在ASA上配置EIGRP IPV6

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 CSM中的IPv6 EIGRP

 CSM for EIGRPv6中的新選項概述

 啟用EIGRP IPv6支援

 EIGRP IPv6設定頁籤

 EIGRP IPv6動居頁籤

 EIGRP IPv6 Summary Address頁籤

 EIGRP IPv6 Interfaces頁籤

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簡介

修訂記錄

本文檔介紹如何在思科自適應安全裝置(ASA)上配置EIGRP IPV6。

必要條件

最低支援的軟體和硬體平台

支援的管理員最低版本	受管裝置	需要支援的最低受管裝置版 本	備註
ASA	所有ASA平台	9.20.1	CLI
CSM	所有ASA平台	4.27	CSM GUI
ASDM	所有ASA平台	7.20.1	ASDM GUI

需求

思科建議您瞭解以下主題:

- 思科安全管理員
- 調適型安全裝置管理員

採用元件

本文中的資訊係根據以下軟體和硬體版本:

• 思科自適應安全裝置(ASA), 9.20.1或更高版本

- 運行4.27的思科安全管理器(CSM)
- 運行7.20.1的思科自適應安全裝置管理器

本文中的資訊是根據特定實驗室環境內的裝置所建立。文中使用到的所有裝置皆從已清除(預設))的組態來啟動。如果您的網路運作中,請確保您瞭解任何指令可能造成的影響。

IPV6的EIGRP

·EIGRP在ASA上已受支援且可用。對EIGRP IPV6的需求不斷增加。

·EIGRPv4和EIGRPv6的配置相似,但可以單獨配置和管理。 ·由於協定的差異,配置和操作略有不同。

新功能

·在早期版本中,EIGRP僅支援IPv4,從ASA 9.20開始,EIGRP將支援IPV6。 ·僅在ASA上支援具有本地鏈路地址的EIGRP IPv6。

限制

支援

·ASA目前僅支援路由模式、HA和集群上的EIGRPv6。

·EIGRPv6鄰居關係只能使用本地鏈路地址啟用。

不支援

- ·透明模式
- ·多情景
- •驗證
- ·在FTD上

功能詳細資料

功能功能說明

·IPv6的EIGRP使用與IPv4的EIGRP相同的架構。

· EIGRP IPv6將僅與IPv6對等裝置通訊,並且僅通告IPv6路由。

EIGRP IPV4和EIGRP IPv6具有類似的特徵,並且:

- ·維護鄰居、路由和拓撲表。
- ·它使用DUAL堆疊實現快速收斂和無環網路。

不同之處如下:

- ·router-mode下的network命令不用於EIGRP IPv6。
- ·使用ipv6 router eigrp <AS>啟用EIGRP IPV6路由器進程。
- ·明確配置ipv6 eigrp <AS>以在特定介面上啟用EIGRP IPv6。
- ·使用者配置的IPv6地址不能用於建立鄰居關係。
- ·目前版本不支援驗證。

EIGRP功能

EIGRP功能概述

- ·IPv6的EIGRP與EIGRP IPv4相同。
- ·EIGRP使用擴散更新演算法(DUAL)來實現快速收斂。
 - DUAL不僅會計算最佳路由,還會計算無環路由。
 - DUAL主要使用兩個表來計算最佳路由。它們是鄰居路由表、拓撲表。
 - DUAL根據報告的可行距離計算可選路徑。
- ·鄰居表跟蹤所有直接連線的鄰居。Hello資料包用於檢查鄰居的狀態。

