# Configurar Correspondência de Certificado para Autenticação de Cliente Seguro no FTD via FDM

## Contents

Introdução
Pré-requisitos
Requisitos
Componentes Utilizados
Informações de Apoio
Diagrama de Rede
<u>Configurações</u>
Configuração no FDM
Etapa 1. Configurar a interface FTD
Etapa 2. Confirmar licença do Cisco Secure Client
Etapa 3. Adicionar Pool de Endereços
Etapa 4. Criar perfil de cliente seguro
Etapa 5. Carregar Perfil de Cliente Seguro no FDM
Etapa 6. Adicionar Política de Grupo
Passo 7. Adicionar Certificado FTD
Etapa 8. Adicionar CA ao FTD
Etapa 9. Adicionar Perfil de Conexão VPN de Acesso Remoto
Etapa 10. Confirmar resumo do perfil de conexão
Confirmar na CLI do FTD
Confirmar no cliente VPN
Etapa 1. Copie o perfil do cliente seguro para o cliente VPN
Etapa 2. Confirmar certificado do cliente
Etapa 3. Confirmar CA
Verificar
Etapa 1. Iniciar conexão VPN
Etapa 2. Confirmar sessões VPN na CLI FTD
Troubleshooting
Informações Relacionadas

## Introdução

Este documento descreve como configurar o Cisco Secure Client com SSL no FTD via FDM usando a correspondência de certificado para autenticação.

### Pré-requisitos

### Requisitos

A Cisco recomenda que você tenha conhecimento destes tópicos:

- Cisco Firepower Device Manager (FDM) Virtual
- Firewall Threat Defense (FTD) Virtual
- Fluxo de autenticação de VPN

### **Componentes Utilizados**

- Cisco Firepower Device Manager Virtual 7.2.8
- Cisco Firewall Threat Defense Virtual 7.2.8
- Cisco Secure Client 5.1.4.74
- Editor de perfis (Windows) 5.1.4.74

As informações neste documento foram criadas a partir de dispositivos em um ambiente de laboratório específico. Todos os dispositivos utilizados neste documento foram iniciados com uma configuração (padrão) inicial. Se a rede estiver ativa, certifique-se de que você entenda o impacto potencial de qualquer comando.

### Informações de Apoio

CertificateMatch é um recurso que permite aos administradores configurar critérios que o cliente deve usar para selecionar um certificado de cliente para autenticação com o servidor VPN. Essa configuração é especificada no perfil do cliente, que é um arquivo XML que pode ser gerenciado usando o Editor de perfis ou editado manualmente. O recurso CertificateMatch pode ser usado para melhorar a segurança das conexões VPN, garantindo que apenas um certificado com atributos específicos seja usado para a conexão VPN.

Este documento descreve como autenticar o Cisco Secure Client usando o nome comum de um certificado SSL.

Estes certificados contêm um nome comum, que é utilizado para efeitos de autorização.

- CA: ftd-ra-ca-common-name
- Certificado de cliente VPN do engenheiro: vpnEngineerClientCN
- Certificado de cliente VPN do gerenciador: vpnManagerClientCN
- Certificado do servidor: 192.168.1.200

## Diagrama de Rede

Esta imagem mostra a topologia usada para o exemplo deste documento.



Diagrama de Rede

### Configurações

Configuração no FDM

Etapa 1. Configurar a interface FTD

Navegue até Device > Interfaces > View All Interfaces, configure a interface interna e externa para FTD na guia Interfaces.

Para GigabitEthernet0/0,

- Nome: externo
- Endereço IP: 192.168.1.200/24

Firewall Device Manager	题 Monitoring	Ø Policies	Objects	Device: firepower		(			?	e admin Admini	strator	cisco	SECURE
Device Summary Interfaces													
Cisco Firepower Thr	eat Defense for VMw	vare ①	MGMT										
Interfaces Virtua	I Tunnel Interfaces												
9 Interfaces						e	<b>1</b> 7.,	T i	filter				+
NAME				GICAL NAME STA	ATUS MODE	IP ADDRESS			STANDBY ADD	RESS	MONITOR FO		ACTIONS
> 🗸 GigabitEth	ernet0/0		ou	tside	Routed	192.168.1.200	Static				Enabled		

Interface FTD

Etapa 2. Confirmar licença do Cisco Secure Client

Navegue até Device > Smart License > View Configuration, confirme a licença do Cisco Secure Client no item RA VPN License.



Licença de cliente seguro

#### Etapa 3. Adicionar Pool de Endereços

Navegue até Objetos > Redes, clique no botão +.

