Cisco IOS/CCP — 使用Cisco CP配置DMVPN

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<u>简介</u>

本文档提供使用思科配置专家(思科CP)在中心路由器和分支路由器之间建立动态多点 VPN(DMVPN)隧道的示例配置。 动态多点VPN技术集成了GRE、IPSec加密、NHRP和路由等不同 概念,可提供高级解决方案,使最终用户能够通过动态创建的分支到分支IPSec隧道进行有效通信 。

<u>先决条件</u>

<u>要求</u>

为获得最佳DMVPN功能,建议您运行Cisco IOS®软件版本12.4 mainline、12.4T及更高版本。

<u>使用的组件</u>

本文档中的信息基于以下软件和硬件版本:

- 软件版本为12.4(22)的思科IOS路由器3800系列
- 软件版本12.3(8)的Cisco IOS路由器1800系列
- 思科配置专业版2.5

本文档中的信息都是基于特定实验室环境中的设备编写的。本文档中使用的所有设备最初均采用原

始(默认)配置。如果您使用的是真实网络,请确保您已经了解所有命令的潜在影响。

<u>规则</u>

有关文档约定的更多信息,请参考 Cisco 技术提示约定。

<u>背景信息</u>

本文档提供了如何使用Cisco CP将路由器配置为辐条,将另一台路由器配置为集线器的信息。初始 辐条配置如图所示,但稍后在文档中还会详细显示集线器相关配置,以便更好地了解。也可使用类 似方法配置其他辐条以连接到集线器。当前场景使用以下参数:

- 集线器路由器公共网络 209.165.201.0
- •隧道网络— 192.168.10.0
- 使用的路由协议 OSPF

<u>配置</u>

本部分提供有关如何配置本文档所述功能的信息。

注意:使用命<u>令查找工</u>具(<u>仅</u>限注册客户)可获取有关本节中使用的命令的详细信息。

<u>网络图</u>

本文档使用以下网络设置:



使用思科CP的分支配置

本节介绍如何使用Cisco Configuration Professional中的分步DMVPN向导将路由器配置为辐条。

1. 要启动Cisco CP应用并启动DMVPN向导,请转至*Configure > Security > VPN > Dynamic Multipoint VPN*。然后,选择"在DMVPN*中创建辐*条"选项,然后单击"*启动选定任务*"。



2. 单击"下一步"开始

DMVPN Spoke Wizard	
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 GRE tunnel interface. * Configuring a pre-shared key. * Configuring IKE policies. * Configuring an IPSec transform set. * Configuring a dynamic routing protocol. To begin, click Next.
	< Back Next > Finish Cancel Help

3. 选择中心*辐射型网络选*项,然后单*击下一步*。



4. 指定集线器相关信息,例如集线器路由器的公共接口和集线器路由器的隧道接口。

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 P address of the mGi to be entered above	tblic IP address be entered above Hub RE tunnel	
	<	Back Next > Finish Cancel Help	2

5. 指定分支的隧道接口详细信息和分支的公共接口。然后,单击Advanced。

 Select the interface that conduct to be always up. GRE Tunnel Interface of the always up. GRE Tunnel Interface will address information for the address of the tunnel interface will address of the tunnel interface. IP address: 192.168.10.5 Subnet Mask: 255.255.255.0 	ects to the Internet: figured for a dialup coni be created for this DMVF interface. I interface Adva Click Ac match p	FastEthernet0
Selecting an interface co be always up. GRE Tunnel Interface → A GRE tunnel interface will address information for the IP address of the tunn IP Address: 192.168.10.5 Subnet Mask: 255.255.255.0	figured for a dialup coni be created for this DMVF interface. Interface Adva	nection may cause the connection to PN connection. Please enter the anced settings tvanced to verify that values peer settings.
A GRE tunnel interface will address information for the IP address of the tunn IP Address: 192.168.10.5 Subnet Mask: 255.255.255.0	be created for this DMVF interface. Interface Adva Click Adva 24	PN connection. Please enter the anced settings dvanced to verify that values beer settings.
IP address of the tuning IP Address: IP Ad	Click Ac Click Ac match p	dvanced to verify that values beer settings.
IP Address: 192.168.10.5 Subnet Mask: 255.255.255.0	Click Admatch p	dvanced to verify that values beer settings.
192.168.10.5 Subnet Mask: 255.255.255.0	24 🗑 match ;	peer settings.
Subnet Mask: 255.255.255.0	24	l dump and
265.255.255.0	24	Advanced
Interface connected to Internet This is the interface from which GRE/mGRE Tunnel originaties-	Logical GRE/mG IP address of GR interface on all h are private IP ad in the same subr For more informat help button.	RE Tunnel interface. RE/mGRE tunnel ubs and spoke routers diresses and must be net. ation please click the

