Configure and Verify Syslog in Firepower Device Manager

Contents

Introduction

This document describes how to configure **Syslog** within the **Firepower Device Manage**r (FDM).

Prerequisites

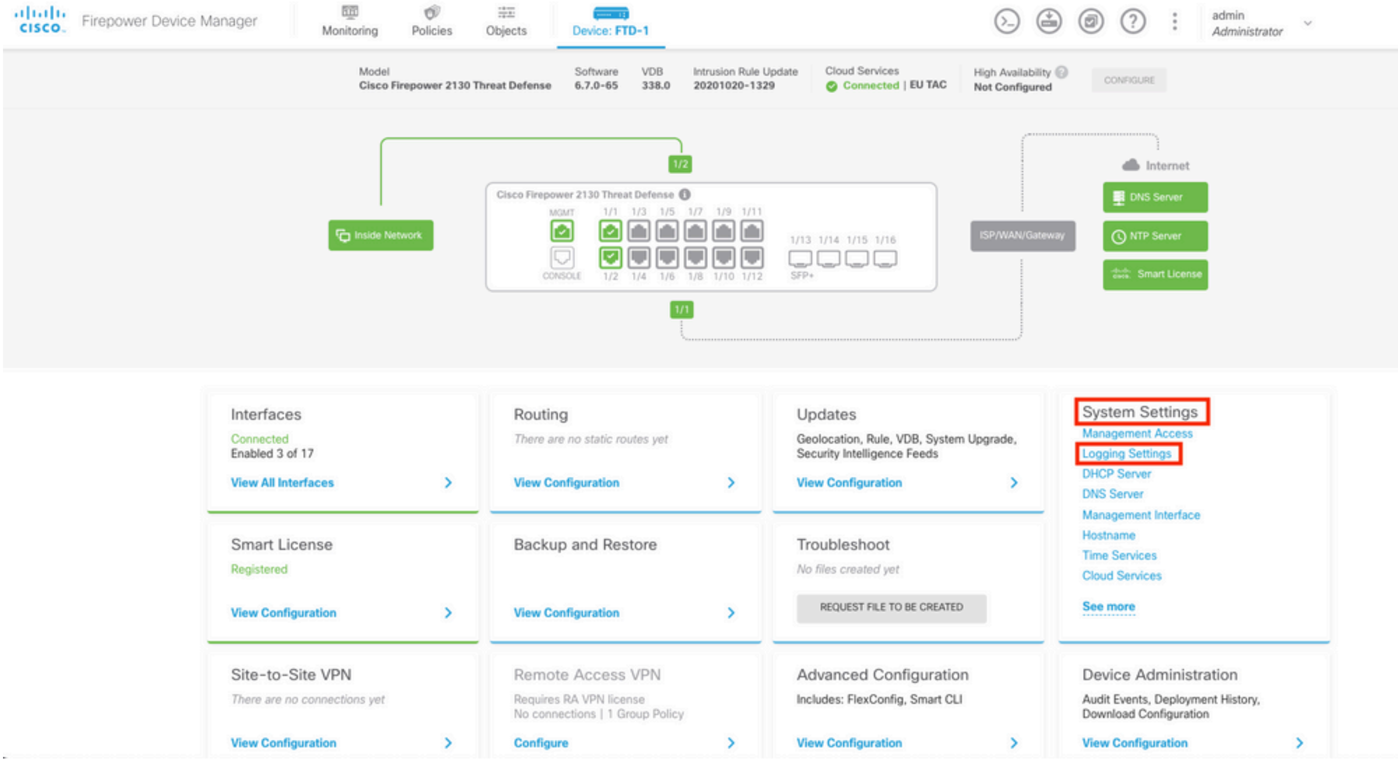
Requirements

Cisco recommends that you have knowledge of these topics:

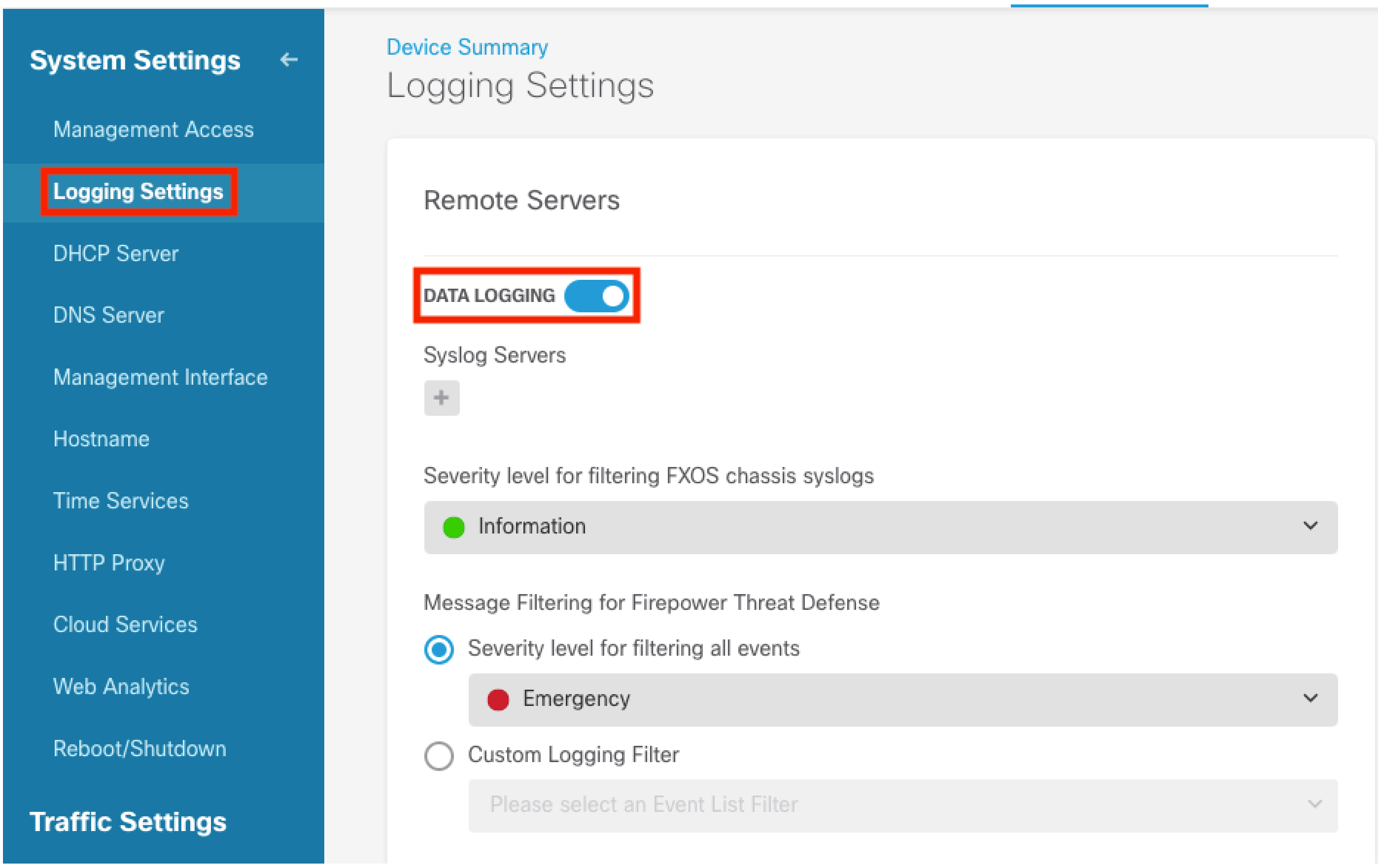
- **Firepower Threat Defense**
- **Syslog Server** running **Syslog Software** to collect data

Configurations

Step 1. From the Main **Firepower Device Manager** screen, select the **Logging Settings** under the **System Settings** in the lower right corner of the screen.



Step 2. On the **System Settings** screen, select the **Logging Settings** in the left menu.



