Cisco IOS/CCP - Configurar DMVPN com Cisco CP

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Introduction

Este documento fornece uma configuração de exemplo para o túnel VPN Multiponto Dinâmico (DMVPN - Dynamic Multipoint VPN) entre roteadores hub e spoke usando o Cisco Configuration Professional (Cisco CP). Dynamic Multipoint VPN é uma tecnologia que integra diferentes conceitos, como GRE, criptografia IPSec, NHRP e roteamento para fornecer uma solução sofisticada que permite que os usuários finais se comuniquem com eficiência através dos túneis de IPSec spoke-to-spoke criados dinamicamente.

Prerequisites

Requirements

Para obter a melhor funcionalidade de DMVPN, é recomendável executar a versão principal do software Cisco IOS® 12.4, 12.4T e posterior.

Componentes Utilizados

As informações neste documento são baseadas nestas versões de software e hardware:

- Cisco IOS Router série 3800 com Software versão 12.4 (22)
- Cisco IOS Router série 1800 com Software versão 12.3 (8)
- Cisco Configuration Professional versão 2.5

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. If your network is live, make sure that you understand the potential impact of any command.

Conventions

Consulte as <u>Convenções de Dicas Técnicas da Cisco para obter mais informações sobre</u> <u>convenções de documentos.</u>

Informações de Apoio

Este documento fornece informações sobre como configurar um roteador como um spoke e outro roteador como um hub usando o Cisco CP. Inicialmente, a configuração do spoke é mostrada, mas posteriormente no documento, a configuração relacionada ao hub também é mostrada em detalhes para fornecer uma melhor compreensão. Outros spokes também podem ser configurados usando a abordagem semelhante para se conectar ao hub. O cenário atual usa estes parâmetros:

- Rede Pública do Roteador de Hub 209.165.201.0
- Rede de túnel 192.168.10.0
- Protocolo de roteamento usado OSPF

Configurar

Nesta seção, você encontrará informações para configurar os recursos descritos neste documento.

Nota: Use a Command Lookup Tool (somente clientes registrados) para obter mais informações sobre os comandos usados nesta seção.

Diagrama de Rede

Este documento utiliza a seguinte configuração de rede:



Configuração de spoke usando o Cisco CP

Esta seção mostra como configurar um roteador como um spoke usando o assistente de DMVPN passo a passo no Cisco Configuration Professional.

 Para iniciar o aplicativo Cisco CP e iniciar o assistente DMVPN, vá para Configurar > Segurança > VPN > Dynamic Multipoint VPN. Em seguida, selecione a opção Create a spoke in a DMVPN e clique em Launch the seleted task.

VPN		
Create Dynamic Multipoint VPN (DMVPN)	Edit Dynamic Multipoint VPN (DMVPN)	
Configure DMVPN Spoke		
Spoke 2	0	
Create a spoke (client) in a DMVPN		
Use this option to configure the rou and spoke network topology. To co know the hub's IP address, NHRP policy, IPSec Transform set and dy) ter as a spoke in a full mesh or hub mplete this configuration, you must information, pre-shared key, IKE namic routing protocol information.	
Use this option to configure the rou and spoke network topology. To co know the hub's IP address, NHRP policy, IPSec Transform set and dy Create a hub (server or head-end) in Use this option to configure the rou are configuring a backup hub, you r information, pre-shared key, IKE po dynamic routing protocol informatio	Iter as a spoke in a full mesh or hub mplete this configuration, you must information, pre-shared key, IKE namic routing protocol information. A DMVPN Iter as a primary or backup hub. If you must know the primary hub's NHRP olicy, IPSec Transform set and on.	
Use this option to configure the rou and spoke network topology. To co know the hub's IP address, NHRP policy, IPSec Transform set and dy Create a hub (server or head-end) in Use this option to configure the rou are configuring a backup hub, you r information, pre-shared key, IKE po dynamic routing protocol informatio	Iter as a spoke in a full mesh or hub mplete this configuration, you must information, pre-shared key, IKE namic routing protocol information. DMVPN Iter as a primary or backup hub. If you must know the primary hub's NHRP Dicy, IPSec Transform set and on.	

