

200/300系列託管交換機上的埠安全配置

目標

網路的安全非常重要。安全網路可防止入侵者入侵您的網路。增強網路中安全性的一種方法是配置埠安全。連線埠資安允許您在特定連線埠或連結彙總群組(LAG)上設定資安。LAG將單個介面合併到單個邏輯鏈路中，可提供最多八個物理鏈路的聚合頻寬。您可以限制或允許對給定埠/LAG上的不同使用者的訪問。

本文說明如何在200/300系列託管交換器上設定連線埠安全性。

適用裝置

- SF/SG 200和SF/SG 300系列託管交換器

軟體版本

- 1.3.0.62

連線埠安全組態

步驟 1. 登入到Web配置實用程式，然後選擇Security > Port Security。Port Security頁面隨即開啟：

Port Security

Port Security Table		Showing 1-20 of 20		All	per page			
Filter: <i>Interface Type</i> equals to						Port	Go	
	Entry No.	Interface	Interface Status	Learning Mode	Max No. of Address Allowed	Action on Violation	Trap	Trap Frequency (sec.)
<input checked="" type="radio"/>	1	GE1	Unlocked	Classic Lock			Disabled	
<input type="radio"/>	2	GE2	Unlocked	Classic Lock			Disabled	
<input type="radio"/>	3	GE3	Unlocked	Classic Lock			Disabled	
<input type="radio"/>	4	GE4	Unlocked	Classic Lock			Disabled	
<input type="radio"/>	5	GE5	Unlocked	Classic Lock			Disabled	
<input type="radio"/>	6	GE6	Unlocked	Classic Lock			Disabled	
<input type="radio"/>	7	GE7	Unlocked	Classic Lock			Disabled	
<input type="radio"/>	8	GE8	Unlocked	Classic Lock			Disabled	
<input type="radio"/>	9	GE9	Unlocked	Classic Lock			Disabled	
<input type="radio"/>	10	GE10	Unlocked	Classic Lock			Disabled	
<input type="radio"/>	11	GE11	Unlocked	Classic Lock			Disabled	
<input type="radio"/>	12	GE12	Unlocked	Classic Lock			Disabled	
<input type="radio"/>	13	GE13	Unlocked	Classic Lock			Disabled	
<input type="radio"/>	14	GE14	Unlocked	Classic Lock			Disabled	
<input type="radio"/>	15	GE15	Unlocked	Classic Lock			Disabled	
<input type="radio"/>	16	GE16	Unlocked	Classic Lock			Disabled	
<input type="radio"/>	17	GE17	Unlocked	Classic Lock			Disabled	
<input type="radio"/>	18	GE18	Unlocked	Classic Lock			Disabled	
<input type="radio"/>	19	GE19	Unlocked	Classic Lock			Disabled	
<input type="radio"/>	20	GE20	Unlocked	Classic Lock			Disabled	

Port Security

Port Security Table	
Filter: <i>Interface Type</i> equals to	
<input checked="" type="radio"/> Port	<input type="button" value="Go"/>
<input type="radio"/> LAG	

Entry No.	Interface	Interface Status	Learning Mode
-----------	-----------	------------------	---------------