DATA LOGGING ●

Syslog Servers

+

Severity level for filtering FXOS chassis syslogs: Information

Message Filtering for Firepower Threat Defense

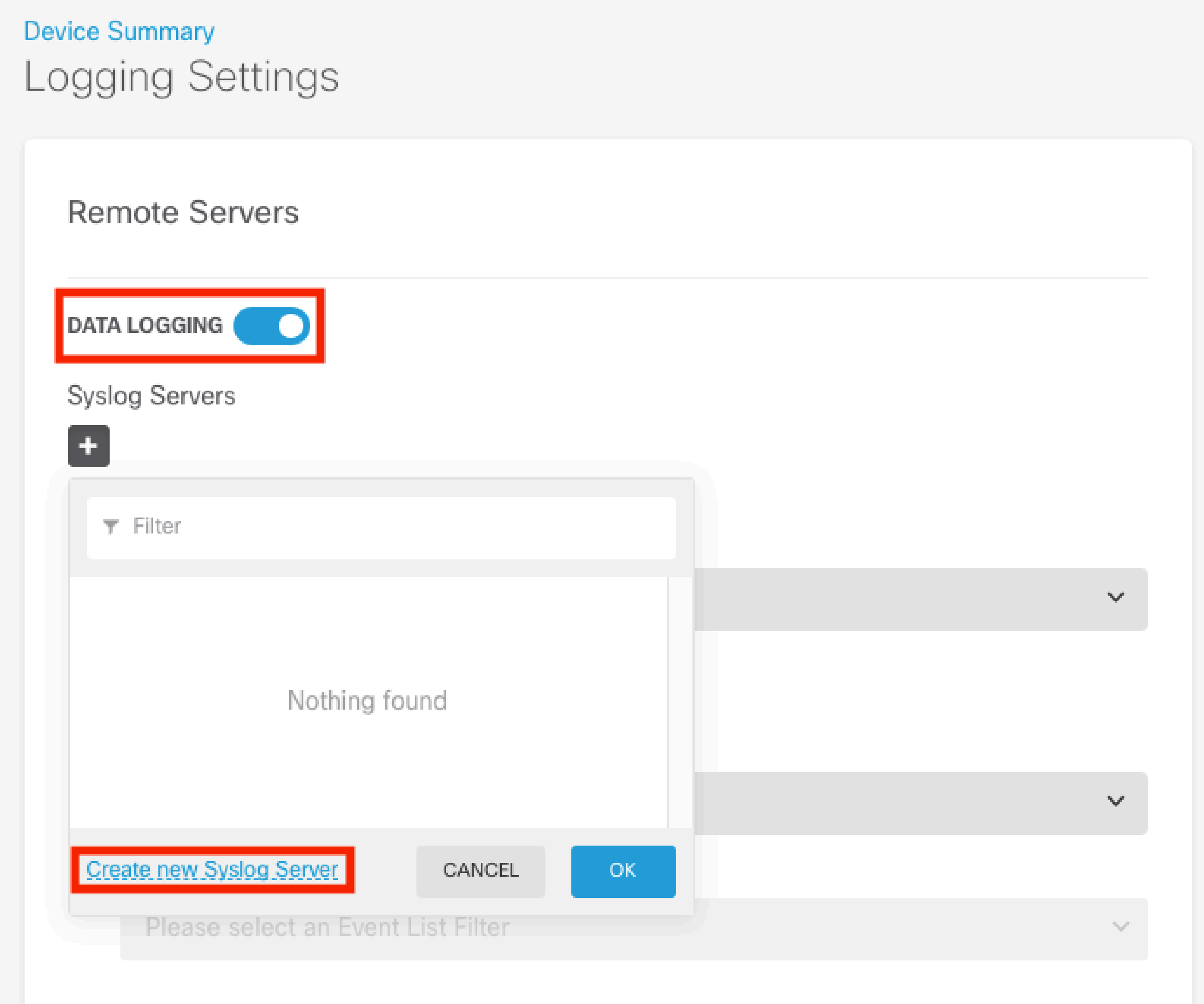
● Severity level for filtering all events: Emergency

○ Custom Logging Filter: Please select an Event List Filter

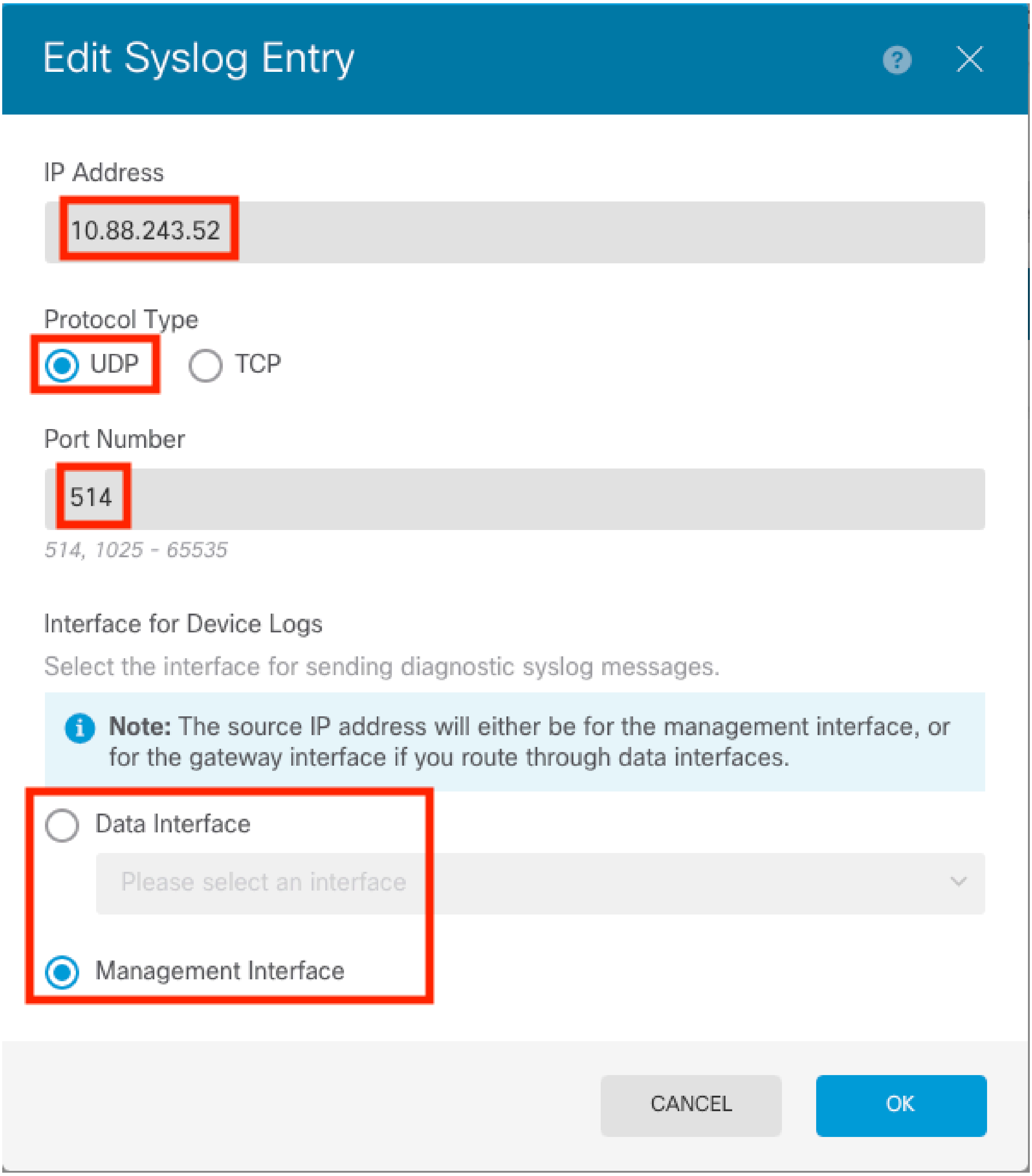
Step 3. Set the **Data Logging** toggle switch, select the + sign under **Syslog Servers**.

Step 4. Select Add **Syslog Server**. Alternatively, you can create the **Syslog Server** object in **Objects -**

Syslog Servers.



Step 5. Enter the IP address of your **Syslog Server** and port number. Select the radio button for **Data Interface** and click **OK**.



Edit Syslog Entry

IP Address

10.88.243.52

Protocol Type

● UDP ○ TCP

Port Number

514

514, 1025 - 65535

Interface for Device Logs

Select the interface for sending diagnostic syslog messages.

