帶CTC的NCS4000系統ECU到ECU2在役遷移過 程

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簡介

本文描述如何成功更換安裝在NCS4016系統中的在役外部連線單元(ECU),並更換為ECU 2。本文 還提供拆卸/安裝ECU的步驟。

必要條件

開始此過程之前,NCS4016系統必須運行6.5.26或更高版本的軟體。

需求

思科建議您瞭解以下主題:

- •思科傳輸控制器(CTC)手工藝介面
- 適用於Cisco NCS4000系列的CLI Cisco IOS®
- Cisco NCS4000系列,包括(NCS4016/NCS4009)

採用元件

本文中的資訊係根據以下軟體和硬體版本:

- •本文詳述的步驟不影響流量。
- •本文假設NCS4000機箱是4016或4009機架。

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。

附註: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。

使用CTC

1.建立與NCS4K的連線並驗證最低軟體版本6.5.26。開始之前:

- 確保您已設定滿足硬體和軟體要求的電腦來使用CTC。
- 確保已安裝完整的映像。如果安裝了mini.iso映像,則必須在NCS 4000系統上安裝ncs4kmgbl.pkg。
- 完成配置XML代理。
- 完成配置HTTP。
- 對通用多通訊協定標籤交換(GMPLS)執行snmp-server ifindex persist命令,以在重新載入時保留其連結。

步驟1.a.從連線到NCS 4016機架的電腦啟動Web瀏覽器,例如Windows Internet Explorer、Mozilla Firefox Web瀏覽器或CTC Launcher。

步驟1.b.在瀏覽器URL欄位中,輸入NCS 4016 IPv4虛擬IP地址。在本例中,它是192.168.1.3。

步驟1.c.按下Enter鍵。

步驟1.d.如果使用Internet Explorer,則可能會出現一個安全警告,詢問您是否要開啟Web內容。如 果出現此彈出視窗,請按一下Allow。

步驟1.e.如果出現「Java Plug-in Security Warning(Java外掛安全警告)」對話方塊,請點選 Run按鈕,並在請求時安裝公鑰安全證書。

步驟1.f.此時將顯示CTC啟動器視窗,如下圖所示。CTC是下載到筆記型電腦的Java小程式。為了 確保CTC版本沒有過期,請按一下**設定……**,並在CTC啟動程式設定視窗中按一下**刪除快取**選項和 **確定**按鈕。

🚱 CTC Launcher		_ 🗆 ×
	CTC Launcher Version 10.5.1 Connection Mode	
	Node 192.168.1.3 Use TL1 Tunnel CTC Version Selection Same version as the login node	
	Setting Launch CTC Cancel	
	registered trademarks of Cisco Systems, Inc. and/or its affiliates in the U.S and certain other countries	uluilu cisco

步驟1.g.刪除Cache後,按一下Launch CTC on CTC Launcher視窗。

步驟1.h.由於應用程式未快取,將出現一個CTC下載進度視窗,此過程可能需要幾分鐘時間。下載後,將出現一個警告消息視窗,如下圖所示。按一下「OK」(確定)。



步驟1.i.在CTC登入視窗中,鍵入使用者名稱和密碼。按一下「Login」,如下圖所示:



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1.1. 驗證並記錄所有現有警報

						Ļ	and and a second se		1	•					
Alarm		onditions	History Circuits	Provisioning	Inventory	Ma	intena	nce							
Alarm:	C C	onditions	History Circuits	Provisioning	Inventory	Ma	intena Unit	nce	Wavelength	Dath Width	Serv	ST	SA	Cond	Descrip
Alarm: Num	Ref	onditions New	History Circuits Date 10/10/15 16:13:13	Provisioning Object 0	Inventory Eqpt Type Chassis	Ma Slot	intena Unit	nce Port 0	Wavelength NA	Path Width	Sev MJ	ST R	SA	Cond Power Shelf red	Descrip Power Shelf redundancy
Alarm: Num NA	Ref	New NA NA	History Circuits Date 10/10/15 16:13:13 10/10/15 16:13:13	Provisioning Object 0 0/PT1-PM3	Inventory Eqpt Type Chassis PEM	Slot NA PT	intena Unit	nce Port 0	Wavelength NA NA	Path Width NA NA	Sev MJ MJ	ST R R	SA NA	Cond Power Shelf red Power Module E	Descrip Power Shelf redundancy Power Module Error (PM
Alarm: Num NA NA	Ref NA NA	New NA NA NA	History Circuits Date 10/10/15 16:13:13 10/10/15 16:13:13 10/10/15 16:13:13	Provisioning Object 0 0/PT1-PM3 0/PT1-PM2	Inventory Eqpt Type Chassis PEM PEM	Ma Slot NA PT	unit	nce Port 0 0	Wavelength NA NA NA	Path Width NA NA	Sev MJ MJ	ST R R	SA NA NA	Cond Power Shelf red Power Module E Power Module E	Descrip Power Shelf redundancy Power Module Error (PM Power Module Error (PM
Alarma Num NA NA NA	Ref NA NA NA	New NA NA NA NA NA	History Circuits Date 10/10/15 16:13:13 10/10/15 16:13:13 10/10/15 16:13:13 10/10/15 16:13:13	Provisioning Object 0 0/PT1-PM3 0/PT1-PM2 0/PT1-PM1	Inventory Eqpt Type Chassis PEM PEM PEM	Slot NA PT PT	Unit	Port 0 0 0	Wavelength NA NA NA NA	Path Width NA NA NA	Sev MJ MJ MJ	ST R R R R	SA NA NA NA	Cond Power Shelf red Power Module E Power Module E Power Module E	Descrip Power Shelf redundancy Power Module Error (PM Power Module Error (PM Power Module Error (PM
Alarm: Num NA NA NA NA	Ref NA NA NA NA	New NA NA NA NA NA NA	History Circuits Date 10/10/15 16:13:13 10/10/15 16:13:13 10/10/15 16:13:13 10/10/15 16:13:13 10/10/15 16:13:13	Provisioning Object 0 0/PT1-PM3 0/PT1-PM2 0/PT1-PM1 0/PT1-PM0	Inventory Eqpt Type Chassis PEM PEM PEM	Slot NA PT PT PT	Unit	Port 0 0 0 0	Wavelength NA NA NA NA NA	Path Width NA NA NA NA	Sev MJ MJ MJ MJ	ST R R R R R	SA NA NA NA	Cond Power Shelf red Power Module E Power Module E Power Module E	Descrip Power Shelf redundancy Power Module Error (PM Power Module Error (PM Power Module Error (PM Power Module Error (PM
Alarma Num NA NA NA NA	Ref NA NA NA NA NA	New NA NA NA NA NA NA NA NA	History Circuits Date 10/10/15 16:13:13 10/10/15 16:13:13 10/10/15 16:13:13 10/10/15 16:13:13 10/10/15 16:13:13 10/10/15 16:13:12	Provisioning Object 0 0/PT1-PM3 0/PT1-PM2 0/PT1-PM1 0/PT1-PM0 0/RP0/RP_S	Inventory Eqpt Type Chassis PEM PEM PEM PEM Route Pr	Slot NA PT PT PT RP	Unit	Port 0 0 0 0 0 0 0 NA	Wavelength NA NA NA NA NA NA	Path Width NA NA NA NA NA	Sev MJ MJ MJ MJ MJ	ST R R R R R R	SA NA NA NA NA	Cond Power Shelf red Power Module E Power Module E Power Module E Power Module E SWITCH_LINK_E	Descrip Power Shelf redundancy Power Module Error (PM Power Module Error (PM Power Module Error (PM Power Module Error (PM Switch Ethernet link fault
Alarma Num NA NA NA NA NA	Ref NA NA NA NA	New NA NA NA NA NA NA NA	History Circuits Date 10/10/15 16:13:13 10/10/15 16:13:13 10/10/15 16:13:13 10/10/15 16:13:13 10/10/15 16:13:13 10/10/15 16:13:13 10/10/15 16:13:13	Provisioning Object 0 0/PT1-PM3 0/PT1-PM2 0/PT1-PM1 0/PT1-PM0 0/RP0/RP_S	Inventory Eqpt Type Chassis PEM PEM PEM Route Pr	Slot NA PT PT PT RP	Unit	Port 0 0 0 0 0 NA	Wavelength NA NA NA NA NA	Path Width NA NA NA NA NA	Sev MJ MJ MJ MJ MJ	ST R R R R R	SA NA NA NA	Cond Power Shelf red Power Module E Power Module E Power Module E SWITCH_LINK_E	Descrip Power Shelf redundancy Power Module Error (PM Power Module Error (PM Power Module Error (PM Power Module Error (PM Switch Ethernet link fault