·拓撲表儲存著網路中所有路由的度量資訊。後繼路由器和可行後繼路由器會保留最佳路徑和備用路 徑資訊。

運作方式

Hello消息用於在建立鄰接關係之前發現鄰居。

更新消息在鄰居之間交換以建立拓撲表和路由表。

當DUAL重新計算防火牆沒有可行後繼路由的路由時,向其他EIGRP鄰居傳送查詢消息,以查詢可 行後繼路由。

回覆消息作為對EIGRP查詢資料包的響應傳送。

確認消息用於確認EIGRP更新、查詢和應答。

EIGRP消息流

EIGRP IPv6使用Hello資料包來發現直連鏈路上其他支援EIGRP的裝置並形成鄰居關係。

EIGRP IPv6傳輸Hello資料包,其中源地址是傳輸介面的本地鏈路地址。

Hello消息類似於保持連線消息,用於跟蹤鄰居狀態。

Hello消息的預設計時器為5秒。 在Hello消息交換後,接收並傳送更新消息。這用於構建拓撲表並相 應地在RIB中安裝路由。



內部檢視/ASA CLI

鄰居關係:基本配置和多/單播

要建立鄰居關係,需要路由器模式配置。除了以IPv6關鍵字開頭的config之外,IPv4也是如此。

它還需要將參與的介面連線到自治系統。

可以使用組播或單播兩種方式形成鄰居關係。

Multicast router mode config	Unicast router mode config
ciscoasa(config-rtr)# ipv6 router eigrp 100 ciscoasa(config-rtr)# show run ipv6 ! ipv6 router eigrp 100 !	ipv6 router eigrp 100 neighbor fe80::250:56ff:fe9f:9e3d interface r0 !

鄰居關係:指定介面和路由器ID

- 除路由器模式配置外, 還需要將參與鄰居關係的介面連線到各自的自治系統。
- 確保在介面上啟用IPv6。
- 形成鄰居關係需要路由器ID。它將隱式從IPv4介面獲取,或者必須在路由器模式下顯式配置 ,否則將不會形成鄰居關係。

基本鄰居關係

您只需將連線拓撲和配置定向到單播和多播鄰居關係即可。

Multicast Topology	Unicast Topology			
! interface GigabitEthernet0/0 nameif left security-level 0 ip address 2.2.2.1 255.255.2 ipvő enable ipvő eigrp 100 Ipvő router eigrp 100 !	! interface GigabitEthernet0/0 nameif left security-level 0 ip address 2.2.2.2 255.255.255.0 ipv6 enable ipv6 eigrp 100 ipv6 router eigrp 100 !	! interface GigabitEthernet0/0 nameif left security-level 0 ip addres 2.2.2.1 255.255.255.0 ipv6 enable ipv6 eigrp 100 ipv6 router eigrp 100 neighbor fe80::250:56ff:fe9f:c2ba interface left	Interface GigabitEthernet0/0 nameif left security-level 0 Ip address 2.2.2.2 55.255.255.0 Ipv6 enable Ipv6 eigrp 100 ipv6 router eigrp 100 neighbor fe80::250:56ff:fe9f:628c interface right	
ASA1	g0/0 ASA2	ASA1	ASA2	

驗證

檢查鄰居關係狀態

show ipv6 eigrp neighbors用於檢查鄰居關係狀態。

<#root>

ciscoasa(config-rtr)# show ipv6 eigrp neighbors

EIGRP-IPv6 Neighbors for AS(50)

Н	Address		Interface	Hold	Uptime	SRTT	RTO	Q		Seq
					(sec)	(ms)		Cnt		Num
1	Link-local a	address:	m3	12	1w3d	270	1620	0	153	fe80::250:56ff:fe9f:e7e8
0	Link-local a	address:	m2	12	1w3d	174	1044	0	152	fe80::250:56ff:fe9f:8d83

Hello和保持間隔配置

- Hello間隔和保持間隔可以使用介面下的配置進行配置。
- 對於非廣播多路訪問網路(NBMA)介面, Hello計時器的預設值是5秒, 保持時間的預設值是 15秒。

<#root>

```
ciscoasa(config-if)# ipv6 hello-interval eigrp 100 ?
```

interface mode commands/options:

<1-65535> Seconds between hello transmissions

ciscoasa(config-if)#

ciscoasa(config-if)# ipv6 hold-time eigrp 200 ?

interface mode commands/options:

<1-65535> Seconds before neighbor is considered down

ciscoasa(config-if)#

被動介面配置

 如果不想讓介面形成鄰居關係,可以使用passive-interface配置,這樣就不會傳送介面上的 Hello資料包,從而不會形成鄰接關係。

<#root>

```
ciscoasa(config-rtr)# passive-interface ?
```

ipv6-router mode commands/options:

Current available interface(s):

default Suppress routing updates on all interfaces

g0 Name of interface GigabitEthernet0/0

mgmt Name of interface Management0/0

ciscoasa(config-rtr)#

用於路由過濾的分發清單

• 分發清單可與字首配置一起使用,以過濾給定介面的傳入或傳出路由更新。

<#root>

ciscoasa(config-rtr)# distribute-list prefix-list abc ?

ipv6-router mode commands/options:

in Filter incoming routing updates

out Filter outgoing routing updates

ciscoasa(config-rtr)#

從其他協定重分配路由

- 來自其他路由協定的路由可以重分配到EIGRP中。
- 在路由器下使用redistribute命令。

<#root>

```
ciscoasa(config-rtr)# redistribute ?
```

ipv6-router mode commands/options:

bgp	Border Gateway Protocol (BGP)				
connected	Connected Routes				
eigrp	Enhanced Interior Gateway Routing Protocol (EIGRP)				
isis	ISO IS-IS				
ospf	Open Shortest Path First (OSPF)				
static	Static Routes				
ciscoasa(config-rtr)#					

ASDM中的EIGRP IPv6

EIGRPv6新選項概述

- EIGRPv6支援作為ASDM 7.20.1的一部分增加。
- EIGRPv6配置增加為介面sub CLI命令的一部分。
- 路由器中增加的EIGRPv6配置支援路由器命令。

介面中的EIGRPv6配置

- 1. 導航到Configuration > Device Setup > Routing > EIGRPv6。
- 2. 選擇Interface可檢視支援的所有介面。

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- 3 10.197.101.58	GigabitEthernet0/1	-				Y				
- 3 10.197.101.60	GioabitEthernet0/2					Y				
- 5 10.197.101.61	GigabitEthernet0/4.5					Y				
	GigabitEthernet0/3					Y				
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- Treatenant V	GigabitEthernet0/S					Y				
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	GigabitEthernet0/1.2		44			Y				
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配置介面的EIGRPv6設定

- 1. 導航到Configuration > Device Setup > Routing > EIGRPv6 > Interface。
- 2. 選擇Interface並按一下Edit。
- 3. 選中覈取方塊,以配置進程ID、Hello Interval、Hold Time、Split Horizon和/或Summary Address。
- 4. 配置設定,然後按一下OK。
- 5. 按一下傳送。
- 6. 出現CLI時,按一下傳送、取消或儲存到檔案。

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- 10.197.101.60 Gig	pabitEthernet0/1					Y	~		
I 10.197.101.61	pabitEthernet0/2	Preview	LI Commands				×		
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進程例項和被動介面

- 1. 導航到Configuration > Device Setup > Routing > EIGRPv6 > Set up。
- 2. 能夠檢視進程例項和被動介面。
- 3. 在Process Instances下,啟用EIGRPv6 Process。

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被動介面配置

- 1. 導航到Configuration > Device Setup > Routing > EIGRPv6 > Set up。
- 2. 按一下Passive Interfaces > Add > Select Interface。

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- 3. 按一下「OK」(確定)。
- 4. 按一下「Apply」。
- 5. 出現CLI窗口。

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路由器EIGRP和預設度量配置

- 1. 導航到Device Setup > Routing > EIGRPv6 > Set up。
- 2. 按一下Process Instances > Provide Process ID Value。
- 3. 按一下Advanced按鈕。
- 4. 提供路由器ID、預設度量、末節和日誌鄰居值。

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- 5. 按一下「Apply」。
- 6. 出現CLI窗口。

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過濾器規則(Distribute-List)配置

- 1. 導航到Configuration > Device Setup > Routing > EIGRPv6 > Filter Rules。
- 2. 按一下Add > Select Prefix list > Direction > Interface。
- 3. 按一下「OK」(確定)。