2. Clique em *Next (Avançar)* para começar.

DMVPN Spoke Wizard	
VPN Wizard	Configure a DMVPN spoke
	DMVPN allows you to create a scalable network that connects multiple remote routers to a central hub router using the same security features offered by site-to-site VPNs. DMVPN uses IPSec, NHRP, GRE and routing protocols to create secure tunnels between a hub and a spoke. This wizard allows you to configure the router as a DMVPN spoke. The wizard guides you through these tasks: * Specifying the DMVPN network topology. * Providing hub information. * Configuring a ORE tunnel interface. * Configuring a Per-shared key. * Configuring a IPSec transform set. * Configuring a dynamic routing protocol. To begin, click Next.
	< Back Next > Finish Cancel Help

3. Selecione a opção *Hub and Spoke network* e clique em *Next*.



 Especifique as informações relacionadas ao Hub, como a interface pública do roteador Hub e a interface de túnel do roteador Hub.

DMVPN Spoke Wizard (Hu	ib and Spoke Topology) - 20% Complete		×
VPN Wizard	Specify Hub Information Enter the IP address of the hub and the IP addre Contact your network administrator to get this in	ess of the hub's mGRE tunnel interface. formation.	
$\sim n$	Hub Information		
	IP address of hub's physical interface:	209.165.201.2	
	IP address of hub's mGRE tunnel interface:	192.168.10.2	
	Spoke You are configuring this spoke router Paddress of the mG to be entered above	tblic IP address be entered above Hub RE tunnel	
	<u><</u>	Back Next > Finish Cancel Help	2

5. Especifique os detalhes da interface túnel do spoke e a interface pública do spoke. Em seguida, clique em *Avançado*.

PN Wizard	GRE Tunnel Interface Config	uration		
	Select the interface that conn	ects to the Inte	met: FastEthernet0	*
	Selecting an interface cor be always up. GRE Tunnel Interface —	figured for a d	ialup connection may cause the connecti	ion to
	A GRE tunnel interface will address information for this	be created for interface.	this DMVPN connection. Please enter the	i.
The second second	IP address of the tunne	el interface —	Advanced settings	
	IP Address:		Click Advanced to verify that values	
	192.168.10.5		match peer settings.	N
	Subnet Mask:		Advanced	J
	255.255.255.0	24		
	Interface connected to Internet. This is the interface from which GRE/mGRE Tunnel originaties-	Logic IP ad interf are p in the For n help 1	al GRE/mGRE Tunnel interface. dress of GRE/mGRE tunnel ace on all hubs and spoke routers rivate IP addresses and must be same subnet. more information please click the button.	

6. Verifique os parâmetros do túnel e os parâmetros NHRP e certifique-se de que eles correspondam perfeitamente aos parâmetros do

m your network administrator l co CP defaults.	before changing
NHRP	
NHRP Authentication String:	DMVPN_NW
NHRP Network ID:	100000
NHRP Hold Time:	360
— GRE Tunnel Interface Inforr Tunnel Key:	100000
Bandwidth:	1000
MTU:	1400
Tunnel Throughput Delay:	1000

Hub.

7. Especifique a chave pré-compartilhada e clique em *Avançar*.

DMVPN Spoke Wizard (Hi	ub and Spoke Topology) - 40% Complete	
VPN Wizard	Authentication Select the method you of DMVPN network. You of the router must have a on this router must mail C Digital Certificates Pre-shared Keys pre-shared key: Reenter key:	want to use to authenticate this router to the p an use digital certificate or a pre-shared key. I valid certificate configured. If pre-shared key is to the keys configured on all other routers in s	eer device(s) in the f digital certificate is used, s used, the key configured the DMVPN network.
		Back Next Fini	sh Cancel Help

8. Clique em *Adicionar* para adicionar uma proposta IKE separada.

DMVPN Spoke Wizard (Hub and Spoke Topology) - 50% Complete

VPN Wizard

IKE Proposals

IKE proposals specify the encryption algorithm, authentication algorithm and key exchange method that is used by this router when negotiating a VPN connection with the remote device. For the VPN connection to be established with the remote device, the remote device should be configured with at least one of the policies listed below.

