:



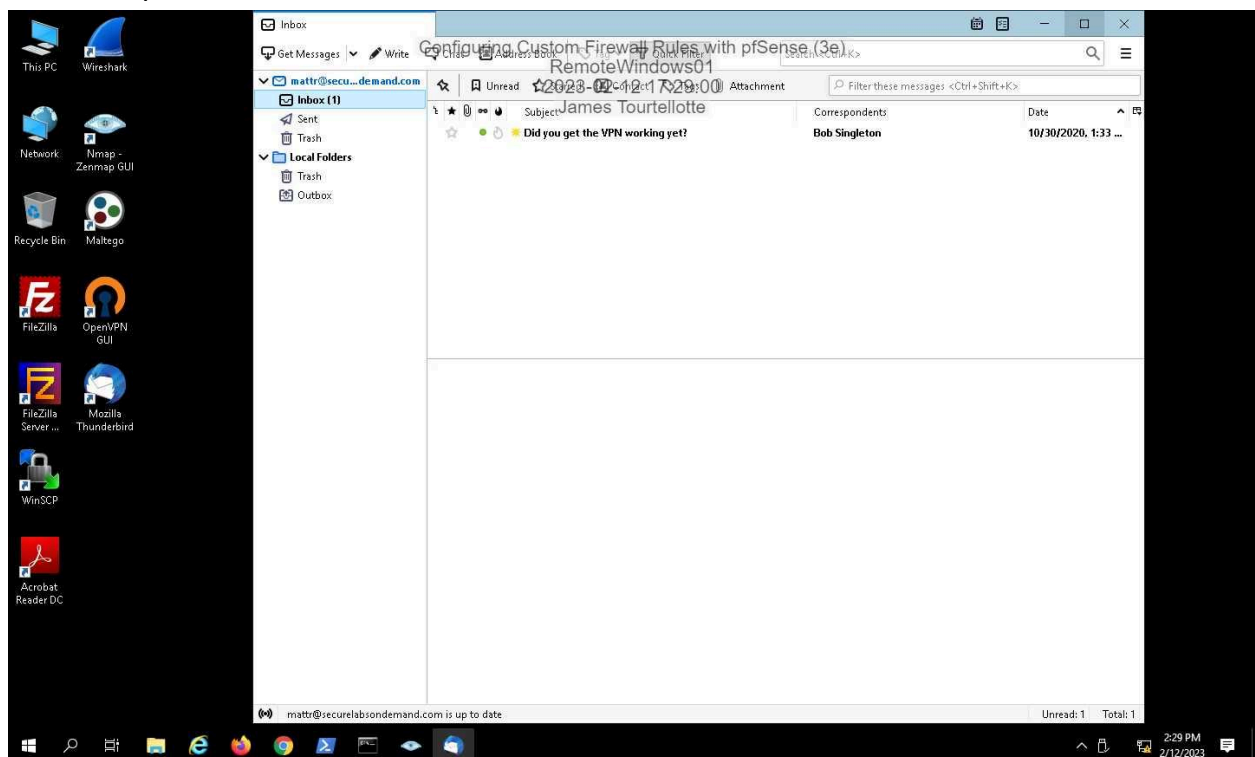
Configuring Custom Firewall Rules with pfSense (3e)
RemoteWindows01
2023-02-12 17:05:22
James Tourtellotte