Configuration Image: Configuration Configuration Image: Configuration Device List Image: Configuration	esh Back Forward ? Help Configuration > Device Setup > Routing > Eti	⊼Pv6, > Filter Rules	Type to	pic to search Go	CISCO
Add Delete Connect Find: Go Go 10.197.101.57 J.0.197.101.50 J.0.197.101.60 J.0.197.101.62 J.12.18.75.49 J.12.24.23.231 V Device Setup GoSPF GoSPF/3 GoSP/3 GoSP/3 GoSP/3 GoSP/3 GoSP/	Configure filter rules for EIGRP (Enhanced Interior AS Direction EIGRP: 5 Prefix List: test Direction: in © Interface inside CK	Gateway Routing Protocol) updates.	Prefix List		Add
User canceled the configuration update operation.		Apply cisco	Reset	N 6 10/11	/22 7:46:17 PM UTC

- 4. 按一下「Apply」。 5. 出現CLI窗口。

Cisco ASDM					o x
File View Tools Wizards Window Help				Type topic to search Go	ahaha
Home 🍕 Configuration 📴 Monitoring 🏢 Save 🔇 Refresh	🔁 Back 🔘 Forward 🧳 Help				CISCO
Device List 🗗 🖓 🗙 Conf	guration > Device Setup > Routing > EIG	RPv6 > Filter Rules			
🗣 Add 📋 Delete 🖋 Connect Con	figure filter rules for EIGRP (Enhanced Interior G	Sateway Routing Protocol) updat	tes.		
Find: Go A	Prefix List	Direction	Interface		Add
- ★ 10.197.101.57 - ■ 10.197.101.58	1	test	in	bridgegroupint	Delete
- 3 10.197.101.60	Preview CLI Commands			×	
- 3 10.197.101.61 - 3 10.197.101.62					
- 3 172.18.75.49	The following CLI commands are generated b ASA, click Send. To not send the commands a	vased on the changes you made and continue making changes in <i>i</i>	in ASDM. To send the commands to the ASDM, click Cancel.		
- <u>a</u> 172.24.23.231	ipv6 router eigrp 1				
Device Setup	distribute-list prefix-list test in bridgegr	oupint			
⊕ • 2 OSPF					
⊕ • • • RIP					
⊕ * the EIGRP					
- di Setup					
- 2. Filter Rules					
- A Redistribution					
Static Neighbor					
Device Setup					
📆 Frewal					
Remote Access VPN					
Ste-to-Site VPN					
Device Management	Send	Cancel Sa	we To File		
>					
Configuration changes saved successfully.		cisco	15	💀 🎜 📄 🔒 1/13	2/22 7:42:07 PM UTC

重新分發路由配置

- 1. 導航到Configuration > Device Setup > Routing > EIGRPv6 > Redistribution。
- 2. 按一下Add > Select protocol。
- 3. 提供可選度量
- 4. 按一下「OK」(確定)。
- 5. 按一下「Apply」。
- 6. 出現CLI窗口



Gisco ASDM										-	- 6 ×
File View Tools Wigards Window Help		1.4						Typ	e topic to search	Go	ababa
Home 🔏 Configuration 📴 Monitoring 📊 Save 🔇 Refresh	Back 🔘	Forward	? Help								CISCO
Device List 🗗 🖓 🗙 🕻	onfiguration > D	evice Setup	> Routing > E	IGRPv6 > R	edistribution						
💠 Add 📋 Delete 🚿 Connect	Define the conditio	ns for redistri	buting routes fro	m one routing	protocol to and	ther.					
Find: Go	EIGRP Process	Protocol	Bandwidth	Delay	Reliability	Loading	MTU	Internal	External 1	External 2	NS Add
- 3 10.197.101.57 - 3 10.197.101.58	6	BGP 7		2	3	4	5	6			Edit
	6	Preview Cl	I Commands						×		Delete
-3 10.197.101.62											
		he following C SA, dick Send	LI commands are d. To not send th	e generated b e commands a	ased on the cha and continue ma	inges you made king changes in	ASDM, dick Care	nd the commands t cel.	o the		
Device Setup	ſ				_						
Setup ^		ipv6 router redistribu	r eigrp 6 te bap 7 metric 2	3456							
- E Fiker Rules											
Redstribution											
Static Neighbor											
General											
Sector Se											
AS Path Fiters											
Revice Setup											
💱 Frewal											
Remote Access VPN											
Steto-Site VPN	<										>
Device Management			_	6 - 1				0			
*				Send	Cano	el Si	ave To Pile				
				-	c	isco	15	- ⊅ ⊳ d		6 10	/11/22 8:51:47 PM UTC