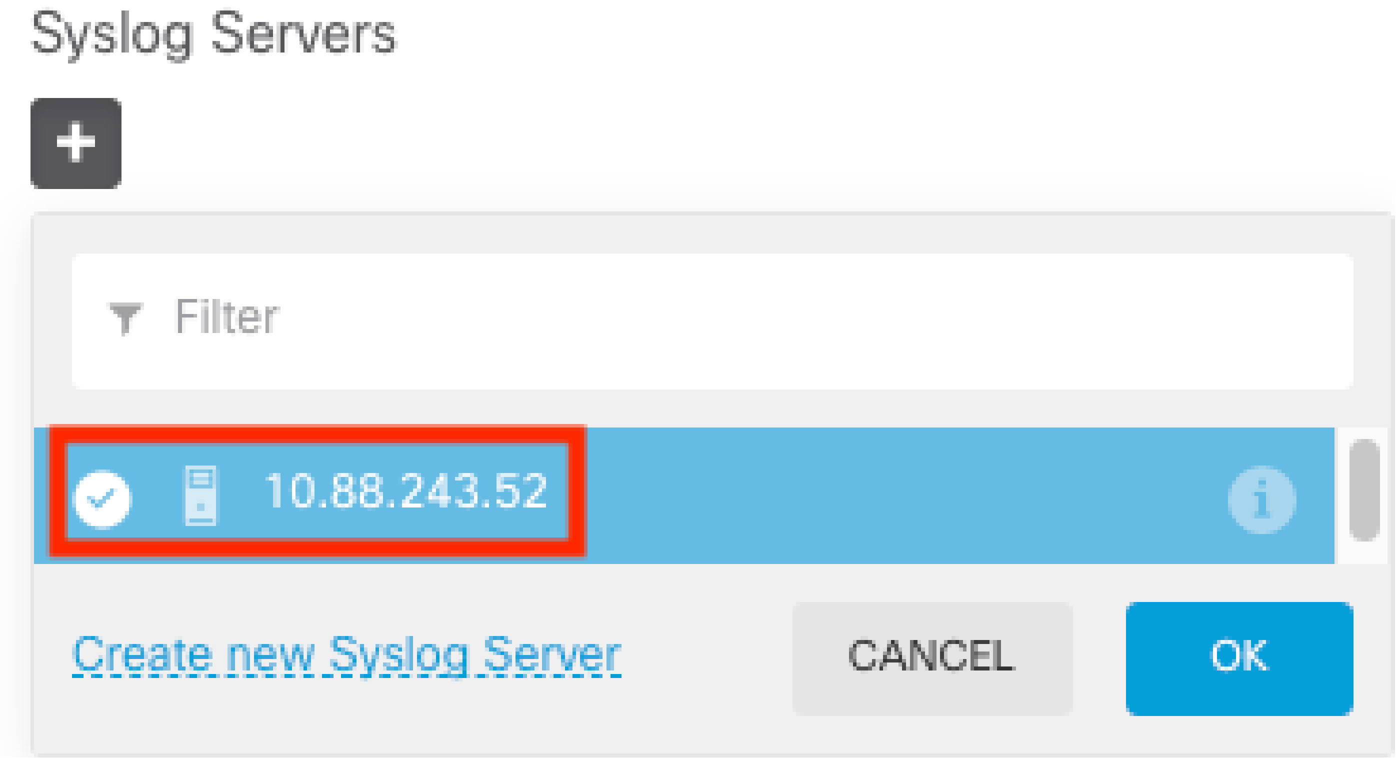
Note: The source IP address will either be for the management interface, or for the gateway interface if you route through data interfaces.

○ Data Interface

Please select an interface

● Management Interface

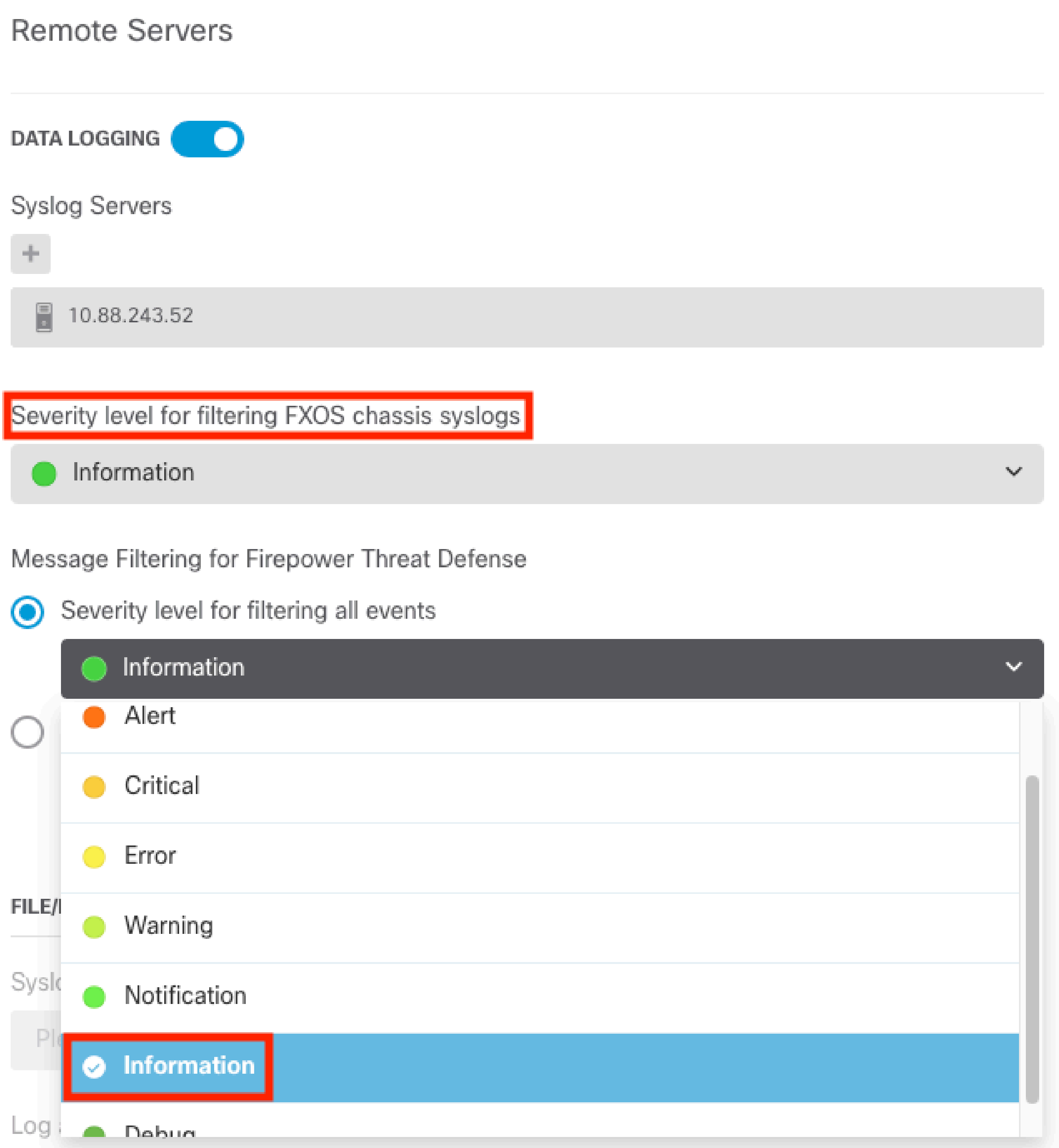
Step 6. Select the new Syslog server and click **OK**.



Syslog Servers

10.88.243.52

Step 7. Select the Severity level to filter with the all events radio button and select your desired logging level.



