

تالووم ىلع 2 ةقبطلا ةزهجأ ةحص نم ققحتلا Catalyst 9000 Series Switches

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ةمدقملا

ىلع هيحوتلا ةداعا و 2 ةقبطلا ةزهجأ ةجمرب ةحص نم ققحتلا ةي فيك دن تسملا اذه حضوي
Catalyst 9400 Series Switches تالووم.

ةيساسألا تابلطتملا

تابل طتم ال

دنتسم ال اذهل ةصاخ تابل طتم دجوت ال

ةمدختسم ال تانوكم ال

حاتفم sery (UADP 2.0) 9400 ةزافح ةدام ال ىلع ةقويثو اذه يف ةمولعمل ال تسم ال

اذه لظي نأ بجي نكلو، 16.6.1 وه دنتسم ال اذه يف مدختسم ال جم انرب ال رادصا: **ةظالم** Cisco IOS-XE نم ثدخال اارادصا ال ىلع قيبطتل ال باق

Catalyst 9000 switches تالوحم نم ىرخأ عاونأل دنتسم ال اذه مادختس اكنكمي: **ةظالم** طخ ةقاطب ال ريشي رمأ يا لهاجت نكلو.

ةصاخ ةي لمعم ةئيبي يف ةدوجوم ال ةزهجال نم دنتسم ال اذه يف ةدراول اامولعمل اءاشن اتم تناك اذا. (يضا رتفا) حوسمم نيوكتب دنتسم ال اذه يف ةمدختسم ال ةزهجال اعمج تادب رمأ ال لم تحم ال ريثا لل كم هف نم دكاتف، ليغشت ال دي قكتكبش

ةيساسا تامولعم

- 3 UADP 2.0 forwarding ASICs (0، 1، 2) (C9400-SUP-1) 1 فرشم 9400 ةزافح ةدام ال نمضتي
- اذه نكي مل - (0، 1) زكرم ال يئانث جلاعم: ىلع UADP 2.0 هي جوت ةداع ال ASIC لك يوتحي مدختسي - (سدكم ال تاهجا) UADP 2.0 ASICs.SIFs نم ةقبا ال لايجال يف ارفوتم تاهجا) NIF. ةيلخاد سدكم ةقلح لال خ نم ىرخال UADP 2.0 ASICs تالوكوتوربب لاصت ال ةيفللخ ال ةحول ال لال خ نم رثكأ وأ ةدحاو طخ ةقاطبب لاصت ال مدختسي - (ةكبش ال
- فرشم ال ليصوت تاهجاوو طخال ااقاطبب مزحلل هي جوت ةداع اارارق اعمج ذاخت اتمتي طشن ال فرشم ال ىلع UADP 3 2.0 هي جوت ةداع ال ASICs ااقاطبب ةطساوب
- ةيداعا ةلوسببك ASIC طخ ةقاطبب ىلع لاثم ال اذه يف ةمدختسم ال طخال ااقاطبب يوتحت مزحلل هي جوت ةداع اارارق نمضتت ال زكرم ال
- ASIC ااقاطبب 3 نم رثكأ وأ دحاوب طخال ةقاطبب ىلع ةميدق ال ASIC طخال ةقاطبب لصتت ةيفللخ ال ةحول ال لال خ نم فرشم ال ىلع UADP 2.0 هي جوت ةداع ال
- اارارق اعمج ذاختاب فرشم ال ىلع UADP 2.0 3 مزحلل هي جوت ةداع ال ASICs ااقاطبب موقت مزحلل هي جوت ةداع

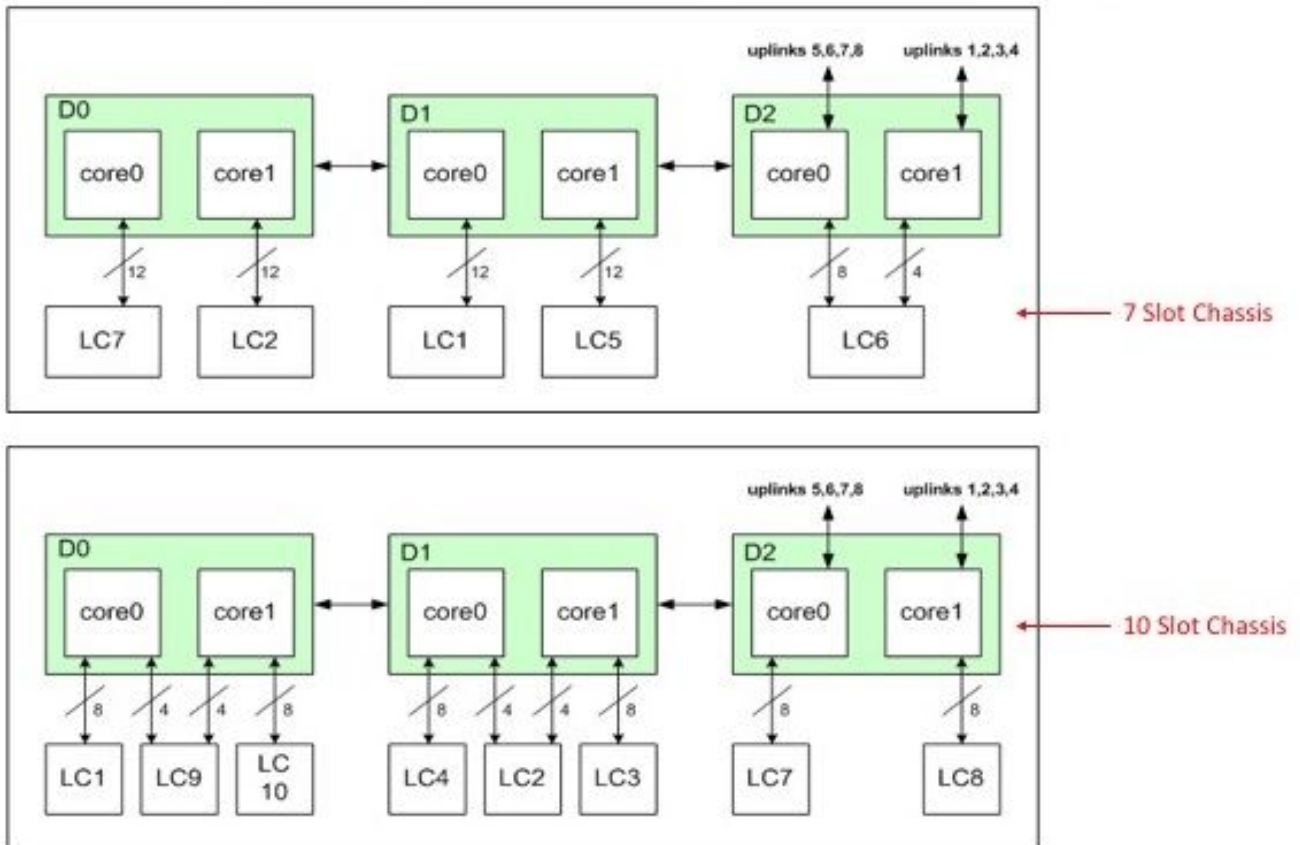
تاحل طصم

مينوركأ	في رت ال
يب رآ	راسم ال جلاعم
عزوم	هي جوت ال ةداع جلاعم
امت معطأ	AS جم انرب ذي فننتب موقت يتل جم انرب ال ةي لمعم. هي جوت ال ةداع اكرحم ليغشت جم انرب فرشم ال هي جوت ةداع ال
ريدم	تانايب ةدعاق يف ةنمازتم ريغ تانئلك اهنيزخت ممتي يتل ال FP جم انرب ال MAC تالاخدا
تانئلك ال	تانئلك ال
يبمسل	انايب ال يوتسم نيبلقن ال Linux ليغشت ال ماظنل ةكرتشم ال ةركاذل رابتخا ةهجاو (software-cpu) مكحت ال يوتسمو (hardware-UADP 2.0)

IFM	ةهجاوول ري دم جم ان رب ةي لم ع
IF_ID	مخادلا ةجم رب ل انا ثا مدخت سي . ةدجم ةهجاوول ثمت ةديرف ةمي ق نع ةراب ع ةهجاوول فر عم ل وجم ل ا ي ف
Inst	ب ةل ص ت م ل UADP 2.0 ASIC/Core ةهجاوول ا ي ل ا ري شي . ل ي ث م ل 1=ASIC0/Core1، 2=ASIC1/Core0، 3=ASIC1/Core1، 4=ASIC2/Core0، 5=ASIC2/Core1.
ك ي س ا	ب ةهجاوول ط ب ت ر ت UADP 2.0 #0، 1=UADP 2.0 #1، 2= UADP 2.0 #2. ا ي د د ح ي
ب ل	ب ط ب ت ر ت UADP 2.0 ةهجاوول ع ا و ن ا ي د د ح ي 0=core0، 1=core1.
ذ ف ن م ل ا	م ا ق ر ا ع ي م ج ن و ك ت ، ة ح ت ف ل ا س ف ن ل خ ا د . ة ح ت ف ل خ ا د ا م ذ ف ن م ل ي ب ي ت ر ت ل ا ل ي ث م ل ا م ق ر ة د ي ر ف ذ ف ا ن م ل ا
SubPort	(CN) ي ع ر ف ا ن ي م ن و ك ي ن ا ا ن ي م f r o n t p a n e l ل (CNTX) ر س ا ة و م ج م ن م ض ا ن ي م ن ي ع ي (ي ع ر ف ا ن ي م ن و ك ي ن ا د ي ر ف ا ن ي م ن ي ع ي ا م S u b P o r t) .
ك م	م ا د ا م ا ل ا ة ق د ا ص م) MACsec ةهجاوول ل ي غ ش ت د ن ع م ا د خ ت س ا م ت ي ي ذ ل ا ةهجاوول فر عم
CNTX	ن م ة م و ع د م ة ي م ا م ا ل ا ة ح و ل ل ا ةهجاوول ن و ك ت ا م د ن ع ذ ف ن م ل ا ة و م ج م م ق ر ب س ت ن ي . ق ا ي س ل ا (ن ط ا ب ل ا ن م ه ر ي د ص ت م ت ي د ي ر ف ذ ف ن م ل ا ع فر ع ت ي ا م C n t x & S u b P o r t) ي ع ر ف
LPN	ةهجاوول ن ر ت ق م ل ا ي ق ط ن م ل ا ذ ف ن م ل ا م ق ر
GPN	ةهجاوول ن ر ت ق م ل ا م ا ع ل ا ذ ف ن م ل ا م ق ر
NIF ب ت ك ا	ة ر ر ك ت م ل ا ة ك ب ش ل ا ة ل ص و = NRU ، ة ك ب ش ل ا ةهجاوول
IF_IS	م ر ب ة د ع ا ن ا ث ا ل و ح م ل ا ا ذ ه م د خ ت س ي . ة ن ي ع م ةهجاوول ل ث م ت ة د ي ر ف ة م ي ق ه ذ ه . ةهجاوول فر عم ل و ح م ل ا ي ف ة ل خ ا د
Port_LE	ةهجاوول ن ي و ك ت و ه ا ذ ه . ذ ف ن م ل ل ي ق ط ن م ل ا ن ا ي ك ل ا
م و ا	ن ن ا ك ن ا ك ل ا ت ا ن ا ي ب ة د ع ا ق ي ف F P ج م ا ر ب ت ا م و ل ع م . ة ن م ا ز ت م ل ا ر ي غ ت ا ن ا ك ل ا ة ر ا د ا
VP	ي ر ه ا ظ ل ا ذ ف ن م ل ا
م ط م	MAC ن ي و ا ن ع ل و د ج ر ي د م
ب ر ا	ر ا س م ل ا ج ل ا ع م
OM_PTR	ت ا ن ا ك ل ا ة ر ا د ا ر ش و م
TBL_ID	VLAN ة ك ب ش = ل و د ج ل فر عم
ن ا م ر ك	ل ك ي ه ل ا ر ي د م
ع ز و م	ه ي ج و ت ل ا ة د ا ع ا ج ل ا ع م
fp_port	ة ي م ا م ا ل ا ة ح و ل ل ا ذ ف ا ن م
ف ي س	(فر ش م ل ا ي ل ع UADP 2.0 ه ي ج و ت ة د ا ع ا ل ا ر خ ا ل ا ASIC ت ا ق ا ط ب و ح ن) س د ك م ل ا ةهجاوول
NIF	(ة ي م ا م ا ل ا ة ح و ل ل ا ةهجاوول و ح ن) ة ك ب ش ل ا ةهجاوول
IGR / EGR	ج ر خ م / ل خ د م
ص ق ا	ل و خ د ل ا ر ا ط ت ن ا م ا و ق ل و د ج م
SQS	س د ك م ل ا ر ا ط ت ن ا ة م ا و ق ل و د ج م
ي س ي ب	م ز ح ل ل ت ق و م ل ا ن ز خ م ل ا ع م ج م
م ق ا	م ا ح ذ ل ا ة ر ا د ا ص ح ف م ت ي ا ذ ه . ة ط ش ن ل ا ر ا ط ت ن ا ل ا ة م ا و ق ة ر ا د ا
د ي س ك ا	ة ط ش ن ل ا ر ا ط ت ن ا ل ا ة م ا و ق ة ر ا د ا ل ا ي ا و ش ع ل ا ر ك ب م ل ا ف ش ك ل ا
EQC	ج و ر خ ل ا ر ا ط ت ن ا ة م ا و ق م ك ح ت ة د ح و
ESM	ج و ر خ ل ا ل و د ج م ة ر ا د ا
و ر	ة م ز ح ل ا ن م س ا ر ل ا ت ا م و ل ع م ف ذ ح و ا ة ف ا ض ا . ة ب ا ت ك ل ا ة د ا ع ا ك ر ح م