鄰居:單播路由器模式

- 1. 導航到Configuration > Device Setup > Routing > EIGRPv6 > Static Neighbor。
- 2. 按一下Add > Select Interface。
- 3. 提供Neighbor Address。
- 4. 按一下「OK」(確定)。

File View Tools Wigards Window H	elp Save 🔉 Refresh 🎧 Back 🛍	Forward 🦻 Help	Type topic to search	GISCO
Add Delete Connect	Define static nei	Device Setup > Routing > EIGRPv6 > Static Neighbor phores on the point-to-point non-broadcast interface. A static route m	ust be created to reach the statically defined neighbor.	
Find: Go 10.197.101.58 10.197.101.68 10.197.101.61 10.197.101.62 10.197.101.62 <th>EIGRP AS</th> <th>Neighbor Add EIGRP Neighbor Entry EIGRP AS: Interface Name: Interface Name: OK Cancel Help</th> <th>Interface</th> <th>Edit Delete</th>	EIGRP AS	Neighbor Add EIGRP Neighbor Entry EIGRP AS: Interface Name: Interface Name: OK Cancel Help	Interface	Edit Delete
Remote Access VPN				
Device Management		Apply	Reset	

- 5. 按一下「Apply」。
- 6. 出現CLI窗口。

Cisco ASDM				-	ð X
<u>File View Tools Wizards Window H</u> elp				Type topic to search Go	ahaha
Home 🚳 Configuration 🔯 Monitoring 🎧 Save 🔇 Refres	h 🔇 Back 🔘 Forward 💡 Help				CISCO
Device List 🗗 🖗 🛪	Configuration > Device Setup > Routing >	EIGRPv6 > Static Neighbor			
🗣 Add 📋 Delete 🖋 Connect	Define static neighbors on the point-to-point nor	n-broadcast interface. A static route must b	e created to reach the statically	/ defined neighbor.	
Find: Go	EIGRP AS	Neighbor	Interface		Add
		6 fe80::217:fff:fe17:af80	inside		Edit
- 3 10.197.101.56				1	- Con
	Preview CLI Commands		×		Delete
	The following CLI commands are generated ba	sed on the changes you made in ASDM. To	send the commands to the		
🖪 172.24.23.231 🗸 🗸	ASA, click Send. To not send the commands an	d continue making changes in ASDM, click C	ancel.		
Device Setup	i dente de la companya de				
Setup ^	neighbor fe80::217:fff:fe17:af80 interfa	ce inside			
- 25. Fiker Rules					
Redstribution					
Satic Neighbor					
General					
25 Best Path					
AS Path Filters					
Device Setup					
💱 Frewal					
Remote Access VPN					
Chi Grado, Gra 10N					
					J
Device Management	Send	Cancel Save To File			
×					
User cancelled the configuration update operation.		cisco	15	D 🛃 🚹 🔒 10/1	1/22 9:24:37 PM UTC

多點傳送路由器模式

組播路由器模式的配置與單播路由器模式的配置類似。

- 1. 導航到Configuration > Device Setup > Routing > EIGRPv6 > Setup。
- 2. 啟用覈取方塊以啟用EIGRPv6進程。
- 3. 在EIGRPv6 Process input欄位中輸入值。
- 4. 按一下「Apply」。
- 5. 能夠檢視CLI。

