Configuration de l'authentification passive avec connexion VPN d'accès à distance sur Firepower Device Manager

Contenu

Introduction

Ce document décrit comment configurer l'authentification passive sur le pare-feu FTD (Firepower Threat Defense) via le Firepower Device Manager (FDM) avec des connexions VPN d'accès distant (RA VPN) avec AnyConnect.

Conditions préalables

Conditions requises

Cisco vous recommande de prendre connaissance des rubriques suivantes :

- Firepower Device Manager.
- VPN d'accès à distance.
- Stratégie d'identité.

Components Used

Les informations contenues dans ce document sont basées sur les versions de matériel et de logiciel suivantes :

- Firepower Threat Defense (FTD) version 7.0
- Cisco AnyConnect Secure Mobility Client version 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 votre réseau est en ligne, assurez-vous de bien comprendre l'incidence possible des commandes.

Informations générales
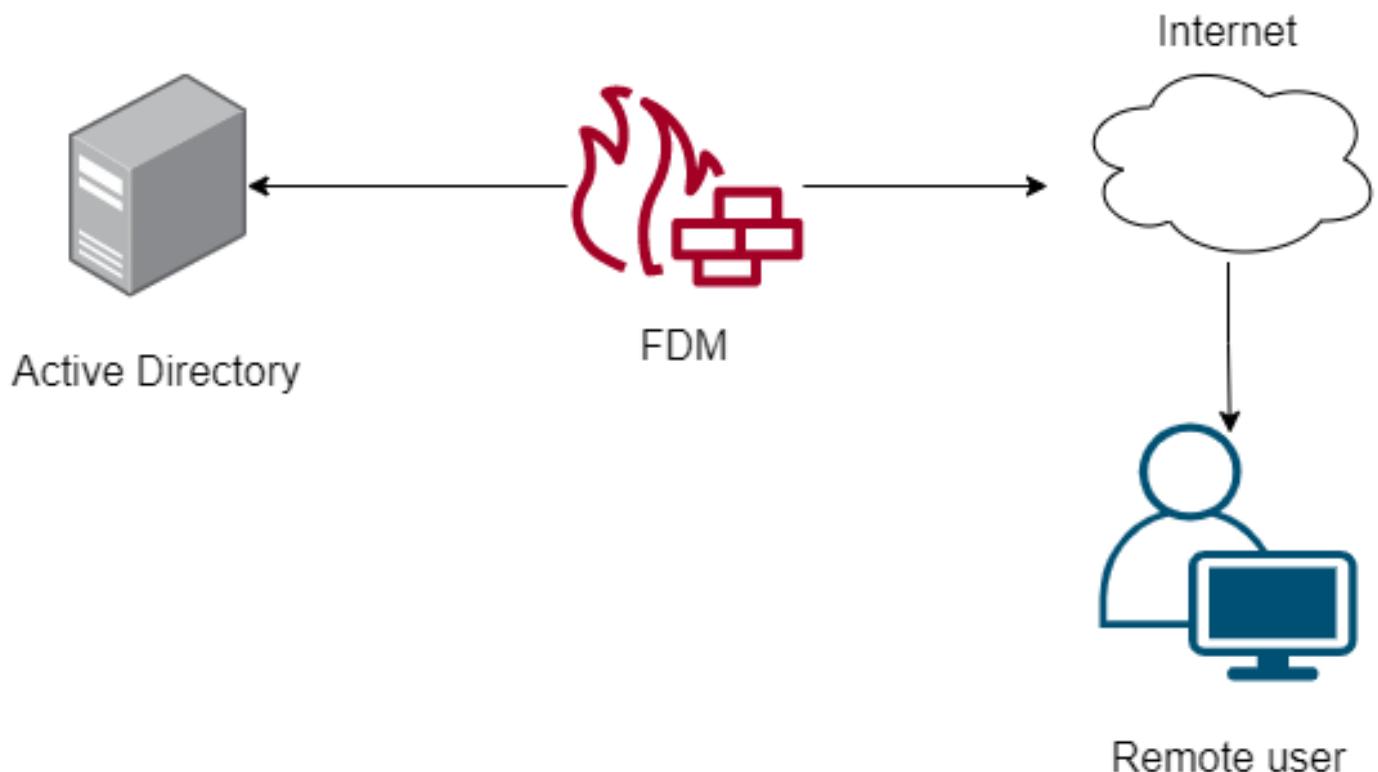
La stratégie d'identité peut détecter les utilisateurs associés à une connexion. La méthode utilisée est l'authentification passive, car l'identité de l'utilisateur est obtenue à partir d'autres services d'authentification (LDAP).

Dans FDM, l'authentification passive peut fonctionner avec deux options différentes :

- Connexions VPN d'accès à distance
- Cisco Identity Services Engine (ISE)

Configuration

Diagramme du réseau

Cette section décrit comment configurer l'authentification passive sur FDM.

Étape 1. Configurer la source d'identité

Que vous collectiez l'identité de l'utilisateur activement (par l'invite d'authentification de l'utilisateur) ou passivement, vous devez configurer le serveur Active Directory (AD) qui possède les informations d'identité de l'utilisateur.