1.2. 驗證軟體版本

步驟1.2.a.導覽至Maintenance > Software > Installation。

Tab View	/ _
Alarms Conditions History Circuits Provisioning Inventory Maintenance	
Database Installation FPD Upgrade SwitchOver Software Installation Type: System FPD Auto-Upgrade (XR) Installation Type: System FPD Auto-Upgrade (XR) Fabric Plane Installation Type: System Installation Type: System Installation Type: System Installation Type: System	Prepare>> Prepare>> Prepare>> Prepare>> C Ceskt-k9zec-65.26 ncskk-mgls-65.26 ncskk-mgls-65.26 ncskk-systemine-65.26 (Boot im ge) c c c c c c c c c c c c c c c c c c

步驟1.2.b.軟體必須至少為6.5.26軟體才能完成此過程。

1.3. 驗證硬碟詳細資訊

sysadmin-vm:0_RP0# <mark>sh media</mark>				
Fri Jun 21 20:21:28.615 UTC				
Partition	Size	Used	Percent	Avail
rootfs:	2.4G	633M	29%	1.6G
log:	478M	308M	70%	135M
config:	478M	32M	8%	410M
disk0:	949M	47M	6%	838M
install:	3.7G	2.8G	81%	681M
disk1:	18G	3.0G	18%	14G

rootfs: = root file system (read-only)
log: = system log files (read-only)
config: = configuration storage (read-only)
install: = install repository (read-only)
sysadmin-vm:0 RPO#

1.4. 建立資料庫備份

步驟1.4.a.建立資料庫備份。

步驟1.4.b.導航到維護>資料庫,然後選擇資料庫備份。



步驟1.4.c.選擇/輸入包含檔名的完整路徑,以便在節點上儲存備份。

步驟1.4.d.按一下OK以儲存檔案。

步驟1.4.e.記下備份檔案的位置。

1.5. BITS定時

如果NCS4K使用BITS定時,請記錄這兩個命令的輸出。如果未使用計時,請跳至下一節。

步驟1.5.a.使用putty或任何其他終端程式啟動CLI。

步驟1.5.b.記錄命令show controller timing controller clock的輸出。

RP/0/RP0:Node_Name #show controller timing controller clock Wed Nov 13 14:53:18.781 CST

BITSO-IN BITSO-OUT BITS1-IN BITS1-OUT Config : <mark>Yes</mark> Yes No No -PORT Mode : <mark>T1</mark> т1 --Framing : ESF Linecoding : B8ZS _ ESF -B8ZS _ -No TX Submode : ---Shutdown : No No RX No Direction : RX TX 02 G1 -O2 G1 PRS QL Option : 02 G1 02 G1 RX_ssm : PRS -- - -ADMIN_DOWN UP : -TX ssm ADMIN_DOWN If_state : UP TEO-E TEI-E TEO-W Config : NA NA NA TE1-W NA PORT Mode : ICS ICS ICS ICS -Framing : --Linecoding : -----Submode : ---Shutdown : No No No No -Direction : --_ 01 01 QL Option : 01 01 _ RX_ssm : -TX_ssm : ----_ DOWN If_state : DOWN DOWN DOWN