Firewall Device Manag	Ger Monitoring Policies Objects Device:	irepower	(>) (*) (*) (*) (*) (*) (*) (*) (*) (*) (*	
Object Types ←	Network Objects and Groups		_	
C Networks	7 objects		▼ Filter + 🖗	
S Ports			Preset filters: System defined. User defined	
Security Zones	# NAME	TYPE VALUE	ACTIONS	
<ul> <li>Application Filtere</li> </ul>	1 IPv4-Private-10.0.0-8	NETWORK 10.0.0/8		

Adicionar Pool de Endereços

Insira as informações necessárias para adicionar um novo pool de endereços IPv4. clique no botão OK.

- Nome: ftd-cert-match-pool
- · Tipo: Intervalo
- Intervalo de IPs: 172.16.1.150-172.16.1.160

## Add Network Object

Name
ftd-cert-match-pool
Description
4
Туре
Network Host FQDN I Range
IP Range
172.16.1.150-172.16.1.160
e.g. 192.168.2.1-192.168.2.24 or 2001:DB8:0:CD30::10-2001:DB8:0:CD30::100
CANCEL

ค

Detalhes do pool de endereços IPv4

#### Etapa 4. Criar perfil de cliente seguro

Faça o download e instale o Secure Client Profile Editor do <u>site</u> do <u>Cisco Software</u>. Navegue até Lista de servidores, clique no botão Adicionar. Insira as informações necessárias para adicionar uma Entrada da lista de servidores e clique no botão OK.

- Nome para Exibição: cert-match
- FQDN ou endereço IP: 192.168.1.200
- Protocolo principal: SSL

ditor - VPN			
Server List Profile: Untitled			
Hostname Host Addr Use	r Group Backup Ser SCEP	Mobile Sett Certificate	
Note: it is highly recommended	that at least one server be define	Lott Del	
		Server List Entry	hile Certificate Pinning
		Primary Server	Connection Information
		Display Name (required) cert-match	h Primary Protocol SSL ~
		FQDN or IP A User G	Group Stateway
		192.168.1.200 /	Auth Method During IKE Negotiation EAP-AnyConnect  IKE Identity (IOS cateway only)
		192.168.1.200	
		Backup Servers	
		Host Address	Add
			Move Up
			Move D
			Delete
			OK Cancel
	Server List         Profile: Untitled         Hostname       Host Addr         Use         Note: It is highly recommended	Server List         Profile: Untitled         Hostname       Host Addr         User Group       Backup Ser         SCEP         Note: It is highly recommended that at least one server be define	Server List         Profile: Unitied         Hostname       Host Addr         User Group       Backup Ser         Server List       Det         Det       Det         Server List Entry       Server Load Balancing Servers         Server Load Balancing Servers       SCEP         Mobile Sett       Det         Display Name (required)       ort-match         FQDN or IP A       User Composition         Interver       Display Name (required)         Forour URL       Interver         Interver       Display Name (required)         Forour URL       Interver         Interver       Display Name (required)         Forour URL       Interver         Interver       Backup Servers         Host Address       Host Address

Entrada da Lista de Servidores

Navegue até Correspondência de Certificado, clique no botão Adicionar. Insira as informações necessárias para adicionar uma entrada de nome distinto e clique no botão OK.

- Nome: CN
- Padrão: vpnEngineerClientCN
- Operador: Igual



Observação: marque a opção MatchCase neste documento.

File Help							
VPN Preferences (Part 1) Preferences (Part 2)	Certificate Profile: C:	Matching	n3\OneDrive	- Cisco\Des	ktop\vpnCli	ent.xml	
Backup Servers Certificate Matching Certificate Matching Mobile Policy Server List	Kev Usag Deci Enci CRL Key Data Key Non Digi	e ipher_Only _Sign _Cert_Sign _Agreem a_Encipher _Encipherm. _Repudiat tal_Signa		DVCS	ste		
	Custom E	extended Ma	tch Key (Ma. Add Delete				Distinguished Name Entry X     Name CN
	Mate Mate Distinguis	ch only certii ch only certii shed Name ( Pattern	ficates with F ficates with E Max Wildcard	Gey Usage Extended Ke	y Usage MatchC	Add	Pattern vpnEngineerClient Operator O Equal Not Equal Wildcard MatchCase
						Edit Delete	OK Cancel

Entrada de Nome Distinto

Salve o perfil de cliente seguro no computador local e confirme os detalhes do perfil.

▼ <certificatematch> (MatchOn LyCerteWith/U) false&lt; MatchOn LyCerte</certificatematch>	-Wi+bK11>
▼ <distinguishedname> ▼<distinguishednamedefinition matchcase="Enabled" operator="Ed&lt;br&gt;&lt;Name&gt;CN&lt;/Name&gt;&lt;br&gt;&lt;Pattern&gt;vpnEngineerClientCN&lt;/Pattern&gt;&lt;br&gt;&lt;/DistinguishedNameDefinition&gt;&lt;br&gt;&lt;/DistinguishedName&gt;&lt;/pre&gt;&lt;/td&gt;&lt;th&gt;qual" wildcard="Disabled"></distinguishednamedefinition></distinguishedname>	
EnableAutomaticServerSelection UserControlla false	able= false >
<pre></pre>	rverSelectionImprovement> verSelectionSuspendTime> > se nput>
<pre></pre>	
	•

Perfil de cliente seguro

Etapa 5. Carregar Perfil de Cliente Seguro no FDM

Navegue até Objects > Secure Client Profile, clique no botão CREATE SECURE CLIENT PROFILE.