6. 验证隧道参数和NHRP参数,并确保它们与集线器参数完全匹配。

all devices in this DMVPN. Obt om your network administrator isco CP defaults.	ain the correct value before changing the
NHRP NHRP Authentication String:	DMVPN NW
NHRP Network ID:	100000
NHRP Hold Time:	360
GRE Tunnel Interface Inform	nation
Tunnel Key:	100000
Bandwidth:	1000
MTU:	1400
Tunnel Throughput Delay:	1000

7. 指定预共享密钥,然后单击*Next*。

VPN Wizard	Authentication		
	Select the method you DMVPN network. You o the router must have a on this router must ma	want to use to authenticate this router to the an use digital certificate or a pre-shared ke valid certificate configured. If pre-shared ke tch the keys configured on all other routers s	e peer device(s) in the y. If digital certificate is used y is used, the key configured in the DMVPN network.
	• Pre-shared Keys		
	pre-shared key:		
Re	Reenter key:		
		and (ma) -	

8. 单击Add以添加单独的IKE建议。

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.

1		Priority	Encryption	Hash	D-H Group	Authentication	Туре
		t	3DES	SHA_1	group2	PRE_SHARE	Cisco CP Def
17							
212							
See. See							
A START							
and and a second	()	Add	Edit.				
and the				-			
1 1000							
Han t							
and the second second					1.1.1.1.1.1	1 1	
					< Back Nex	d> Finish C	ancel He

9. 指定加密、身份验证和哈希参数。然后,单击OK。

Priority:	Authentication:
2	PRE_SHARE
Encryption:	D-H Group:
AES_192 🔽	group1 😽
lash:	Lifetime:
SHA_1	24 0 0 HH:MM:SS

10. 可在此处查看新创建的IKE策略。单击 Next。

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.

1 3DES SHA_1 group2 PRE_SHARE Cisco CP De 2 AES_192 SHA_1 group1 PRE_SHARE User Defined AddEdit		Priority	Encryption	Hash	D-H Group	Authentication	Туре
2 AES_192 SHA_1 group1 PRE_SHARE User Defined	1	1	3DES	SHA_1	group2	PRE_SHARE	Cisco CP De
Add		2	AES_192	SHA_1	group1	PRE_SHARE	User Defined
AddEdit.							
		Add	Edit				
		Add	Edit				

11. 单击Next继续使用默认转换集。

	Terret	arm Det			
VPN Wizard	Atransfo	orm set orm set snecifies #	e encontion and suff	nentication algorit	hms used to protect th
	data in t	the VPN tunnel. Sin	ce the two devices mi	ust use the same	algorithms to
	commu	nicate, the remote (levice must be config	ured with the sam	e transform set as th
	one sel	ected below.			
>	Click the	e Add button to ad	d a new transform se	t and the Edit bu	tton to edit the specifi
	transfor	m set.			
	Colort 1	Francform Cot			
	Select	rransionn oei.			
12716		cisco CP Default Tr	ansform Set 🔤 💌 🗖		
	Deta	ails of the specified	transform set		
		Namo	EQD Encomption	ESP Integrity	ALI Integrity
		EOD 2DEO OHA		EOP QUA UMAC	Arrintegnty
		Ear abearants	E01_00E0	For Torrections	
A Section					
Le Coix				12-	
		Add. Edit			
		200 T 1000			
A CONTRACT OF					

12. 选择所需的路由协议。此处选*择*了OSPF。

DMVPN Spoke Wizard (Hu	b 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	

13. 指定OSPF进程ID和区域ID。单击Add以添加要由OSPF通告的网络。



15. 在分支路由器后面添加专用网络。然后单击 Next。

Wizard	Routing Informatio	n,		
CALCULATION OF CALCULATIO	C Select an existin	ig OSPF process ID		
	Create a new Os	SPF process ID:		10
~	OSPF Area ID for to	unnel network:		2
Jul	Add the private network must be enabled o	works that you want in the other routers t ks advertised using	to advertise to o send and rec OSPF	the other routers in this DMVP eive these advertisements.
	Network	Wildcard Mask	Area	Add
	192.168.10.0 172.16.18.0	0.0.0.255 0.0.0.255	2	Edil Delete
2	Private Network advertised to the	that will be e DMVPN cloud.		•
1 and				

16. 单击Finish完成向导配置。





相关CLI配置如下所示:

分支路由器

```
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
```

使用Cisco CP的集线器配置

本部分显示了如何为DMVPN配置中心路由器的分步方法。

1. 转到*Configure > Security > VPN > Dynamic Multipoint VPN*,并选择*Create a hub in a DMVPN*选项。单击"Launch the selected task(启*动所选任务)*"。



2. 单击 Next。

VPN Wizard	Configure a BMVPN hub
	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 hub. The wizard guides you through these tasks: * Specifying the DMVPN network topology. * Specifying the DMVPN network topology. * Configuring a multipoint ORE tunnel. * Configuring a pre-shared key. * Configuring IKE policies. * Configuring an IPSec transform set. * Configuring a dynamic routing protocol. To begin, click Next.
	< Back Next > Finish Cancel Help

3. 选择中心*辐射型网络选*项,然后单*击下一步*。



4. 选择*主集线器*。然后单击 Next。

DMVPN Hub Wizard (H	ub and Spoke Topology) - 15% Complete	X
VPN Wizard	Type of Hub In a DMVPN network there will be a hub router and multiple spoke routers connecting to the hub. 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.	
	C Backup Hub(Cisco CP does not support backup hub configuration on this router)	
	< Back Next > Finish Cancel Hel	p

5. 指定Tunnel接口参数,然后单击Advanced。

VPN Wizard	Multipoint GRE Tunnel Inter	face Configura	tion	2 L
ter der derendender	Select the interface that con	nects to the Inte	met: GigabitEthemet0/0	~
	A GRE tunnel interface will address information for the	onfigured for a d) Tunnel Interfai I be created for is interface.	ialup connection may cause the co ce this DMVPN connection. Please er	innection
1 and the second	IP address of the tunn	nel interface —	Advanced settings	
	IP Address:		Click Advanced to verify that value	es
	192.168.10.2		match peer settings.	
	Subnet Mask:	10-10-10-10-00-00	Advan	nced
	255.255.255.0	24		-
DA	Interface connected to Internet. This is the interface from which GRE/mGRE Tunnel originaties-	Logic P ad inter are p in the For n help	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. nore information please click the button.	

and have been been been

6. 指定隧道参数和NHRP参数。然后,单击*OK*。

sco CP defaults.	18 B	
NHRP Authentication String:	DMVPN_NW	
NHRP Network ID:	100000	
NHRP Hold Time:	360	
Tunnel Key:	100000	
Bandwidth:	1000	
MTU:	1400	
Tuppel Throughput Delay:	1000	

7. 根据网络设置指定选项。

isco CP Warning		×
	Do you use the same router for Easy VPN S	erver.
	Yes	

8. ž

选择 <i>预共享密钥</i> 并指定	预共享密钥。然后	单击 Next。			
DMVPN Hub Wizard (Hub	and Spoke Topology) -	40% Complete			<
VPN Wizard	Authentication Select the method you v DMVPN network. You ca the router must have a v on this router must mat C Digital Certificates Pre-shared Keys pre-shared key: Reenter key:	vant to use to auth an use digital certi valid certificate con ch the keys config	nenticate this router to ficate or a pre-shared nfigured. If pre-shared ured on all other route	the peer device(s) in the key. If digital certificate is used key is used, the key configure rs in the DMVPN network.	i, i b
	: :		< Back (Next 2)	Emish Cancel Help	1

9. 单击Add以添加单独的IKE建议。

DMVPN Hub 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.

Allina		Priority	Encryption	Hash	D-H Group	Authentication	Туре
		1	3DES	SHA_1	group2	PRE_SHARE	Cisco CP Defa
1. 1. 2							
Spech -							
and the second							
	-			Ť.			
(Case)		Add	Edit				
2/100	1						
					1	1	1

- <Back Next> Finish Cancel Help
- 10. 指定加密、身份验证和哈希参数。然后,单击*OK*。

riority:	Authentication:
	PRE_SHARE
ncryption:	D-H Group:
VES_192	🖌 group1 😪
lash:	Lifetime:
3HA_1	24 0 0 HH:MM:SS

11. 可在此处查看新创建的IKE策略。单击 Next。

DMVPN Hub 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.