🐴 Home 🦓 Configuration 🔯 Monitoring 识 Save 🗨 Refr	resh 🔇 Back 🔘 Forward 🦻 Help
Device Setup	Configuration > Device Setup > Routing > EIGRPv6 > Setup
r g [©] Startup Wizard ∎ Interface Settings	Enable at least one EIGRPv6 Process Instance and define networks.
	Process Instances Passive Interfaces
- 26 Route Haps	A maximum of one EIGRPv6 process can be configured. To remove an EIGRPv6 process, disable the checkbox.
	EIGRPv6 Process
	EIGRPv6 Process 100 Advanced
	Preview CLI Commands X
- Ag Filter Rules - Ag Interface - Ag Benjarthuring	The following CLI commands are generated based on the changes you made in ASDM. To send the commands to the ASA, click Send. To not send the commands and continue making changes in ASDM, click Cancel.
Padatributon Padatributon	ipv6router eigrp 100
	Send Cancel Save To File
Device Setup	

CSM中的IPv6 EIGRP

CSM for EIGRPv6中的新選項概述

- EIGRPv6支援作為CSM 4.27的一部分增加。
- EIGRPv6配置增加為Interfaces Sub CLI命令的一部分。
- EIGRPv6配置增加到路由器中並支援路由器命令。

啟用EIGRP IPv6支援

- 1. 導航到平台>路由> EIGRP > IPv6系列。
- 2. 透過按一下Enable IPv6 EIGRP覈取方塊啟用IPv6。
- 3. 提供介於1到65535之間的AS編號。
- 4. 頁籤允許配置Setup(如圖所示)、Filter Rules、Neighbors、Redistribution、Summary Address和Interface。

Device: 10.197.74.159 Province:		Policy: EIGRP Assigned To: local device	
IPv4 Family IPv6 Family			^
			1
Enable IPv6 EIGRP			
AS Number:" 22	(1 - 65535) Advanced		
Setup Filter Rules Neighbors	Redistribution Summary Address In	iterfaces	
Passive Interface: None	~		
Interfaces:			
Default Metrics			
Bandwidth:	(1-4294967295 in kbps)		
Delay Time:	(0-4294967295 in 10 Micros	econd)	
Reliability:	(0-255)		
Loading:	(1-255)		
MTU:	(1-65535 in bytes)		
		58	ve

EIGRP IPv6設定頁籤

- 1. 導航到平台>路由> EIGRP > IPv6系列> Setup頁籤。
- 2. Passive Interface有3個選項
 - 1. 無
 - 2. 預設值
 - 3. 特定介面
- 3. 預設抑制所有介面上的路由更新。
- 4. 在Specific Interface中,從Interface selector中選擇interface。
- 5. 指派值給預設測量結果。
- 6. 按一下OK和Save。

Policy Assigned: local		Assigned To: local device
IPv4 Family IPv6 Family		
Enable IPv6 EIGRP		
AS Namber # 22 (1-	65535) Advanced	
101100000 ZZ (X		
Setup Filter Rules Neighbors Redis	tribution Summary Address Interfaces	
Passive Interface: None V		
Interfaces:		
Default Metrics		
Bandwidth: 2	(1-4294967295 in kbps)	
Delay Time: 4	(0-4294967295 in 10 Microsecond)	
Reliability: 6	(0-255)	
Loading: 8	(1-255)	
MTU: 2	(1-65535 in bytes)	

EIGRP IPv6過濾器規則頁籤

- 1. 導航到平台>路由> EIGRP > IPv6系列>過濾器規則頁籤。
- 2. 根據方向(入站或出站)選擇Eigrp過濾器方向。
- 3. 選擇Interface。
- 4. 輸入IPv6 Prefix-list以根據IPv6字首清單過濾連線。