步驟 2. 從Interface Type Equals下拉選單中，選擇Port或LAG，然後點選Go。

步驟 3. 按一下要編輯其安全設定的介面的單選按鈕。

Port Security

Port Security Table		Showing 1-20 of 20		All	per page			
Filter: <i>Interface Type</i> equals to		Port	Go					
	Entry No.	Interface	Interface Status	Learning Mode	Max No. of Address Allowed	Action on Violation	Trap	Trap Frequency (sec.)
<input checked="" type="radio"/>	1	GE1	Unlocked	Classic Lock			Disabled	
<input type="radio"/>	2	GE2	Unlocked	Classic Lock			Disabled	
<input type="radio"/>	3	GE3	Unlocked	Classic Lock			Disabled	
<input type="radio"/>	4	GE4	Unlocked	Classic Lock			Disabled	
<input type="radio"/>	5	GE5	Unlocked	Classic Lock			Disabled	
<input type="radio"/>	6	GE6	Unlocked	Classic Lock			Disabled	
<input type="radio"/>	7	GE7	Unlocked	Classic Lock			Disabled	
<input type="radio"/>	8	GE8	Unlocked	Classic Lock			Disabled	
<input type="radio"/>	9	GE9	Unlocked	Classic Lock			Disabled	
<input type="radio"/>	10	GE10	Unlocked	Classic Lock			Disabled	
<input type="radio"/>	11	GE11	Unlocked	Classic Lock			Disabled	
<input type="radio"/>	12	GE12	Unlocked	Classic Lock			Disabled	
<input type="radio"/>	13	GE13	Unlocked	Classic Lock			Disabled	
<input type="radio"/>	14	GE14	Unlocked	Classic Lock			Disabled	
<input type="radio"/>	15	GE15	Unlocked	Classic Lock			Disabled	
<input type="radio"/>	16	GE16	Unlocked	Classic Lock			Disabled	
<input type="radio"/>	17	GE17	Unlocked	Classic Lock			Disabled	
<input type="radio"/>	18	GE18	Unlocked	Classic Lock			Disabled	
<input type="radio"/>	19	GE19	Unlocked	Classic Lock			Disabled	
<input type="radio"/>	20	GE20	Unlocked	Classic Lock			Disabled	

步驟 4. 按一下「Edit」。出現Edit Port Security Interface Settings視窗：

Interface: Port FE1 LAG 1

Interface Status: Lock

Learning Mode: Classic Lock
 Limited Dynamic Lock
 Secure Permanent
 Secure Delete on Reset

※ Max No. of Address Allowed: 1 (Range: 0 - 256, Default: 1)

Action on Violation: Discard
 Forward
 Shutdown

Trap: Enable

※ Trap Frequency: 10 sec (Range: 1 - 1000000, Default: 10)

Apply Close

Interface: Port FE1 LAG 1

Interface Status: Lock

Learning Mode: Classic Lock
 Limited Dynamic Lock
 Secure Permanent
 Secure Delete on Reset

※ Max No. of Address Allowed: 1 (Range: 0 - 256, Default: 1)

Action on Violation: Discard
 Forward
 Shutdown

Trap: Enable

※ Trap Frequency: 10 sec (Range: 1 - 1000000, Default: 10)

Apply Close

步驟5. (可選) 若要鎖定介面，使其無法傳送和接收資料流量，請在介面狀態列位中勾選 Lock 核取方塊。

Interface Status:	<input checked="" type="checkbox"/> Lock
Learning Mode:	<input checked="" type="radio"/> Classic Lock <input type="radio"/> Limited Dynamic Lock <input type="radio"/> Secure Permanent <input type="radio"/> Secure Delete on Reset
✳ Max No. of Address Allowed:	5 (Range: 0 - 256, Default: 1)
Action on Violation:	<input type="radio"/> Discard <input type="radio"/> Forward <input checked="" type="radio"/> Shutdown
Trap:	<input type="checkbox"/> Enable
✳ Trap Frequency:	10 sec (Range: 1 - 1000000, Default: 10)
<input type="button" value="Apply"/> <input type="button" value="Close"/>	

步驟 6. 在 Learning Mode 欄位中，按一下所需學習模式的單選按鈕。可用選項包括：

- 經典鎖定 — 無論已瞭解的裝置數量如何，都會立即鎖定埠。
- 有限動態鎖定 — 刪除與要鎖定它的埠相關的當前 MAC 地址。埠可以學習特定數量的裝置。
- 安全永久 — 保留與埠相關的當前 MAC 地址，並可獲知特定數量的裝置。
- 重設時安全刪除 — 重設後刪除與連線埠相關的目前 MAC 位址。交換器重設後，連線埠可以得知特定數量的裝置。

