

Configuración de la Autenticación Pasiva con el Inicio de Sesión de VPN de Acceso Remoto en Firepower Device Manager

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Introducción

Este documento describe cómo configurar la autenticación pasiva en Firepower Threat Defense (FTD) a través de Firepower Device Manager (FDM) con inicios de sesión de VPN de acceso remoto (RA VPN) con AnyConnect.

Prerequisites

Requirements

Cisco recomienda que tenga conocimiento sobre estos temas:

- Administrador de dispositivos Firepower.
- VPN de acceso remoto.
- Política de identidad.

Componentes Utilizados

La información que contiene este documento se basa en las siguientes versiones de software y hardware.

- Firepower Threat Defense (FTD) versión 7.0
- Cisco AnyConnect Secure Mobility Client versión 4.10
- Active Directory (AD)

The information in this document was created from the devices in a specific lab environment. All of the devices used in this document started with a cleared (default) configuration. Si tiene una red en vivo, asegúrese de entender el posible impacto de cualquier comando.

Antecedentes

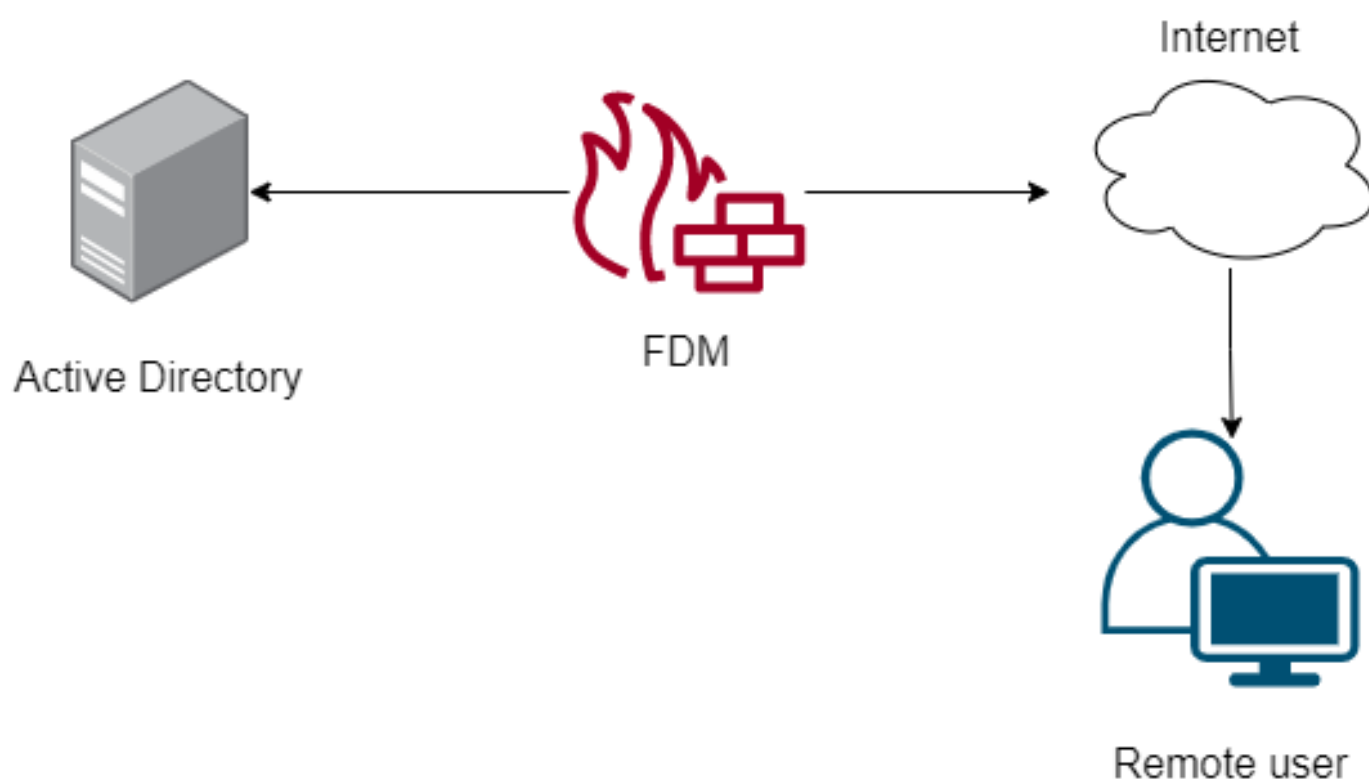
La política de identidad puede detectar usuarios asociados a una conexión. El método utilizado es la autenticación pasiva, ya que la identidad del usuario se obtiene de otros servicios de autenticación (LDAP).