Firewall Device Manager Monitoring	Policies Objects Device: firepower	S (admin definition) → administrator	SECURE
Object Types ←	Secure Client Profiles		
C Networks		<b>Filter</b>	+
S Ports	# NAME	FILE NAME ACTIONS	
🔒 Security Zones			
🐬 Application Filters		There are no Secure Client profile objects yet.	
C <sup>2</sup> URLs		Start by creating the first Secure Client profile object.	
Geolocations		CREATE SECURE CUENT PROFILE	
Syslog Servers			
🔎 IKE Policies			
🐴 IPSec Proposals			
Secure Client Profil			
Statity Sources			

Criar perfil de cliente seguro

Insira as informações necessárias para adicionar um perfil de cliente seguro e clique no botão OK.

- Nome: secureClientProfile
- Perfil de Cliente Seguro: secureClientProfile.xml (carregar do computador local)

Add Secure Client Profile	0	×
Name secureClientProfile		
Description		
		1.
UPLOAD secureClientProfile.xml		
CANCEL	ОК	

#### Etapa 6. Adicionar Política de Grupo

Navegue até Device > Remote Access VPN > View Configuration > Group Policies e clique no botão +.

Firewall Device M	anager Monitoring Policies Objects Device: firepower	S_ (2) (2) (2) (2) (2) (2) (2) (2) (2) (2)	cisco SECURE
RA VPN ←	Device Summary Group Policies		
Connection Profiles	2 objects	T Filter	+
SAML Server	NAME     DNS SERVER	IFV4 SPLIT TUNNELING IFV6 SPLIT TUNNELING SECURE CLIENT PROFILES	ACTIONS
	1 DfltGrpPolicy	Allow all traffic Allow all traffic	

Adicionar Política de Grupo

Insira as informações necessárias para adicionar uma política de grupo e clique no botão OK.

- Nome: ftd-cert-match-grp
- Perfis de cliente seguro: secureClientProfile

Add Group Policy		0	×
Q, Search for attribute	Name		
Basic	ftd-cert-match-grp		
General	Description		
Advanced	DNS Sequer		h
Address Assignment	Select DNS Group	,	-
Secure Client	Banner Text for Authenticated Clients This message will be shown to successfully authenticated endpoints in the beggining of their VPN session		
Traffic Filters Windows Browser Provy	Secure Client profiles		
milliona biomaci Proxy	▼ Filter		
	🗢 🖻 secureClientProfile		
	Create new Secure Client Prof CANCEL OK		
	CANCEL	ок	

Detalhes da Política de Grupo

Passo 7. Adicionar Certificado FTD

Navegue até Objetos > Certificados, clique em Adicionar certificado interno do item +.

Firewall Device Man	ager Monitoring Policies Objects Device: fi	repower	🕞 🚑 🕲 ? : 📲	dmin dministrator
Object Types ←	Certificates			
C Networks	121 objects		<b>T</b> Filter	+ × 🔊
S Ports			Preset filters: System defined, User defined	Add Internal CA
Security Zones	II NAME	TYPE		Add Internal Certificate ACTIONS
Application Filters	1 AAA-Certificate-Services	Trusted CA Certificate		Add Trusted CA Certificate
-2 101-	2 ACCVRAIZ1	Trusted CA Certificate		
C URLS	3 Actalis-Authentication-Root-CA	Trusted CA Certificate		
Geolocations	4 AffirmTrust-Commercial	Trusted CA Certificate		
Syslog Servers	5 AffirmTrust-Networking	Trusted CA Certificate		
🔏 IKE Policies	6 AffirmTrust-Premium	Trusted CA Certificate		
👍 IPSec Proposals	7 AffirmTrust-Premium-ECC	Trusted CA Certificate		
Secure Client Profiles	8 Amazon-Root-CA-1	Trusted CA Certificate		
Identity Sources	9 Amazon-Root-CA-2	Trusted CA Certificate		
Lieses	10 Amazon-Root-CA-3	Trusted CA Certificate		
	11 DefaultInternalCertificate	Internal Certificate		
및 Certificates	12 DefaultWebserverCertificate	Internal Certificate		

Adicionar certificado interno

Clique em Carregar certificado e chave.



Carregar certificado e chave

Insira as informações necessárias para o certificado FTD, importe um certificado e uma chave de certificado do computador local e clique no botão OK.

