带固件3.1的CBS 250和350系列交换机的端口安 全行为

目标

本文提供演示,以显示从固件版本3.1开始的Cisco Business 250和350交换机上默认端 口安全设置的更改。

适用设备 |固件版本

- CBS250(<u>产品手册</u>)| 3.1(下载最新)
- CBS350(产品手册)| 3.1(下载最新)
- CBS350-2X(产品手册)| 3.1(下载最新)
- CBS350-4X(产品手册)| 3.1(下载最新)

简介

当新版本发布时,必须运行最新版本的固件。2021年春季,CBS 250和350交换机的固件版本3.1发布,更改了端口安全默认行为。这些更改是为了提高终端安全。查看演示以 了解详细信息。

端口安全默认行为演示(固件版本3.1)

在本演示中,在升级到固件版本3.1的Cisco Business 350交换机的GE2接口上启用了端 口安全。我们将将连接在交换机端口2(GE2)的PC移到交换机端口4(GE4),并观察端口 安全的默认行为。

第1步

首先,我们导航到**Port Management > Port Settings**,并验证PC是否连接在交换机端口 2(GE2)上,并且*端口*的Operational Status显示*Up*。

_	Configuration Wizards	•	cisco	8\$350-2	AFP-4G - switch73d9	13								
	Search	Dort	Sottings											
٠	Status and Statistics	Port	Settings											
•	Administration	Link Flag	Prevention:	Enab	le									
(-	Port Management	Jumbo f	rames config	uration cl	hanges will take effect	after saving the configu	ration and reboo	ting the sv	witch.					
1	Port Settings	Port S	Settings Tabl	,										
	Error Recovery Settings	2	ß											
	Loopback Detection						Link Status	Time Ra	inge	Port	Dupley		Destaution	
											Dublex		Protection	
	ootanga		Entry No.	Port	Port Type	Operational Status	SNMP Traps	Name	State	Speed	Mode	LAG	State	
	 Link Aggregation 	0	Entry No.	Port GE1	Port Type 1000M-Copper	Operational Status Down	SNMP Traps Enabled	Name	State	Speed	Mode	LAG	State Unprotected	
	Link Aggregation	00	Entry No. 1 2	Port GE1 GE2	Port Type 1000M-Copper 1000M-Copper	Operational Status Down Up	SNMP Traps Enabled Enabled	Name	State	Speed 1000M	Mode	LAG	Unprotected Unprotected)

接下来,我们导航**到MAC Address Tables > Dynamic Addresses** 并验证与交换机端口 2(GE2)关联的PC的MAC地址。

	Getting Started	🕒 🖓		CBS350-24FP-4	G - switch73d913	
	Dashboard	Dimen		A		
	Configuration Wizards	Dynam	IC .	Addresses		
	Search	Dynamic	Ad	dress Table		
٠	Status and Statistics	Clear	Tab	ie -		
٠	Administration	Filter:	_	VLAN ID equals to		(Range: 1 - 4094)
٠	Port Management		0	MAC Address equa	ls to	
۲	Smartport			Interface equals to	Port GE1 LAG	a 1 Go
Þ	VLAN Management	VLAN	D	MAC Address	Interface	
٠	Spanning Tree	VLAN	I	00:e0:4c:01:06:fb	GE24	
6	MAC Address Tables	VLAN		3c:07:54:75:b2:1d ec:bd:1d:44:57:88	GE2 GE24	
	Static Addresses					
	Dynamic Address 2 Settings					
C	Dynamic Addresses					

步骤 3

我们导航到Security菜单,选择交换机端口2(GE2),然后单击编辑图标。我们启用"接口状态"旁的"锁定"选项。学习模式将显示为经典锁。我们将Action on Violation保留为 Discard,然后单击Apply。

•	Status and Statistics	B (cisco c	BS350-3	24FP-4G - switch73d913				Q
	Administration	Dort 9	Courity	,					
	Port Management	Ports	security						
	Smartport	Port S	ecurity Tab	le					
	VLAN Management	æ		3	Edit Port Security	y Interface Setting	gs		×
	Spanning Tree	Filter	r: Interface	r Type	Interface:	Port GE2 C LAG	1		
	MAC Address Tables		Entry 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	Ø Max No. of Addresses Allowed:	1	(Range: 0 - 256, Default: 1)		
	General IP Configuration	0	6	GE5 GE6	Action on Violation:	Discard Ecoward			
	Security 1	0	7	GE7		O Shutdown			
	TACACS+ Client	0	8	GE8	Trap:	Enable			
		0	10	GE9 GE10	© Trap Frequency:	10	sec (Range: 1 - 1000000, Default: 10)		
	RADIUS Client	0	11	GE11					
	RADIUS Server	0	12	GE12			5	Apply Clos	50 S
	Password Strength	0	13	GE13			`		
	rassing of orengo	0	14	GE14	Uniocked Classic Lock 1		Disabled		