Remote Servers

DATA LOGGING: on

Syslog Servers

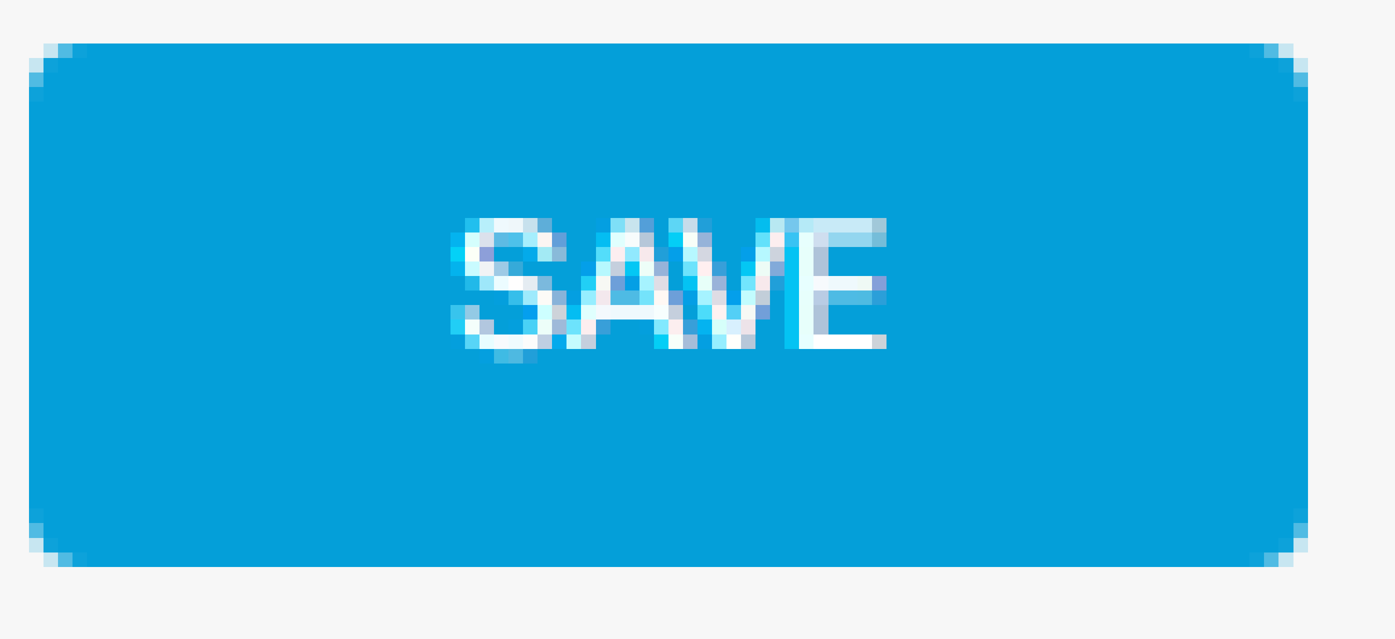
10.88.243.52

Severity level for filtering FXOS chassis syslogs: Information

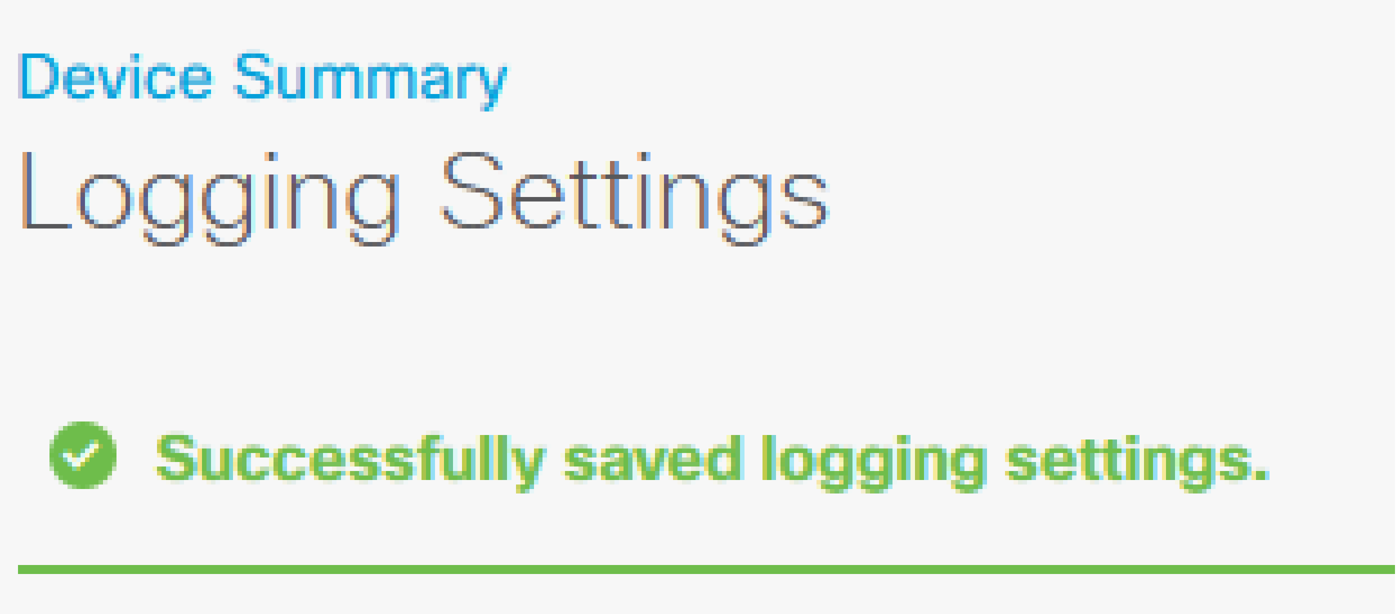
Message Filtering for Firepower Threat Defense

● Severity level for filtering all events: Information

Step 8. Click **Save** at the bottom of the screen.



Step 9. Verify the settings were successful.

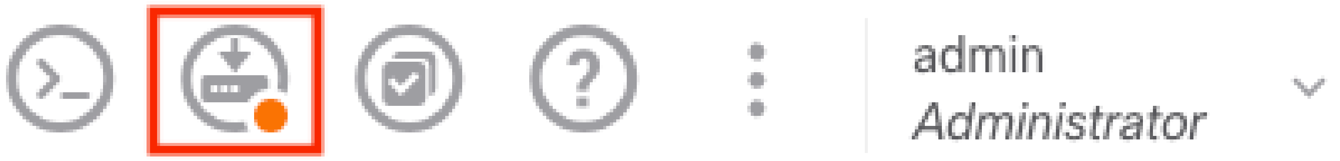


Device Summary

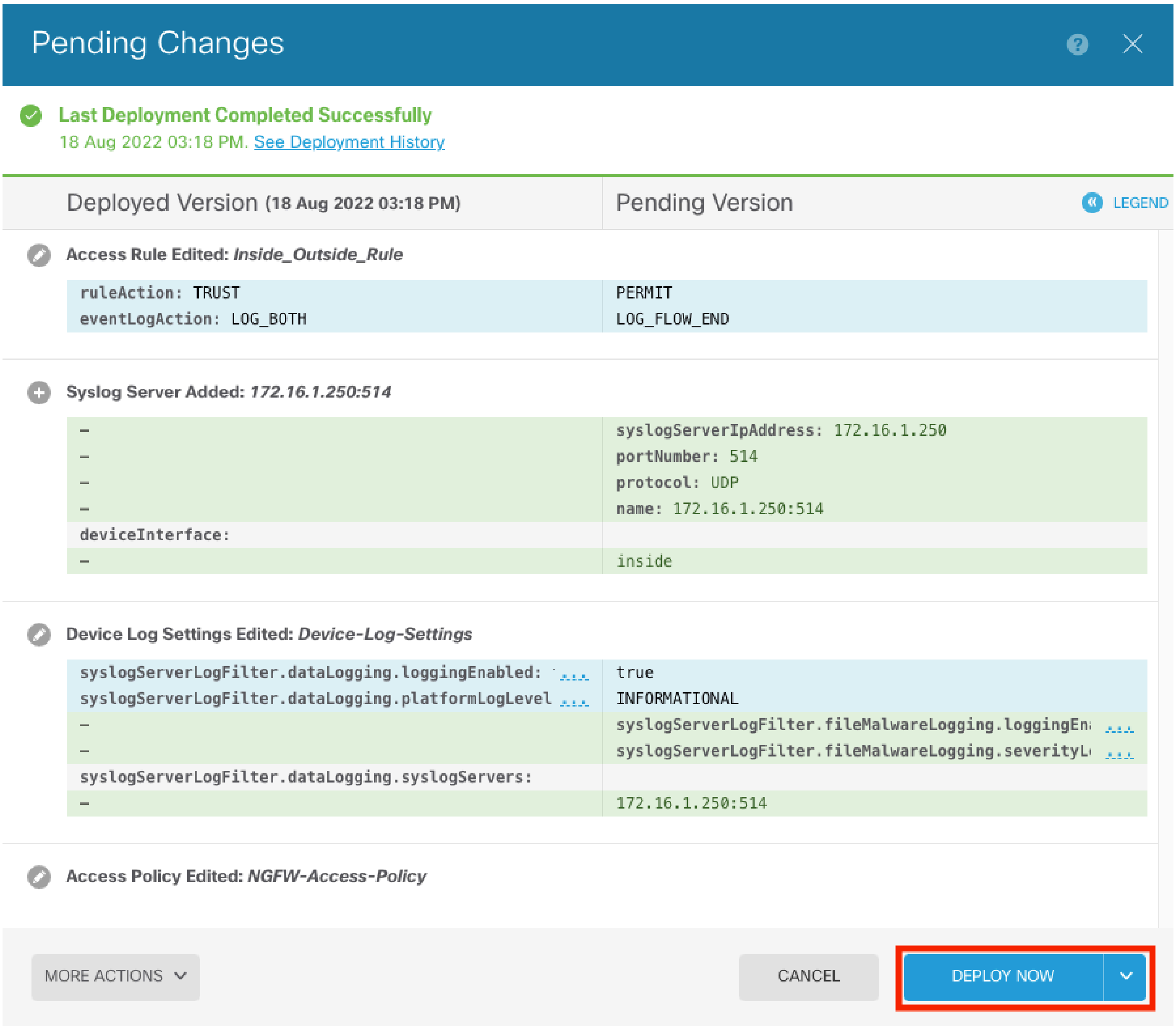
Logging Settings

Successfully saved logging settings.

Step 10. Deploy the new settings.