داموي	لاخدال جارخا دحو وليغشت جم انرب
fp_port	ةيمامال ةحولل ذفنم
NIF	(ةيمامال ةحولل ةهجاو وحن) ةكبشلا ةهجاو
SLI	(فرشمل وحن) ماظنلا طابترا ةهجاو
IGR / EGR =	جرخم/لخدم
ديسك	ةطشنلا راطننالا ةمئاق ةرادال يئاوشعل ركبملا فشكلا
OCI	طشنلا فرشمل او طخللا ةقاطب نيب يلخاد لاصتا ةانق = قاطنلا جارخ م كحتلا ةهجاو
مطم	MAC نيوانع لودج ري دم
لقن ددع	دحي نأ نكمي . ةديج ةهجاو يلع (هيلع فرعتلا مت يذلا) MAC ناو نع لقن تارم ددع وه اذه
MAC	ضم بوجي امدنع وا ، رخاا يل ةهجاو نم ايلع ف يئاهن فيضم لقن متي امدنع تالقننالا ع وا ، ةفلتخم ةهجاو يلع ةلصتم رخاا لوصو ةطقن يلا (AP) لوصو ةطقن نم يكلسال راركتلا تاقولح وا ةعرفتملا ةرشللا راسم ريغتي

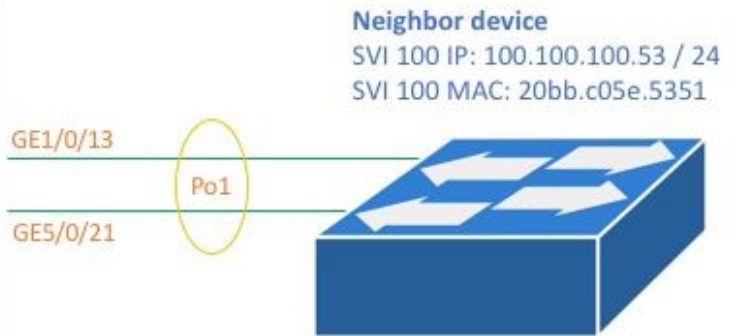
Line Card (LC) to UADP 2.0 Mapping



UADP يلا طخ ةقاطب

اي جولو بوط

Catalyst 9400 - Macallan
 SVI 100 IP: 100.100.100.1 / 24
 SVI 100 MAC: 2c5a.0f1c.28e1



C9400#show version

```
Cisco IOS XE Software, Version 16.06.01
Cisco IOS Software [Everest], Catalyst L3 Switch Software (CAT9K_IOSXE), Version 16.6.1, RELEASE SOFTWARE (fc2)
Technical Support: http://www.cisco.com/techsupport
Copyright (c) 1986-2017 by Cisco Systems, Inc.
Compiled Sat 22-Jul-17 05:51 by mcpre
--snip--
```

C9400#show module

Chassis Type: C9407R

Mod	Ports	Card Type	Model	Serial No.
1	48	48-Port 10/100/1000 (RJ-45)	C9400-LC-48T	JAE211703RC
2	48	48-Port UPOE 10/100/1000 (RJ-45)	C9400-LC-48U	JAE21150CGD
3	10	Supervisor 1 Module	C9400-SUP-1	JAE21240235
4	10	Supervisor 1 Module	C9400-SUP-1	JAE21240235
5	48	48-Port UPOE 10/100/1000 (RJ-45)	C9400-LC-48U	JAE21150CG9

Mod	MAC addresses	Hw	Fw	Sw	Status
1	E4AA.5D54.C84C to E4AA.5D54.C87B	0.6	16.6.1r	[FC 16.06.01	ok
2	E4AA.5D54.B430 to E4AA.5D54.B45F	0.6	16.6.1r	[FC 16.06.01	ok
3	2C5A.0F1C.28EC to 2C5A.0F1C.28F5	0.6	16.6.1r	[FC 16.06.01	ok
4	2C5A.0F1C.28F6 to 2C5A.0F1C.28FF	0.6	16.6.1r	[FC 16.06.01	ok
5	E4AA.5D54.B658 to E4AA.5D54.B687	0.6	16.6.1r	[FC 16.06.01	ok

Mod	Redundancy Role	Operating Redundancy Mode	Configured Redundancy Mode
3	Active	sso	sso
4	Standby	sso	sso

C9400#show running-config interface port-channel 1

```
interface Port-channel1
switchport trunk allowed vlan 100
switchport mode trunk
```


Interface Ref-Cnt : 7

Interface Type : ETHER

Port Type : SWITCH PORT

Port Location : LOCAL

Slot : 1

Unit : 0

Slot Unit : 13

SNMP IF Index : 14

GPN : 1105

EC Channel : 1

EC Index : 1

Port Handle : 0x72000285

LISP v4 Mobility : false

LISP v6 Mobility : false

QoS Trust Type : 0

Port Information

Handle [0x72000285]

Type [Layer2]

Identifier [0x13]

Slot [1]

Unit [13]

Port Physical Subblock

Affinity [local]

Asic Instance [2 (A:1,C:0)]

AsicPort [12]

AsicSubPort [4]

MacNum [0]

ContextId [0]

LPN [13]

GPN [113]

Speed [1GB]

type [NIF]

PORT_LE [0x7fe5c5aabc28]

L3IF_LE [0x0]

EC GPN [1105]

EC L3IF_LE [0x0]

EC Port Mask [0xaaaaaaaaaaaaaaaa]

DI [0x7fe5c5ab5c48]

Port L2 Subblock

Enabled [Yes]

Allow dot1q [Yes] ---> interface Gig1/0/13 is configured as a trunk

Allow native [Yes]

Default VLAN [1]

Allow priority tag ... [Yes]

Allow unknown unicast [Yes]

Allow unknown multicast[Yes]

Allow unknown broadcast[Yes]

Allow unknown multicast[Enabled]

Allow unknown unicast [Enabled]

IPv4 ARP snoop [No]

IPv6 ARP snoop [No]

Jumbo MTU [1500]

Learning Mode [1]

Port QoS Subblock

Trust Type [0x2]

Default Value [0]

Ingress Table Map [0x0]

Egress Table Map [0x0]

Queue Map [0x0]

Port Netflow Subblock

Port Policy Subblock

List of Ingress Policies attached to an interface

List of Egress Policies attached to an interface

Ref Count : 7 (feature Ref Counts + 1)

IFM Feature Ref Counts

FID : 100, Ref Count : 1
FID : 57, Ref Count : 1
FID : 115, Ref Count : 1
FID : 17, Ref Count : 1
FID : 78, Ref Count : 1
FID : 30, Ref Count : 1

IFM Feature Sub block information

FID : 57, Private Data : 0x7fe5c685e748
FID : 17, Private Data : 0x7fe5c5e85f38
FID : 30, Private Data : 0x7fe5c5e85aa8

رمال نام PORT_LE ةميق ىلع ءانب Gig1/0/3 ل ليصفت ليكشت زاهجال رما اذه ضرعي قباسلا.

ةميقلا **في رعتلا**
ةميقلا 0 ةميقلا نبيعت متي مل
ةميقلا 1 تالاحلا مظعم في ةنيعمل ةميقلا.

C9400#show platform hardware fed active fwd-asic abstraction print-resource-handle
0x7fe5c5aabc28 1

Handle:0x7fe5c5aabc28 Res-Type:ASIC_RSC_PORT_LE Res-Switch-Num:0 Asic-Num:2 Feature-ID:AL_FID_IFM Lkp-ftr-id:LKP_FEAT_INGRESS_PRECLASS1_IPV4 ref_count:1
priv_ri/priv_si Handle: (nil)Hardware Indices/Handles: index2:0xc mtu_index/13u_ri_index2:0x4 sm
handle [ASIC 2]: 0x7fe5c5abb588

Detailed Resource Information (ASIC#2)

LEAD_PORT_ALLOW_BROADCAST value 1 Pass LEAD_PORT_ALLOW_CAPWAP value 0 Pass LEAD_PORT_ALLOW_CTS
value 0 Pass LEAD_PORT_ALLOW_DOT1Q_TAGGED value 1 Pass LEAD_PORT_ALLOW_MULTICAST value 1 Pass
LEAD_PORT_ALLOW_NATIVE value 1 Pass LEAD_PORT_ALLOW_NON_CTS value 0 Pass
LEAD_PORT_ALLOW_PRIORITY_TAGGED value 1 Pass LEAD_PORT_ALLOW_UNICAST value 1 Pass
LEAD_PORT_ALLOW_UNKNOWN_ETHER_TYPE value 0 Pass LEAD_PORT_ALLOW_UNKNOWN_UNICAST value 1 Pass
LEAD_PORT_ALLOW_VLAN_LOAD_BALANCE_GROUP value 15 Pass LEAD_PORT_ALLOW_VRF value 0 Pass
LEAD_PORT_ARP_OR_ND_SNOOPING_ENABLED_IPV4 value 0 Pass LEAD_PORT_ARP_OR_ND_SNOOPING_ENABLED_IPV6
value 0 Pass LEAD_PORT_AUTH_MODE value 0 Pass LEAD_PORT_CAPWAP_TUNNEL value 0 Pass
LEAD_PORT_CONTENT_MATCHING_ENABLED value 0 Pass LEAD_PORT_CTS_ENABLED value 0 Pass
LEAD_PORT_CUSTOMER_PORT value 0 Pass LEAD_PORT_DAI_OR_ND_TRUST_MODE_IPV4 value 0 Pass
LEAD_PORT_DAI_OR_ND_TRUST_MODE_IPV6 value 0 Pass LEAD_PORT_DATA_GLEAN_LEARN_IPV4 value 0 Pass --
snip--

EtherChannel ةانق ةجمرب

يطايتحال اكنب FP جماربو، ةجمربب RP موقبي، هذه EtherChannel ةجمرب لاثم تاجرخم في
ةزهج اهي جوت ةداعال فرشملا ةجمرب ليلارديفلا يطايتحال اكنب موقبي م، ليلارديفلا
تالاخدا نيزخت متي و نئال تانايب ةدعاق في تانئالك RP جمانرب تالاخدا نيزخت متي ASIC.
تانئالك تانايب ةدعاق في ةنمازمت ريغ تانئالك FP جمانرب.