En FDM, la autenticación pasiva puede funcionar con dos opciones diferentes:

- Inicio de sesión de VPN de acceso remoto
- Cisco Identity Services Engine (ISE)

Configuración

Diagrama de la red



Esta sección describe cómo configurar la autenticación pasiva en FDM.

Paso 1. Configurar el origen de identidad

Tanto si recopila la identidad del usuario de forma activa (mediante la solicitud de autenticación del usuario) como pasiva, debe configurar el servidor de Active Directory (AD) que tiene la información de identidad del usuario.

Navegue **hasta** > **Identity Services** y seleccione la **opción AD** para agregar Active Directory.

Agregue la configuración de Active Directory:

! Identity Realm is used for Identity Policies and Remote Access VPN. Any changes impact all features that use this realm.

Name	AnyConnect_LDAP	Type	Active Directory (AD) ▼
Directory Username	brazil <small>e.g. user@example.com</small>	Directory Password
Base DN	CN=Users,dc=cmonterr,dc=local <small>e.g. ou=user, dc=example, dc=com</small>	AD Primary Domain	cmonterr.local <small>e.g. example.com</small>
Directory Server Configuration			
192.168.26.202:389			Test ▼
Add another configuration			
			CANCEL
			OK

Paso 2. Configuración de RA VPN

La configuración de VPN de acceso remoto se puede revisar en este [link](#)

Paso 3. Configure el Método de Autenticación para los Usuarios de VPN de RA

En la configuración de RA VPN, seleccione el método de autenticación. El origen de integridad principal para la autenticación de usuario debe ser el AD.

Primary Identity Source	
Authentication Type	
AAA Only ▼	
Primary Identity Source for User Authentication	Fallback Local Identity Source ⚠
AnyConnect_LDAP ▼	LocalIdentitySource ▼
<input checked="" type="checkbox"/> Strip Identity Source server from username	
<input checked="" type="checkbox"/> Strip Group from Username	

Nota: En la configuración global de la VPN RA, desmarque la opción Omitir política de

control de acceso para el tráfico descifrado (**sysopt permit-vpn**) para permitir la posibilidad de utilizar la política de control de acceso para inspeccionar el tráfico que proviene de los usuarios de AnyConnect.

Certificate of Device Identity: AnyConnect_VPN

Outside Interface: outside (GigabitEthernet0/0)

Fully-qualified Domain Name for the Outside Interface: fdm.ravpn
e.g. ravpn.example.com

Port: 443
e.g. 8080

Access Control for VPN Traffic
Decrypted VPN traffic is subjected to access control policy inspection by default. Enabling the Bypass Access Control policy for decrypted traffic option bypasses the access control policy, but for remote access VPN, the VPN Filter ACL and the authorization ACL downloaded from the AAA server are still applied to VPN traffic

Bypass Access Control policy for decrypted traffic (sysopt permit-vpn)

NAT Exempt

Inside Interfaces: The interfaces through which remote access VPN users can connect to the internal networks
+
inside (GigabitEthernet0/1)

Inside Networks: The internal networks remote access VPN users are allowed to use. The IP versions of the internal networks and address pools must match, either IPv4, IPv6, or both.
+
FDM_Local_network

Paso 4. Configuración de la Política de Identidad para la Autenticación Pasiva

Debe crear la política de identidad para configurar la autenticación pasiva, la política debe tener los siguientes elementos:

- Origen de identidad de AD: Lo mismo que agrega en el paso número 1
- Acción: AUTENTICACIÓN PASIVA

Para configurar la regla de identidad, navegue hasta **Políticas>Identidad** >seleccione **[+]** para agregar una nueva regla de identidad.