And



Pending Changes

Last Deployment Completed Successfully

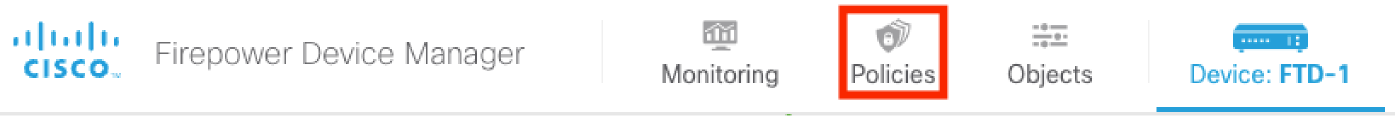
18 Aug 2022 03:18 PM. See Deployment History

Deployed Version (18 Aug 2022 03:18 PM)	Pending Version
Access Rule Edited: *Inside_Outside_Rule*	
ruleAction: TRUST	PERMIT
eventLogAction: LOG_BOTH	LOG_FLOW_END
Syslog Server Added: *172.16.1.250:514*	
–	syslogServerIpAddress: 172.16.1.250
–	portNumber: 514
–	protocol: UDP
–	name: 172.16.1.250:514
deviceInterface:	
–	inside
Device Log Settings Edited: *Device-Log-Settings*	
syslogServerLogFilter.dataLogging.loggingEnabled: ...	true
syslogServerLogFilter.dataLogging.platformLogLevel ...	INFORMATIONAL
–	syslogServerLogFilter.fileMalwareLogging.loggingEn ...
–	syslogServerLogFilter.fileMalwareLogging.severityL ...
syslogServerLogFilter.dataLogging.syslogServers:	
–	172.16.1.250:514
Access Policy Edited: *NGFW-Access-Policy*	

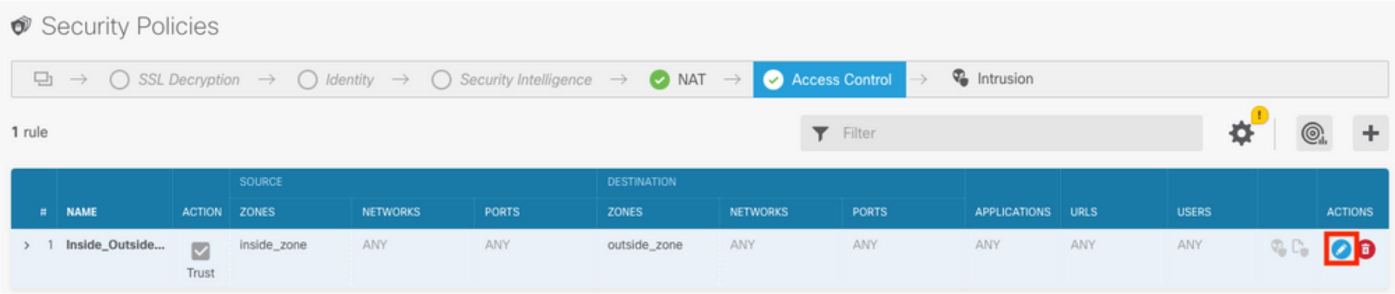
OPTIONAL.

Additionally, the **Access Control Policy** access control rules can be set to log into the **Syslog** server:

Step 1. Click **Policies** at the top of the screen.



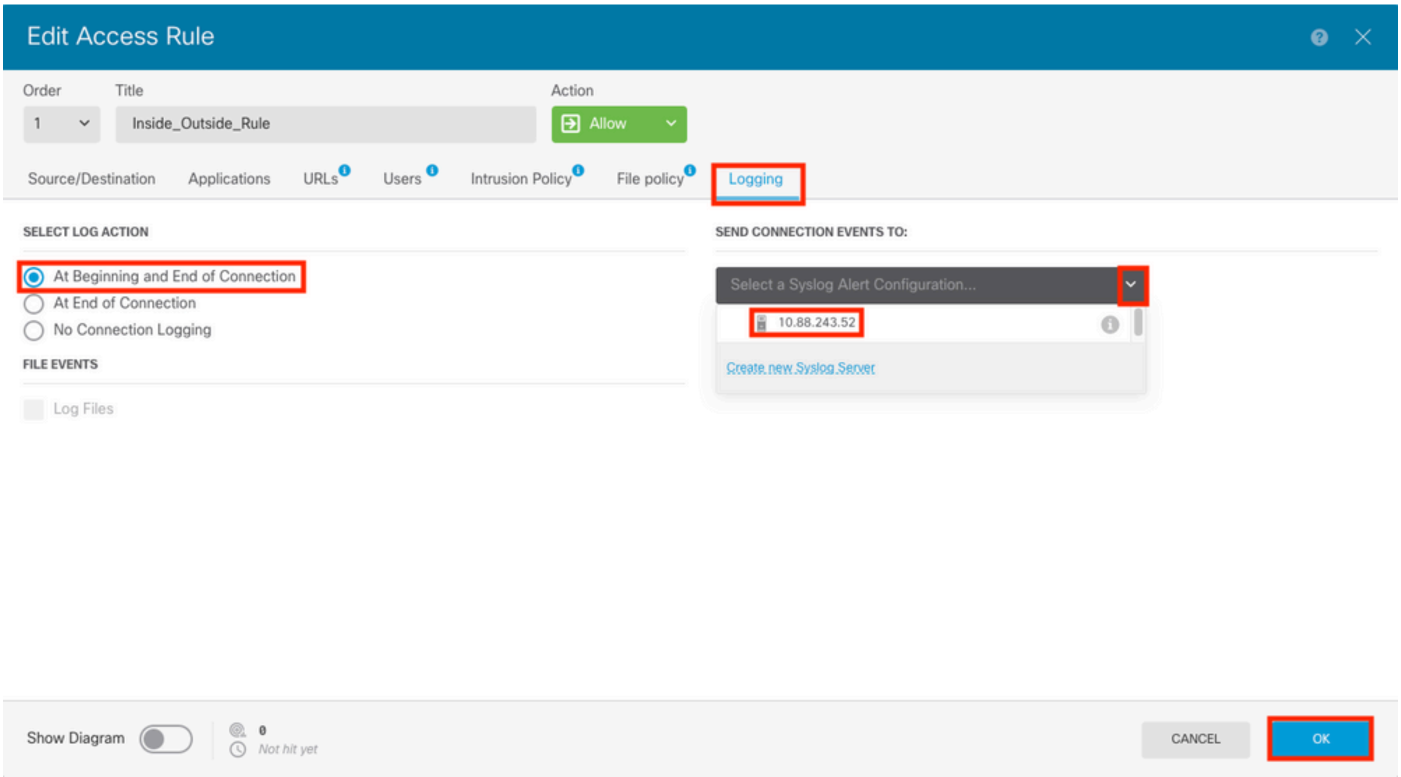
Step 2. Hover over the right side of the ACP rule to add logging and select the pencil icon.


Security Policies
SSL Decryption → Identity → Security Intelligence → NAT → Access Control → Intrusion
Filter

1 rule

			SOURCE			DESTINATION						
#	NAME	ACTION	ZONES	NETWORKS	PORTS	ZONES	NETWORKS	PORTS	APPLICATIONS	URLS	USERS	ACTIONS
1	Inside_Outside...	Trust	inside_zone	ANY	ANY	outside_zone	ANY	ANY	ANY	ANY	ANY	

Step 3. Select the **Logging** tab, Select the radio button for **At End of Connection**, Select the drop-down arrow under **Select a Syslog Alert Configuration**, select the **Syslog Server** and click **OK**.



Order: 1

Title: Inside_Outside_Rule

Action: Allow

SELECT LOG ACTION

● At Beginning and End of Connection

○ At End of Connection

○ No Connection Logging

FILE EVENTS

□ Log Files

SEND CONNECTION EVENTS TO:

Select a Syslog Alert Configuration...