步驟 7. 在允許的最大地址數欄位中，輸入允許埠學習的最大 MAC 地址數。如果輸入 0，則連線埠僅支援靜態位址。

步驟 8. 如果在步驟 5 中鎖定埠，則在 Action on Violation 欄位中，按一下發生違規時要採取的操作的單選按鈕。可用選項包括：

- Discard — 如果源未知，則丟棄資料包。
- 轉發 — 如果源未知，則轉發資料包。
- Shutdown — 丟棄資料包並關閉埠。

步驟 9. (可選) 每次在鎖定的埠上收到資料包時，都會觸發陷阱，確保資料包不會與鎖定的埠衝突。要啟用陷阱，請選中 Trap 欄位中的 Enable 覈取方塊。陷阱是從代理到管理器的同步通知，包括當前的 sysUpTime 值，它們是在簡單網路管理協定 (SNMP) 代理上滿足條件時生成的。這些條件在管理資訊庫 (MIB) 中定義。

步驟 10. 如果陷阱在步驟 9 中啟用，請在 Trap Frequency 欄位中輸入每個陷阱之間的最短時間 (以秒為單位)。

步驟 11.按一下「Apply」。

下圖顯示已配置埠的變化。

Port Security

Port Security Table Showing 1-20 of 20 per page

Filter: *Interface Type* equals to

	Entry No.	Interface	Interface Status	Learning Mode	Max No. of Address Allowed	Action on Violation	Trap	Trap Frequency (sec.)
<input type="radio"/>	1	GE1	Unlocked	Limited Dynamic Lock	10		Disabled	
<input type="radio"/>	2	GE2	Unlocked	Classic Lock			Disabled	
<input type="radio"/>	3	GE3	Unlocked	Classic Lock			Disabled	
<input type="radio"/>	4	GE4	Unlocked	Classic Lock			Disabled	
<input type="radio"/>	5	GE5	Unlocked	Classic Lock			Disabled	
<input type="radio"/>	6	GE6	Unlocked	Classic Lock			Disabled	
<input type="radio"/>	7	GE7	Unlocked	Classic Lock			Disabled	
<input type="radio"/>	8	GE8	Unlocked	Classic Lock			Disabled	
<input type="radio"/>	9	GE9	Unlocked	Classic Lock			Disabled	
<input type="radio"/>	10	GE10	Unlocked	Classic Lock			Disabled	
<input type="radio"/>	11	GE11	Unlocked	Classic Lock			Disabled	
<input type="radio"/>	12	GE12	Unlocked	Classic Lock			Disabled	
<input type="radio"/>	13	GE13	Unlocked	Classic Lock			Disabled	
<input type="radio"/>	14	GE14	Unlocked	Classic Lock			Disabled	
<input type="radio"/>	15	GE15	Unlocked	Classic Lock			Disabled	
<input type="radio"/>	16	GE16	Unlocked	Classic Lock			Disabled	
<input type="radio"/>	17	GE17	Unlocked	Classic Lock			Disabled	
<input type="radio"/>	18	GE18	Unlocked	Classic Lock			Disabled	
<input type="radio"/>	19	GE19	Unlocked	Classic Lock			Disabled	
<input type="radio"/>	20	GE20	Unlocked	Classic Lock			Disabled	