1 3DES SHA_1 group2 PRE_SHARE Cisco CP De 2 AES_192 SHA_1 group1 PRE_SHARE User Defined		Priority	Encryption	Hash	D-H Group	Authentication	Туре
2 AES_192 SHA_1 group1 PRE_SHARE User Defined	2	1	3DES	SHA_1	group2	PRE_SHARE	Cisco CP Del
Add		2	AES_192	SHA_1	group1	PRE_SHARE	User Defined
Add Edit							
Add Edit.	I						
		Add	Edit				
		Add	Edit				

12. 单击Next继续使用默认转换集。

VONIA	Transform Fot			
VPN Wizard	A transform set A transform set specifi data in the VPN tunnel communicate, the rem one selected below. Click the Add button transform set. Select Transform Set: Cisco CP Defau	ies the encryption and au I. Since the two devices r note device must be cont to add a new transform s ult Transform Set	uthentication algorit must use the same figured with the sam set and the Edit bu	hms used to protect the algorithms to ne transform set as the utton to edit the specifier
	Details of the spec	ified transform set		
	Name	ESP Encryptio	n ESP Integrity	AH Integrity
11	ESP-3DES-S	SHA ESP_3DES	ESP_SHA_HMAC	
DF				
	Add	Euk		1 1

13. 选择所需的路由协议。此处选择了OSPF。

DMVPN Hub Wizard (Hul	o 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 EIORP COSPF	
	< Back Next > Finish Cancel Held	0

14. 指定OSPF进程ID和区域ID。单击Add以添加要由OSPF通告的网络。



	on		
C Select an exist	ng OSPF process ID		
(F Create a new C	SPF process ID:		10
OSPF Area ID for 1	lunnel network:		2
must be enabled of Private netwo	on the other routers t rks advertised using	o send and rec OSPF	eive these advertisements.
Network	Wildcard Mask	Area	Add.
192.168.10.0	0.0.0.255	2	E att.
Physics Network	k that will be te DMVPN cloud.		
at butterbe	9		

17. 单击Finish完成向导配置。



18. 单击*Deliver*执行命令。

Preview commands that will be delivered to the device's running configu	iration.
crypto keyring ccp-dmvpn-keyring	8
pre-shared-key address 0.0.0.0 0.0.0.0 key *******	
EXE sounds incess transform and ECD 2DEC Child one she turned one 2dec	
inode transnort	
ext	
crypto isakmp profile ccp-dmvpn-isakmprofile	
keyring ccp-dmvpn-keyring	
match identity address 0.0.0.0	
exte exurte insee worth CieceCB Profiled	
	2
The differences between the running configuration and the st the device is turned off.	artup configuration are lost whenever
Save running config. to device's startup config.	

<u>集线器的CLI配置</u>

相关CLI配置如下所示:

中心路由器
!
crypto isakmp policy 1
encr 3des
authentication pre-share
group 2
!
crypto isakmp policy 2
encr aes 192
authentication pre-share
crypto isakmp key abcdizs address 0.0.0.0 0.0.0.0
crypto insec transform-set ESP-3DES-SHA esp-3des esp-
sha-hmac
mode transport
!
crypto ipsec profile CiscoCP_Profile1
set transform-set ESP-3DES-SHA
!
interface TunnelO
bandwidth 1000
ip address 192.168.10.2 255.255.255.0
no ip redirects
ip mtu 1400
ip nhrp autnentication DMVPN_NW
ip map multicast dynamic
ip nhrp holdtime 360
The much moracting 200

```
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 0.0.0.255 area 2
```

使用CCP编辑DMVPN配置

```
选择隧道接口并单击编辑时,可以手动编辑现有DMVPN隧道参数。
```

VPN			
reate Dynamic Multi	point VPN (DMVPN) Edit Dynam	ic Multipoint VPN (DMVPN)	
			Add Edit Dele
Interface	IPSec Profile	IP Address	Description
FunnelO	CiscoCP_Profile1	192.168.10.2	<none></none>
Details for interface 1	Funnel0:		
Details for interface 1 Item Name	Funnel0:	Item Value	
)etails for interface 1 Item Name nterface	FunnelO:	Item Value Tunnel0	
Details for interface 1 Item Name Interface PSec Profile	FunnelO:	Item Value Tunnel0 CiscoCP_Profile1	
Details for interface 1 Item Name Interface PSec Profile P Address	TunnelO:	Item Value Tunnel0 CiscoCP_Profile1 192.168.10.2	
Details for interface 1 Item Name Interface PSec Profile P Address Description	FunnelO:	Item Value Tunnel0 CiscoCP_Profile1 192.168.10.2 <none></none>	
Details for interface T Item Name Interface PSec Profile P Address Description Funnel Bandwidth	FunnelO:	Item Value Tunnel0 CiscoCP_Profile1 192.168.10.2 <none> 1000</none>	
Details for interface T Item Name Interface PSec Profile P Address Description Tunnel Bandwidth ATU	TunnelO:	Item Value Tunnel0 CiscoCP_Profile1 192.168.10.2 «None» 1000 1400 DMVPN_NW	
Details for interface 1 Item Name Interface P Sec Profile P Address Description Funnel Bandwidth ATU VHRP Authentication	TunnelO:	Item Value Tunnel0 CiscoCP_Profile1 192.168.10.2 <none> 1000 1400 DMVPN_NW 100000</none>	
Details for interface 1 Item Name Interface PSec Profile P Address Description Funnel Bandwidth ATU VHRP Authenticatior VHRP Network ID VHRP Hold Time	FunnelO:	Item Value Tunnel0 CiscoCP_Profile1 192.168.10.2 «None» 1000 1400 DMVPN_NW 100000 360	