C9400#show etherchannel summary

--snip--

Group	Port-channel	Protocol	Ports
-------	--------------	----------	-------

1	Po1(SU)	LACP	Gi1/0/13(P) Gi5/0/21(P)
---	---------	------	-------------------------

ديحتل ةئزجتلا ةي لمع في همادختسا متي جارجالا اذه في يرفص ريغ وه ةعومجملا ءانق
جتني رورم ةكرح قفدت يا شيح EtherChannel في طابترالا.

C9400#show platform software interface rp active brief
Forwarding Manager Interfaces Information

Name	ID	QFP ID
Null0	1	0
GigabitEthernet1/0/1	7	0
GigabitEthernet1/0/2	8	0
GigabitEthernet1/0/3	9	0
-snip-		
GigabitEthernet1/0/13	19	0
-snip-		
GigabitEthernet5/0/21	143	0
-snip-		
Port-channel1	748	0
-snip-		

C9400#show platform software fed active etherchannel 1 group-mask

Group Mask Info
Aggport IIF Id: 00000000000002EC ---> hex 0x2EC = dec 748
Active Port: : 2 -----> 2 active interfaces in the etherchannel = the Member ports below

Member Ports	If Name	If Id	local	Group Mask
	GigabitEthernet1/0/13	0000000000000013	true	5555555555555555 ---> hex 0x13 = dec 19
	GigabitEthernet5/0/21	000000000000008f	true	aaaaaaaaaaaaaaaa ---> hex 0x8f = dec 143

channel 1: ليكش التل رمأ اذه يدبى

C9400#show platform software fed active ifm if-id 0x000002ec

Interface IF_ID : 0x00000000000002ec
Interface Name : Port-channel1
Interface Block Pointer : 0x7fe5c685df98
Interface State : READY
Interface Status : ADD, UPD
Interface Ref-Cnt : 5
Interface Type : ETHERCHANNEL
Port Type : SWITCH PORT
Channel Number : 1
SNMP IF Index : 720
Port Handle : 0x50002f6
#Of Active Ports : 2
Base GPN : 1104
Index[2] : 0000000000000013 ---> Gig1/0/13 from previous command output
Index[3] : 000000000000008f ---> Gig5/0/21 from previous command output

Port Information

Handle [0x50002f6]
Type [L2-Ethchannel]
Identifier [0x2ec]
Unit [1]
Port Logical Subblock
L3IF_LE handle [0x0]
Num physical port . [2]
GPN Base [1104]
Num physical port on asic [0] is [0]
DiBcam handle on asic [0].... [0x0]
Num physical port on asic [1] is [0]
DiBcam handle on asic [1].... [0x0]
Num physical port on asic [2] is [1] -----> Gig1/0/13 is on ASIC instance 2 (Supervisor ASIC 1, core 0)

```

DiBcam handle on asic [2].... [0x7fe5c6ae3608]
Num physical port on asic [3] is [1] -----> Gig5/0/21 is on ASIC instance 3 (Supervisor ASIC 1, core 1)
DiBcam handle on asic [3].... [0x7fe5c685d7e8]
Num physical port on asic [4] is [0]
DiBcam handle on asic [4].... [0x0]
Num physical port on asic [5] is [0]
DiBcam handle on asic [5].... [0x0]
Port L2 Subblock
Enabled ..... [No]
Allow dot1q ..... [No]
Allow native ..... [No]
Default VLAN ..... [0]
Allow priority tag ... [No]
Allow unknown unicast [No]
Allow unknown multicast[No]
Allow unknown broadcast[No]
Allow unknown multicast[Enabled]
Allow unknown unicast [Enabled]
IPv4 ARP snoop ..... [No]
IPv6 ARP snoop ..... [No]
Jumbo MTU ..... [0]
Learning Mode ..... [0]
Port QoS Subblock
Trust Type ..... [0x7]
Default Value ..... [0]
Ingress Table Map ..... [0x0]
Egress Table Map ..... [0x0]
Queue Map ..... [0x0]
Port Netflow Subblock
Port Policy Subblock
List of Ingress Policies attached to an interface
List of Egress Policies attached to an interface
Ref Count : 5 (feature Ref Counts + 1)
IFM Feature Ref Counts
FID : 115, Ref Count : 1
FID : 78, Ref Count : 1
No Sub Blocks Present

```

نېي عتال تاهجاو نيوك ت رمال اذه ضرعي.

لي م/راصتخ	فيعر تال
IFM	ةهجاو ل ري دم
لي م	ف رع م عم (UADP 2.0 ASIC 1، Core 0) ل ي م ل ل ع 13/0/1 Gig1
	ةهجاو ل 0x13
لي م	ف رع م عم (UADP 2.0 ASIC 1، Core 1) ل ي م ل ل ع 21/0/5 Gig5
	ةهجاو ل 0x8f

C9400#show platform software fed active ifm mappings

```

Interface IF_ID Inst Asic Core Port SubPort Mac Cntx LPN GPN Type Active GigabitEthernet1/0/1
0x7 2 1 0 0 0 4 4 1 101 NIF Y GigabitEthernet1/0/2 0x8 2 1 0 1 1 4 4 2 102 NIF Y --snip--
GigabitEthernet1/0/13 0x13 2 1 0 12 4 0 0 13 1105 NIF Y --snip-- GigabitEthernet5/0/21 0x8f 3 1
1 20 4 5 5 21 1104 NIF Y --snip--

```

لي كشت EtherChannel ل ماش

C9400#show platform software ether-channel rp active global-config

Forwarding Manager EtherChannel Global Configuration Information

Frame Dist Method: **Dest-IP-Address** ---> **distribution (hash) method: a packet's destination IP**

LEAD_VLAN_BLOCK_L2_LEARN value 0 Pass
LEAD_VLAN_CONTENT_MATCHING_ENABLED value 0 Pass
LEAD_VLAN_DEST_MOD_INDEX_TVLAN_LE value 0 Pass
LEAD_VLAN_DHCP_SNOOPING_ENABLED_IPV4 value 0 Pass
LEAD_VLAN_DHCP_SNOOPING_ENABLED_IPV6 value 0 Pass
LEAD_VLAN_ENABLE_SECURE_VLAN_LEARNING_IPV4 value 0 Pass
LEAD_VLAN_ENABLE_SECURE_VLAN_LEARNING_IPV6 value 0 Pass
LEAD_VLAN_EPOCH value 0 Pass
LEAD_VLAN_L2_PROCESSING_STP_TCN value 0 Pass
LEAD_VLAN_L2FORWARD_IPV4_MULTICAST_PKT value 0 Pass
LEAD_VLAN_L2FORWARD_IPV6_MULTICAST_PKT value 0 Pass
LEAD_VLAN_L3_IF_LE_INDEX_PRIO value 1 Pass
LEAD_VLAN_L3IF_LE_INDEX value 111 Pass
LEAD_VLAN_LOOKUP_VLAN value 10 Pass -----> MVID 10 = vlan 100
LEAD_VLAN_MCAST_LOOKUP_VLAN value 10 Pass
LEAD_VLAN_RIET_OFFSET value 1 Pass
LEAD_VLAN_SNOOPING_FLOODING_ENABLED_IGMP_OR_MLD_IPV4 value 0 Pass
LEAD_VLAN_SNOOPING_FLOODING_ENABLED_IGMP_OR_MLD_IPV6 value 1 Pass
LEAD_VLAN_SNOOPING_PROCESSING_STP_TCN_IGMP_OR_MLD_IPV4 value 0 Pass
LEAD_VLAN_SNOOPING_PROCESSING_STP_TCN_IGMP_OR_MLD_IPV6 value 0 Pass
LEAD_VLAN_VLAN_CLIENT_LABEL value 0 Pass
LEAD_VLAN_VLAN_CONFIG value 0 Pass
LEAD_VLAN_VLAN_FLOOD_ENABLED value 0 Pass
LEAD_VLAN_VLAN_ID_VALID value 1 Pass
LEAD_VLAN_VLAN_LOAD_BALANCE_GROUP value 15 Pass
LEAD_VLAN_VLAN_ROLE value 0 Pass
LEAD_VLAN_VLAN_FLOOD_MODE_BITS value 3 Pass
LEAD_VLAN_LVX_VLAN value 0 Pass
LEAD_VLAN_EGRESS_DEJAVU_CANON value 0 Pass
LEAD_VLAN_EGRESS_INGRESS_VLAN_MODE value 0 Pass
LEAD_VLAN_EGRESS_LOOKUP_VLAN value 0 Pass
LEAD_VLAN_EGRESS_SGACL_DISABLED value 3 Pass
LEAD_VLAN_EGRESS_VLAN_CLIENT_LABEL value 0 Pass
LEAD_VLAN_EGRESS_VLAN_ID_VALID value 1 Pass
LEAD_VLAN_EGRESS_VLAN_LOAD_BALANCE_GROUP value 15 Pass
LEAD_VLAN_EGRESS_INTRA_POD_BCAST value 0 Pass
LEAD_VLAN_EGRESS_INTER_POD_BCAST value 0 Pass
LEAD_VLAN_MAX value 0 Pass

Detailed Resource Information (ASIC#3) ---> **ASIC instance 3 = Supervisor ASIC 1, core 1**
--snip--
Detailed Resource Information (ASIC#4) ---> **ASIC instance 4 = Supervisor ASIC 2, core 0**
--snip--
Detailed Resource Information (ASIC#5) ---> **ASIC instance 5 = Supervisor ASIC 2, core 1**
--snip--

ةدت ممل اةرچشلا ةج م ر ب

C9400#show spanning-tree vlan 100

VLAN0100

Spanning tree enabled protocol rstp Root ID Priority 32868 Address 20bb.c05e.5300 Cost 4 Port 2473 (Port-channell) Hello Time 2 sec Max Age 20 sec Forward Delay 15 sec Bridge ID Priority 32868 (priority 32768 sys-id-ext 100) Address 2c5a.0f1c.28c0 Hello Time 2 sec Max Age 20 sec Forward Delay 15 sec Aging Time 300 sec Interface Role Sts Cost Prio.Nbr Type -----
- - - - - -----
----- Gi1/0/1 Desg FWD 19 128.1 Shr
Gi2/0/11 Desg FWD 4 128.107 P2p Pol Root FWD 3 128.2473 P2p Peer(STP)