SYNCEC Clock-Setting: Rack 0

步驟1.5.c.記錄show frequency synchronization clock-interfaces brief命令的輸出。

RP/0/RP	: Node_Name #s	how free	quency	synchroniza	tion clock-interfaces brief
Tue Nov	5 16:38:03.711 CST				
Flags:	> - Up	D - [Down		S - Assigned for selection
	d - SSM Disabled	s - (Dutput s	squelched I	L - Looped back
Node 0/F	RP0:				
Fl	Clock Interface	QLrcv	QLuse	Pri QLsnd	Output driven by
>S	Rack0-Bits0-In	PRS	PRS	50 n/a	n/a
D	Rack0-Bits0-Out	n/a	n/a	n/a PRS	Rack0-Bits0-In
>S	Rack0-Bits1-In	PRS	PRS	50 n/a	n/a
D	Rack0-Bits1-Out	n/a	n/a	n/a PRS	Rack0-Bits0-In
D	0/TE0-E	n/a	n/a	n/a n/a	n/a
D	0/TE1-E	n/a	n/a	n/a n/a	n/a
D	0/TE0-W	n/a	n/a	n/a n/a	n/a
D	0/TE1-W	n/a	n/a	n/a n/a	n/a
>S	Internal0	n/a	ST3	255 n/a	n/a

1.6. 準備拆除ECU

步驟1.6.a. 啟動CTC,導航至節點檢視>維護頁籤,按一下左下角的ECU Upgrade窗格。按一下

Detach按鈕。

Tab View	ř _ X
Alarms Conditions History Circuits Provisioning Inventory Maintenance	
Database Audit SwitchOver Software Routing Table Fabric Upgrade ECU Upgrade Timing	ECU Upgrade Detach Attach Status System ready for provisioning
	Help

步驟1.6.b.如果要繼續分離操作,請選擇Yes。

	Are you sure you want to proceed with ECU detach operation ?	
Tab View	Yes No	/ _×
Alarms Conditions History Circuits Provis		
Database Audit SwitchOver Software	ECU Upgrade Detach Attach Status System ready for provisioning	
Fabric Upgrade		
		Help

第1.6.c步在警報中,將顯示「磁碟分離設定已啟動」和「磁碟配置正在進行中」次要警報。

4	larms	Co	nditio	History Circuits	Provisioning	Inventory	Ma	aintena	nce										
	Num	Ref	New	Date	Object	Eqpt Type	Slot	Unit	Port	Wavelength	Path Width	Sev	ST	SA	Cond	Description	Direction	Location	
	NA	NA	NA	06/01/18 16:57:05	0/RP0	Route Pr	RP0		NA	NA	NA	MN	R	NA	ECU_CAL_PROV	The detach provision for disk started	NA	NEAR	
	NA	NA	NA	06/01/18 16:57:05	0/RP0	Route Pr	RP0		NA	NA	NA	MN	R	NA	ECU_CAL_DISK	disk provision is in progress	NA	NEAR	
													_						_

步驟1.6.d在物理卸下ECU模組之前,請確保已清除系統上的警報「磁碟拆卸操作已啟動」。

	Warning			
Tab View	Â	Please wait till the alarm " The detach provision for disk started " to be cleared before ECU is physically removed		/ -×
Alarms Conditions History Circuits Provisioning In Database Audit SwitchOver Software Routing Table Fabric Plane Fabric Upgrade ECU Upgrade Timing		C.X System ready for	Attach Status provisioning	
				Help
				NET CKT RSA-SSL Memory 193 of 742 MB

Tab View		/ _×
Alarms Conditions History Circuits Provisioning Inventory Maintenance		
Database Audit SwitchOver Software Routing Table Fabric Plane Fabric Upgrade ECU Upgrade Timing	ECU Upgrade Detach Attach Status detach: operation ongoing	Help
		NET CKT RSA-SSL Memory: 158 of 742 ME

Tab View		<u> - ×</u>
Alarms Conditions History Circuits Provisioning Inventory Maintenance Database Audit SwitchOver Software Routing Table Fabric Vlgrade Fabric Vlgrade ECU Upgrade Timing Iming Iming	ECU Upgrade Detach Attach Status detach: operation completed successfully He	lp
	NET CKT RSA-SSL Memory: 144	of 742 MB