Policy Assigned: Ass	signed To: lo
IPv4 Family IPv6 Family	
Enable IPv6 EIGRP	
AS Number:* 22 (1 - 65535) Advanced	
Setup Filter Rules Neighbors Redistribution Summary Address Interfaces	
No. Direction Interface Prefix List	
1 Inbound evide IPv6Prefix	
2 Outbound 📼 sstest IPv6Prefix	
Interface :* Image: Control of the second secon	

EIGRP IPv6鄰居頁籤

- 1. 導航到平台>路由> EIGRP > IPv6系列>鄰居頁籤。
- 2. 在Add/Edit IPv6 Eigrp Neighbor Page對話方塊中輸入Interface和Network。

Device: 10.197.74.159 Policy Assigned: local	Policy: EI Assigned
IPv4 Family IPv6 Family	
Enable IPv6 EIGRP	
AS Number:* 22 (1 - 65535) Advanced	
Setup Filter Rules Neighbors Redistribution Summary Address Interfaces	
No. Interface Network	
Add/Edit IPv6 Eigrp Neighbor Page × Interface:* … Network:* Select OK Cancel	

EIGRP IPv6重分佈頁籤

- 1. 導航到平台>路由> EIGRP > IPv6系列>重分配頁籤。
- 2. 按一下Add按鈕並選擇Protocol。根據協定選擇,將啟用其他選項。
- 3. 對於BGP和OSPF,ID文本框已啟用。
- 4. 如果啟用了OSPF,則啟用可選的OSPF重分佈選項
- 5. 如果啟用ISIS,則啟用ISIS級別。

Policy Assigned: local			Assigned To: local device
IPv4 Family IPv6 Family			
Enable IPv6 EIGRP			
AS Number:* 22	(1 - 65	535) Advanced	Add/Edit Eigrp Redistribution ×
Setup Filter Rule	s Neichbors Redistrik	ution Summary A	BGP V Id:* 3
		Second Commonly Pr	Optional Metrics
No.	Protocol	Id	Bandwidth: (1-4294967295 in kbps) Delay Time: (0-4294967295 in 10 Microseconds) Reliability: (0-255) Loading: (1-255) MTU: (1-65535 in bytes) Route Map: E_Test Optional OSPF Redistribution Internal External1 External2 Nssa-External2 OK Cancel

EIGRP IPv6 Summary Address頁籤

- 1. 導航到Platform > Routing > EIGRP > IPv6 Family > Summary Address頁籤。
- 2. 按一下Add按鈕,然後從介面選擇器選擇interface。
- 3. 在網路中,選擇IPv6地址和管理距離值。
- 4. 按一下OK和Save。

Device: 10.197.74.159 Policy Assigned: local	Policy: EIGRP Assigned To: local device
IPv4 Family IPv6 Family	
Enable IPv6 EIGRP	
AS Number:* 22 (1 - 65535) Advanced	
Setup Filter Rules Neighbors Redistribution Summary Address Interfaces	
No. Interface Network Administrative Distance	
Acd/Edit IPv6 Eigrp Summary Page ×	
nterface:*	
Administrative Distance: 5 (1 - 255)	
OK Cancel Help	

EIGRP IPv6 Interfaces頁籤

- 1. 導航到平台>路由> EIGRP > IPv6系列>介面頁籤。
- 2. 按一下Add按鈕,然後從介面選擇器中選擇interface。
- 3. 您可以更改Hello Interval和Hold Time(可選)。
- 4. 預設情況下,「水準分割」處於啟用狀態。 可以取消勾選。
- 5. 按一下OK和Save。

Device: 10.19 Policy Assigned	7.74.159 :: <u> local</u>					F A		
IPv4 Family IPv6 Family								
Enable IPv6 EIGRP								
AS Number:* 22 (1 - 65535) Advanced								
	Setup Fil	te Rules Neigi	nbors Redistribution	Summary Address	/ Interfaces			
					- huu -			
	No. 1	Interface	Hello Interval	Hold Time	Split Horizon true			
	2	📟 inside	5	5	false			
	Add In He	2 Inside 5 5 false Add Edit IPvo Eigrp Interface Page Interface:* Hello Interval: 5 (1 - 65535 in secs) Held Time: 15 (1 - 65535 in secs) Edit Horizon OK Cancel Help						