Click the Add... button to add more policies and the Edit... button to edit an existing policy.

A state of the sta		Priority	Encryption	Hash	D-H Group	Authentication	Туре
44		1	3DES	SHA_1	group2	PRE_SHARE	Cisco CP Defa
Sec. 1							
0							
-				1			
A STATE	1	Add	Edit.				
1270	-						
							1
					< Back Ne	d> Finish C	ancel Hel

9. Especifique os parâmetros de criptografia, autenticação e hash. Em seguida, clique em

Eneration:	rite_onvite
Eneration:	
Encryption.	D-H Group:
AES_192	group1 💉
Hash:	Lifetime:
SHA_1	24 0 0 HH:MM:S8

10. A política de IKE recém-criada pode ser vista aqui. Clique em Next.

X

VPN Wizard	IKE Prop IKE prop method t device. F device sh Click the	osals osals hat is or the hould I e Add	specify the en used by this n VPN connecti- be configured . button to ado	cryption algo outer when n on to be esta with at least t more policie	rithm, authenticat egotiating a VPN blished with the r one of the policies as and the Edit b	ion algorithm and connection with t emote device, the s listed below. putton to edit an e	i key exchange he remote e remote xisting policy.
		riority	Encryption	Hash	D-H Group	Authentication	Type
			3DES	SHA 1	group2	PRE SHARE	Cisco CP Defa
	Add	J	Edit				

11. Clique em Avançar para continuar com o conjunto de transformações padrão.

MONI Main and	Trappform Cot			
	A transform set specifies the data in the VPN tunnel. Sin communicate, the remote of one selected below. Click the Add button to ad transform set	ne encryption and aut ce the two devices m device must be config id a new transform se	hentication algorit ust use the same gured with the sam et and the Edit bu	hms used to protect the algorithms to le transform set as the itton to edit the specified
	Select Transform Set:			
C	Cisco CP Default Tr	ansform Set 🛛 💌		
	Details of the specified	transform set		
	Name	ESP Encryption	ESP Integrity	AH Integrity
11A2	ES ESP-3DES-SHA	ESP_3DES	ESP_SHA_HMAC	
110				
NA				
Non Non	A			
	Add Edit			

12. Selecione o protocolo de roteamento necessário. Aqui, *OSPF* está selecionado.

DMVPN Spoke Wizard (Hu	ib and Spoke Topology) - 70% Complete	×
VPN Wizard	Select Routing Protocol Routing protocols are used to advertise private networks behind this router to other routers in the DMVPN. Select the dynamic routing protocol you want to use. Note: You can only create as many OSPF processes as the number of interfaces that are configured with an IP address and have the status administratively up. C EIGRP COSPF	
	< Back (Next >) Finish Cancel Help	

 Especifique a ID do processo OSPF e a ID da área. Clique em Add para adicionar as redes a serem anunciadas pelo OSPF.



- 14. Adicione a rede do túnel e clique em OK.
- 15. Adicione a rede privada atrás do roteador spoke. Em seguida, clique em *Avançar*.