10.88.243.52

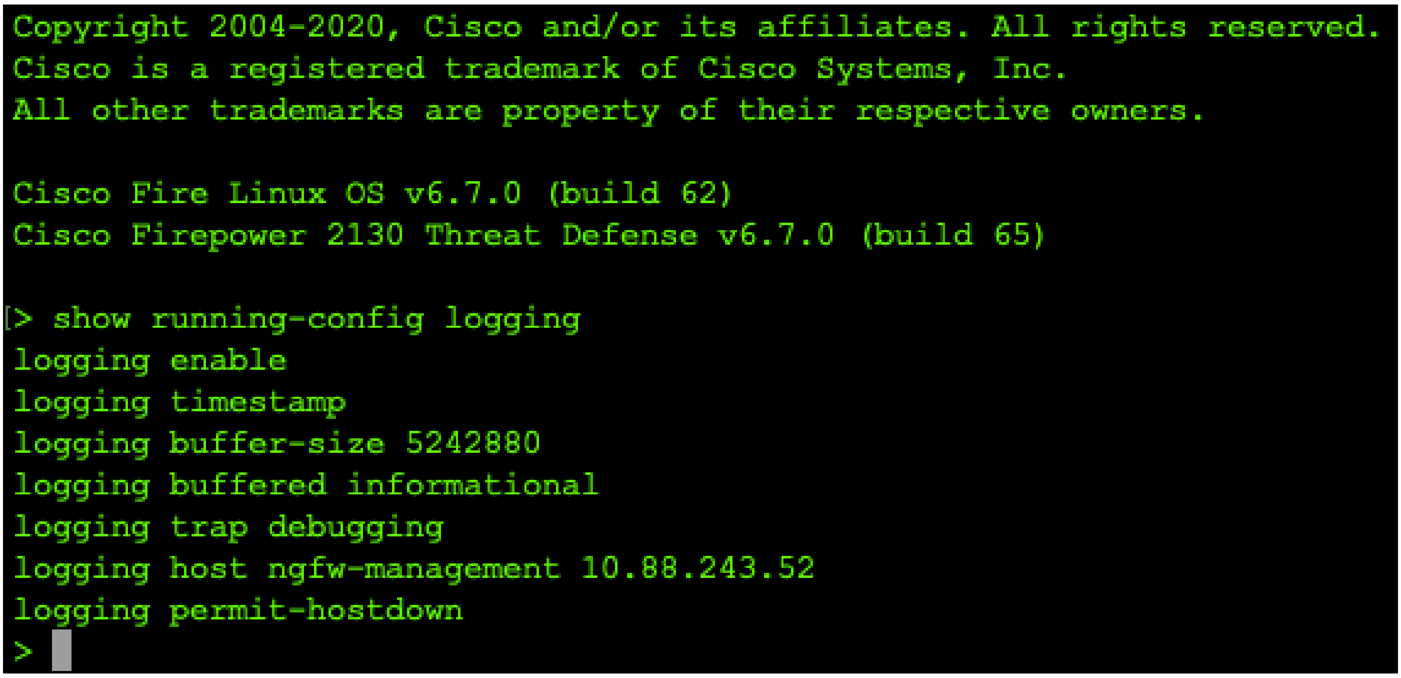
0

Not hit yet

Step 4. Deploy the configuration changes.

Verify

Step 1. After the task completes, verify the settings in the **FTD CLI Clish Mode** with the **show running-config logging** command.



```
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Cisco Fire Linux OS v6.7.0 (build 62)
Cisco Firepower 2130 Threat Defense v6.7.0 (build 65)

> show running-config logging
logging enable
logging timestamp
logging buffer-size 5242880
logging buffered informational
logging trap debugging
logging host ngfw-management 10.88.243.52
logging permit-hostdown
> 
```
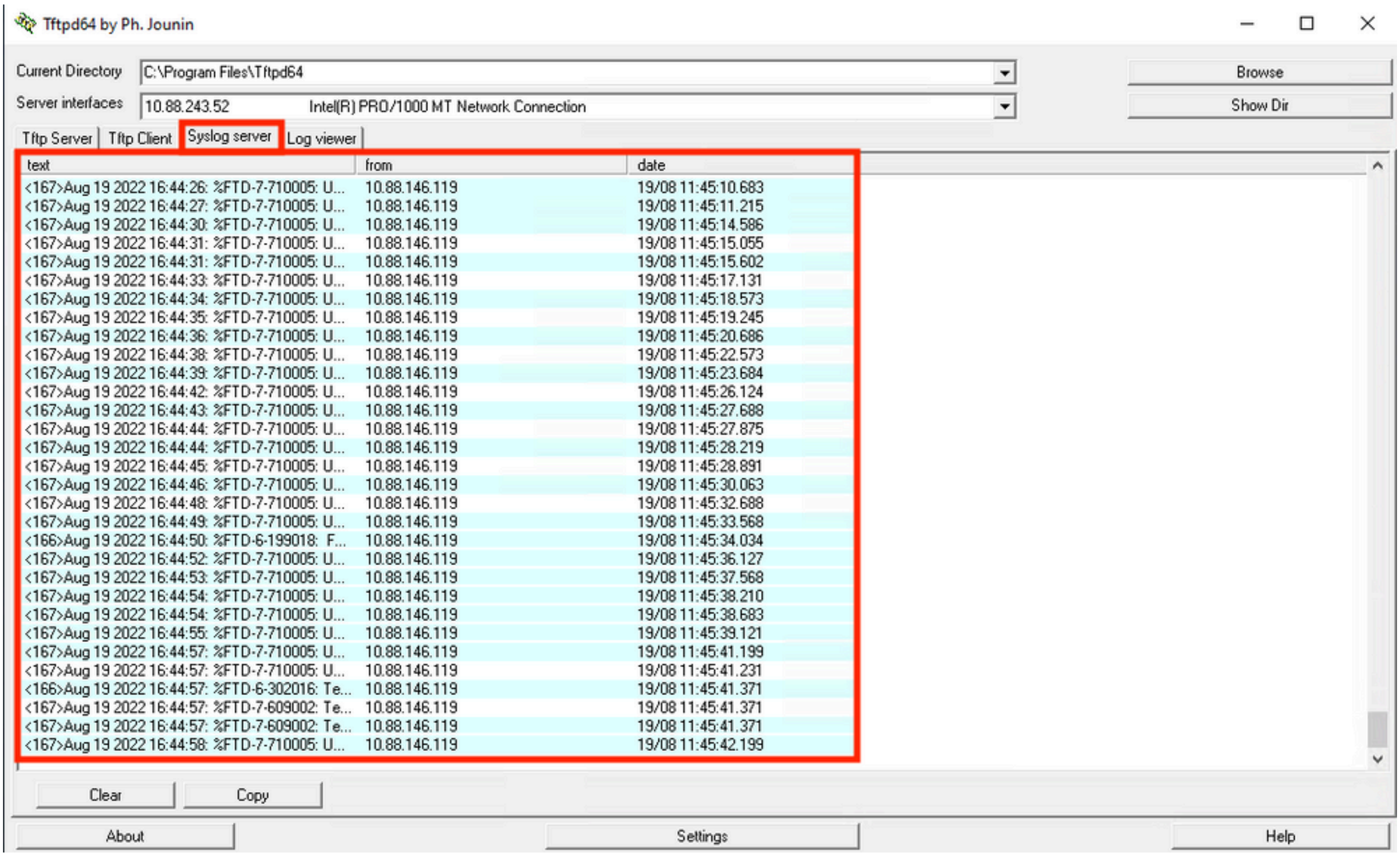

Step 2. Navigate to the Syslog server and verify that the Syslog server application accepts the Syslog messages.



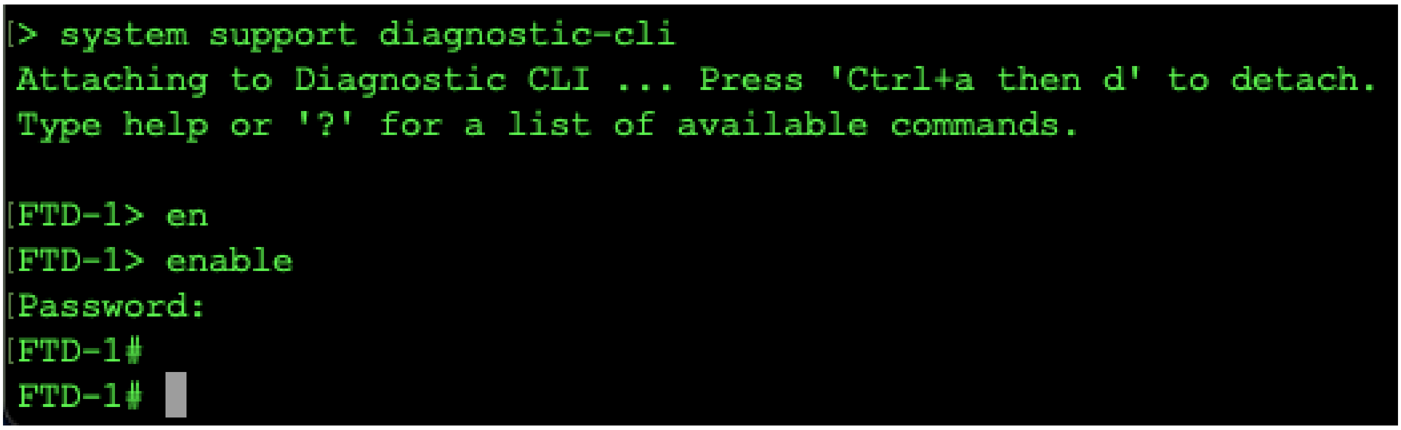
Current Directory: C:\Program Files\Tftpd64