C9400#show etherchannel summary

--snip--

```

Group  Port-channel  Protocol  Ports
-----+-----+-----+-----
1      Po1(SU)         LACP      Gi1/0/13(P) Gi5/0/21(P)

```

1-channel حذف من معرفة ملة عرجش لة هيجوت ةداع ةلأح رم أوألا هذه ضرعت

C9400#show platform software interface rp active brief

Forwarding Manager Interfaces Information

```

Name                               ID           QFP ID
-----+-----+-----
Null0                              1           0
GigabitEthernet1/0/1              7           0
GigabitEthernet1/0/2              8           0
GigabitEthernet1/0/3              9           0
--snip--
Port-channel1                     748         0
--snip--

```

C9400#show platform software fed active vp summary interface if_id 748

```

if_id      vlan_id  pvlan_mode  pvlan_vlan  stp_state  vtp pruned
-----+-----+-----+-----+-----+-----
Untagged
-
748       100     trunk      1           forwarding  No
No

```

VLAN 100 ةكبش لة عرفتم لة عرجش لة ةزهجأ هيجوت ةداع ةلأح ةي لة لة رم أوألا ضرعت

C9400#show platform software fed active vp summary vlan 100

```

if_id      vlan_id  pvlan_mode  pvlan_vlan  stp_state  vtp pruned
-----+-----+-----+-----+-----+-----
Untagged
-
--snip--
748 100     trunk      1           forwarding  No           No
--snip--

```

C9400#show platform hardware fed active vlan 100 ingress

VLAN STP State in hardware

```

vlan id is:: 100
Interfaces in forwarding state: : Gi2/0/11(Tagged), Gi1/0/1(Tagged), Gi1/0/13(Tagged),
Gi5/0/21(Tagged)
flood list: : Gi2/0/11, Gi1/0/1, Gi1/0/13, Gi5/0/21

```

C9400#show platform hardware fed active vlan 100 egress

VLAN STP State in hardware

```

vlan id is:: 100
Interfaces in forwarding state: : Gi2/0/11(Tagged), Gi1/0/1(Tagged), Gi1/0/13(Tagged),
Gi5/0/21(Tagged)

```

م تي ام اردان (TCN) ططخ م لة ري غت تام ال ع لة نأ م دكأت. ةدتم م لة عرجش لة رارق ت س لة م ق قحت اه تي فور.

C9400#show spanning-tree vlan 100 detail

```
VLAN0100 is executing the rstp compatible Spanning Tree protocol
Bridge Identifier has priority 32768, sysid 10, address 2c5a.0f1c.28c0
Configured hello time 2, max age 20, forward delay 15, transmit hold-count 6
Current root has priority 32868, address 2c5a.0f1c.5300
Root port is 2473 (Port-channel1), cost of root path is 4
Topology change flag not set, detected flag not set
Number of topology changes 1 last change occurred 2w6d ago
    from Port-channel1
Times: hold 1, topology change 35, notification 2
    hello 2, max age 20, forward delay 15
Timers: hello 0, topology change 0, notification 0, aging 300
```

--snip--

2 یوتس مل هیجوت ةداع | ةجمر ب

C9400#show etherchannel summary

--snip--

Group	Port-channel	Protocol	Ports
1	Po1(SU)	LACP	Gi1/0/13(P) Gi5/0/21(P)

C9400#ping 100.100.900.53

Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 100.100.900.53, timeout is 2 seconds:
!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max = 3/4/5 ms

C9400#show mac address-table dynamic vlan 100

Mac Address Table

Vlan	Mac Address	Type	Ports
100	0000.0200.0800	DYNAMIC	Gi1/0/1
100	20bb.c05e.5318	DYNAMIC	Po1
100	20bb.c05e.5351	DYNAMIC	Po1

Total Mac Addresses for this criterion: 3

تای جمر ب ةجمر ب

اریخ FED موقی م، FED و FED جماربو و FP و FP جماربب RP موقی، ةیلالاتل جارخال ةلثم ای ف RP جمارنربب ةصاخال MAC تالاخدا نیزخت متی. ASIC ةزهج هیجوت ةداعال فرشملا ةجمر ب تانئاکك FP جمارنربب ةصاخال MAC تالاخدا نیزخت متی و تانئاکك تانایب ةدعاق یف تانئاکك نئاکك تانایب ةدعاق یف ةنمازتم ریغ.

C9400#show platform software matm rp active mac 20bb.c05e.5351 1 100 ---> 100 = vlan

Tbl_Type	Tbl_ID	MAC_Address	Type	Ports	AOM_ID/OM_PTR
MAT_VLAN	100	20bb.c05e.5351	1	1	OM: 0x3700860010

List of Ports: 748

C9400#show platform software interface rp active brief

Forwarding Manager Interfaces Information

Name	ID	QFP ID
------	----	--------

```
-----
Null0 1 0
GigabitEthernet1/0/1 7 0
GigabitEthernet1/0/2 8 0
GigabitEthernet1/0/3 9 0
--snip--
Port-channel1 748 0
--snip--
```

```
C9400#show platform software matm fp active mac 20bb.c05e.5351
Tbl_Type Tbl_ID MAC_Address Type Ports AOM_ID/OM_PTR
MAT_VLAN 100 20bb.c05e.5351 1 1 6567 created
List of Ports: 748
```

```
C9400#show platform software object-manager fp active object 6567
Object identifier: 6567
Description: matm mac entry type VLAN, id 100, 20bb.c05e.5351
Status: Done, Epoch: 0, Client data: 0x799633f8
```

1 ةقيرطال - ةزهجال ةجررب

```
C9400#show platform software fed active matm macTable vlan 100
VLAN MAC Type Seq# macHandle siHandle diHandle *a_time *e_time ports
100 2c5a.0f1c.28e1 0X8002 0 0x7fe5c5eaf1c8 0x7fe5c5924f38 0x0 0 0
Vlan100
100 20bb.c05e.5351 0X1 589 0x7fe5c6b03d68 0x7fe5c6865f78 0x7fe51001b458 300 1
Port-channel1
100 0000.0200.0800 0X1 610 0x7fe5c6b07888 0x7fe5c6b076e8 0x7fe5c5972ce8 300 1
GigabitEthernet1/0/1
Total Mac number of addresses:: 3
*a_time=aging_time(secs) *e_time=total_elapsed_time(secs)
```

Type:

```
MAT_DYNAMIC_ADDR 0x1 MAT_STATIC_ADDR 0x2 ---> Type = dynamically learned MAC
address entry
MAT_CPU_ADDR 0x4 MAT_DISCARD_ADDR 0x8
MAT_ALL_VLANS 0x10 MAT_NO_FORWARD 0x20
MAT_IPMULT_ADDR 0x40 MAT_RESYNC 0x80
MAT_DO_NOT_AGE 0x100 MAT_SECURE_ADDR 0x200
MAT_NO_PORT 0x400 MAT_DROP_ADDR 0x800
MAT_DUP_ADDR 0x1000 MAT_NULL_DESTINATION 0x2000
MAT_DOT1X_ADDR 0x4000 MAT_ROUTER_ADDR 0x8000
MAT_WIRELESS_ADDR 0x10000 MAT_SECURE_CFG_ADDR 0x20000
MAT_OPQ_DATA_PRESENT 0x40000 MAT_WIRED_TUNNEL_ADDR 0x80000
MAT_DLR_ADDR 0x100000 MAT_MRP_ADDR 0x200000
MAT_MSRRP_ADDR 0x400000 MAT_LISP_LOCAL_ADDR 0x800000
MAT_LISP_REMOTE_ADDR 0x1000000 MAT_VPLS_ADDR 0x2000000
```

لداه كام ةجررب

حلطصم فيرعال

vlan:10 حاتفم لال خاد ايلخاد 10 (MVID) VLAN ID (MVID) ططخي لمعتسي VLAN 100 جلاع م

gpn:1104 Port-channel 1 ل ل م ل اع ل ذفنم ل م قر

mac:0x20bbc 05e5351 MAC 20bb.c05e.5351 ناونع

MacHandle: ةجررب تاجرخل ل ل اثم اذه

C9400#show platform hardware fed active fwd-asic abstraction print-resource-handle
0x7fe5c6b03d68 1

Handle:0x7fe5c6b03d68 Res-Type:ASIC_RSC_HASH_TCAM Res-Switch-Num:0 Asic-Num:255 Feature-
ID:AL_FID_L2 Lkp-ftr-id:LKP_FEAT_L2_SRC_MAC_VLAN ref_count:1
priv_ri/priv_si Handle: (nil)Hardware Indices/Handles: handle [ASIC: 0]: 0x7fe5c6aed898 handle
[ASIC: 1]: 0x7fe5c6b00fd8 handle [ASIC: 2]: 0x7fe5c6858208
Features sharing this resource:Cookie length: 12
5e c0 bb 20 51 53 0a 80 07 00 00 00

Detailed Resource Information (ASIC#0)

Number of HTM Entries: 1

Entry 0: (handle 0x7fe5c6aed898) Abs_hash_index: 294 KEY - vlan:10 mac:0x20bbc05e5351 l3_if:0
gpn:1104 epoch:0 static:0 flood_en: 0 vlan_lead_wless_flood_en: 0 client_home_asic: 0 MASK -
vlan:0 mac:0x0 l3_if:0 gpn:0 epoch:0 static:0 flood_en:0 vlan_lead_wless_flood_en: 0
client_home_asic: 0 SRC_AD - need_to_learn:0 lrn_v:0 catchall:0 static_mac:0 chain_ptr_v:0
chain_ptr: 0 static_entry_v:0 auth_state:0 auth_mode:0 auth_behavior_tag:0 traf_m:0 is_src_ce:0
DST_AD - si:0xcd bridge:0 replicate:0 blk_fwd_o:0 v4_rmac:0 v6_rmac:0 catchall:0 ign_src_lrn:0
port_mask_o:0 afd_cli_f:0 afd_lbl:0 prio:3 dest_mod_idx:0 destined_to_us:0 pv_trunk:1 smr:0
Detailed Resource Information (ASIC#1) --snip-- Detailed Resource Information (ASIC#2) --snip--

C9400#show platform software fed active vlan 100

VLAN Fed Information

Vlan Id	IF Id	LE Handle	STP Handle	L3 IF Handle	SVI IF ID
---------	-------	-----------	------------	--------------	-----------

MVID

100 0x0000000000420011 0x00007fe5c4616ef8 0x00007fe5c4617778 0x00007fe5c50dac28
0x000000000000002ea 10

C9400#show platform software fed active ifm mappings etherchannel

Mappings Table

Chan	Interface	IF_ID
------	-----------	-------

1 Port-channel1 0x000002ec

--snip--

C9400#show platform software fed active ifm if-id 0x000002ec <-- IF_ID from previous output

Interface IF_ID : 0x00000000000002ec
Interface Name : Port-channel1
Interface Block Pointer : 0x7fe5c685df98
Interface State : READY
Interface Status : ADD, UPD
Interface Ref-Cnt : 5
Interface Type : ETHERCHANNEL
Port Type : SWITCH PORT
Channel Number : 1
SNMP IF Index : 720
Port Handle : 0x50002f6
#Of Active Ports : 2
Base GPN : 1104
Index[2] : 0000000000000013
Index[3] : 000000000000008f