C Select an existin	C Select an existing OSPF process ID.				
Create a new Os	Create a new OSPF process ID:				
OSPF Area ID for tu	OSPF Area ID for tunnel network: 2				
Add the private network must be enabled of	vorks that you want i n the other routers to ks advertised using	to advertise to o send and re OSPF	the other routers in this DM ceive these advertisements		
Network	Wildcard Mask	Area	Add		
192.168.10.0	0.0.0.255	2	Edit		
172.16,18.0	0.0.0.255	2	Delete		
Private Network advertised to the	that will be DMVPN cloud.				
Internet	1				
	Create a new OS OSPF Area ID for tu Add the private network Crivate network Network 192.168.10.0 172.16.18.0 Private Network advertised to the	Select an existing OSPF process ID: OSPF Area ID for tunnel network: Add the private networks that you want in must be enabled on the other routers to a solution of the other r	Select an existing OSPF process ID. Create a new OSPF process ID. OSPF Area ID for tunnel network: Add the private networks that you want to advertise to must be enabled on the other routers to send and re Private networks advertised using OSPF <u>Network Wildcard Mask Area 192.168.10.0 0.0.255 2 172.16.18.0 0.0.255 2 172.16.18.0 0.0.255 2 Private Network that will be advertised to the DMVPN cloud. </u>		

16. Clique em *Concluir* para concluir a configuração do assistente.



17. Clique em *Deliver* para executar os comandos. Marque a caixa de seleção *Save running config to device's startup config* se desejar salvar a configuração.

Deliver Configuration to Device	
Deliver delta commands to the device's running config.	
Preview commands that will be delivered to the device's running configuration.	
crypto ipsec transform-set ESP-3DES-SHA esp-sha-hinac esp-3des mode transport exit crypto ipsec profile CiscoCP_Profile1 set transform-set ESP-3DES-SHA exit interface Tunnel0 exit	
default interface Tunnel0	
herrace funneu herracetta 1000	~
	2.
The differences between the running configuration and the startup configuration are I the device is turned off. Save running config. to device's startup config. This operation can take several minutes. Deliver Cancel Save to file Help	lost whenever

A configuração da CLI relacionada é mostrada aqui:

Spoke Router

```
crypto ipsec transform-set ESP-3DES-SHA esp-sha-hmac
esp-3des
mode transport
exit
crypto ipsec profile CiscoCP_Profile1
set transform-set ESP-3DES-SHA
exit
interface Tunnel0
exit
default interface Tunnel0
interface Tunnel0
bandwidth 1000
delay 1000
ip nhrp holdtime 360
ip nhrp network-id 100000
ip nhrp authentication DMVPN_NW
ip ospf network point-to-multipoint
ip mtu 1400
no shutdown
ip address 192.168.10.5 255.255.255.0
ip tcp adjust-mss 1360
ip nhrp nhs 192.168.10.2
ip nhrp map 192.168.10.2 209.165.201.2
tunnel source FastEthernet0
tunnel destination 209.165.201.2
tunnel protection ipsec profile CiscoCP_Profile1
tunnel key 100000
exit
router ospf 10
network 192.168.10.0 0.0.0.255 area 2
network 172.16.18.0 0.0.0.255 area 2
exit
crypto isakmp key ******* address 209.165.201.2
crypto isakmp policy 2
authentication pre-share
encr aes 192
hash sha
group 1
lifetime 86400
exit
crypto isakmp policy 1
authentication pre-share
encr 3des
hash sha
group 2
lifetime 86400
exit
```

Configuração de hub usando o Cisco CP

Uma abordagem passo a passo sobre como configurar o roteador de hub para o DMVPN é mostrada nesta seção.

1. Vá para *Configure > Security > VPN > Dynamic Multipoint VPN* e selecione a opção *Create a hub in a DMVPN*. A, clique em *Iniciar a tarefa selecionada*.

VPN		
reate Dynamic Multipoint VPN (DMVP)	4) Edit Dynamic Multipoint VPN (DMVPN)	
Create a spoke (client) in a DMVPI Use this option to configure the r	I outer as a spoke in a full mesh or hub	
and spoke network topology. To know the hub's IP address, NHR policy, IPSec Transform set and	complete this configuration, you must IP information, pre-shared key, IKE dynamic routing protocol information.	
Create a hub (server or head-end)	in a DMVPN	
Use this option to configure the r are configuring a backup hub, yo information, pre-shared key, IKE dynamic routing protocol informa	outer as a primary or backup hub. If you u must know the primary hub's NHRP policy, IPSec Transform set and ation.	
	Launch the selected task	