一旦警報被清除,ECU模組就可以物理移除。

磁碟調配警報和DISK1-DISK-SPACE(位置**Sysadmin:/misc/disk1**的磁碟空間警報)警報將持續存在於 系統上,直到ECU遷移完成。

														-				
Ta	b View																	
A	larms	Co	ndition	History Circuits	Provisioning	Inventory	Ma	intena	nce									
[Num	Ref	New	Date	Object	Eqpt Type	Slot	Unit	Port	Wavelength	Path Width	Sev	ST	SA	Cond	Description	Direction	Location
	NA	NA	1	06/21/19 14:24:34	0/RP0	Route Pr	RP0		NA	NA	NA	CR	R	NA	DISK1-DISK-SPACE	Disk space alert for location "Sysadmin:/misc/disk1"	NA	NEAR 🔺
ſ	NA	NA	~	06/21/19 14:24:32	0/RP0	Route Pr	RP0		NA	NA	NA	MN	С	NA	ECU_CAL_PROVISION_FOR_DETACH_STARTED	The detach provision for disk started	NA	NEAR
	NA	NA	1	06/21/19 14:22:45	0/RP0	Route Pr	RP0		NA	NA	NA	MN	R	NA	ECU_CAL_PROVISION_FOR_DETACH_STARTED	The detach provision for disk started	NA	NEAR
	NA	NA	1	06/21/19 14:22:31	0/RP1	Route Pr	RP1		NA	NA	NA	CR		NA	DISK1-DISK-SPACE	Disk space alert for location "Sysadmin:/misc/disk1"	NA	NEAR
	NA	NA	NA	06/21/19 14:21:07	0/RP1	Route Pr	RP1		NA	NA	NA	MN	R	NA	ECU_CAL_DISK_PROVISION_IN_PROGRESS_0	disk provision is in progress	NA	NEAR

1.7. 拆下ECU1

1.7.1.從NCS4K機箱中移除ECU模組:

a.確保使用者佩戴防靜電腕帶。

b.拔下連線到NCS4K-ECU模組的所有電纜。

c.當您拔下EMS纜線時,會將所有遠端管理拖放到擴展架上。在1.7.2節中重新連線EMS電纜之前 ,不會恢復該連線。仍然可以使用控制檯埠進行遠端訪問。

d.拔下連線到裝置的所有獨立計時電纜。

e.使用Philips螺絲刀擰鬆ECU單元上的螺釘。

f.使用兩側的鎖存器插出NCS4K-ECU單元。

g.從原始NCS4K-ECU中卸下兩個2.5英吋SATA驅動器(SSD)。注意在ECU中的確切位置(左或右)。

h.將從NCS4K-ECU移除的2.5英吋SATA驅動器插入新的NCS4K-ECU2模組中,確保它們與原始 ECU安裝在相同位置。



1.7.2.安裝ECU2模組並重新連線電纜:

a.將帶有2.5英吋SATA驅動器的新NCS4K-ECU2模組放入原始ECU插槽中。

b.將1.7.1節中拆除的所有電纜重新連線到新的ECU2模組。

c.鎖存器處於正確位置後擰緊螺釘。

d.確保與NE的遠端管理連線再次可用。

e.確保NE的前面板液晶屏工作正常。

tighten screws	ghten screws
Insert 2.5" SATA Reconnect BITS / all cables	A SSD into the same ed from ECU

1.7.3.在NCS4K機箱中初始化新的ECU2:

等待2到3分鐘,等待NCS4K-ECU2模組初始化。

確保在觸發連線操作之前清除ECU「插入警報」,否則可能導致系統進入不一致狀態。



按一下「Attach...」按鈕以繼續,如下圖所示。

Tab View	/_×
Alarms Conditions History Circuits Provisioning Inventory Maintenance	
Database Audit SwitchOver Software Routing Table Fabric Upgrade ECU Upgrade Timing	ECU Upgrade Detach Attach Status attach: operation ongoing