- Nome: ftd-vpn-cert
- Uso da validação para serviços especiais: servidor SSL



Detalhes do certificado interno

Etapa 8. Adicionar CA ao FTD

Navegue até Objetos > Certificados, clique em Adicionar certificado CA confiável do item +.

Firewall Device Manager	Monitoring Policies Objects Device: firepo	wer (>_) (**) (**) (**)	admin Administrator
🐬 Application Filters	Cortificator		
🖉 URLs	Certificates		
Geolocations	120 objects	<b>T</b> Filter	+ ~
		Preset filters: System defined. User defined	Add Internal CA
Syslog Servers	H NAME	туре	Add Internal Certificate ACTIONS
🔏 IKE Policies	1 NGFW-Default-InternalCA	Internal CA	Add Trusted CA Certificate
🛖 IPSec Proposals	2 AAA-Certificate-Services	Trusted CA Certificate	
Secure Client Profiles	3 ACCVRAIZ1	Trusted CA Certificate	
Identity Sources	4 Actalis-Authentication-Root-CA	Trusted CA Certificate	
1 Users	5 AffirmTrust-Commercial	Trusted CA Certificate	
<b>Q</b> Certificates	6 AffirmTrust-Networking	Trusted CA Certificate	
	7 AffirmTrust-Premium	Trusted CA Certificate	
Secret Keys	- ME	To and AA Analifante	



Insira as informações necessárias para a CA e importe um certificado do computador local.

- Nome: ftdvpn-ca-cert
- Uso de Validação para Serviços Especiais: Cliente SSL

Add Trusted CA Certificate	<b>⊘</b> ×
Name ftdvpn-ca-cert	
Certificate Paste certificate, or choose a file (DER, PEM, CRT, CER)	ftd-ra-ca.crt Upload.Certificate
BEGIN CERTIFICATE MIIDbDCCA1SgAwIBAgIIUkKgLg229/0wDQYJKoZIhvcNAQELBQAwbTELM BhMCS1AxDjAMBgNVBAgTBVRva31vMQ4wDAYDVQQHEwVUb2t5bzEOMAwGA	AkGA1UE
Skip CA Certificate Check	
Validation Usage for Special Services	
SSL Client ×	~
CANC	ELOK

#### Etapa 9. Adicionar Perfil de Conexão VPN de Acesso Remoto

Navegue até Device > Remote Access VPN > View Configuration > Connection Profiles, clique no botão CREATE CONNECTION PROFILE.

Firewall Device Manager	Monitoring	Policies	라고 Objects	Device: firepower	$(\Sigma)$	٩	) ()	e admin e Administra	or	cisco SECURE
RA VPN ←		Device Summa Remote A	Access \	VPN Connection Profiles						
e Group Policies						T	Filter			+
SAML Server		•	NAME	AAA	GROUP POLICY			ACTIONS		
				There a Sta	are no Remote Access Con art by creating the first Con	nections ye nection.				
					CREATE CONNECTION PROF	ALE				

Adicionar Perfil de Conexão VPN de Acesso Remoto

Insira as informações necessárias para o perfil de conexão e clique no botão Avançar.

- Nome do perfil de conexão: ftd-cert-match-vpn
- Tipo de Autenticação: Somente Certificado do Cliente
- · Nome de usuário do certificado: Mapear campo específico
- Campo Primário: CN (Nome Comum)
- · Campo Secundário: OU (Unidade Organizacional)
- Pools de Endereços IPv4: ftd-cert-match-pool

Firewall Device Manager Monitoring Policies	Objects Device: firepower	Section 2 → Secure admin admin administrator
Remote Access VPN	Connection and Client (2) Remote User Experience	3 Global Settings 4 Summary
Remote Users 🔲 Secure Cli	ients — Internet ········· Q Client Certificate ···· CUTISE	ree For User Authentication
	Connection and Client Config Specify how to authenticate remote users and the secure clients the inside network.	juration hey can use to connect to the
	Connection Profile Name This name is configured as a connection alias, it can be used to connect to the V ftd-cert-match-vpn	PM gateway
	Group Allas (one per line, up to 5) Group URL (one ftd-cert-match-vpn	per line, up to 5)
	Primary Identity Source Authentication Type Client Certificate Only ~	
	Username from Certificate  Map Specific Field  Primary Field  CN (Common Name)  VU (Organisation  OU (OU (Organisation  OU (OU (OU (OU (OU (OU (OU (OU (OU (OU (	onal Unit) 🗸
	<ul> <li>Use entire DN (distinguished name) as username</li> <li>Advanced</li> </ul>	
	Authorization Server Accounting Server Please select V Please select	~
	Client Address Pool Assignment IPv4 Address Pool Endpoints are provided an address from this pool * Control to the second and the second	d an address from this pool
	DHCP Servers    CANCEL	

Detalhes do perfil de conexão VPN

Insira as informações necessárias para a diretiva de grupo e clique no botão Avançar.