- Defina las subredes de origen y de destino donde se aplica la autenticación pasiva.

Paso 5. Crear la regla de control de acceso en la política de control de acceso

Configure la regla de control de acceso para permitir o bloquear el tráfico en función de los usuarios.

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

Para configurar el grupo de usuarios para que tenga autenticación pasiva, seleccione la ficha Usuarios. Puede agregar un grupo de usuarios o un usuario individual.

Implemente los cambios.

Verificación

Verifique que la conexión de prueba con AD sea correcta

! Identity Realm is used for Identity Policies and Remote Access VPN. Any changes impact all features that use this realm.

Name	AnyConnect_LDAP	Type	Active Directory (AD)
Directory Username	brazil	Directory Password
<i>e.g. user@example.com</i>			
Base DN	CN=Users,dc=cmonterr,dc=local	AD Primary Domain	cmonterr.local
<i>e.g. ou=user, dc=example, dc=com</i>		<i>e.g. example.com</i>	

Directory Server Configuration

192.168.26.202:389

Hostname / IP Address	192.168.26.202	Port	389
<i>e.g. ad.example.com</i>			
Interface	inside (GigabitEthernet0/1)		
Encryption	NONE	Trusted CA certificate	Please select a certificate


TEST ✓ **Connection to realm is successful**

[Add another configuration](#)

CANCEL OK

Verifique que el usuario remoto pueda iniciar sesión con el cliente AnyConnect con sus credenciales de AD.

Cisco AnyConnect | 192.168.27.44




Group: Anyconnect

Username: brazil

Password:

OK Cancel

Cisco AnyConnect Secure Mobility Client



VPN:
Connected to 192.168.27.44.

192.168.27.44

Disconnect

00:00:58 IPv4

Settings Info Cisco

Verifique que el usuario obtenga una dirección IP del conjunto VPN

```
firepower# show vpn-sessiondb anyconnect filter name brazil
Session Type: AnyConnect
Username      : brazil                Index      : 23
Assigned IP   : 192.168.19.1          Public IP  : 192.168.27.40
Protocol      : AnyConnect-Parent SSL-Tunnel
License       : AnyConnect Premium
Encryption    : AnyConnect-Parent: (1)none SSL-Tunnel: (1)AES-GCM-256
Hashing       : AnyConnect-Parent: (1)none SSL-Tunnel: (1)SHA384
Bytes Tx      : 15818                 Bytes Rx   : 2494
Group Policy  : DfltGrpPolicy         Tunnel Group : Anyconnect
Login Time    : 13:22:20 UTC Wed Jul 21 2021
Duration      : 0h:00m:13s
Inactivity    : 0h:00m:00s
VLAN Mapping  : N/A                   VLAN       : none
Audt Sess ID  : 000000000001700060f81f8c
Security Grp  : none                   Tunnel Zone : 0
firepower#
```

Troubleshoot

Puede utilizar el `user_map_query.pl` script para validar que el FDM tiene la asignación ip de usuario

```
root@firepower:~# user_map_query.pl -u brazil
WARNING: This script was not tested on this major version (7.0.0)! The results may be unexpected.
Current Time: 07/21/2021 13:23:38 UTC
Getting information on username(s)...

-----
User #1: brazil
-----
ID: 5
Last Seen: 07/21/2021 13:22:20 UTC
for_policy: 1

=====
| Database |
=====

##) IP Address
1) ::ffff:192.168.19.1

##) Group Name (ID)
1) Domain Users (11)
root@firepower:~# user_map_query.pl -i 192.168.19.1
WARNING: This script was not tested on this major version (7.0.0)! The results may be unexpected.
Current Time: 07/21/2021 13:23:50 UTC
Getting information on IP Address(es)...

-----
IP #1: 192.168.19.1
-----

=====
| Database |
=====

##) Username (ID)
1) brazil (5)
for_policy: 1
Last Seen: 07/21/2021 13:22:20 UTC
root@firepower:~# █
```