疑難排解

故障排除的步驟

- 使用show命令檢查鄰居關係狀態。
- 檢查show ipv6 eigrp topology輸出以驗證拓撲表的內容。
- 使用show ipv6 eigrp events命令,可提供有關與EIGRP相關的主要事件的有用資訊。
- 使用show eigrp tech-support detailed檢查鄰居關係和拓撲表計時器值。

Show ipv6 eigrp events

show ipv6 eigrp events顯示系統中有助於調試的重要事件記錄。

<#root>

ciscoasa(config-rtr)# show ipv6 eigrp events

Event information for AS 50:

1 18:05:56.203 Metric set: 1001::/64 768

2 18:05:56.203 Route installing: 1001::/64 fe80::250:56ff:fe9f:e7e8

4 18:05:56.203 FC sat rdbmet/succmet: 768 512

5 18:05:56.203 Rcv update dest/nh: 1001::/64 fe80::250:56ff:fe9f:e7e8

6 18:05:56.203 Change queue emptied, entries: 1

7 18:05:56.203 Metric set: 1001::/64 768

8 18:05:56.203 Update reason, delay: new if 4294967295

Show ipv6 eigrp timers

show ipv6 eigrp timers 顯示當前應用的hello計時器和保持計時器。

- Hello間隔和保持計時器的預設計時器為5秒和15秒。
- 如果頻寬較低的NBMA介面,則hello計時器的預設值是15秒;保持計時器的預設值是180秒

```
<#root>
ciscoasa(config-rtr)# show ipv6 eigrp timers
EIGRP-IPv6 Timers for AS(50)
 Hello Process
   Expiration Type
Τ
     0.406 (parent)
  1
        0.406 Hello (m2)
 Update Process
   Expiration
               Type
11.600 (parent)
  L
       11.600 (parent)
   1
        11.600 Peer holding
  L
   11.930 (parent)
   1
        11.930 Peer holding
```

Show ipv6 eigrp topology

show ipv6 eigrp topology -拓撲表由鄰居路由器通告的所有目標組成。

<#root>

ciscoasa(config-rtr)# show ipv6 eigrp topology

EIGRP-IPv6 Topology Table for AS(50)/ID(172.27.173.103) Codes: P - Passive, A - Active, U - Update, Q - Query, R - Reply, r - reply Status, s - sia Status P 1001::/64, 1 successors, FD is 768, serno 8907 via fe80::250:56ff:fe9f:8d83 (768/512), m2 P 3001::/64, 1 successors, FD is 768, serno 8906 via fe80::250:56ff:fe9f:8d83 (768/512), m2 P 2001::/64, 1 successors, FD is 768, serno 8905 via fe80::250:56ff:fe9f:8d83 (768/512), m2

Show Tech for EIGRP

Show tech可用於故障排除,因為它會收集有用的資訊,包括計時器引數、鄰居的詳細資訊、 EIGRP的流量統計資訊、記憶體使用計數器及其他。

<#root>

```
ciscoasa(config-if)# show eigrp tech-support detailed ?
```

exec mode commands/options:

| Output modifiers

<cr>

```
ciscoasa(config-if)#
```

問題示例

鄰居形成出現問題

- 如果鄰居形成出現問題:
 - □ 如果在路由器模式配置下未明確配置路由器ID,請檢查是否至少配置了IPv4地址。
 □ 確保在路由器模式配置下配置router-id。

修訂記錄

修訂	發佈日期	意見
2.0	2024年7月19日	已更新格式。

1.0 2024年7月18日 初始版本

關於此翻譯

思科已使用電腦和人工技術翻譯本文件,讓全世界的使用者能夠以自己的語言理解支援內容。請注 意,即使是最佳機器翻譯,也不如專業譯者翻譯的內容準確。Cisco Systems, Inc. 對這些翻譯的準 確度概不負責,並建議一律查看原始英文文件(提供連結)。