• Exibir Política de Grupo: ftd-cert-match-grp

Firewall Device Manager Monitoring Policies Objects	Device: firepower	⊘ ⓐ ⑦ : admin Administrator ✓ **tutte SECURE
Remote Access VPN	Connection and Client     Configuration     Remote User Experience	3 Global Settings 4 Summary
Remote Users     E     Secure Cli	ents — Internet — Q Client Certificate — OUT VOI MIEDIACI	REEPOWER  INTERACES Corporate Resources Corporate Resources  Interaction
	Remote User Experience A group policy is a collection of user-oriented session attributes whi VPN connection is established. Select or create a Group View Group Policy Itd-cert-match-grp Policy Group Brief Details	C client when a top Policy object.
	Basener Text for Authentic BACK NEXT	

Selecionar Diretiva de Grupo

Selecione Certificate of Device Identity, Outside Interface, Secure Client Package para conexão VPN.

- Certificado de identidade do dispositivo: ftd-vpn-cert
- Interface externa: externa (GigabitEthernet0/0)
- Pacote de cliente seguro: cisco-secure-client-win-5.1.4.74-webdeploy-k9.pkg



Observação: o recurso NAT Exempt foi desativado neste documento.

Firewall Device Manager	Monitoring Policies	Objects Device: firepo	ower	> 🚔 🙆	) (?)	admin Administrator	cisco SECURE
¢	Remote Users	ents - Internet	Q. Client Certificate OUTSIDE INTERFACE	PIREPOWER INSIDE INTERFACES Source for User Authentication		Corporate Resources	
		These settings control the l apply to all connection p	Global Settings basic functioning of the connection. rofiles; you cannot configure differe	Changes to any of these of nt settings in different profi	ptions les.		
		Certificate of Device Identity Itd-vpn-cert (Validation Us Fully-qualified Domain Name f e.g. ravpn.example.com Access Control for VPN Traffic Decrypted traffic option b and the authorization ACL downloa Bypass Access Control pr NAT Exempt ()	outside Inter outside (G or the Outside Interface	face igabitEthernet0/0) Port 443 e.g. 8080 ault. Enabling the Bypass Accet remote access VPN, the VPN F to VPN traffic rrmit-vpn)	ss Control		
		Secure Client Package If a user does not already have the installer when the client authenticat You can download secure client pa You must have the necessary secur	right secure client package installed, the es for the first time. The user can then int ckages from software.cisco.com (2, e client software license.	system will launch the secure cl stall the package from the syster	ient m.		
		Packages UPLOAD PACKAGE  V Windows: cisco-secure-clie	nt-win-5.1.4.74-webdeploy-k9.pkg	]			

Detalhes das configurações globais

Etapa 10. Confirmar resumo do perfil de conexão

Confirme as informações inseridas para a conexão VPN e clique no botão FINISH.

þ	Firewall Device Manager	题 Monitoring	© Policies	Dbjects	Device: firepower	$\odot$	۲	?	÷	admin Administrator	Ý	cisco SECURE

#### Summary

Review the summary of the Remote Access VPN configuration.

Client Certificate Only Map Specific Field CN (Common Name) OU (Organisational Unit) OU (Organisational Unit)
Client Certificate Only Map Specific Field CN (Common Name) OU (Organisational Unit) OU (Organisational Unit)
- Map Specific Field CN (Common Name) OU (Organisational Unit) OU (Organisational Unit) Chief - cert-match-pool Coincide - cert-match-prol diff fid-cert-match-grp
Map Specific Field CN (Common Name) OU (Organisational Unit)  Chd-cert-match-pool C # fid-cert-match-grp
Map Specific Field CN (Common Name) OU (Organisational Unit) C ftd-cert-match-pool C = - -
CN (Common Name) OU (Organisational Unit) Co ftd-cert-match-pool Co = ftd-cert-match-grp
OU (Organisational Unit) Co fid-cert-match-pool Co = - dia fid-cert-match-grp
Co (organisational only) Co (organisational only) Co fid-cert-match-pool Co = fid-cert-match-grp
© ftd-cert-match-pool © =  € ftd-cert-match-grp
C fid-cert-match-pool C = _ # fid-cert-match-grp
C ftd-cert-match-pool
C ftd-cert-match-pool
C ftd-cert-match-pool C =
ି –  ଣ୍ଡୁ ftd-cert-match-grp
–
தீ ftd-cert-match-grp
₫ ftd-cert-match-grp
1 -
-
Unlimited / 1 minutes
30 / 1 minutes
3
Allow all traffic over tunnel
Allow all traffic over tunnel
SecureClientProfile
옷 ftd-vpn-cert
GigabitEthemet0/0 (outside)
-
443
No
No
-
-
Windows: cisco-secure-client-win-5.1.4.74-webdeploy-k9.pkg

Confirmar resumo do perfil de conexão

### Confirmar na CLI do FTD

Confirme as configurações de conexão VPN na CLI do FTD após a implantação do FDM.