2. Clique em Next.

DMVPN Hub Wizard	
VPN Wizard	Configure a DMVPN hub
	<text><text><text><list-item><list-item><list-item><list-item><list-item><list-item><list-item><list-item></list-item></list-item></list-item></list-item></list-item></list-item></list-item></list-item></text></text></text>
	< Back Next > Finish Cancel Help
0 - 1	

3. Selecione a opção *Hub and Spoke network* e clique em *Next*.



4. Selecione *Primary Hub (Hub principal)*. Em seguida, clique em *Avançar*.

DMVPN Hub Wizard (Hu	b and Spoke Topology) - 15% Complete	
VPN Wizard	Type of Hub In a DMVPN network there will be a hub router and multiple spoke routers connecting thub. You can also configure multiple routers as hubs. The additional routers will act as backups. Select the type of hub you want to configure this router as.	o the 3
	Primary hub	
	Fackup Hub(Cisco CP does not support backup hub configuration on this router)	
	< Back Next > Finish Cancel	Help

5. Especifique os parâmetros da interface de túnel e clique em *Avançado*.

VPN Wizard	Multipoint GRE Tunnel Inte	rface Configura	tion			
ue. dec destandantes.	Select the interface that connects to the Internet: (GigabitEthernet0/0)					
	A Selecting an interface c be always up. — Multi point GRE (mGRE	onfigured for a d	ialup connection may cause the connectio			
	A GRE tunnel interface wi address information for the	ll be created for his interface. nel interface —	this DMVPN connection. Please enter the Advanced settings			
(7 46))	IP Address:		Click Advanced to verify that values			
	192.168.10.2		match peer settings.			
	Subnet Mask:	17.5				
1×6	255.255.255.0	24				
	Interface connected to Internet. This is the interface from which GRE/mGRE Tunnel originaties- Internet	Logic IP ac are p in the For r help	cal GRE/mGRE Tunnel interface. Idress of GRE/mGRE tunnel face on all hubs and spoke routers rivate IP addresses and must be a same subnet. more information please click the button.			

6. Especifique os parâmetros do túnel e os parâmetros NHRP. Em seguida, clique em

from your network administrator t Cisco CP defaults.	pefore changin
NHRP	
NHRP Authentication String:	DMVPN_NW
NHRP Network ID:	100000
NHRP Hold Time:	360
Tunnel Key:	100000
Bandwidth:	1000
MTU:	1400
Tunnel Throughput Delay:	1000

7. Especifique a opção com base na configuração da



8. Selecione *Chaves pré-compartilhadas* e especifique as chaves pré-compartilhadas. Em seguida, clique em

Avançar.				
DMVPN Hub Wizard (Hub	and Spoke Topology) -	40% Complete		
VPN Wizard	Authentication Select the method you w DMVPN network. You can the router must have a w on this router must mate © Digital Certificates © Pre-shared Keys pre-shared key: Reenter key:	vant to use to auth an use digital certifi valid certificate con ch the keys configu	enticate this router to t cate or a pre-shared k figured. If pre-shared k ired on all other router	he peer device(s) in the ey. If digital certificate is use ey is used, the key configure s in the DMVPN network.
			< Back Next >	Finish Cancel Help

9. Clique em *Adicionar* para adicionar uma proposta IKE separada.

DMVPN Hub Wizard (Hub and Spoke Topology) - 50% Complete

VPN Wizard

ard IKE IKE dev dev

IKE Proposals

IKE proposals specify the encryption algorithm, authentication algorithm and key exchange method that is used by this router when negotiating a VPN connection with the remote device. For the VPN connection to be established with the remote device, the remote device should be configured with at least one of the policies listed below.

Click the Add... button to add more policies and the Edit... button to edit an existing policy.