註：要將一個埠的埠安全配置應用到多個埠，請參閱將埠安全配置應用到多個埠部分。

將連線埠安全組態套用到多個連線埠

本節介紹如何將單個埠的安全埠配置應用到多個埠。

步驟 1.登入到Web配置實用程式，然後選擇Security > Port Security。Port Security頁面隨即開啟：

Port Security

Port Security Table Showing 1-20 of 20 per page

Filter: *Interface Type* equals to

	Entry No.	Interface	Interface Status	Learning Mode	Max No. of Address Allowed	Action on Violation	Trap	Trap Frequency (sec.)
<input checked="" type="radio"/>	1	GE1	Unlocked	Limited Dynamic Lock	10		Disabled	
<input type="radio"/>	2	GE2	Unlocked	Classic Lock			Disabled	
<input type="radio"/>	3	GE3	Unlocked	Classic Lock			Disabled	
<input type="radio"/>	4	GE4	Unlocked	Classic Lock			Disabled	
<input type="radio"/>	5	GE5	Unlocked	Classic Lock			Disabled	
<input type="radio"/>	6	GE6	Unlocked	Classic Lock			Disabled	
<input type="radio"/>	7	GE7	Unlocked	Classic Lock			Disabled	
<input type="radio"/>	8	GE8	Unlocked	Classic Lock			Disabled	
<input type="radio"/>	9	GE9	Unlocked	Classic Lock			Disabled	
<input type="radio"/>	10	GE10	Unlocked	Classic Lock			Disabled	
<input type="radio"/>	11	GE11	Unlocked	Classic Lock			Disabled	
<input type="radio"/>	12	GE12	Unlocked	Classic Lock			Disabled	
<input type="radio"/>	13	GE13	Unlocked	Classic Lock			Disabled	
<input type="radio"/>	14	GE14	Unlocked	Classic Lock			Disabled	
<input type="radio"/>	15	GE15	Unlocked	Classic Lock			Disabled	
<input type="radio"/>	16	GE16	Unlocked	Classic Lock			Disabled	
<input type="radio"/>	17	GE17	Unlocked	Classic Lock			Disabled	
<input type="radio"/>	18	GE18	Unlocked	Classic Lock			Disabled	
<input type="radio"/>	19	GE19	Unlocked	Classic Lock			Disabled	
<input type="radio"/>	20	GE20	Unlocked	Classic Lock			Disabled	

步驟 2.按一下要將其配置應用到多個埠的埠的單選按鈕。

步驟 3.按一下「Copy Settings」。出現「Copy Settings」視窗。

Copy configuration from entry 1 (GE1)

to: (Example: 1,3,5-10 or: GE1,GE3-GE5)

步驟 4.在「至」欄位中，輸入埠範圍，這些埠將具有您在步驟2中選擇的埠的相同埠安全配置。您可以使用連線埠編號或連線埠名稱作為輸入。可以輸入以逗號分隔的每個埠，如1、3、

5或GE1、GE3、GE5，也可以輸入埠範圍，如1-5或GE1-GE5。

步驟 5.按一下「Apply」以儲存組態。

下圖顯示了將單埠安全配置應用到多個埠的情況。

Port Security								
Port Security Table						Showing 1-20 of 20 <input type="text" value="All"/> per page		
Filter: <i>Interface Type</i> equals to <input type="text" value="Port"/> <input type="button" value="Go"/>								
	Entry No.	Interface	Interface Status	Learning Mode	Max No. of Address Allowed	Action on Violation	Trap	Trap Frequency (sec.)
<input type="radio"/>	1	GE1	Unlocked	Limited Dynamic Lock	10		Disabled	
<input type="radio"/>	2	GE2	Unlocked	Classic Lock			Disabled	
<input type="radio"/>	3	GE3	Unlocked	Classic Lock			Disabled	
<input type="radio"/>	4	GE4	Unlocked	Classic Lock			Disabled	
<input type="radio"/>	5	GE5	Unlocked	Limited Dynamic Lock	10		Disabled	
<input type="radio"/>	6	GE6	Unlocked	Limited Dynamic Lock	10		Disabled	
<input type="radio"/>	7	GE7	Unlocked	Limited Dynamic Lock	10		Disabled	
<input type="radio"/>	8	GE8	Unlocked	Limited Dynamic Lock	10		Disabled	
<input type="radio"/>	9	GE9	Unlocked	Limited Dynamic Lock	10		Disabled	
<input type="radio"/>	10	GE10	Unlocked	Limited Dynamic Lock	10		Disabled	
<input type="radio"/>	11	GE11	Unlocked	Classic Lock			Disabled	
<input type="radio"/>	12	GE12	Unlocked	Classic Lock			Disabled	
<input type="radio"/>	13	GE13	Unlocked	Classic Lock			Disabled	
<input type="radio"/>	14	GE14	Unlocked	Classic Lock			Disabled	
<input type="radio"/>	15	GE15	Unlocked	Classic Lock			Disabled	
<input type="radio"/>	16	GE16	Unlocked	Classic Lock			Disabled	
<input type="radio"/>	17	GE17	Unlocked	Classic Lock			Disabled	
<input type="radio"/>	18	GE18	Unlocked	Classic Lock			Disabled	
<input type="radio"/>	19	GE19	Unlocked	Classic Lock			Disabled	
<input type="radio"/>	20	GE20	Unlocked	Classic Lock			Disabled	

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）。