// Defines IP of interface interface GigabitEthernet0/0 speed auto nameif outside cts manual propagate sgt preserve-untag policy static sgt disabled trusted security-level 0 ip address 192.168.1.200 255.255.255.0 // Defines a pool of addresses ip local pool ftd-cert-match-pool 172.16.1.150-172.16.1.160 // Defines Trustpoint for Server Certificate crypto ca trustpoint ftd-vpn-cert enrollment terminal keypair ftd-vpn-cert crl configure // Server Certificate crypto ca certificate chain ftdvpn-ca-cert certificate ca 5242a02e0db6f7fd 3082036c 30820254 a0030201 02020852 42a02e0d b6f7fd30 0d06092a 864886f7 . . . . . . quit // Defines Trustpoint for CA crypto ca trustpoint ftdvpn-ca-cert enrollment terminal validation-usage ssl-client crl configure // CA crypto ca certificate chain ftdvpn-ca-cert certificate ca 5242a02e0db6f7fd 3082036c 30820254 a0030201 02020852 42a02e0d b6f7fd30 0d06092a 864886f7 . . . . . . quit // Configures the FTD to allow Cisco Secure Client connections and the valid Cisco Secure Client images webvpn enable outside http-headers hsts-server enable max-age 31536000 include-sub-domains no preload hsts-client enable x-content-type-options x-xss-protection content-security-policy anyconnect image disk0:/anyconnpkgs/cisco-secure-client-win-5.1.4.74-webdeploy-k9.pkg 2 anyconnect profiles secureClientProfile disk0:/anyconncprofs/secureClientProfile.xml anyconnect enable tunnel-group-list enable cache disable error-recovery disable

// Configures the group-policy to allow SSL connections

group-policy ftd-cert-match-grp internal group-policy ftd-cert-match-grp attributes dhcp-network-scope none vpn-simultaneous-logins 3 vpn-idle-timeout 30 vpn-idle-timeout alert-interval 1 vpn-session-timeout none vpn-session-timeout alert-interval 1 vpn-filter none vpn-tunnel-protocol ssl-client split-tunnel-policy tunnelall ipv6-split-tunnel-policy tunnelall split-dns none split-tunnel-all-dns disable client-bypass-protocol disable msie-proxy method no-modify vlan none address-pools none ipv6-address-pools none webvpn anyconnect ssl dtls none anyconnect mtu 1406 anyconnect ssl keepalive none anyconnect ssl rekey time none anyconnect ssl rekey method none anyconnect dpd-interval client none anyconnect dpd-interval gateway none anyconnect ssl compression none anyconnect dtls compression none anyconnect modules none anyconnect profiles value secureClientProfile type user anyconnect ssl df-bit-ignore disable always-on-vpn profile-setting

// Configures the tunnel-group to use the certificate authentication tunnel-group ftd-cert-match-vpn type remote-access tunnel-group ftd-cert-match-vpn general-attributes address-pool ftd-cert-match-pool default-group-policy ftd-cert-match-grp tunnel-group ftd-cert-match-vpn webvpn-attributes authentication certificate group-alias ftd-cert-match-vpn enable

#### Confirmar no cliente VPN

Etapa 1. Copie o perfil do cliente seguro para o cliente VPN

Copie o perfil de cliente seguro para o cliente VPN do engenheiro e o cliente VPN do gerente.



Observação: o diretório do perfil de cliente seguro no computador Windows: C:\ProgramData\Cisco\Cisco Secure Client\VPN\Profile

📙 🖂 📃 🗢 🛛 Profil	le				
File Home	Share	View			
← → • ↑ 📘	> Th	is PC > Local Disk (C:) > ProgramDat	a > Cisco > Cisco Secure Clie	ent > VPN > Profile	~ <
		Name	Date modified	Туре	Size
Quick access		MgmtTun	€, ∠3/2024 20:15	File folder	
Deventop	1	AnvConnectProfile vsd	6/., 2024 21:44	XSD File	97 KB
Downloads     Documents	π *	secureClientProfile	7 12, 2J24 10:48	XML Document	4 KB



#### Etapa 2. Confirmar certificado do cliente

No cliente VPN do engenheiro, navegue para Certificates - Current User > Personal > Certificates, verifique o certificado do cliente usado para autenticação.



Confirmar certificado para cliente VPN do engenheiro

Clique duas vezes no certificado do cliente, navegue para Detalhes, verifique os detalhes de Assunto.