成功通知将显示在屏幕上,因此我们单击Close。

Edit Port Security Interface Settings



步骤 5

GE2接口状态将显示为"已锁定"。

Status and Statistics	Gisco cisco	8S350-24FP-	4G - switch	73d913				
Administration	Port Security							
Port Management	T ort occurry							
Smartport	Port Security Tab	e						
VLAN Management	4							
Spanning Tree	Filter: Interface	Type equals	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	

步骤 6

我们导航到**MAC地址表>静态地址**。与GE2接口关联的PC MAC地址将反映在静态*地址* 表下。



步骤 7

我们将PC从交换机端口2(GE2)移到交换机端口4(GE4),并确保GE4接口的*运行状*态显示为*Up*。

٠	Status and Statistics	3	cisco c	BS350-2	4FP-4G - switch73d9	13							
•	Administration	Port S	Settings	;									
C	Port Management Port Settings Link Flap Prevention: C Enable Jumbo Frames: Enable Jumbo Frames: Enable Jumbo frames configuration changes will take effect after saving the configuration and rebooting the switch.												
	Loopback Detection Settings	Port S	ettings Tabl										
	Link Aggregation						Link Status	Time R	inge	Port	Duplex		
	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		
•	Smartport	0	5	GE5	1000M-Copper	Down	Enabled						

步骤 8

我们导航到**MAC地址表>静态地址**。与GE2接口关联的PC MAC地址仍显示在"静态地*址"* 表下。

Status and Statistics		iliilii cisco	CBS350-24FP-4G - 5	witch73d913	
 Administration 	Stati	Addre	20220		
Port Management	Statit	Audre	3363		
Smartport	Static	Address	able		
VLAN Management	+	Î			
Spanning Tree	0	VLAN ID	MAC Address	Interface	Status
MAC Address Tables	0	1	3c:07:54:75:b2:1d	GE2	Secure
Static Addresses					

步骤 9

我们导航到**MAC地址表>动态地址**。PC(MAC地址3c:07:54:75:b2:1d)连接到GE4接口。 即使GE4接口运*行状*态为*Up*,PC仍无法获取动态主机配置协议(DHCP)IP地址。从动*态地 址表*中,我们可以检验相同。

•	Status and Statistics	3 1111111 CBS350-24FP-4G - switch73d913
•	Administration	Dumania Addresses
•	Port Management	Dynamic Addresses
•	Smartport	Dynamic Address Table
•	VLAN Management	Clear Table
•	Spanning Tree	Elter: C VLAND equals to (Parces: 1 = 4004)
0	MAC Address Tables	MAC Address equals to
	Static Addresses	□ Interface equals to ⊙ Port GE1 ○ LAG 1 Go Clear Filter
	Dynamic Address	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)仅在连接到GE2接口时获得DHCP IP地址,因为*静态地*址表显示MAC地址与GE2接口绑定。如果要从GE2接口删除PC MAC地址,以便在另一个端口上使用,则需要按照以下可选步骤解锁该端口。

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步骤 10(可选)

取消选中"锁**定"**单选按钮,然后单**击"应用**"。

Edit Port Security Interface Settings

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

步骤 11(可选)

接口 <i>状态现</i> 在将显示为未锁	〔定。
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Port S	Security Tab	le			
4					
Filte	er: <i>Interfac</i>	<i>e Type</i> equ	als to Port	✓ Go	
			Interface	Learning	Max No. of
	Entry No.	Interface	Status	Mode	Addresses Allowed
\bigcirc	Entry No.	GE1	Unlocked	Mode Classic Lock	Addresses Allowed
0	Entry No. 1 2	GE1 GE2	Unlocked Unlocked	Mode Classic Lock Classic Lock	Addresses Allowed

最后,我们单击"保**存"图**标永久保存配置。



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结论

现在,您知道固件版本3.1及更高版本的新端口安全默认行为了!

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有关CBS250或CBS350交换机的更多文章?有关详细信息,请查看以下任何链接!

<u>SNMP设置 SNMP 视图 SNMP 组 DHCP映像升级 密码强度 TCP和UDP设置 时间设置 升级固件</u> <u>Smartport最佳实践 故障排除:无 ip 地址 排除Smartport故障 排除链路抖动故障 创建 VLAN</u>