Server interfaces: 10.88.243.52 Intel(R) PRO/1000 MT Network Connection

text	from	date
<167>Aug 19 2022 16:44:26: %FTD-7-710005: U...	10.88.146.119	19/08 11:45:10.683
<167>Aug 19 2022 16:44:27: %FTD-7-710005: U...	10.88.146.119	19/08 11:45:11.215
<167>Aug 19 2022 16:44:30: %FTD-7-710005: U...	10.88.146.119	19/08 11:45:14.586
<167>Aug 19 2022 16:44:31: %FTD-7-710005: U...	10.88.146.119	19/08 11:45:15.055
<167>Aug 19 2022 16:44:31: %FTD-7-710005: U...	10.88.146.119	19/08 11:45:15.602
<167>Aug 19 2022 16:44:33: %FTD-7-710005: U...	10.88.146.119	19/08 11:45:17.131
<167>Aug 19 2022 16:44:34: %FTD-7-710005: U...	10.88.146.119	19/08 11:45:18.573
<167>Aug 19 2022 16:44:35: %FTD-7-710005: U...	10.88.146.119	19/08 11:45:19.245
<167>Aug 19 2022 16:44:36: %FTD-7-710005: U...	10.88.146.119	19/08 11:45:20.686
<167>Aug 19 2022 16:44:38: %FTD-7-710005: U...	10.88.146.119	19/08 11:45:22.573
<167>Aug 19 2022 16:44:39: %FTD-7-710005: U...	10.88.146.119	19/08 11:45:23.684
<167>Aug 19 2022 16:44:42: %FTD-7-710005: U...	10.88.146.119	19/08 11:45:26.124
<167>Aug 19 2022 16:44:43: %FTD-7-710005: U...	10.88.146.119	19/08 11:45:27.688
<167>Aug 19 2022 16:44:44: %FTD-7-710005: U...	10.88.146.119	19/08 11:45:27.875
<167>Aug 19 2022 16:44:44: %FTD-7-710005: U...	10.88.146.119	19/08 11:45:28.219
<167>Aug 19 2022 16:44:45: %FTD-7-710005: U...	10.88.146.119	19/08 11:45:28.891
<167>Aug 19 2022 16:44:46: %FTD-7-710005: U...	10.88.146.119	19/08 11:45:30.063
<167>Aug 19 2022 16:44:48: %FTD-7-710005: U...	10.88.146.119	19/08 11:45:32.688
<167>Aug 19 2022 16:44:49: %FTD-7-710005: U...	10.88.146.119	19/08 11:45:33.568
<166>Aug 19 2022 16:44:50: %FTD-6-199018: F...	10.88.146.119	19/08 11:45:34.034
<167>Aug 19 2022 16:44:52: %FTD-7-710005: U...	10.88.146.119	19/08 11:45:36.127
<167>Aug 19 2022 16:44:53: %FTD-7-710005: U...	10.88.146.119	19/08 11:45:37.568
<167>Aug 19 2022 16:44:54: %FTD-7-710005: U...	10.88.146.119	19/08 11:45:38.210
<167>Aug 19 2022 16:44:54: %FTD-7-710005: U...	10.88.146.119	19/08 11:45:38.683
<167>Aug 19 2022 16:44:55: %FTD-7-710005: U...	10.88.146.119	19/08 11:45:39.121
<167>Aug 19 2022 16:44:57: %FTD-7-710005: U...	10.88.146.119	19/08 11:45:41.199
<167>Aug 19 2022 16:44:57: %FTD-7-710005: U...	10.88.146.119	19/08 11:45:41.231
<166>Aug 19 2022 16:44:57: %FTD-6-302016: Te...	10.88.146.119	19/08 11:45:41.371
<167>Aug 19 2022 16:44:57: %FTD-7-609002: Te...	10.88.146.119	19/08 11:45:41.371
<167>Aug 19 2022 16:44:57: %FTD-7-609002: Te...	10.88.146.119	19/08 11:45:41.371
<167>Aug 19 2022 16:44:58: %FTD-7-710005: U...	10.88.146.119	19/08 11:45:42.199

Troubleshoot

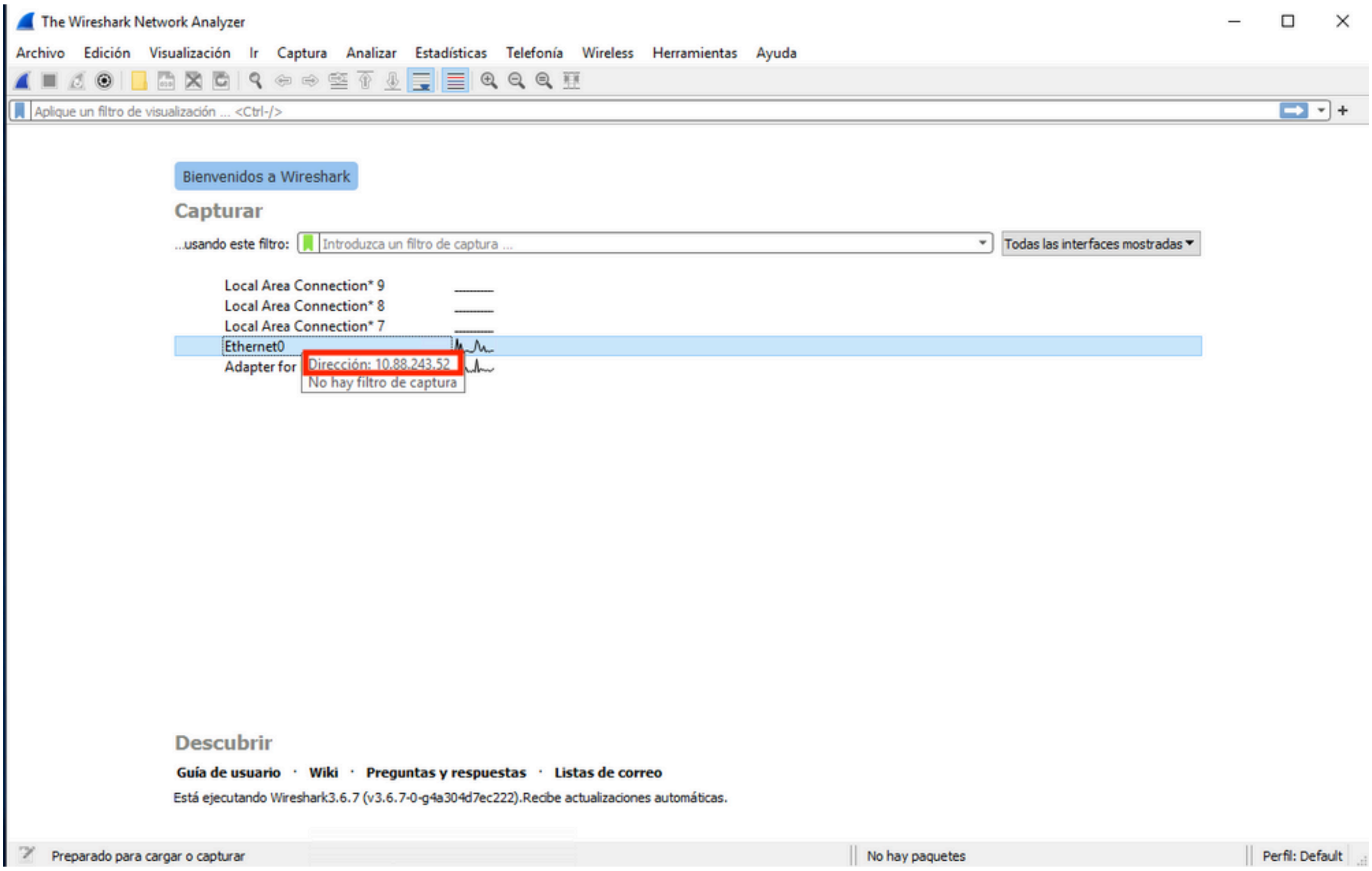
Step 1. If the Syslog messages on the Syslog application produce any messages, perform a packet capture from the FTD CLI to check for packets. Enter the **system support diagnostic-cli** command at the clish prompt to change from Clish mode to Lina.



```
[> system support diagnostic-cli
 Attaching to Diagnostic CLI ... Press 'Ctrl+a then d' to detach.
 Type help or '?' for a list of available commands.

[FTD-1> en
[FTD-1> enable
[Password:
[FTD-1#
 FTD-1# 
```

Step 2. Create one packet capture for your udp 514 (or tcp 1468 if you used tcp)

Step 3. Verify that the communication gets to the network interface card on the Syslog Server. Use **Wireshark** or another packet that captures the utility loaded. Double-click the interface in **Wireshark** for the **Syslog Server** to start packet capture.