En el modo clish puede configurar:

system support identity- debug para verificar si la redirección es correcta.

```
> system support identity-debug
Enable firewall-engine-debug too? [n]: y
Please specify an IP protocol:
Please specify a client IP address: 192.168.19.1
Please specify a client port:
Please specify a server IP address:
Please specify a server port:
Monitoring identity and firewall debug messages

192.168.19.1-62757 > 72.163.47.11-53 17 AS 1-1 I 0 Starting authentication (sfAuthCheckRules
params) with zones 2 -> 2, port 62757 -> 53, geo 14467064 -> 14467082
192.168.19.1-62757 > 72.163.47.11-53 17 AS 1-1 I 0 Retrieved ABP info:
192.168.19.1-62757 > 72.163.47.11-53 17 AS 1-1 I 0 abp src
192.168.19.1-62757 > 72.163.47.11-53 17 AS 1-1 I 0 abp dst
192.168.19.1-62757 > 72.163.47.11-53 17 AS 1-1 I 0 matched auth rule id = 130027046 user_id = 5
realm_id = 3
192.168.19.1-62757 > 72.163.47.11-53 17 AS 1-1 I 0 new firewall session
192.168.19.1-62757 > 72.163.47.11-53 17 AS 1-1 I 0 using HW or preset rule order 2,
'Inside_Outside_Rule', action Allow and prefilter rule 0
192.168.19.1-62757 > 72.163.47.11-53 17 AS 1-1 I 0 HitCount data sent for rule id: 268435458,
192.168.19.1-62757 > 72.163.47.11-53 17 AS 1-1 I 0 allow action
192.168.19.1-62757 > 8.8.8.8-53 17 AS 1-1 I 1 Starting authentication (sfAuthCheckRules params)
with zones 2 -> 2, port 62757 -> 53, geo 14467064 -> 14467082
192.168.19.1-62757 > 8.8.8.8-53 17 AS 1-1 I 1 Retrieved ABP info:
192.168.19.1-62757 > 8.8.8.8-53 17 AS 1-1 I 1 abp src
192.168.19.1-62757 > 8.8.8.8-53 17 AS 1-1 I 1 abp dst
192.168.19.1-62757 > 8.8.8.8-53 17 AS 1-1 I 1 matched auth rule id = 130027046 user_id = 5
realm_id = 3
192.168.19.1-62757 > 8.8.8.8-53 17 AS 1-1 I 1 new firewall session
192.168.19.1-62757 > 8.8.8.8-53 17 AS 1-1 I 1 using HW or preset rule order 2,
'Inside_Outside_Rule', action Allow and prefilter rule 0
192.168.19.1-62757 > 8.8.8.8-53 17 AS 1-1 I 1 HitCount data sent for rule id: 268435458,
192.168.19.1-62757 > 8.8.8.8-53 17 AS 1-1 I 1 allow action
192.168.19.1-53015 > 20.42.0.16-443 6 AS 1-1 I 0 Starting authentication (sfAuthCheckRules
params) with zones 2 -> 2, port 53015 -> 443, geo 14467064 -> 14467082
192.168.19.1-53015 > 20.42.0.16-443 6 AS 1-1 I 0 Retrieved ABP info:
192.168.19.1-53015 > 20.42.0.16-443 6 AS 1-1 I 0 abp src
192.168.19.1-53015 > 20.42.0.16-443 6 AS 1-1 I 0 abp dst
192.168.19.1-53015 > 20.42.0.16-443 6 AS 1-1 I 0 matched auth rule id = 130027046 user_id = 5
realm_id = 3
192.168.19.1-53015 > 20.42.0.16-443 6 AS 1-1 I 0 new firewall session
192.168.19.1-53015 > 20.42.0.16-443 6 AS 1-1 I 0 using HW or preset rule order 2,
'Inside_Outside_Rule', action Allow and prefilter rule 0
192.168.19.1-53015 > 20.42.0.16-443 6 AS 1-1 I 0 HitCount data sent for rule id: 268435458,
192.168.19.1-53015 > 20.42.0.16-443 6 AS 1-1 I 0 allow action
192.168.19.1-52166 > 20.42.0.16-443 6 AS 1-1 I 1 deleting firewall session flags = 0x10001,
fwFlags = 0x102, session->logFlags = 010001
192.168.19.1-65207 > 72.163.47.11-53 17 AS 1-1 I 1 Starting authentication (sfAuthCheckRules
params) with zones 2 -> 2, port 65207 -> 53, geo 14467064 -> 14467082
192.168.19.1-65207 > 72.163.47.11-53 17 AS 1-1 I 1 Retrieved ABP info:
192.168.19.1-65207 > 72.163.47.11-53 17 AS 1-1 I 1 abp src
192.168.19.1-65207 > 72.163.47.11-53 17 AS 1-1 I 1 abp dst
192.168.19.1-65207 > 72.163.47.11-53 17 AS 1-1 I 1 matched auth rule id = 130027046 user_id = 5
realm_id = 3
192.168.19.1-65207 > 72.163.47.11-53 17 AS 1-1 I 1 new firewall session
192.168.19.1-65207 > 72.163.47.11-53 17 AS 1-1 I 1 using HW or preset rule order 2,
'Inside_Outside_Rule', action Allow and prefilter rule 0
192.168.19.1-65207 > 72.163.47.11-53 17 AS 1-1 I 1 HitCount data sent for rule id: 268435458,
```

