採用韌體3.1的CBS 250和350系列交換器的連線 埠安全行為

目標

本文提供演示,展示從韌體版本3.1開始的思科商務250和350交換機上預設埠安全設定 的更改。

適用裝置 | 韌體版本

- CBS250(產品手冊)| 3.1(下載最新版本)
- CBS350(產品手冊)| 3.1(下載最新版本)
- CBS350-2X(產品手冊)| 3.1(下載最新版本)
- CBS350-4X(產品手冊)| 3.1(下載最新版本)

簡介

當新版本推出時,運行最新版本的韌體非常重要。2021年春天,CBS 250和350交換機 的韌體版本3.1被發佈,改變了埠安全預設行為。做出這些更改是為了提高端點安全性。 檢視演示以瞭解詳細資訊。

埠安全預設行為演示(韌體版本3.1)

在本演示中,升級至韌體版本3.1的思科商務350交換機的GE2介面上啟用了埠安全。我 們將將在交換機埠2(GE2)處連線的PC移至交換機埠4(GE4),並觀察埠安全的預設行為 。

步驟1

首先,我們導覽至Port Management > Port Settings,然後驗證PC是否已在交換機埠 2(GE2)上連線,以及埠的*Operational Status*是否顯示*Up*。

	Configuration Wizards	E) '		BS350-2	4FP-4G - switch73d9	13								
	Search														
•	Status and Statistics	Po	ort s	Settings											
•	Administration Port Management	Link	Flap hbo Fr	Prevention: rames:	Enab	le le langes will take effect :	after saving the configure	ration and reboo	ting the s	witch.					
	Port Settings	Dun	lort S	attings Table		anges win take enect	arter saving the contrigu		ung ure si	mitori.					
	Error Recovery Settings	F	-2h												
	Loopback Detection		40						Time R	008					
	Settings			Entry No.	Port	Port Type	Operational Status	Link Status SNMP Traps	Name	State	Port Speed	Duplex Mode	LAG	Protection State	
	Link Aggregation		0	1	GE1	1000M-Copper	Down	Enabled						Unprotected	
		(0	2	GE2	1000M-Copper	Up	Enabled			1000M	Full		Unprotected	
	DDLD 13		0	3	GE3	1000M-Copper	Down	Enabled						Unprotected	

接下來,我們導覽至MAC Address Tables > Dynamic Addresses,然後驗證與交換機埠 2(GE2)關聯的PC的MAC地址。

	Getting Started	GSCO CISCO CBS350-24FP-4G - sw	itch73d913
	Dashboard	Dunamia Addresses	
	Configuration Wizards	Dynamic Addresses	
	Search	Dynamic Address Table	
٠	Status and Statistics	Clear Table	
•	Administration	Filter: VLAN ID equals to	(Range: 1 - 4094)
٠	Port Management	MAC Address equals to	
٠	Smartport	□ Interface equais to ○ Po	rt GE1 OLAG 1 Go
Þ	VLAN Management	VLAN ID MAC Address Inter	face
•	Spanning Tree	VLAN 1 00:e0:4c:01:06:fb GE24	
6	MAC Address Tables	VLAN 1 3c:07:54:75:b2:1d GE2)
	Static Addresses	VLAN I 80.00.10.44.07.00 0024	•
	Dynamic Address 2 Settings		
(Dynamic Addresses		

步驟3

導航到Security選單,選擇交換機埠2(GE2),然後按一下edit圖示。我們將啟用 Interface Status旁邊的Lock選項。學習模式將顯示為**經典鎖**。我們將Action on Violation 保留為Discard,然後按一下Apply。

•	Status and Statistics		CBS350-	24FP-4G - switch73d913				Q
	Administration	Port Sec	urity					
	Port Management	FUIL SEC	unty					
	Smartport	Port Securi	ity Table					
	VLAN Management	¢ 🕜	3	Edit Port Securit	y Interface Setting	gs		×
	Spanning Tree	Filter: In	terface Type	Interface:	● Port GE2 ~ ○ LAG	1		
	MAC Address Tables	Entr	y No. Interf	Interface Status:	C Lock			
	Multicast	0 1	GE1	Learning Mode:	Classic Lock Limited Dynamic Lock			
	IPv4 Configuration	0 2	GE2 GE3		Secure Permanent Secure Delete on Reset			
	IPv6 Configuration	0 4	GE4	Max No. of Addresses Allowed:	1	(Range: 0 - 256, Default: 1)		
	General IP Configuration	0 5	GE5 GE6	Action on Violation:	Discard Engward			
	Security 1	0 7	GE7		O Shutdown			
		0 8	GE8	Trap:	Enable			
	TACACS+ Client	0 9	GE9	© Trap Frequency:	10	sec (Range: 1 - 1000000, Default: 10)		
	RADIUS Client	0 10	GE10					
	RADII IS Server	0 12	GE11 GE12					-
		0 13	GE13				Apply	Close
	Password Strength	O 14	GE14	Unlocked Classic Lock	t	Disabled		