Naviguez **vers Objets >Services d'identité** et sélectionnez l'option**AD**pour ajouter Active Directory.

Ajouter la configuration Active Directory :

Étape 2. Configurer le VPN RA

La configuration du VPN d'accès à distance peut être examinée dans cette liaison

Étape 3. Configurez la méthode d'authentification pour les utilisateurs VPN RA

Dans la configuration du VPN RA, sélectionnez la méthode d'authentification. La source d'indeité principale pour l'authentification de l'utilisateur doit être AD.

Note: Dans les paramètres globaux du VPN RA, décochez l'option Bypass Access Control

Policy pour le trafic déchiffré (**sysopt permit-vpn**) afin de permettre la possibilité d'utiliser la politique de contrôle d'accès pour inspecter le trafic provenant des utilisateurs AnyConnect.

Étape 4. Configurer la stratégie d'identité pour l'authentification passive

Vous devez créer la stratégie d'identité afin de configurer l'authentification passive, la stratégie doit comporter les éléments suivants :

- Source de l'identité AD : Identique à l'étape 1
- Action : AUTH PASSIVE

Afin de configurer la règle d'identité, naviguez **versPolicies>Identity >**select **[+]** pour ajouter une nouvelle règle d'identité.

- Définissez les sous-réseaux source et de destination auxquels s'applique l'authentification passive.

Étape 5. Créer la règle de contrôle d'accès dans la stratégie de contrôle d'accès

Configurez la règle de contrôle d'accès pour autoriser ou bloquer le trafic en fonction des utilisateurs.

Afin de configurer les utilisateurs ou le groupe d'utilisateurs pour qu'ils disposent d'une authentification passive, sélectionnez l'onglet Utilisateurs. Vous pouvez ajouter un groupe d'utilisateurs ou un utilisateur individuel.

Déployez les modifications.

Vérification

Vérifiez que la connexion de test avec AD a réussi

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

e.g. user@example.com

Directory Password
•••••••••

Base DN
CN=Users,dc=cmonterr,dc=local

e.g. ou=user, dc=example, dc=com

AD Primary Domain
cmonterr.local

e.g. example.com

Directory Server Configuration

192.168.26.202:389

Hostname / IP Address
192.168.26.202

e.g. ad.example.com

Port
389

Interface
inside (GigabitEthernet0/1)