觸發連線過程後,將引發警報「已啟動磁碟的連線設定」。

1	ab View 🖉 🖉 🕹																	
ſ	Alarms	Co	ondition	History Circuits	Provisioning	Inventory	Mai	intenar	nce									
	Num	Ref	New	Date	Object	Eqpt Type	Slot	Unit	Port	Wavelength	Path Width	Sev	ST	SA	Cond	Description	Direction	Location
	NA	NA	1	06/21/19 14:37:23	0/RP1	Route Pr	RP1		NA	NA	NA	MN	R	NA	ECU_CAL_PROV	The attach provision for disk started	NA	NEAR
L	NA	NA	NA	06/21/19 14:24:34	0/RP0	Route Pr	RPO		NA	NA	NA	CR		NA	DISK1-DISK-SPA	Disk space alert for location "Sysadmin:/mis	NA	NEAR
L	NA	NA	NA	06/21/19 14:22:31	0/RP1	Route Pr	RP1		NA	NA	NA	CR		NA	DISK1-DISK-SPA	Disk space alert for location "Sysadmin:/mis	NA	NEAR
	NA	NA	NA	06/21/19 14:21:07	0/RP1	Route Pr	RP1		NA	NA	NA	MN	R	NA	ECU_CAL_DISK	disk provision is in progress	NA	NEAR

一旦從系統中清除這些警報,ECU從NCS4K-ECU到NCS4K-ECU2的遷移就成功完成。



1.8. 過帳支票

1.8.1. 檢驗警報

驗證警報並確保貨架上沒有新的或意外的警報。

附註:對於RP0和RP1,針對位置警報的磁碟空間警報可能需要稍長一些時間才能處於空閒狀態 ,但您可以使用SH media命令驗證磁碟是否正常運行。

	1 -										
Alarms Conditions History Circuits Provisioning Inventory Maintenance											
	_										
		-									

Tab \	ab View 🖉 🖉 🕹																
Alar	Alarma Conditions History Circuits Provisioning Inventory Maintenance																
Nu	n Ref	f New	Date	Object	Eqpt Type	Slot	Unit	Port	Wavelength	Path Width	Sev	ST	SA	Cond	Description	Direction	Location
N	NA	1	06/21/19 14:40:34	0/RP0	Route Pr	RPO		NA	NA	NA	CR	С	NA	DISK1-DISK-SPA	Disk space alert for location "Sysadmin:/mis	NA	NEAR
N	NA	1	06/21/19 14:40:01	0/RP0	Route Pr	RPO		NA	NA	NA	MN	С	NA	ECU_CAL_DISK	disk provision is in progress	NA	NEAR
N	NA	1	06/21/19 14:40:00	0/RP0	Route Pr	RP0		NA	NA	NA	MN	С	NA	ECU_CAL_PROV	The attach provision for disk started	NA	NEAR
N	NA	1	06/21/19 14:38:41	0/RP0	Route Pr	RP0		NA	NA	NA	MN	R	NA	ECU_CAL_PROV	The attach provision for disk started	NA	NEAR
N	NA	NA	06/21/19 14:22:31	0/RP1	Route Pr	RP1		NA	NA	NA	CR		NA	DISK1-DISK-SPA	Disk space alert for location "Sysadmin:/mis	NA	NEAR
N	NA	NA	06/21/19 14:21:07	0/RP1	Route Pr	RP1		NA	NA	NA	MN	R	NA	ECU_CAL_DISK	disk provision is in progress	NA	NEAR

1.8.2. 驗證介質

驗證兩個固態磁碟驅動器是否都已正確設定插槽並且可以訪問。

sysadmin-vm:0_RP0# <mark>sh media</mark>

Fri Jun 21 20:21:28.615 UTC

Partition	Size	Used	Percent	Avail	
rootfs:	2.4G	633M	29%	1.6G	
log:	478M	308M	70%	135M	
config:	478M	32M	8%	410M	
disk0:	949M	47M	6%	838M	
install:	3.7G	2 . 8G	81%	681M	
disk1:	18G	3.0G	18%	14G	

rootfs: = root file system (read-only)
log: = system log files (read-only)
config: = configuration storage (read-only)
install: = install repository (read-only)
sysadmin-vm:0_RPO#