		Priority	Encryption	Hash	D-H Group	Authentication	Туре
	2	1	3DES	SHA_1	group2	PRE_SHARE	Cisco CP Defa
/							
prist -							
and the second							
	-			t			
Star 10	P	\dd	Edit				
100	~						
1.00							
							- 14 C

10. Especifique os parâmetros de criptografia, autenticação e hash. Em seguida, clique em

Priority:	Authentication:
2	PRE_SHARE
Encryption:	D-H Group:
AES_192 💙	group1 👻
Hash:	Lifetime:
SHA_1	24 0 0 HH:MM:SS

11. A política de IKE recém-criada pode ser vista aqui. Clique em Next.

A					
IKE Propos IKE propos method tha device. For device show Click the A	als specify the er t is used by this r the VPN connecti uld be configured dd button to add	cryption algo outer when n on to be esta with at least d more polici	rithm, authenticat egotiating a VPN iblished with the r one of the policie es and the Edit	ion algorithm and connection with t emote device, the s listed below. button to edit an e	d key exchange he remote e remote existing policy.
Prio	rity Encryption	Hash	D-H Group	Authentication	Type
	3DES	SHA 1	aroup2	PRE SHARE	Cisco CP Defa
2	AES_192	SHA_1	group1	PRE_SHARE	User Defined
Add	Edit			Si i	1
	IKE Propos IKE propos method tha device. For device show Click the A	IKE Proposals IKE proposals specify the en- method that is used by this in device. For the VPN connecti- device should be configured Click the Add button to add Priority Encryption 2 AES_192 2 AES_192	IKE Proposals IKE proposals specify the encryption algo- method that is used by this router when in- device. For the VPN connection to be esta- device should be configured with at least Click the Add button to add more polici Priority Encryption Hash 2 AES_192 SHA_1 2 AES_192 SHA_1 Add Edit	IKE Proposals IKE proposals specify the encryption algorithm, authenticat method that is used by this router when negotiating a VPN device. For the VPN connection to be established with the r device should be configured with at least one of the policie Click the Add button to add more policies and the Edit Priority Encryption Hash D-H Group 2 AES_192 SHA_1 group2 2 AES_192 SHA_1 group1	IKE Proposals IKE proposals specify the encryption algorithm, authentication algorithm and method that is used by this router when negotiating a VPN connection with the device. For the VPN connection to be established with the remote device, the device should be configured with at least one of the policies listed below. Click the Add button to add more policies and the Edit button to edit and Priority Encryption Hash D-H Group Authentication Priority Encryption Hash D-H Group Authentication 2 AES_192 SHA_1 group2 PRE_SHARE 2 AES_192 SHA_1 group1 PRE_SHARE 2 AES_192 SHA_1 group1 PRE_SHARE

12. Clique em Avançar para continuar com o conjunto de transformações padrão.

VPN Wizard	A transfor data in th commun one sele Click the transform Select T	m set rm set specifies le VPN tunnel. Si licate, the remote cted below. Add button to a n set. ransform Set:	the encryption and aut nce the two devices m device must be config add a new transform se	thentication algorit ust use the same gured with the sam et and the Edit bu	hms used to protect the algorithms to e transform set as the tton to edit the specifie
		sco CP Default 1	fransform Set 🛛 🔽 🗖		
	Detai	Is of the specifie	d transform set		
	1	Name	ESP Encryption	ESP Integrity	AH Integrity
B					
	A	dd Ed	it	Back Next > E	inish Cancel He

13. Selecione o protocolo de roteamento necessário. Aqui, *OSPF* está selecionado.

DMVPN Hub Wizard (Hub	o and Spoke Topology) - 70% Complete	×
	Select Routing Protocol Routing protocols are used to advertise private networks behind this router to other routers in the DMVPN. Select the dynamic routing protocol you want to use. Note: You can only create as many OSPF processes as the number of interfaces that are configured with an IP address and have the status administratively up.	
	Back Next > Finish Cancel Help	1

14. Especifique a ID do processo OSPF e a ID da área. Clique em *Add* para adicionar as redes a serem anunciadas pelo OSPF.