步驟4

螢幕上將顯示成功通知,因此我們按一下關閉。

Edit Port Security Interface Settings



步驟5

GE2介面狀態將顯示為Locked。

Status and Statistics	iliulii cisco	BS350-24FP	-4G - switch	n73d913				
 Administration 	Port Socurity							
Port Management	Port Security							
Smartport	Port Security Tat	le						
 VLAN Management 	40							
Spanning Tree	Filter: Interface	Type equa	s to Port	♥ Go				
MAC Address Tables	Entry No.	Interface	Interface Status	Learning Mode	Max No. of Addresses Allowed	Action on Violation	Trap	Trap Frequency (sec)
Multicast	0 1	GE1	Unlocked	Classic Lock	1		Disabled	
	O 2	GE2	Locked	Classic Lock	1	Discard	Disabled	$\mathbf{>}$
IPv4 Configuration	0 3	GE3	Unlocked	Classic Lock	1		Disabled	

步驟6

導航到MAC地址表>靜態地址。與GE2介面關聯的PC MAC地址將反映在靜態地址表中



第7步

我們將將PC從交換機埠2(GE2)移至交換機埠4(GE4),並確保GE4介面的*Operational Status*顯示*Up*。

٠	Status and Statistics	6	cisco	BS350-2	4FP-4G - switch73d	913					
•	Administration	Port S	Settings	;							
Ć	Port Management Port Settings	Link Flap Jumbo F	Prevention: rames:	🗹 Enab	le le						
	Error Recovery Settings	Jumbo fr	ames config	uration cl	hanges will take effect	after saving the configu	ration and reboo	ting the s	witch.		
	Loopback Detection Settings	Port S	ettings Tabl	8							
	Link Aggregation						Link Status	Time R	ange	Port	Dunley
	UDLD		Entry No.	Port	Port Type	Operational Status	SNMP Traps	Name	State	Speed	Mode
		0	1	GE1	1000M-Copper	Down	Enabled				
	POE 🕞	0	2	GE2	1000M-Copper	Down	Enabled				
	Green Ethernet	0	3	GE3	1000M-Copper	Down	Enabled				
		\circ	4	GE4	1000M-Copper	Up	Enabled			1000M	Full
1	Smartport	0	5	GE5	1000M-Copper	Down	Enabled				

步驟8

導航到**MAC地址表>靜態地址**。與GE2介面關聯的PC MAC地址仍將顯示在*靜態地址*表下。



步驟9

導航到**MAC地址表>動態地址**。PC(MAC地址3c:07:54:75:b2:1d)連線到GE4介面。即 使GE4介面的*運行狀態為Up*,PC仍將無法獲得動態主機配置協定(DHCP)IP地址。在*動態 地址表*中,我們可以驗證相同內容。

•	Status and Statistics	(1)11111 CBS350-24FP-4G - switch73d913
•	Administration	Dimensia Addresses
•	Port Management	Dynamic Addresses
•	Smartport	Dynamic Address Table
•	VLAN Management	Clear Table
•	Spanning Tree	Elter D VI AN /D equals to (Record 1 = 4004)
•	MAC Address Tables	MAC Address equals to
	Static Addresses	☐ Interface equals to ⊙ Port GE1 GE1 GC Clear Filter
	Dynamic Address Setting	VLAN ID MAC Address Interface
C	Dynamic Addresses	VLAN 1 00:e0:4c:01:06:fb GE24 VLAN 1 ec:bd:1d:44:57:88 GE24
	Reserved MAC Addresses	

PC(MAC地址3c:07:54:75:b2:1d)在連線到GE2介面時只會獲得DHCP IP地址,因為*靜態 地址表*顯示MAC地址與GE2介面繫結。如果要從GE2介面刪除PC MAC地址以便可以在另一 個埠上使用它,我們需要按照下面的可選步驟解鎖埠。

第10步(可選)

取消選中Lock單選按鈕,然後按一下Apply。

Edit Port Security Interface Settings

Х

Interface:	● Port GE2 ○ LAG	1	
Interface Status:	✓ Lock		
Learning Mode:	 Classic Lock Limited Dynamic Lock Secure Permanent Secure Delete on Reset 		
# Max No. of Addresses Allowed:	1	(Range: 0 - 256, Default: 1)	
Action on Violation:	 Discard Forward Shutdown 		
Trap:	C Enable		
8 Tran Frequency:	10	sec (Range: 1 - 1000000 Default: 10)	
		2 Apply Cl	ose

第11步(可選)

Interface Status現在將顯示為解除鎖定。

Port S	Security Tab	le			
2					
Filte	er: Interfac	<i>e Type</i> equ	als to Port	∽ Go	
	Entry No.	Interface	Interface Status	Learning Mode	Max No. of Addresses Allowed
0	Entry No.	Interface GE1	Interface Status Unlocked	Learning Mode Classic Lock	Max No. of Addresses Allowed
0	Entry No. 1 2	Interface GE1 GE2	Interface Status Unlocked Unlocked	Learning Mode Classic Lock Classic Lock	Max No. of Addresses Allowed

最後,按一下save圖示永久儲存配置。



Advanced

結論

這樣,您就從韌體版本3.1及更高版本瞭解了新埠安全預設行為!

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正在查詢有關CBS250或CBS350交換機的更多文章?檢視以下任何連結以瞭解更多資訊 !

SNMP設定 SNMP檢視 SNMP組 DHCP映像升級 密碼強度 TCP和UDP設定 時間設定 升級韌體 Smartport最佳實踐 疑難排解:無IP地址 Smartports故障排除 鏈路抖動故障排除 建立VLAN