192.168.19.1-65207 > 72.163.47.11-53 17 AS 1-1 I 1 allow action
192.168.19.1-65207 > 8.8.8.8-53 17 AS 1-1 I 0 Starting authentication (sfAuthCheckRules params)
with zones 2 -> 2, port 65207 -> 53, geo 14467064 -> 14467082
192.168.19.1-65207 > 8.8.8.8-53 17 AS 1-1 I 0 Retrieved ABP info:
192.168.19.1-65207 > 8.8.8.8-53 17 AS 1-1 I 0 abp src
192.168.19.1-65207 > 8.8.8.8-53 17 AS 1-1 I 0 abp dst
192.168.19.1-65207 > 8.8.8.8-53 17 AS 1-1 I 0 matched auth rule id = 130027046 user_id = 5
realm_id = 3
192.168.19.1-65207 > 8.8.8.8-53 17 AS 1-1 I 0 new firewall session
192.168.19.1-65207 > 8.8.8.8-53 17 AS 1-1 I 0 using HW or preset rule order 2,
'Inside_Outside_Rule', action Allow and prefilter rule 0
192.168.19.1-65207 > 8.8.8.8-53 17 AS 1-1 I 0 HitCount data sent for rule id: 268435458,
192.168.19.1-65207 > 8.8.8.8-53 17 AS 1-1 I 0 allow action
192.168.19.1-65209 > 8.8.8.8-53 17 AS 1-1 I 0 Starting authentication (sfAuthCheckRules params)
with zones 2 -> 2, port 65209 -> 53, geo 14467064 -> 14467082
192.168.19.1-65209 > 8.8.8.8-53 17 AS 1-1 I 0 Retrieved ABP info:
192.168.19.1-65209 > 8.8.8.8-53 17 AS 1-1 I 0 abp src
192.168.19.1-65209 > 8.8.8.8-53 17 AS 1-1 I 0 abp dst
192.168.19.1-65209 > 8.8.8.8-53 17 AS 1-1 I 0 matched auth rule id = 130027046 user_id = 5
realm_id = 3
192.168.19.1-65209 > 8.8.8.8-53 17 AS 1-1 I 0 new firewall session
192.168.19.1-65209 > 8.8.8.8-53 17 AS 1-1 I 0 using HW or preset rule order 2,
'Inside_Outside_Rule', action Allow and prefilter rule 0
192.168.19.1-65209 > 8.8.8.8-53 17 AS 1-1 I 0 HitCount data sent for rule id: 268435458,
192.168.19.1-65209 > 8.8.8.8-53 17 AS 1-1 I 0 allow action
192.168.19.1-65211 > 72.163.47.11-53 17 AS 1-1 I 1 Starting authentication (sfAuthCheckRules
params) with zones 2 -> 2, port 65211 -> 53, geo 14467064 -> 14467082
192.168.19.1-65211 > 72.163.47.11-53 17 AS 1-1 I 1 Retrieved ABP info:
192.168.19.1-65211 > 72.163.47.11-53 17 AS 1-1 I 1 abp src
192.168.19.1-65211 > 72.163.47.11-53 17 AS 1-1 I 1 abp dst
192.168.19.1-65211 > 72.163.47.11-53 17 AS 1-1 I 1 matched auth rule id = 130027046 user_id = 5
realm_id = 3
192.168.19.1-65211 > 72.163.47.11-53 17 AS 1-1 I 1 new firewall session
192.168.19.1-65211 > 72.163.47.11-53 17 AS 1-1 I 1 using HW or preset rule order 2,
'Inside_Outside_Rule', action Allow and prefilter rule 0