隧道接口参数(如MTU和隧道密钥)在"常规"选项卡*下进*行修改。

eneral NHRP R	outing
P address:	192.168.10.2
Masic	255.255.255.0 24
- Tunnel Source: -	
Interface:	GigabitEthernet0/0
C IP address:	
Tunnel Destination: This is an multipoin P / Hostname:	t GRE Tunnel
Tunnel Destination: This is an multipoin P / Hostname: PSec Profile:	t GRE Tunnel
Tunnel Destination: This is an multipoin P / Hostname: PSec Profile: MTU:	t GRE Tunnel CiscoCP_Proti Add 1400
Tunnel Destination: This is an multipoin P / Hostname: PSec Profile: MTU: Bandwidth:	t GRE Tunnel CiscoCP_Proti Add 1400 1000
Tunnel Destination: This is an multipoin PF / Hostname: PSec Profile: MTU: Bandwidth: Delay:	t GRE Tunnel CiscoCP_Proti Add 1400 1000 1000

1. 根据NHRP选项卡下的要求,找到并修改NHRP相*关*参数。对于分支路由器,您应该能够将 NHS视为中心路由器的IP地址。在NHRP Map部分中单击*Add*以添加NHRP映射。

eneral NHRP Routir	ng]	
Authentication String:	DMVPN_N/V	
Hold Time:	360	
Network ID:		
Next Hop Servers		
Next Hop Servers	Add	
	Delete	
NHRP Map		
Destination Ma	sk Add	
<none> <no< td=""><td>Edit</td></no<></none>	Edit	
<u><</u>	Delete	

2. 根据网络设置,NHRP映射参数可以配置如下

Statically configure th	e IP-to-NMBA address mapping
of IP destinations co	innected to a NBMA network.
Destination read	hable through NBMA network
ID Addresso	
IF AUGIESS.	
Mask (Optional)	A P
NBMA address d	irectly reachable
IP Address	
Configure NBMA add	resses used as destinations for broadc
or multicast packets to	o be sent over a tunnel network.
Dynamically add	enokas' IP addresses to bub's multicas
·· Dynamically add	spones in addresses to hab's manicas
C ID address of NDI	MA address directly reachable
 IP address of NBI 	

在"路由"(Routing)选项卡下查看和修改与路由相关的参数。

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

更多信息

DMVPN隧道的配置方式如下:

• 通过中心点的分支到分支通信

• 没有中心的分支到分支通信

在本文档中,仅讨论第一种方法。为了允许建立分支到分支的动态IPSec隧道,此方法用于将分支 添加到DMVPN云:

- 1. 启动DMVPN向导并选择"分支"配置选项。
- 2. 从"DMVPN网络拓扑"窗口中,选择"全网状网络"选项,而不是"集线和分支网络"选项。

DMVPN Spoke Wizard - 10% Complete



DMVPN Network Topology

Select the DMVPN network topology.

C Hub and Spoke network

In this topology, all DMVPN traffic is routed through the hub. A point-to-point GRE interface will be configured on the spoke, and the spoke will use it to create a tunnel to the hub which will remain up. Spokes do not create GRE tunnels to other spokes in this topology.

Fully meshed network

In this topology, the spoke dynamically establishes a direct tunnel to another spoke device, and sends DMVPN traffic directly to it. A multipoint GRE tunnel interface is configured on the spoke to support this functionality.

Note: Cisco supports fully meshed DMVPN networks only in the following Cisco IOS images: 12.3(8)T1 and 12.3(9) or later.



- <Back Next > Finish Cancel Help
- 3. 使用与本文档中其他配置相同的步骤完成其余配置。

<u>验证</u>

当前没有可用于此配置的验证过程。

相关信息

- 思科动态多点VPN:简单且安全的分支机构到分支机构通信
- IOS 12.2动态多点VPN(DMVPN)
- <u>技术支持和文档 Cisco Systems</u>

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