Port Information

Handle [0x50002f6]
Type [L2-Ethchannel]
Identifier [0x2ec]
Unit [1]
Port Logical Subblock


```
L3IF_LE handle .... [0x0]
Num physical port . [2]
GPN Base ..... [1104]
--snip--
```

تلمعت سا channel-ءاني م نم ال دب نراق ديحو ناك يلع تملع mac ل نراق ل: **عظجال**
 ططخي هجاوي نأ GPN ل ددحي نأ رمأ اذه

```
C9400#show platform software fed active ifm mappings gpn
Mappings Table
```

GPN	Interface	IF_ID
101	GigabitEthernet1/0/1	0x00000007
102	GigabitEthernet1/0/2	0x00000008
103	GigabitEthernet1/0/3	0x00000009

ريديس ةجمر ب

في رعت ل حل طصم

تامول عم و (سره ف ل ةبات ة داع | = RI) ةم زحل ةبات ة داع | تامول عم . ةط ح ل ا سره ف ض ب ق م ل د ن و ك ي س
 (ةه ج و ل ا سره ف = DI) ةر د ا ص ل ا ةه ج و ل ا

دحاو ل ا فر ش م ل ل ASIC يلع ز ك ر م ل ا ي ئ ا ن ث ل ل ث ا م ت م ل ا خ س ن ل ل ة ي ط ق ن ة ر و ص :

ر اص ت خ / ح ل ط ص م	ف ي ر ع ت ل ا
ASIC ي ل ح م ل ا (LD = ت ا ن ا ي ب) (ة ي ل ح م) ص ر ق ل ا) ة ي س ا س ا ة خ س ن ت ا ن ا ي ب ل ا = ط و غ ض م ل ا ة ي س ا س ا ل ا ن ع ت ا ن ا ي ب = (RD = د ع ب ن ع ASIC د ع ب)	ASIC ه س ف ن ل ا يلع ة ي ا غ ر د ص م ك ب ل ه س ف ن ه س ف ن ASIC يلع ةه ج و ل ا ر خ ا ر خ ا ASIC يلع ةه ج و

```
C9400#show platform hardware fed active fwd-asic abstraction print-resource-handle
0x7fe5c6865f78 1
```

```
Handle:0x7fe5c6865f78 Res-Type:ASIC_RSC_SI Res-Switch-Num:255 Asic-Num:255 Feature-
ID:AL_FID_L3_UNICAST_IPV4 Lkp-ftr-id:LKP_FEAT_INVALID ref_count:2
priv_ri/priv_si Handle: 0x7fe5c6864938Hardware Indices/Handles: index0:0xcd
mtu_index/13u_ri_index0:0x0 index1:0xcd mtu_index/13u_ri_index1:0x0 index2:0xcd
mtu_index/13u_ri_index2:0x0 index3:0xcd mtu_index/13u_ri_index3:0x0 index4:0xcd
mtu_index/13u_ri_index4:0x0 index5:0xcd mtu_index/13u_ri_index5:0x0
Features sharing this resource:64 (1)]
55 (1)]
Cookie length: 56
00 00 00 00 00 00 00 00 64 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 07 00 20 bb c0 5e 53 51 00 00 00 00
00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
```

```
Detailed Resource Information (ASIC#0) ---> ASIC instance 0 = Supervisor ASIC 0, core 0
```

```
Station Index (SI) [0xcd]
RI = 0x29 -----> Rewrite index (no MAC rewrite for L2 forwarding)
DI = 0x51c2 -----> Destination index = outgoing interface
stationTableGenericLabel = 0
stationFdConstructionLabel = 0
```

```
lookupSkipIdIndex = 0
rcpServiceId = 0
dejaVuPreCheckEn = 0x1
Replication Bitmap: LD RD CD
```

```
Detailed Resource Information (ASIC#1) ----> ASIC instance 1 = Supervisor ASIC 0, core 1
--snip--
Detailed Resource Information (ASIC#2) ----> ASIC instance 2 = Supervisor ASIC 1, core 0
--snip--
Detailed Resource Information (ASIC#3) ----> ASIC instance 3 = Supervisor ASIC 1, core 1
--snip--
Detailed Resource Information (ASIC#4) ----> ASIC instance 4 = Supervisor ASIC 2, core 0
--snip--
Detailed Resource Information (ASIC#5) ----> ASIC instance 5 = Supervisor ASIC 2, core 1
--snip--
```

```
C9400#show platform hardware fed active fwd-asic resource asic all destination-index range
0x51c2 0x51c2
```

```
ASIC#0:
--snip--
ASIC#1:
--snip--
```

```
ASIC#2: -----> ASIC Instance 2 = Supervisor ASIC 1, core 0
Destination Index (DI) [0x51c2]
portMap = 0x00000000 00001000 ----> binary 0001 0000 0000 0000 = Port 12 (see next command
output)
cmil = 0 (read right to left, zero based)
rcpPortMap = 0
CPU Map Index (CMI) [0]
ctiLo0 = 0
ctiLo1 = 0
ctiLo2 = 0
cpuQNum0 = 0
cpuQNum1 = 0
cpuQNum2 = 0
npuIndex = 0
stripSeg = 0
copySeg = 0
```

```
ASIC#3: -----> ASIC instance 3 = Supervisor ASIC 1, core 1
Destination Index (DI) [0x51c2]
portMap = 0x00000000 00100000 ----> binary 0001 0000 0000 0000 0000 0000 = Port 20 (see next
command output)
cmil = 0 (read right to left, zero based)
rcpPortMap = 0
CPU Map Index (CMI) [0]
ctiLo0 = 0
ctiLo1 = 0
ctiLo2 = 0
cpuQNum0 = 0
cpuQNum1 = 0
cpuQNum2 = 0
npuIndex = 0
stripSeg = 0
copySeg = 0
```

```
ASIC#4:
--snip--
ASIC#5:
--snip--
```

C9400#show platform software fed active ifm mappings

Interface	IF_ID	Inst	Asic	Core	Port	SubPort	Mac	Cntx	LPN	GPN	Type	Active
GigabitEthernet1/0/1	0x7	2	1	0	0	0	4	4	1	101	NIF	Y
GigabitEthernet1/0/2	0x8	2	1	0	1	1	4	4	2	102	NIF	Y
--snip--												
GigabitEthernet1/0/13	0x13	2	1	0	12	4	0	0	13	1105	NIF	Y
--snip--												
GigabitEthernet5/0/21	0x8f	3	1	1	20	4	5	5	21	1104	NIF	Y
--snip--												

C9400#show etherchannel summary

--snip--

Group	Port-channel	Protocol	Ports
1	Po1(SU)	LACP	Gi1/0/13(P) Gi5/0/21(P)

قوبطلل MAC هي جوت ةداع ل اخدا اذه نأل ارظن MAC ةباتك ةداع ل و ح ةع ق و تم تام و لم عم د ج و ت ال 2.

C9400#show platform hardware fed active fwd-asic resource asic all rewrite-index range 0x29 0x29 1

ASIC#0:
Rewrite Data Table Entry,
ASIC#:0, rewrite_type:1, RI:41 ---> dec 41 = hex 0x29

MAC Addr:
MAC Addr: 20:bb:c0:5e:53:51,
L3IF LE Index 111

ASIC#1:
Rewrite Data Table Entry,
ASIC#:1, rewrite_type:1, RI:41

MAC Addr:
MAC Addr: 20:bb:c0:5e:53:51,
L3IF LE Index 111

ASIC#2:
--snip--
ASIC#3:
--snip--
ASIC#4:
--snip--
ASIC#5:
--snip--

C9400#show mac address-table address 20bb.c05e.5351

Mac Address Table

Vlan	Mac Address	Type	Ports
100	20bb.c05e.5351	DYNAMIC	Po1

Total Mac Addresses for this criterion: 1

ليدي ة ج مر ب

م ي ن و ر ك أ في ر ع ت ل ا

diHandle

ةرداصلال ةهجالولاملعم يه هذه .ةهجالولاسرهف ضربقم

```
C9400#show platform hardware fed active fwd-asic abstraction print-resource-handle
0x7fe51001b458 1
Handle:0x7fe51001b458 Res-Type:ASIC_RSC_DI Res-Switch-Num:0 Asic-Num:255 Feature-
ID:AL_FID_INVALID Lkp-ftr-id:LKP_FEAT_INVALID ref_count:21
priv_ri/priv_si Handle: (nil)Hardware Indices/Handles: index0:0x51c2 mtu_index/l3u_ri_index0:0x0
index1:0x51c2 mtu_index/l3u_ri_index1:0x0 index2:0x51c2 mtu_index/l3u_ri_index2:0x0
index3:0x51c2 mtu_index/l3u_ri_index3:0x0 index4:0x51c2 mtu_index/l3u_ri_index4:0x0
index5:0x51c2 mtu_index/l3u_ri_index5:0x0
Features sharing this resource:Cookie length: 8
01 00 00 00 c2 51 00 00
```

Detailed Resource Information (ASIC#0)

--snip--

Detailed Resource Information (ASIC#1)

--snip--

Detailed Resource Information (ASIC#2) ----> ASIC Instance 2 = Supervisor ASIC 1, core 0

Destination Index (DI) [0x51c2]

portMap = 0x00000000 00001000 -----> binary 0001 0000 0000 0000 = Port 12 (see next command output)

cmil = 0 (read right to left, zero based)

rcpPortMap = 0

CPU Map Index (CMI) [0]

ctiLo0 = 0

ctiLo1 = 0

ctiLo2 = 0

cpuQNum0 = 0

cpuQNum1 = 0

cpuQNum2 = 0

npuIndex = 0

stripSeg = 0

copySeg = 0

Detailed Resource Information (ASIC#3) ----> ASIC Instance 3 = Supervisor ASIC 1, core 1

Destination Index (DI) [0x51c2]

portMap = 0x00000000 00100000 ----> binary 0001 0000 0000 0000 0000 0000 = Port 20 (see next command output)

cmil = 0 (read right to left, zero based)

rcpPortMap = 0

CPU Map Index (CMI) [0]

ctiLo0 = 0

ctiLo1 = 0

ctiLo2 = 0

cpuQNum0 = 0

cpuQNum1 = 0

cpuQNum2 = 0

npuIndex = 0

stripSeg = 0

copySeg = 0

Detailed Resource Information (ASIC#4) --snip-- Detailed Resource Information (ASIC#5) --snip--

C9400#show platform software fed active ifm mappings

```
Interface IF_ID Inst Asic Core Port SubPort Mac Cntx LPN GPN Type Active GigabitEthernet1/0/1
0x7 2 1 0 0 0 4 4 1 101 NIF Y GigabitEthernet1/0/2 0x8 2 1 0 1 1 4 4 2 102 NIF Y --snip--
GigabitEthernet1/0/13 0x13 2 1 0 12 4 0 0 13 1105 NIF Y --snip-- GigabitEthernet5/0/21 0x8f 3 1
1 20 4 5 5 21 1104 NIF Y --snip--
```

C9400#show etherchannel summary

```
--snip--
Group Port-channel Protocol Ports
-----+-----+-----+-----
1      Po1(SU)         LACP      Gi1/0/13(P) Gi5/0/21(P)
```