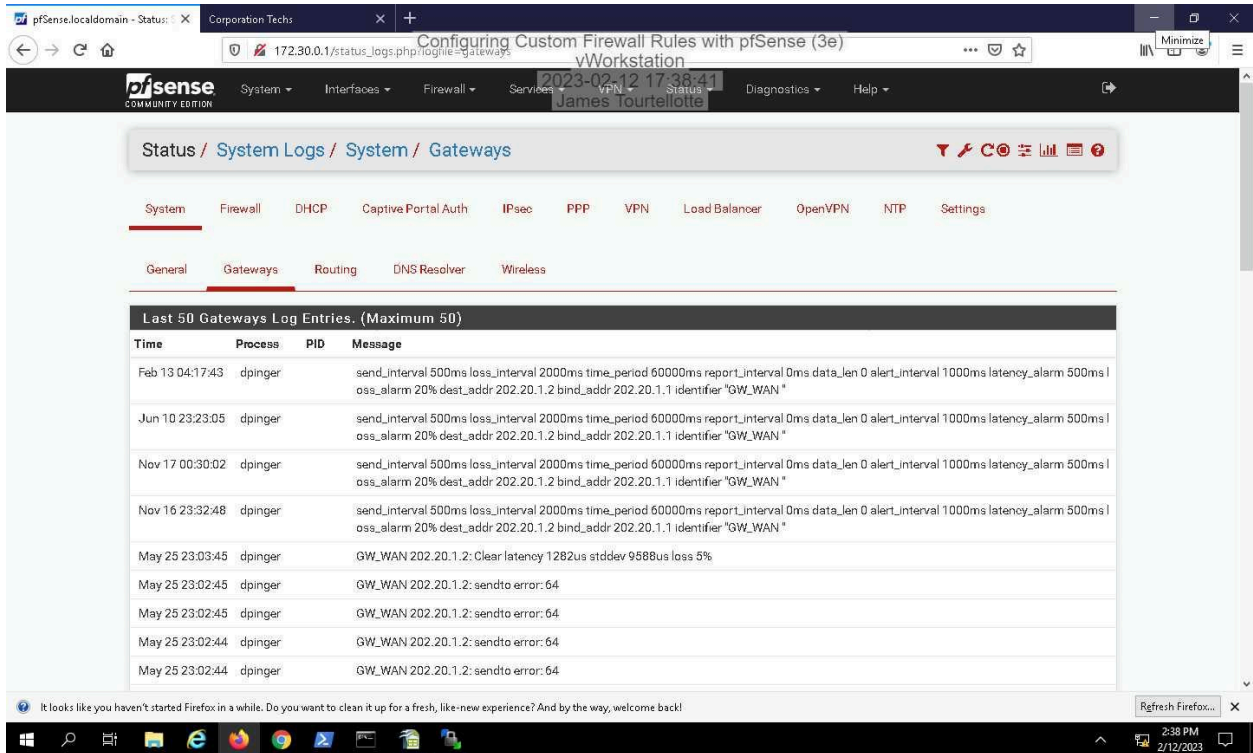
Screen Capture 1, Section 3:



Screen Capture 2, Section 3:



Screen Capture 3, Section 3:



The screenshot shows the pfSense web interface with the 'Gateways' tab selected under 'System Logs'. The 'Last 50 Gateways Log Entries. (Maximum 50)' table is displayed, showing various log messages from the 'dpinger' process. The messages include configuration details for GW_WAN and several 'sendto error: 64' entries.

Time	Process	PID	Message
Feb 13 04:17:43	dpinger		send_interval 500ms loss_interval 2000ms time_period 60000ms report_interval 0ms data_len 0 alert_interval 1000ms latency_alarm 500ms loss_alarm 20% dest_addr 202.20.1.2 bind_addr 202.20.1.1 identifier "GW_WAN"
Jun 10 23:23:05	dpinger		send_interval 500ms loss_interval 2000ms time_period 60000ms report_interval 0ms data_len 0 alert_interval 1000ms latency_alarm 500ms loss_alarm 20% dest_addr 202.20.1.2 bind_addr 202.20.1.1 identifier "GW_WAN"
Nov 17 00:30:02	dpinger		send_interval 500ms loss_interval 2000ms time_period 60000ms report_interval 0ms data_len 0 alert_interval 1000ms latency_alarm 500ms loss_alarm 20% dest_addr 202.20.1.2 bind_addr 202.20.1.1 identifier "GW_WAN"
Nov 16 23:32:48	dpinger		send_interval 500ms loss_interval 2000ms time_period 60000ms report_interval 0ms data_len 0 alert_interval 1000ms latency_alarm 500ms loss_alarm 20% dest_addr 202.20.1.2 bind_addr 202.20.1.1 identifier "GW_WAN"
May 25 23:03:45	dpinger		GW_WAN 202.20.1.2: Clear latency 1282us stddev 9588us loss 5%
May 25 23:02:45	dpinger		GW_WAN 202.20.1.2: sendto error: 64
May 25 23:02:45	dpinger		GW_WAN 202.20.1.2: sendto error: 64
May 25 23:02:44	dpinger		GW_WAN 202.20.1.2: sendto error: 64
May 25 23:02:44	dpinger		GW_WAN 202.20.1.2: sendto error: 64

At the bottom of the screen, a Windows taskbar is visible with the system clock showing 2:38 PM on 2/12/2023.