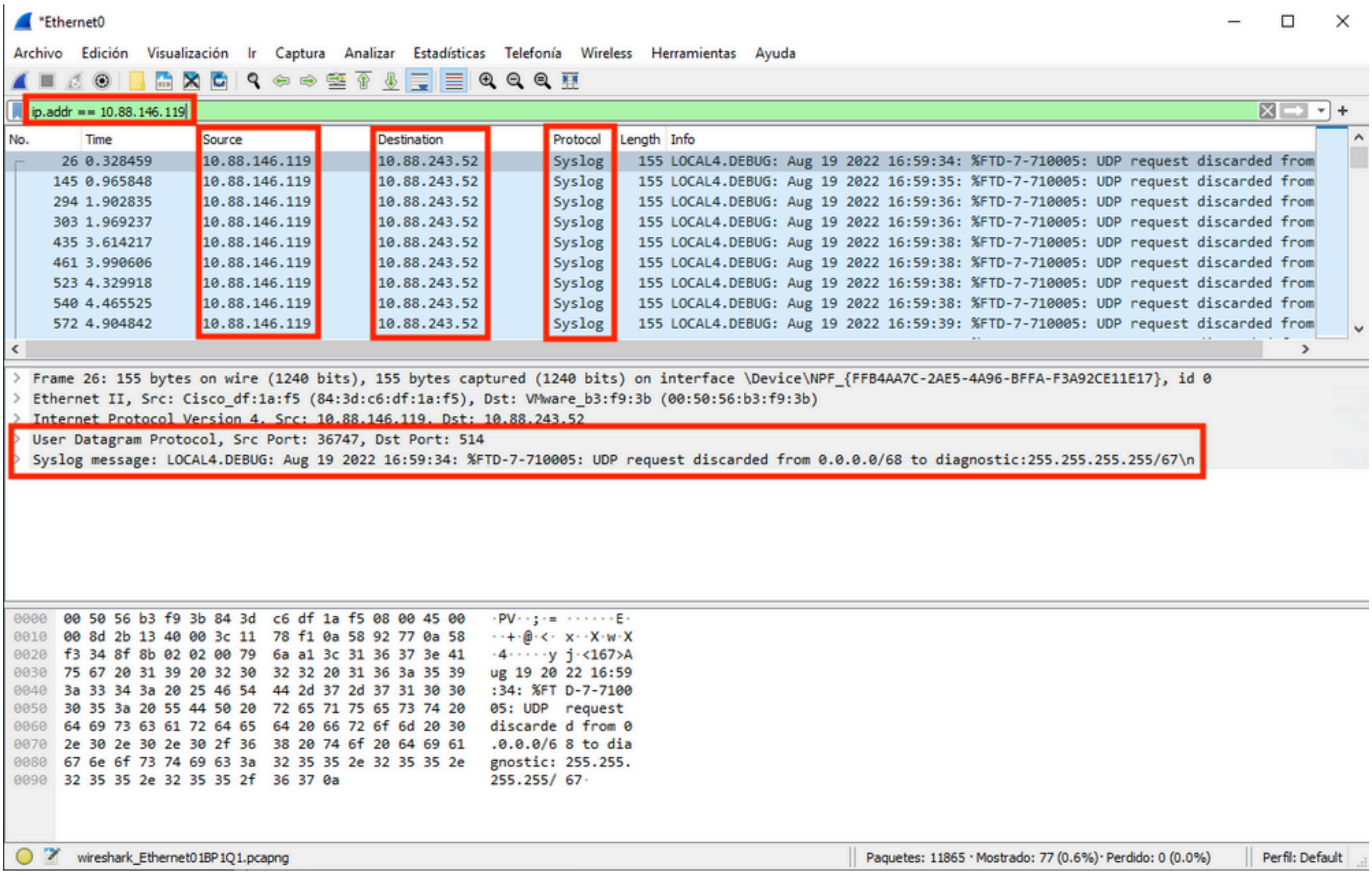
The Wireshark Network Analyzer
Archivo Edición Visualización Ir Captura Analizar Estadísticas Telefonía Wireless Herramientas Ayuda
Aplique un filtro de visualización ... <Ctrl-/>
Bienvenidos a Wireshark
Capturar
...usando este filtro:
Introduzca un filtro de captura ...
Todas las interfaces mostradas
Descubrir
Guía de usuario · Wiki · Preguntas y respuestas · Listas de correo

Local Area Connection* 9
Local Area Connection* 8
Local Area Connection* 7
Ethernet0
Adapter for
Dirección: 10.88.243.52
No hay filtro de captura

Está ejecutando Wireshark3.6.7 (v3.6.7-0-g4a304d7ec222).Recibe actualizaciones automáticas.

Preparado para cargar o capturar | No hay paquetes | Perfil: Default

Step 4. Set a display filter in the top bar for udp 514; type udp.port==514 and select the arrow to the right of the bar. From the output, verify that the packets can make it to the Syslog Server.



```
ip.addr == 10.88.146.119
```

```
No.    Time      Source         Destination    Protocol Length Info
    26 0.328459  10.88.146.119  10.88.243.52   Syslog   155 LOCAL4.DEBUG: Aug 19 2022 16:59:34: %FTD-7-710005: UDP request discarded from
   145 0.965848  10.88.146.119  10.88.243.52   Syslog   155 LOCAL4.DEBUG: Aug 19 2022 16:59:35: %FTD-7-710005: UDP request discarded from
   294 1.902835  10.88.146.119  10.88.243.52   Syslog   155 LOCAL4.DEBUG: Aug 19 2022 16:59:36: %FTD-7-710005: UDP request discarded from
   303 1.969237  10.88.146.119  10.88.243.52   Syslog   155 LOCAL4.DEBUG: Aug 19 2022 16:59:36: %FTD-7-710005: UDP request discarded from
   435 3.614217  10.88.146.119  10.88.243.52   Syslog   155 LOCAL4.DEBUG: Aug 19 2022 16:59:38: %FTD-7-710005: UDP request discarded from
   461 3.990606  10.88.146.119  10.88.243.52   Syslog   155 LOCAL4.DEBUG: Aug 19 2022 16:59:38: %FTD-7-710005: UDP request discarded from
   523 4.329918  10.88.146.119  10.88.243.52   Syslog   155 LOCAL4.DEBUG: Aug 19 2022 16:59:38: %FTD-7-710005: UDP request discarded from
   540 4.465525  10.88.146.119  10.88.243.52   Syslog   155 LOCAL4.DEBUG: Aug 19 2022 16:59:38: %FTD-7-710005: UDP request discarded from
   572 4.904842  10.88.146.119  10.88.243.52   Syslog   155 LOCAL4.DEBUG: Aug 19 2022 16:59:39: %FTD-7-710005: UDP request discarded from
```

```
> Frame 26: 155 bytes on wire (1240 bits), 155 bytes captured (1240 bits) on interface \Device\NPF_{FFB4AA7C-2AE5-4A96-BFFA-F3A92CE11E17}, id 0
> Ethernet II, Src: Cisco_df:1a:f5 (84:3d:c6:df:1a:f5), Dst: VMware_b3:f9:3b (00:50:56:b3:f9:3b)
> Internet Protocol Version 4, Src: 10.88.146.119, Dst: 10.88.243.52
> User Datagram Protocol, Src Port: 36747, Dst Port: 514
> Syslog message: LOCAL4.DEBUG: Aug 19 2022 16:59:34: %FTD-7-710005: UDP request discarded from 0.0.0.0/68 to diagnostic:255.255.255.255/67\n
```

```
0000  00 50 56 b3 f9 3b 84 3d  c6 df 1a f5 08 00 45 00   ·PV··;·= ······E·
0010  00 8d 2b 13 40 00 3c 11  78 f1 0a 58 92 77 0a 58   ··+·@·<· x··X·w·X
0020  f3 34 8f 8b 02 02 00 79  6a a1 3c 31 36 37 3e 41   ·4·····y j·<167>A
0030  75 67 20 31 39 20 32 30  32 32 20 31 36 3a 35 39   ug 19 20 22 16:59
0040  3a 33 34 3a 20 25 46 54  44 2d 37 2d 37 31 30 30   :34: %FT D-7-7100
0050  30 35 3a 20 55 44 50 20  72 65 71 75 65 73 74 20   05: UDP  request 
0060  64 69 73 63 61 72 64 65  64 20 66 72 6f 6d 20 30   discarde d from 0
0070  2e 30 2e 30 2e 30 2f 36  38 20 74 6f 20 64 69 61   .0.0.0/6 8 to dia
0080  67 6e 6f 73 74 69 63 3a  32 35 35 2e 32 35 35 2e   gnostic: 255.255.
0090  32 35 35 2e 32 35 35 2f  36 37 0a                  255.255/ 67·
```

wireshark_Ethernet01BP1Q1.pcapng | Paquetes: 11865 · Mostrado: 77 (0.6%) · Perdido: 0 (0.0%) | Perfil: Default

Step 5. If the Syslog Server Application does not show the data, troubleshoot the setting within the Syslog Server application. Make sure that the correct protocol is used, udp/tcp and the correct port, 514/1468.

Related Information

- [Cisco Technical Support & Downloads]