2 ةقيرطال - ةزهأل ةجررب

حلطصم **فيعرعال**
 vlan:10 لخال ايلخال 10 VLAN ID (MVID) ططخي لمعتسي 100 VLAN MVID لعال
 حاتفملا
 gpn:1104 Port-channel ل لعال ذفنملا مقر
 mac:0x20bbc05e5351 MAC 20bb.c05e.5351 ناونع

ةزهأل ةجررب ةقيرطال يئثال لثال جارخ:

```
C9400#show platform hardware fed active matm macTable vlan 100
--snip--
HEAD: MAC address 20bb.c05e.5351 in VLAN 100
KEY: vlan 10, mac 0x20bbc05e5351, l3_if 0, gpn 1104, epoch 0, static 0, flood_en 0,
vlan_lead_wless_flood_en 0, client_home_asic 0
MASK: vlan 0, mac 0x0, l3_if 0, gpn 0, epoch 0, static 0, flood_en 0, vlan_lead_wless_flood_en
0, client_home_asic 0
SRC_AD: need_to_learn 0, lrn_v 0, catchall 0, static_mac 0, chain_ptr_v 0, chain_ptr 0,
static_entry_v 0, auth_state 0, auth_mode 0, traf_mode 0, is_src_ce 0
DST_AD: si 0xc7, bridge 0, replicate 0, blk_fwd_o 0, v4_mac 0, v6_mac 0, catchall 0, ign_src_lrn
0, port_mask_o 0, afd_cli_f 0, afd_lbl 0, priority 3, dest_mod_idx 0, destined_to_us 0, pv_trunk
1
--snip--
```

```
C9400#show platform software fed active vlan 100
VLAN Fed Information

Vlan Id IF Id                    LE Handle                    STP Handle                    L3 IF Handle                    SVI IF ID
MVID
-----
100        0x0000000000420011 0x00007fe5c4616ef8 0x00007fe5c4617778 0x00007fe5c50dac28
0x000000000000002ea 10
```

```
C9400#show platform software fed active ifm mappings etherchannel
Mappings Table

Chan        Interface                    IF_ID
-----
1            Port-channel1                0x000002ec
--snip--
```

```
C9400#show platform software fed active ifm if-id 0x000002ec
Interface IF_ID : 0x00000000000002ec
Interface Name : Port-channel1
Interface Block Pointer : 0x7fe5c685df98
Interface State : READY
Interface Status : ADD, UPD
Interface Ref-Cnt : 5
Interface Type : ETHERCHANNEL
Port Type : SWITCH PORT
Channel Number : 1
```

```
SNMP IF Index : 720
Port Handle : 0x50002f6
#Of Active Ports : 2
Base GPN : 1104
Index[2] : 0000000000000013
Index[3] : 000000000000008f
```

```
Port Information
Handle ..... [0x50002f6]
Type ..... [L2-Ethchannel]
Identifier ..... [0x2ec]
Unit ..... [1]
Port Logical Subblock
L3IF_LE handle .... [0x0]
Num physical port . [2]
GPN Base ..... [1104]
--snip--
```

يالات ال channel-انيم نم ال دب نراق ديحو ناك لى لع تم لع mac ل ن نراق ل اذ ا: **عظحال**
ططخي هجاوي ن GPN ل نيعي ن ا رم ا تلمع ستسا:

```
C9400#show platform software fed active ifm mappings gpn
Mappings Table
```

GPN	Interface	IF_ID
101	GigabitEthernet1/0/1	0x00000007
102	GigabitEthernet1/0/2	0x00000008
103	GigabitEthernet1/0/3	0x00000009

--snip--

م ادختسا TCAM

مدع نامضل Supervisor ASIC لي ثم لك لى لع MAC ناو نع تال اخلال TCAM م ادختسا نم ققحت
ةزهجال تال اخلال نيختل TCAM ةحاسم دافن

```
C9400#show platform hardware fed active fwd-asic resource tcam utilization
```

```
CAM Utilization for ASIC Instance [0]
--snip--
```

```
CAM Utilization for ASIC Instance [1]
--snip--
```

```
CAM Utilization for ASIC Instance [2]
--snip--
```

```
CAM Utilization for ASIC Instance [3]---> ASIC instance 3 = Supervisor ASIC 1, Core 1
```

Table	Max Values	Used Values	-----> prefix/mask
----- Unicast MAC addresses	65536/1024	13/1	-----> prefix/mask
IGMP and Multicast groups	16384/1024		0/7
L2 Multicast groups	16384/1024		1/9
Directly or indirectly connected routes	49152/65536		0/0
NAT/PAT SA address and Port	0		0
QoS Access Control Entries	18432		34
Security Access Control Entries	18432		0
Ingress Netflow ACEs	1024		0
Policy Based Routing ACEs	2048		9
Egress Netflow ACEs	2048		8
Input Microflow policer ACEs	0		0
Output Microflow policer ACEs	0		0
Flow SPAN ACEs	1024		13

Control Plane Entries	1024	0
Tunnels	1024	0
Lisp Instance Mapping Entries	1024	0
Input Security Associations	512	3
Output Security Associations and Policies	512	0
SGT_DGT	8192/512	0/0
CLIENT_LE	4096/256	2/0
INPUT_GROUP_LE	1024	0
OUTPUT_GROUP_LE	1024	0
Macsec SPD	256	0

CAM Utilization for ASIC Instance [4]
--snip--
CAM Utilization for ASIC Instance [5]
--snip--

ةجحان ةزهأ ةجمر ب

تجمر ب و تايطعم ةدعاق نئالكلا يف تنزخ (اذك هو، VLAN، نراق، MAC، ناونع ناك اذا ام) ةمس لك تانئالك زاهال لخاد.

يطايتحالال كن ب موق ي م ث نمو، FED و FED و FP و FP جمر ب (RP) يطايتحالال جمر بال موق ي RP جمر بال تااخذ نيزخت م ي. ASIC ةزهأ هيجوت ةدعال فرشمال زي هجت ب اريخأ ل لاردي فال ةنمازتم ريغ تانئالك FP جمر بال تااخذ نيزخت م ي و نئالكلا تاناي ب ةدعاق يف تانئالك تانئالكلا تاناي ب ةدعاق يف.

هرود ب موق ي يذال) ل لاردي فال يطايتحالال كن ب لابق تسال او لاسرالال جمر ب موقت ام دنع ارارق ل لاردي فال يطايتحالال كن ب لسري، (ASIC هيجوت ةداعاب موق ي يذال فرشمال ةجمر ب لاسرالال جمر بال ل هتلاهاب لابق تسال/ال لاسرالال جمر ب موق ي م ث. FP ل ةدوع لال FED ةزهأ ةجمر ب تانك اذا. جاجن ب تلمتكا دق ةزهأ لال ةجمر ب نأ ل ل ريشيل (RP) يكل سلالل. تارارقال و/او لكاشم دوچو نم ققحتلل ل لال رمالا مادختس ل كنكم ي، ةححص ريغ و ةدوق فم.

C9400#show platform software object-manager fp active statistics

Forwarding Manager Asynchronous Object Manager Statistics

Object update: Pending-issue: 0, Pending-acknowledgement: 0
Batch begin: Pending-issue: 0, Pending-acknowledgement: 0
Batch end: Pending-issue: 0, Pending-acknowledgement: 0
Command: Pending-acknowledgement: 0
Total-objects: 3269
Stale-objects: 0
Resolve-objects: 0
Error-objects: 0
Paused-types: 0

اذه مدختسأ، ةقل عملال لكاشم لال ةلا ح يف ةيرفص ريغ تانئالك رهظي قبال رمالال ناك اذا ينععملال نئالكلا مقرر ل ل روثع ل ل رمالال

C9400#show platform software object-manager fp active pending-issue-update

نئالكلا مقرب ةطبترمال ةقل عملال ةي لمعال دحتل رمالال اذه مدختسأ م ث

C9400#show platform software object-manager fp active object {object#}

فرعتي مل نئالك (Del Pend) قل عملال فذل ن م ققحتلل رمالال اذه مدختسأ، RP ب نال ل ل ع FP ه ل ع.

```
C9400#show platform software object-manager rp active object-type-info
```

```
Object type Name Count Del Pend Layer -----  
----- CC cc 5 0 2 SPA spa 0 0 4 PORT_DPIDB port_dpodb 164 0 10 CHANNEL_DPIDB  
channel_dpodb 0 0 12 VIRTUAL_DPIDB virtual_dpodb 503 0 13 SW_DPIDB sw_dpodb 0 0 17 VLAN vlan 0 0  
19  
--snip--
```

ةحصلا صحف

مكحتلا ىوتسم تانايب رورم ةكحو ةسايس

رورم ةكحل UADP 2.0 زاهل ايف (مكحتلا ىوتسم ةسايس) CoPP طاقس ا تالاح نم ققحت رثؤي نأ نكميو. جم اربلل (CPU) ةيزك رمل ةجل اعمل ةدحو لىل ا هؤاقتنا متي يتل ا تانايب ل ا ةدتم ل ا ةرشل ا رارقتسا و MAC ملعت لىل ةك ل ذ

```
C9400#show policy-map control-plane
```

```
Control Plane
```

```
Service-policy input: system-cpp-policy
```

```
--snip--
```

```
Class-map: system-cpp-police-sw-forward (match-any)  
0 packets, 0 bytes  
5 minute offered rate 0000 bps, drop rate 0000 bps  
Match: none  
police:  
rate 1000 pps, burst 244 packets  
conformed 1298 bytes; actions:  
transmit  
exceeded 0 bytes; actions:  
drop
```

```
--snip--
```

```
Class-map: system-cpp-police-l2-control (match-any)  
0 packets, 0 bytes  
5 minute offered rate 0000 bps, drop rate 0000 bps  
Match: none  
police:  
rate 500 pps, burst 122 packets  
conformed 239197001 bytes; actions:  
transmit  
exceeded 0 bytes; actions:  
drop
```

```
--snip--
```

```
Class-map: system-cpp-default (match-any)  
0 packets, 0 bytes  
5 minute offered rate 0000 bps, drop rate 0000 bps  
Match: none  
police:  
rate 1000 pps, burst 244 packets  
conformed 0 bytes; actions:  
transmit  
exceeded 0 bytes; actions:  
drop
```



```

Class-map: class-default (match-any)
  0 packets, 0 bytes
  5 minute offered rate 0000 bps, drop rate 0000 bps
Match: any