192.168.19.1-65211 > 72.163.47.11-53 17 AS 1-1 I 1 HitCount data sent for rule id: 268435458,
192.168.19.1-65211 > 72.163.47.11-53 17 AS 1-1 I 1 allow action
192.168.19.1-61823 > 72.163.47.11-53 17 AS 1-1 I 1 Starting authentication (sfAuthCheckRules
params) with zones 2 -> 2, port 61823 -> 53, geo 14467064 -> 14467082
192.168.19.1-61823 > 72.163.47.11-53 17 AS 1-1 I 1 Retrieved ABP info:
192.168.19.1-61823 > 72.163.47.11-53 17 AS 1-1 I 1 abp src
192.168.19.1-61823 > 72.163.47.11-53 17 AS 1-1 I 1 abp dst
192.168.19.1-61823 > 72.163.47.11-53 17 AS 1-1 I 1 matched auth rule id = 130027046 user_id = 5
realm_id = 3
192.168.19.1-61823 > 72.163.47.11-53 17 AS 1-1 I 1 new firewall session
192.168.19.1-61823 > 72.163.47.11-53 17 AS 1-1 I 1 using HW or preset rule order 2,
'Inside_Outside_Rule', action Allow and prefilter rule 0
192.168.19.1-61823 > 72.163.47.11-53 17 AS 1-1 I 1 HitCount data sent for rule id: 268435458,
192.168.19.1-61823 > 72.163.47.11-53 17 AS 1-1 I 1 allow action
192.168.19.1-61823 > 8.8.8.8-53 17 AS 1-1 I 0 Starting authentication (sfAuthCheckRules params)
with zones 2 -> 2, port 61823 -> 53, geo 14467064 -> 14467082
192.168.19.1-61823 > 8.8.8.8-53 17 AS 1-1 I 0 Retrieved ABP info:
192.168.19.1-61823 > 8.8.8.8-53 17 AS 1-1 I 0 abp src
192.168.19.1-61823 > 8.8.8.8-53 17 AS 1-1 I 0 abp dst
192.168.19.1-61823 > 8.8.8.8-53 17 AS 1-1 I 0 matched auth rule id = 130027046 user_id = 5
realm_id = 3
192.168.19.1-61823 > 8.8.8.8-53 17 AS 1-1 I 0 new firewall session
192.168.19.1-61823 > 8.8.8.8-53 17 AS 1-1 I 0 using HW or preset rule order 2,
'Inside_Outside_Rule', action Allow and prefilter rule 0
192.168.19.1-61823 > 8.8.8.8-53 17 AS 1-1 I 0 HitCount data sent for rule id: 268435458,
192.168.19.1-61823 > 8.8.8.8-53 17 AS 1-1 I 0 allow action
192.168.19.1-57747 > 72.163.47.11-53 17 AS 1-1 I 1 deleting firewall session flags = 0x10001,
fwFlags = 0x102, session->logFlags = 010001
192.168.19.1-57747 > 72.163.47.11-53 17 AS 1-1 I 1 Logging EOF as part of session delete with

```
rule_id = 268435458 ruleAction = 2 ruleReason = 0
192.168.19.1-57747 > 8.8.8.8-53 17 AS 1-1 I 0 deleting firewall session flags = 0x10001, fwFlags
= 0x102, session->logFlags = 010001
192.168.19.1-57747 > 8.8.8.8-53 17 AS 1-1 I 0 Logging EOF as part of session delete with rule_id
= 268435458 ruleAction = 2 ruleReason = 0
192.168.19.1-53038 > 20.42.0.16-443 6 AS 1-1 I 0 Starting authentication (sfAuthCheckRules