• Assunto: CN = vpnEngineerClientCN

Certificate	×
General Details Certification	Path
Show: <all></all>	$\sim$
Field	Value ^
Valid to	Wednesday, June 18, 2025 5:
Subject	vpnEngineerClientCN, vpnEngi
the server we y	RSA (2048 Bits)
Public key parameters	05 00
Key Usage	Digital Signature, Key Encipher
Enhanced Key Usage	Client Authentication (1.3.6.1
Netscape Comment	xca certificate
Thumborint algorithm	cha1 *
CN = vonEngineerClientCN	
O = Cisco	
S = Tokyo	
C = JP	
	Edit Properties Copy to File
	OK

Detalhes do certificado de cliente do engenheiro

No cliente VPN do gerenciador, navegue para Certificates - Current User > Personal > Certificates, verifique o certificado do cliente usado para autenticação.



Confirmar Certificado para Cliente VPN do Manager

Clique duas vezes no certificado do cliente, navegue para Detalhes, verifique os detalhes de Assunto.

Assunto: CN = vpnManagerClientCN

General Details Certification	Path	
Show: <all></all>	$\sim$	
Field	Value	<b>N</b>
and the second s	Thursday, June 19, 2025 9:41	
📰 Subject	vpnManagerClientCN, vpnMan	
PUDIC KEY	RSA (2048 Bits)	
Public key parameters	05 00	
🐻 Key Usage	Digital Signature, Key Encipher	
Enhanced Key Usage	Client Authentication (1.3.6.1	
Netscape Comment	xca certificate	
Thumhorint aborithm	cha1 Y	*
CN = vpnManagerClientCN O = Cisco L = Tokyo S = Tokyo C = JP	]	I
	Edit Properties Copy to File	
	OK	

×

Detalhes do Certificado de Cliente do Gerenciador

Etapa 3. Confirmar CA

🔊 Certificate

Tanto no cliente VPN do engenheiro quanto no cliente VPN do gerente, navegue para Certificates - Current User > Trusted Root Certification Authorities > Certificates, verifique a CA usada para autenticação.

• Emitido por: ftd-ra-ca-common-name

🖀 Console1 - [Console Root\Certificates - Current	t User\Trusted Root Certification A	Authorities\Certificates]				o ×
🚡 Eile Action View Favorites Window	Help					- 8 ×
🗢 🔿 🖄 🚾 🐇 🗞 💥 📾 🛛 🖉						
Console Root	Issued To	Issued By	Expiration Date	Intended Purposes	Friendly Nan ^	Actions
Certificates - Current User	Sec. 127.0.0.1	127.0.0.1	5/17/2027	Server Authenticati	duo-endpoir	Certificates 🔺
Personal	AAA Certificate Services	AAA Certificate Services	12/31/2028	Client Authenticati	Sectigo (AA/	More >
Trusted Root Certification Authorities	Baltimore CyberTrust Root	Baltimore CyberTrust Root	5/12/2025	Client Authenticati	DigiCert Balt	
Certificates	🔄 Class 3 Public Primary Cer	Class 3 Public Primary Cer	8/1/2028	Client Authenticati	VeriSign Clas	ftd-ra-ca 🔺
Connector	COMODO RSA Certificati	COMODO RSA Certificati	1/18/2038	Client Authenticati	Sectigo (forr	More >
Intermediate Certification Authorities	Copyright (c) 1997 Micros	Copyright (c) 1997 Micros	12/30/1999	Time Stamping	Microsoft Tii	
> Active Directory User Object	CONTRACTOR DESKTOP-VCKHRG1	DESKTOP-VCKHRG1	10/30/2022	Server Authenticati	www.infraey	
> Trusted Publishers	DigiCert Assured ID Root	DigiCert Assured ID Root	11/9/2031	<all></all>	<none></none>	
> Untrusted Certificates	DigiCert Assured ID Root	DigiCert Assured ID Root	11/9/2031	Client Authenticati	DigiCert	
> 🧾 Third-Party Root Certification Authoriti	🔄 🔄 DigiCert Global Root CA	DigiCert Global Root CA	11/9/2031	Client Authenticati	DigiCert	
> Constant Second Se	🔄 DigiCert Global Root G2	DigiCert Global Root G2	1/15/2038	Client Authenticati	DigiCert Glol	
> Client Authentication Issuers	DigiCert High Assurance	DigiCert High Assurance	11/9/2031	<all></all>	<none></none>	
> Smart Card Trusted Roots	DigiCert High Assurance	DigiCert High Assurance	11/9/2031	Client Authenticati	DigiCert	
> 🙀 Certificates (Local Computer)	DigiCert Trusted Root G4	DigiCert Trusted Root G4	1/15/2038	Client Authenticati	DigiCert Tru:	
		DCT Doot CA YO	9/30/2021	Client Authenticati	DST Root CA	
	🙀 ftd-ra-ca-common-name	ftd-ra-ca-common-name	/16/2029	<all></all>	<none></none>	
	Est olovalsign	Giobaloign	3/18/2029	Client Authenticati	GlobalSign R	
ConfirmerCA						

Confirmar CA

### Verificar

### Etapa 1. Iniciar conexão VPN

No cliente VPN do engenheiro, inicie a conexão do Cisco Secure Client. Não há necessidade de inserir o nome de usuário e a senha, a VPN se conectou com êxito.