```

تأثيرات انخفاض معدل عرض ماتي (طوغضم) CoPP للاثملاك CoPP تاخرم س فن ضرع م تي

C9400#show platform hardware fed active qos queue stats internal cpu policer

CPU Queue Statistics

```

=====
                                (default) (set)
QId PlcIdx Queue Name           Enabled Rate Rate Queue Queue
                                Drop(Bytes) Drop(Frames)
0   11   DOT1X Auth                     Yes  1000 1000 0   0
1   1    L2 Control                      Yes  2000 400  0   0
2   14   Forus traffic                   Yes  1000 1000 0   0
3   0    ICMP GEN                        Yes  600  600  0   0
4   2    Routing Control                 Yes  5400 1800 0   0
5   14   Forus Address resolution        Yes  1000 1000 0   0
6   0    ICMP Redirect                   Yes  600  600  0   0
7   16   Unused                          Yes  1000 1000 0   0
8   4    L2 LVX Cont Pack                Yes  1000 1000 0   0
9   16   EWLC Control                    Yes  1000 1000 0   0
10  16   EWLC Data                       Yes  1000 1000 0   0
11  13   L2 LVX Data Pack                Yes  1000 1000 0   0
12  0    BROADCAST                       Yes  600  600  0   0
13  10   Learning cache ovfl             Yes  100  200  0   0
14  13   Sw forwarding                   Yes  1000 1000 0   0
15  8    Topology Control                Yes  13000 13000 0   0
16  12   Proto Snooping                  Yes  2000 2000 0   0
17  16   DHCP Snooping                   Yes  1000 1000 0   0
18  9    Transit Traffic                 Yes  500  400  0   0
19  10   RPF Failed                      Yes  100  200  0   0
20  15   MCAST END STATION               Yes  2000 2000 0   0
21  13   LOGGING                         Yes  1000 1000 0   0
22  7    Punt Webauth                    Yes  1000 1000 0   0
23  10   Crypto Control                  Yes  100  200  0   0
24  10   Exception                       Yes  100  200  0   0
25  3    General Punt                    Yes  200  200  0   0
26  10   NFL SAMPLED DATA               Yes  100  200  0   0
27  2    Low Latency                     Yes  5400 1800 0   0
28  10   EGR Exception                   Yes  100  200  0   0
29  5    Stackwise Virtual Control        No   8000 8000 0   0
30  9    MCAST Data                       Yes  500  400  0   0
31  10   Gold Pkt                        Yes  100  200  0   0

```

* NOTE: CPU queue policer rates are configured to the closest hardware supported value

CPU Queue Policer Statistics

```

=====
Policer Policer Accept Policer Accept Policer Drop Policer Drop
Index   Bytes         Frames         Bytes         Frames
-----
0       3132            36             0             0
1     239197001     721952         0             0
2     123004776     978818         0             0
3       0              0              0             0
4       0              0              0             0

```

5	0	0	0	0
6	0	0	0	0
7	0	0	0	0
8	1024	16	0	0
9	0	0	0	0
10	13600	200	0	0
11	0	0	0	0
12	0	0	0	0
13	1298	3	0	0
14	80520	9158	0	0
15	2189268	23733	0	0
16	0	0	0	0
17	0	0	0	0

CPP Classes to queue map

```

=====
PlcIdx CPP Class                               : Queues
-----
0      system-cpp-police-data                   : ICMP GEN/BROADCAST/ICMP Redirect/
10 system-cpp-police-sys-data : Learning cache ovfl/Crypto Control/Exception/EGR Exception/NFL
SAMPLED DATA/Gold Pkt/RPF Failed/ 13 system-cpp-police-sw-forward : Sw forwarding/LOGGING/L2 LVX
Data Pack/ 9 system-cpp-police-multicast : Transit Traffic/MCAST Data/ 15 system-cpp-police-
multicast-end-station : MCAST END STATION / 7 system-cpp-police-punt-webauth : Punt Webauth/ 1
system-cpp-police-l2-control : L2 Control/ 5 system-cpp-police-stackwise-virt-control :
Stackwise Virtual Control/ 2 system-cpp-police-routing-control : Routing Control/Low Latency/ 3
system-cpp-police-control-low-priority : General Punt/ 4 system-cpp-police-l2lvx-control : L2
LVX Cont Pack/ 8 system-cpp-police-topology-control : Topology Control/ 11 system-cpp-police-
dot1x-auth : DOT1X Auth/ 12 system-cpp-police-protocol-snooping : Proto Snooping/ 14 system-cpp-
police-forus : Forus Address resolution/Forus traffic/ 5 system-cpp-police-stackwise-virt-
control : Stackwise Virtual Control/ 16 system-cpp-default : DHCP Snooping/Unused/EWLC
Control/EWLC Data/

```

وحن (CPU) (hardware-UADP 2.0) ةيزك رمل ال ةجال عمل ال ةدحو ني مضت راسم تايا ئاصح| نم ققحت
(CPU) ةيزك رمل ال ةجال عمل ال ةدحو روظنم نم جم ارب لل (CPU) ةيزك رمل ال ةجال عمل ال ةدحو تايا ئاصح|

```

C9400#show platform software infrastructure lsmapi
LSMPI interface internal stats:
enabled=0, disabled=0, throttled=0, unthrottled=0, state is ready
Input Buffers = 8801257
Output Buffers = 5506129
rxdone count = 8801257
txdone count = 5506128
Rx no particletype count = 0
Tx no particletype count = 0
Txbuf from shadow count = 0
No start of packet = 0
No end of packet = 0
Punt drop stats:
Bad version 0
Bad type 0
Had feature header 0
Had platform header 0
Feature header missing 0
Common header mismatch 0
Bad total length 0
Bad packet length 0
Bad network offset 0
Not punt header 0
Unknown link type 0
No swidb 0

```

```

Bad ESS feature header 0
No ESS feature 0
No SSLVPN feature 0
No PPP bridge feature 0
Punt For PPP bridge type packets 0
Punt For Us type unknown 0
EPC CP RX Pkt cleansed 0
Punt cause out of range 0
IOSXE-RP Punt packet causes:
    42879 Layer2 control and legacy packets
    3644168 ARP request or response packets
    7584 For-us data packets
    1794 Mcast Directly Connected Source packets
    1573 Mcast PIM signaling packets
    750076 For-us control packets
38058 Layer2 bridge domain data packet packets
    3823736 Layer2 control protocols packets

```

FOR_US Control IPv4 protcol stats:

750076 [proto=0] packets

Packet histogram(500 bytes/bin), avg size in 125, out 126:

Pak-Size	In-Count	Out-Count
0+:	8228322	5207592
500+:	41355	1717
1000+:	4331	2402
1500+:	35860	20017

Lsmpl11/3 is up, line protocol is up <-- CPU interface

```

Hardware is LSMPI
MTU 1500 bytes, BW 1000000 Kbit/sec, DLY 10 usec,
    reliability 255/255, txload 1/255, rxload 1/255
Encapsulation ARPA, loopback not set
Keepalive not set
Unknown, Unknown, media type is unknown media type
output flow-control is unsupported, input flow-control is unsupported
ARP type: ARPA, ARP Timeout 04:00:00
Last input never, output never, output hang never
Last clearing of "show interface" counters never
Input queue: 0/1500/0/0 (size/max/drops/flushes); Total output drops: 0
Queueing strategy: fifo
Output queue: 0/40 (size/max)
5 minute input rate 0 bits/sec, 0 packets/sec
5 minute output rate 0 bits/sec, 0 packets/sec
 8309868 packets input, 0 bytes, 0 no buffer
 Received 0 broadcasts (0 IP multicasts)
  0 runts, 0 giants, 0 throttles
  0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored, 0 abort
  0 watchdog, 0 multicast, 0 pause input
 5231728 packets output, 659535525 bytes, 0 underruns 0 output errors, 0 collisions, 0
interface resets 0 unknown protocol drops 0 output buffer failures, 0 output buffers swapped out

```

C9400#show platform software infrastructure lsmpi punt

```

LSMPI punt statistics
Total packets consumed:          876
Total packets forwarded:        8468766
First frag packets:             0
Total packets consumed & forwarded: 0

```

Cause	Total	Total	Length	Dot1q encap
Other	SKB	consumed	forwarded	error exceeded

```

linktype          invalid
MPLS ICMP Can't Fragment      0          0          0          0          0
0
IPv4 Options              0          0          0          0          0
0
Layer2 control and legacy    0          0          0          0          0
0
PPP Control                0          0          0          0          0
0
CLNS IS-IS Control         0          0          0          0          0
0
HDLC keepalives           0          0          0          0          0
0
--snip--

```

فرش مالا وحن CPU-جم ان ربالا (CPU) ة يزك رمال ة ج ل ا عمل ا ة دحو ل ا خ ا د ا راس م تاي ئ اص ح ا نم ق ق ح ت
 ة يزك رمال ة ج ل ا عمل ا ة دحو و روظن م نم (ة زه ج ا ل ا ل ع (CPU).

C9400#show platform software infrastructure inject

Statistics for L3 injected packets:

```

5233473 total inject pak, 3 failed
0 sent, 859329 prerouted
0 non-CEF capable, 855296 non-unicast
859826 IP, 0 IPv6
0 MPLS, 0 Non-IP Tunnel
0 UDLR tunnel, 0 P2MP replicated mcast
0 Non-IP Fastswitched over Tunnel, 4373497 legacy pak path
0 Other packet
0 IP fragmented
644 normal, 391 nexthop
858788 adjacency, 150 feature
0 undefined
3 pak find no adj, 0 no adj-id
137322 sb alloc, 856085 sb local
0 p2mcast failed count 0 p2mcast enqueue fail
0 unicast dhc
0 mobile ip
0 IPv6 NA
0 IPv6 NS
0 Transport failed cases
0 Grow packet buffer
per feature packet inject statistics
150 Feature multicast
0 Feature Edge Switching Service
0 Feature Session Border Controller
0 Feature interrupt level
0 Feature use outbound interface
0 Feature interrupt level with OCE
0 Feature ICMPv6 error message
0 Feature Session Border Controller media packet injection
0 Feature Tunnel Ethernet over GRE
0 Feature Secure Socket Layer Virtual Private Network
0 Feature EPC Wireshark injecting packets

```

Statistics for L2 injected packets:

```

0 total L2 inject pak, 0 failed
0 total BD inject pak, 0 failed
0 total EFP inject pak, 0 failed
0 total VLAN inject pak, 0 failed

```

روظن م نم (CPU) ة يزك رمال ة ج ل ا عمل ا ة دحو ب ة ص ا خ ا ل ا ج ا ر خ ا ل ا ل ا خ ا د ا ل ا راس م تاي ئ اص ح ا نم ق ق ح ت
 FED (UADP 2.0).