- 15. Adicione a rede do túnel e clique em OK.
- 16. Adicione a rede privada atrás do roteador Hub e clique em *Avançar*.

Wizard	ting Information			
C S	elect an existing	OSPF process ID		37
(F C	reate a new OS	PF process ID:		10
osi osi	PF Area ID for tu	nnel network:		2
mus	t be enabled on Private network	the other routers t s advertised using	o send and rec OSPF	eive these advertisements.
	Network	Wildcard Mask	Area	Add
No. and the second second	192.168.10.0	0.0.0.255	2	Eat
	172.16.20.0	0.0.0.255	2	Detete
	Palanta Manada A	hat will be		
	advertised to the	DMVPN cloud.		

17. Clique em *Concluir* para concluir a configuração do assistente.



18. Clique em *Deliver* para executar os

comandos.



Configuração CLI para Hub

A configuração CLI relacionada é mostrada aqui:

Roteador de Hub
!
crypto isakmp policy 1
encr 3des
authentication pre-share
group 2
!
crypto isakmp policy 2
encr aes 192
authentication pre-share
crypto isakmp key abcd123 address 0.0.0.0 0.0.0.0
crypto ipsec transform-set ESP-3DES-SHA esp-3des esp-
sha-hmac
mode transport
!
crypto ipsec profile ciscote_profile
Set Clansion-Set ESP-SDES-SHA
: interface TunnelO
handwidth 1000
ip address 192.168.10.2 255.255.255.0
no ip redirects
ip mtu 1400
ip nhrp authentication DMVPN_NW
ip nhrp map multicast dynamic
ip nhrp network-id 100000

```
ip nhrp holdtime 360
ip tcp adjust-mss 1360
ip ospf network point-to-multipoint
delay 1000
tunnel source GigabitEthernet0/0
tunnel mode gre multipoint
tunnel key 100000
tunnel protection ipsec profile CiscoCP_Profile1
!
router ospf 10
log-adjacency-changes
network 172.16.20.0 0.0.0.255 area 2
network 192.168.10.0 0.0.255 area 2
```

Edite a configuração de DMVPN usando o CCP

Você pode editar os parâmetros de túnel DMVPN existentes manualmente ao selecionar a interface de túnel e clicar em *Editar*.

VPN				
reate Dynamic Multipoi	nt VPN (DMVPN)	Edit Dynamic	: Multipoint VPN (DMVPN)	Add
Interface	IPSec Pro	ofile	IP Address	Description
Funnel0	CiscoCP_	Profile1	192.168.10.2	<none></none>
Details for interface Tur	inel0:			
Details for interface Tun Item Name	inelO:		Item Value	
Details for interface Tur Item Name Interface	inelO:		Item Value Tunnel0	
Details for interface Tur Item Name nterface PSec Profile	nel0:		Item Value Tunnel0 CiscoCP_Profile1	
Details for interface Tur Item Name Interface PSec Profile P Address	nelO:		Item Value Tunnel0 CiscoCP_Profile1 192.168.10.2	
Details for interface Tur Item Name Interface PSec Profile P Address Description Funnel Bandwidth	inelO:		Item Value Tunnel0 CiscoCP_Profile1 192.168.10.2 <none> 1000</none>	
Details for interface Tur Item Name Interface PSec Profile P Address Description Funnel Bandwidth WTU	nel0:		Item Value Tunnel0 CiscoCP_Profile1 192.168.10.2 «None» 1000 1400	
Details for interface Tun Item Name Interface PSec Profile P Address Description Funnel Bandwidth MTU NHRP Authentication	inelO:		Item Value Tunnel0 CiscoCP_Profile1 192.168.10.2 «None» 1000 1400 DMVPN_NW	
Details for interface Tun Item Name Interface PSec Profile P Address Description Tunnel Bandwidth MTU NHRP Authentication NHRP Network ID	inelO:		Item Value Tunnel0 CiscoCP_Profile1 192.168.10.2 <none> 1000 1400 DMVPN_NW/ 100000</none>	
Details for interface Tur Item Name Interface IPSec Profile IP Address Description Tunnel Bandwidth VITU NHRP Authentication NHRP Network ID NHRP Hold Time	inelO:		Item Value Tunnel0 CiscoCP_Profile1 192.168.10.2 «None» 1000 1400 DMVPN_NW 100000 360	