1.8.3. BITS計時重新檢查

如果配置了BITS計時並完成了1.5節。將BITS定時重新附加到ECU2後,再次運行這些命令,並與先前的結果進行比較。

RP/0/RP<u>0:node_name</u>#show_controller_timing_controller_clock Wed_Nov_13_14:53:18.781_CST

SYNCEC Clock-Setting: Rack 0

	BI	rso-in	BIT	S0-OUT	BIT	S1-IN	BIT	S1-OUT
Config	:	Yes	1	No		Yes		No
PORT Mode	:	T1		-		T1		-
Framing	:	ESF		-		ESF		-
Linecoding	r :	B8ZS		-		B8ZS		-
Submode	:	-		-		-		-
Shutdown	:	No	1	No		No		No
Direction	:	RX		ТХ		RX		ТХ
QL Option	:	02 G1		O2 G1		02 G1		O2 G1
RX_ssm	:	PRS		-		PRS		-
TX_ssm	:	-		-		-		-
If_state	:	UP		ADMIN_DOWN		UP		ADMIN_DOWN
)_F	ጥ ፑ 1	-Е	ጥድበ	-w	ጥ E 1	-w
	TE	J-E	T 10 T		THO			
Config	TE(NA	101	NA	THO	NA		NA
Config PORT Mode	TE(NA ICS	101	NA ICS	100	NA ICS		NA ICS
Config PORT Mode Framing	TE(: :	NA ICS -	101	NA ICS -	110	NA ICS -		NA ICS -
Config PORT Mode Framing Linecoding	TE(: :	NA ICS -	1111	NA ICS - -	110	NA ICS -		NA ICS - -
Config PORT Mode Framing Linecoding Submode	TE(: : : : :	NA ICS - -		NA ICS - -	110	NA ICS - -		NA ICS - -
Config PORT Mode Framing Linecoding Submode Shutdown	TE(: : : : :	NA ICS - - No		NA ICS - - No	110	NA ICS - - No		NA ICS - - No
Config PORT Mode Framing Linecoding Submode Shutdown Direction	TE(: : : : :	NA ICS - - No		NA ICS - - No -	100	NA ICS - - No -		NA ICS - - No -
Config PORT Mode Framing Linecoding Submode Shutdown Direction QL Option	TE(; ; ; ; ;	NA ICS - - No - 01		NA ICS - - No - 01	110	NA ICS - - No - 01		NA ICS - - No - 01
Config PORT Mode Framing Linecoding Submode Shutdown Direction QL Option RX_ssm	TE(: : : : : :	NA ICS - - No - 01		NA ICS - - No - 01 -	110	NA ICS - - No - 01		NA ICS - - No - 01 -
Config PORT Mode Framing Linecoding Submode Shutdown Direction QL Option RX_ssm TX_ssm	TE(; ; ; ;	NA ICS - - No - 01 -		NA ICS - - No - 01 -		NA ICS - - No - 01 -		NA ICS - - No - 01 -

RP/0/RP6	Node_Name	show free	quency s	ynchroniza	tion clock-interfaces brief
Tue Nov	5 16:38:03.711 CS	Г			
Flags:	> - Up d - SSM Disabled	D - [s - ()own)utput s	quelched	S - Assigned for selection L - Looped back
Node 0/F	RP0:				·
Fl	Clock Interface	QLrcv	QLuse	Pri QLsnd	Output driven by
>S	Rack0-Bits0-In	PRS	PRS	50 n/a	n/a
D	Rack0-Bits0-Out	n/a	n/a	n/a PRS	Rack0-Bits0-In
>S	Rack0-Bitsl-In	PRS	PRS	50 n/a	n/a
D	Rack0-Bits1-Out	n/a	n/a	n/a PRS	Rack0-Bits0-In
D	0/TE0-E	n/a	n/a	n/a n/a	n/a
D	0/TE1-E	n/a	n/a	n/a n/a	n/a
D	0/TE0-W	n/a	n/a	n/a n/a	n/a
D	0/TE1-W	n/a	n/a	n/a n/a	n/a
>S	Internal0	n/a	ST3	255 n/a	n/a