Encryption
NONE

Trusted CA certificate
Please select a certificate

TEST   ✓ **Connection to realm is successful**
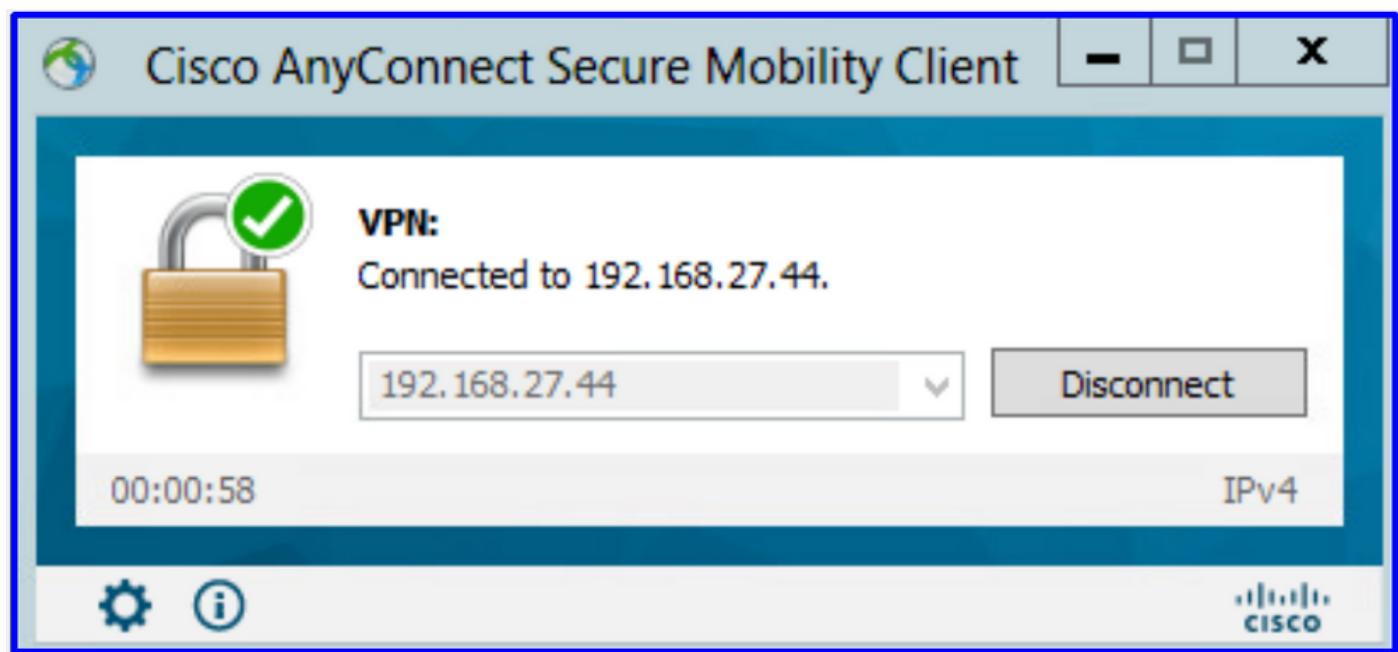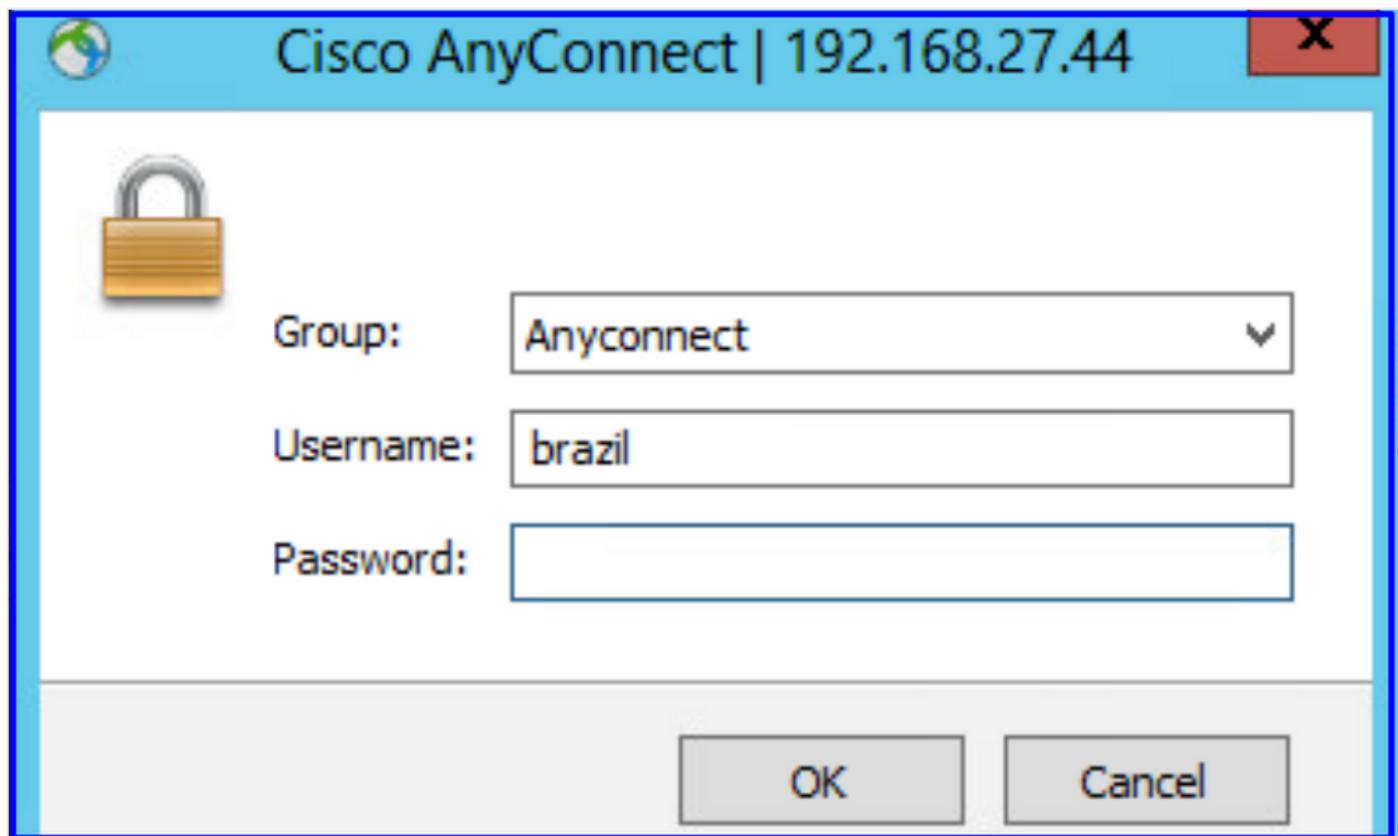
Add another configuration

CANCEL   OK

Vérifiez que l'utilisateur distant peut se connecter avec le client AnyConnect avec ses informations d'identification Active Directory.

Vérifier que l'utilisateur obtient une adresse IP du pool 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  : 00000000001700060f81f8c
Security Grp  : none                      Tunnel Zone  : 0

firepower#
```

Dépannage

Vous pouvez utiliser **user_map_query.**plscript pour valider que le FDM possède le mappage ip utilisateur

```
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 mode clish, vous pouvez configurer :

prise en charge du système identity-debugpour vérifier si la redirection a réussi.

```
> 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,
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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
```

Informations connexes

Configuration du VPN d'accès à distance sur FTD géré par FDM

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