O Cisco Secure Client	S Cisco Secure Client   cert-match X	S Cisco Secure Client	– 🗆 X
AnyConnect VPIL: Your client certificate will be used for authentication cert-match v Connect	Your clent certificate will be used for authentication Group: ftd-cert-match-vpn V	AnyConnect VPIE Connected to cert-match. cert-match	<ul> <li>Disconnect</li> </ul>
	OK Cancel	00:00:06	IPv4
O dada		¢ ()	-thuile CISCO

Conexão VPN bem-sucedida para o VPN Client do Engenheiro

No cliente VPN do gerenciador, inicie a conexão do Cisco Secure Client. A conexão VPN falhou devido a uma falha na validação do certificado.



Falha na conexão VPN para o cliente VPN do gerenciador

#### Etapa 2. Confirmar sessões VPN na CLI FTD

Execute show vpn-sessiondb detail anyconnect o comando na CLI do FTD (Lina) para confirmar as sessões de VPN do engenheiro.

firepower# show vpn-sessiondb detail anyconnect

Session Type: AnyConnect Detailed

Username : vpnEngineerClientCN Index : 32 Assigned IP: 172.16.1.150 Public IP: 192.168.1.11 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 : 14718 Bytes Rx : 12919 Pkts Tx: 2 Pkts Rx: 51 Pkts Tx Drop: 0 Pkts Rx Drop: 0 Group Policy : ftd-cert-match-grp Tunnel Group : ftd-cert-match-vpn Login Time : 05:42:03 UTC Tue Jul 2 2024 Duration: 0h:00m:11s Inactivity: 0h:00m:00s VLAN Mapping : N/A VLAN : none Audt Sess ID : 0000000000200006683932b Security Grp: none Tunnel Zone: 0

AnyConnect-Parent Tunnels: 1 SSL-Tunnel Tunnels: 1

AnyConnect-Parent: Tunnel ID : 32.1 Public IP : 192.168.1.11 Encryption : none Hashing : none TCP Src Port : 50170 TCP Dst Port : 443 Auth Mode : Certificate Idle Time Out: 30 Minutes Idle TO Left : 29 Minutes Client OS : win Client OS Ver: 10.0.17763 Client Type : AnyConnect Client Ver : Cisco AnyConnect VPN Agent for Windows 5.1.4.74 Bytes Tx : 7359 Bytes Rx : 0 Pkts Tx : 1 Pkts Rx : 0

#### Pkts Tx Drop: 0 Pkts Rx Drop: 0

SSL-Tunnel: Tunnel ID : 32.2 Assigned IP : 172.16.1.150 Public IP : 192.168.1.11 Encryption : AES-GCM-256 Hashing : SHA384 Ciphersuite : ECDHE-RSA-AES256-GCM-SHA384 Encapsulation: TLSv1.2 TCP Src Port : 50177 TCP Dst Port : 443 Auth Mode : Certificate Idle Time Out: 30 Minutes Idle TO Left : 30 Minutes Client OS : Windows Client Type : SSL VPN Client Client Ver : Cisco AnyConnect VPN Agent for Windows 5.1.4.74 Bytes Tx : 7359 Bytes Rx : 12919 Pkts Tx : 1 Pkts Rx : 51 Pkts Tx Drop : 0 Pkts Rx Drop : 0

#### Troubleshooting

Você pode esperar encontrar informações sobre a autenticação VPN no syslog de depuração do mecanismo Lina e no arquivo DART no computador Windows.

Este é um exemplo de logs de depuração no mecanismo Lina durante a conexão VPN do cliente do engenheiro.

Jul 02 2024 04:16:03: %FTD-7-717029: Identified client certificate within certificate chain. serial number: 7AF1C78ADCC8F941, subject name: CN=vpn Jul 02 2024 04:16:03: %FTD-6-717022: Certificate was successfully validated. serial number: 7AF1C78ADCC8F941, subject name: CN=vpnEngineerClient Jul 02 2024 04:16:04: %FTD-6-113009: AAA retrieved default group policy (ftd-cert-match-grp) for user = vpnEngineerClientCN Jul 02 2024 04:16:09: %FTD-6-725002: Device completed SSL handshake with client outside:192.168.1.11/50158 to 192.168.1.200/443 for TLSv1.2 sessi

#### Informações Relacionadas

Configurar o Serviço de Gerenciamento em Caixa do FDM para Firepower 2100 Configurar a VPN de Acesso Remoto no FTD Gerenciado pelo FDM Configurar e verificar o Syslog no Gerenciador de dispositivos do Firepower

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