params) with zones 2 -> 2, port 53038 -> 443, geo 14467064 -> 14467082
192.168.19.1-53038 > 20.42.0.16-443 6 AS 1-1 I 0 Retrieved ABP info:
192.168.19.1-53038 > 20.42.0.16-443 6 AS 1-1 I 0 abp src
192.168.19.1-53038 > 20.42.0.16-443 6 AS 1-1 I 0 abp dst
192.168.19.1-53038 > 20.42.0.16-443 6 AS 1-1 I 0 matched auth rule id = 130027046 user_id = 5
realm_id = 3
192.168.19.1-53038 > 20.42.0.16-443 6 AS 1-1 I 0 new firewall session
192.168.19.1-53038 > 20.42.0.16-443 6 AS 1-1 I 0 using HW or preset rule order 2,
'Inside_Outside_Rule', action Allow and prefilter rule 0
192.168.19.1-53038 > 20.42.0.16-443 6 AS 1-1 I 0 HitCount data sent for rule id: 268435458,
192.168.19.1-53038 > 20.42.0.16-443 6 AS 1-1 I 0 allow action
192.168.19.1-57841 > 72.163.47.11-53 17 AS 1-1 I 1 deleting firewall session flags = 0x10001,
fwFlags = 0x102, session->logFlags = 010001
192.168.19.1-57841 > 72.163.47.11-53 17 AS 1-1 I 1 Logging EOF as part of session delete with
rule_id = 268435458 ruleAction = 2 ruleReason = 0
192.168.19.1-57841 > 8.8.8.8-53 17 AS 1-1 I 0 deleting firewall session flags = 0x10001, fwFlags
= 0x102, session->logFlags = 010001
192.168.19.1-57841 > 8.8.8.8-53 17 AS 1-1 I 0 Logging EOF as part of session delete with rule_id
= 268435458 ruleAction = 2 ruleReason = 0
192.168.19.1-64773 > 8.8.8.8-53 17 AS 1-1 I 0 Starting authentication (sfAuthCheckRules params)
with zones 2 -> 2, port 64773 -> 53, geo 14467064 -> 14467082
192.168.19.1-64773 > 8.8.8.8-53 17 AS 1-1 I 0 Retrieved ABP info:
192.168.19.1-64773 > 8.8.8.8-53 17 AS 1-1 I 0 abp src
192.168.19.1-64773 > 8.8.8.8-53 17 AS 1-1 I 0 abp dst
192.168.19.1-64773 > 8.8.8.8-53 17 AS 1-1 I 0 matched auth rule id = 130027046 user_id = 5
realm_id = 3
192.168.19.1-64773 > 8.8.8.8-53 17 AS 1-1 I 0 new firewall session
192.168.19.1-64773 > 8.8.8.8-53 17 AS 1-1 I 0 using HW or preset rule order 2,
'Inside_Outside_Rule', action Allow and prefilter rule 0
192.168.19.1-64773 > 8.8.8.8-53 17 AS 1-1 I 0 HitCount data sent for rule id: 268435458,
192.168.19.1-64773 > 8.8.8.8-53 17 AS 1-1 I 0 allow action
```

Información Relacionada

Configuración de VPN de acceso remoto en FTD administrado por FDM

<https://www.cisco.com/c/en/us/support/docs/security/anyconnect-secure-mobility-client/215532-configure-remote-access-vpn-on-ftd-manag.html>