Os parâmetros de interface de túnel, como MTU e chave de túnel, são modificados na guia Geral.

eneral NHRP I	Routing
IP address:	192.168.10.2
Mask:	255.255.255.0 24
- Tunnel Source:	
Interface:	GigabitEthernet0/0
C IP address:	
• Tunnel Destination	: . int GRE Tunnel
Tunnel Destination This is an multipo PF / Hostname:	int GRE Tunnel
Tunnel Destination This is an multipo This is an multipo The / Hostname: PSec Profile:	int GRE Tunnel CiscoCP_Proti Add 1400
Tunnel Destination This is an multipo P / Hostname: PSec Profile: MTU: Bandwidth:	int GRE Tunnel CiscoCP_Proti Add 1400 1000
Tunnel Destination This is an multipo This is an multipo The rest of the rest	CiscoCP_Profi Add CiscoCP_Profi Add 1400 1000 1000

1. Os parâmetros relacionados ao NHRP são encontrados e modificados de acordo com o requisito na guia *NHRP*. Para um roteador spoke, você deve ser capaz de visualizar o NHS como o endereço IP do roteador Hub. Clique em *Add* na seção NHRP Map para adicionar o

udhantication Chriner	DLA (DL L	
vumentication string.	DWINE NO.	474
fold Time:	360	
letwork ID:	100000	
Next Hop Servers	S	
Next Hop Servers	5	Add
		Delete
NHRP Map		
	Mack	Add
Destination	maon	
Destination «None»	«None»	Edit Delete

mapeamento NHRP.

2. Dependendo da configuração da rede, os parâmetros de mapeamento NHRP podem ser configurados conforme mostrado

C Statically configure the	e IP-to-NMBA address mapping
of IP destinations co	pnected to a NBMA petwork
Destination reach	hable through NBMA network
IP Address	
Mask (Optional):	
NBMA address di	rectly reachable
IP Address	
Contraction of the	
Configure NBMA addr	esses used as destinations for broadcas
or multicast packets to	be sent over a tunnel network.
G Demonstrative add a	weine ID addresses te buble wulfisset o
 Dynamically add s 	spokes in addresses to hub's mullicast ca
C IP address of NBM	MA address directly reachable

Os parâmetros relacionados ao roteamento são exibidos e modificados na guia Roteamento.

	9
Routing Protocol:	OSPF
Ø OSPF	
OSPF Network Type:	point-to-multipoint
OSPF Priority:	
Hello Interval:	
Dead Interval:	

Mais informações

Os túneis DMVPN são configurados destas duas maneiras:

- Comunicação spoke-to-spoke através do hub
- Comunicação spoke-to-spoke sem hub

Neste documento, apenas o primeiro método é discutido. Para permitir o estabelecimento de túneis IPSec dinâmicos spoke-to-spoke, essa abordagem é usada para adicionar o spoke à nuvem DMVPN:

- 1. Inicie o assistente DMVPN e selecione a opção de configuração Spoke.
- 2. Na janela *DMVPN Network Topology*, selecione a opção *Full mesh network* em vez da opção *Hub and Spoke network*.



3. Conclua o resto da configuração usando as mesmas etapas das outras configurações neste documento.

Verificar

No momento, não há procedimento de verificação disponível para esta configuração.

Informações Relacionadas

- VPN multiponto dinâmica da Cisco: Comunicações simples e seguras entre filiais
- VPN multiponto dinâmica (DMVPN) do IOS 12.2
- Suporte Técnico e Documentação Cisco Systems