C9400#show platform software fed active lsmpi stat
LSMPI Statistics

Transmit: -----> FED transmit = FED (Supervisor) punt to CPU

Packet Count : 8469445
Bytes Count : 1055390613
particle Count : 8951009
particle with App : 7258
Ring Full Error : 0
No Buff Error : 0
TX Ring Free : 2047
TX Ring Busy : 0
TX Ring Size : 2048
TXDone Ring Free : 6816
TXDone Ring Busy : 9567
TXDone Ring Size : 16384

Receive: -----> FED receive = CPU inject to FED (Supervisor)

Packet Count : 5450099
Bytes Count : 675084903 Particle Count : 5695697 Particles with App : 4294966854 RX
Done Count : 5696139 No SOP : 0 No EOP : 0 Not Enough Buf : 0 Max Not Enough Buf : 0 RX Ring
Free : 4095 RX Ring Busy : 0 RX Ring Size : 4096 RXDone Ring Free : 8191 RXDone Ring Busy : 0
RXDone Ring Size : 8192 -----

نم (ةزهجال لىل ع فرشمال) (CPU) ةي زك رمل ةجل اعمل ةدحو ني مضت راسم تايئ اصح! نم ق قحت
(فرشمال) (FED) ةي زك رمل ةجل اعمل ةدحو روظنم

C9400#show platform software fed active punt cause summary
Statistics for all causes

Cause	Cause Info	Rcvd	Dropped
7	ARP request or response	3644168	0
11	For-us data	1524	0
12	Mcast Directly Connected Source	1794	0
25	Mcast PIM signaling	1573	0
55	For-us control	750461	0
58	Layer2 bridge domain data packet	38058	0
96	Layer2 control protocols	3825228	0

روظنم نم 31 اهددعو (CPU) ةي زك رمل ةجل اعمل ةدحو ل راطت نال مئ اوق ةحص نم ق قحت
(فرشمال) ةي زك رمل ةجل اعمل ةدحو

C9400#show platform software fed active cpu-interface

queue	retrieved	dropped	invalid	hol-block
Routing Protocol	790844	0	0	0
L2 Protocol	2774488	0	0	0
sw forwarding	0	0	0	0
broadcast	0	0	0	0
icmp	0	0	0	0
icmp redirect	0	0	0	0
logging	0	0	0	0
rpf-fail	1573	0	0	0
DOT1X authentication	0	0	0	0
Forus Traffic	1524	0	0	0
Forus Resolution	3644192	0	0	0

Wireless q5	0	0	0	0
Wireless q1	0	0	0	0
Wireless q2	0	0	0	0
Wireless q3	0	0	0	0
Wireless q4	0	0	0	0
Learning cache	0	0	0	0
Topology control	1198807	0	0	0
Proto snooping	0	0	0	0
BFD Low latency	0	0	0	0
Transit Traffic	0	0	0	0
Multi End station	38058	0	0	0
Health Check	0	0	0	0
Health Check	0	0	0	0
Crypto control	0	0	0	0
Exception	0	0	0	0
General Punt	0	0	0	0
NFL sampled data	0	0	0	0
STG cache	0	0	0	0
EGR exception	0	0	0	0
FSS	0	0	0	0
Multicast data	1794	0	0	0

C9400#show platform software fed active punt cpuq all
Punt CPU Q Statistics

=====

-snip-

```

CPU Q Id          : 1
CPU Q Name        : CPU_Q_L2_CONTROL
Packets received from ASIC      : 2669864 -----> Packets received by the FED process from
the Supervisor forwarding ASICs
Send to IOSd total attempts    : 2669864 -----> Packets sent from the FED process to IOSd
Send to IOSd failed count      : 0
RX suspend count               : 0
RX unsuspend count             : 0
RX unsuspend send count        : 0
RX unsuspend send failed count : 0
RX consumed count              : 0
RX dropped count               : 0
RX non-active dropped count     : 0
RX conversion failure dropped   : 0
RX INTACK count                : 2243784
RX packets dq'd after intack   : 5074
Active RxQ event               : 2243785
RX spurious interrupt          : 322266

```

```

CPU Q Id          : 2
CPU Q Name        : CPU_Q_FORUS_TRAFFIC
Packets received from ASIC      : 1524
Send to IOSd total attempts    : 1524
Send to IOSd failed count      : 0
RX suspend count               : 0
RX unsuspend count             : 0
RX unsuspend send count        : 0
RX unsuspend send failed count : 0
RX consumed count              : 0
RX dropped count               : 0
RX non-active dropped count     : 0
RX conversion failure dropped   : 0

```

```
RX INTACK count          : 1347
RX packets dq'd after intack : 8
Active RxQ event         : 1347
RX spurious interrupt    : 38
```

–snip–

فرش مالا وحن CPU-جم انربال (CPU) ةيزك رمال ةجال عمل ةدحو لادخا راسم تايا ئاصحا نم ققحت
(فرش مالا) (Fed) ةيزك رمال ةجال عمل ةدحو روظنم نم (ةزهجالا لىل).

```
C9400#show platform software fed active inject cause summary
```

Statistics for all causes

Cause	Cause Info	Rcvd	Dropped
1	L2 control/legacy	4331682	0
2	QFP destination lookup	290	0
3	QFP IPv4/v6 nexthop lookup	391	0
7	QFP adjacency-id lookup	859393	265
8	Mcast specific inject packet	150	0
12	ARP request or response	601	0

FED روظنم نم ةيدر فال (CPU) ةيزك رمال ةجال عمل ةدحو لادخا راطتنا مئاوق ةحص نم ققحت
(UADP 2.0).

```
C9400#show platform software fed active inject cpuq all
```

Inject CPU Q Statistics

=====

```
CPU Q Id          : 0
CPU Q Name      : TX_CPUQ_PRIO_LOW ----> low priority CPU inject queue
Packets received from IOSd : 168342
Enq to pkt driver total attempts : 168277
Enq to pkt driver failed count : 0
Count of TX CMPL received : 168277
TX suspend count : 0
TX unsuspend count : 0
TX dropped count : 265
TX punted count : 0
TX App enq failed : 0
```

```
CPU Q Id          : 7
CPU Q Name      : TX_CPUQ_PRIO_HI ----> high priority CPU inject queue
Packets received from IOSd : 5024664
Enq to pkt driver total attempts : 5024664
Enq to pkt driver failed count : 0
Count of TX CMPL received : 5024664
TX suspend count : 0
TX unsuspend count : 0
TX dropped count : 0
TX punted count : 0
TX App enq failed : 0
```

Stats for all txq:

```
-----
TX chunk malloc fail count : 0
-----
```

MAC لودج ثدح تايا ئاصحا

C9400#show platform software fed active matm stats

MATM counters

```
Total non-cpu mac entries      : 10
Mac Learn SPI Msg Count        : 0
Mac Learn SPI Err Count       : 0
Mac Delete SPI Msg Count      : 0
Mac Delete SPI Err Count      : 0
Mac Learn Count               : 967
Mac Add Count                 : 989
Mac AL add Count              : 971
Mac Del Count                 : 957
Mac AL Del Count              : 961
Mac Move Count                : 2 ----> MAC moves between interfaces (see details above)
Mac AL Move Count             : 0
Mac Clear Count               : 0
Mac Del all count             : 6
Mac table create Count        : 9
Mac VP event Count            : 5
Mac Update info Count         : 0
Mac Vlan age config Event Count : 0
Mac Vlan Link Event Count     : 6
Mac SVI linkEvent Count       : 3
Mac Bsync Event Count         : 0
Mac Isync Event Count         : 0
Mac Recon Start Count         : 0
Mac Recon Event Count         : 0
Mac IFM event Count           : 75
Mac FEC Event Count           : 0
Mac Aging Tick Count          : 0
Mac Retry event Count         : 0
Mac Hw Update Err Count       : 0
Mac In retryQ Count           : 0
```

C9400#configure terminal

C9400(config)#mac address-table notification ?

```
change      Enable/Disable MAC Notification feature on the switch
mac-move    Enable Mac Move Notification
threshold   Configure L2 Table monitoring
```

C9400(config)#mac address-table notification mac-move ----> enabled by default, syslog generated for any MAC move (show logging)

C9400(config)#mac address-table notification change ?

```
history-size  Number of MAC notifications to be stored
interval      Interval between the MAC notifications
<cr>         <cr>
```

C9400(config)#mac address-table notification change ----> disabled by default

C9400#show mac address-table notification mac-move

MAC Move Notification: enabled

C9400#show mac address-table notification change

MAC Notification Feature is Enabled on the switch Interval between Notification Traps : 1 secs
Number of MAC Addresses Added : 0 Number of MAC Addresses Removed : 0 Number of Notifications
sent to NMS : 0 Maximum Number of entries configured in History Table : 1 Current History Table

Length : 0 MAC Notification Traps are Disabled History Table contents -----

UADP 2.0 ءانثتسإ طاقسإ تاي لرمع

ةمزمح طاقسي UADP 2.0 هي جوت ءداعإل ASIC نأل بابسأ ي رمال اذه حضوي

```
C9400#show platform hardware fed active fwd-asic drops exceptions
```

```
****EXCEPTION STATS ASIC INSTANCE 0 (asic/core 0/0)****
```

```
===== Asic/core |
NAME | prev | current | delta
===== 0 0
NO_EXCEPTION 0 0 0 0 IPV4_CHECKSUM_ERROR 0 0 0 0 ROUTED_AND_IP_OPTIONS_EXCEPTION 0 0 0 0
CTS_FILTERED_EXCEPTION 0 0 0 0 SIA_TTL_ZERO 0 0 0 0 ALLOW_NATIVE_EXCEPTION_COUNT 0 0 0 0
ALLOW_DOT1Q_EXCEPTION_COUNT 0 0 0 0 ALLOW_PRIORITY_TAGGED_EXCEPTION_COUNT 0 0 0 0
ALLOW_UNKNOWN_ETHER_TYPE_EXCEPTION 0 0 0 0 IP_SOURCE_GUARD_VIOLATION 0 0 0 0
SECURE_L3IF_LEARNING_VIOLATION 0 0 0 0 AUTH_DRIVEN_DROP 0 0 0 0 VLAN_LOADBALANCE_GROUP_DENY
0 0 0 0 RPF_UNICAST_FAIL 0 0 0 0 RPF_UNICAST_FAIL_SUPPRESS 0 0 0 0
RPF_UNICAST_CHECK_INCOMPLETE 0 0 0 0 RPF_MULTICAST_FAIL 0 0 0 0 PKT_DROP_COUNT 0 0 0 0
SOURCE_ROUTE_EXCEPTION 0 0 0 0 IGR_MISC_FATAL_ERROR 0 0 0 0 BLOCK_FORWARD 0 0 0 0
POLICER_DROP 0 0 0 0 DENY_ROUTE 0 0 0 0 DENY_BRIDGE 0 0 0 0 STATIC_MAC_VIOLATION 0 0 0 0
STATIC_IP_VIOLATION 0 0 0 0 FPM_DROP_PACKET 0 0 0 0 IGR_EXCEPTION_L4_ERROR 0 0 0 0
IGR_EXCEPTION_L5_ERROR 0 0 0 0 IGR_EXCEPTION_HARDWARE_PARSE_EXCEPTION 0 0 0 0
IGR_EXCEPTION_INVALID_VLAN_DROP 0 0 0 0 IGR_EXCEPTION_31 0 0 0 0
FRAGMENTING_IPV4_WITH_OPTIONS 0 0 0 0 FRAGMENTING_IPV6_WITH_EXTENSIONS 0 0 0 0 ICMP_REDIRECT
0 0 0 0 MTU_FAIL_PUNT_TO_CPU_NO_IP_UNREACHABLE 0 0 0 0
LINK_LOCAL_CHECK_FAIL_NO_IP_UNREACHABLE 0 0 0 0 IP_UNICAST_TTL_REACHED_ZERO 0 0 0 0
MISC_FATAL_ERROR 0 0 0 0 STP_OR_FLEXLINK_DROP 0 0 0 0 PROTECTED_PORT_DROP 0 0 0 0
PVLAN_ISOLATED_CHECK_FAILED 0 0 0 0 PVLAN_COMMUNITY_CHECK_FAILED 0 0 0 0
DEJA_VU_CHECK_FAILED 0 0 0 0 NOT_VLAN_LOAD_BALANCE_GROUP_ALLOWED 0 0 0 0 RSPAN_DROP 0 0 0 0
0 SPLIT_HORIZON_DROP 0 0 0 0 SYSTEM_TTL_DROP 0 0 0 0 PRUNED 0 0 0 0 DENY_NO_IP_UNREACHABLE
0 0 0 0 IP_MULTICAST_TTL_REACHED_ZERO 0 0 0 0 MTU_FAIL_DROP_BRIDGED 0 0 0 0
MTU_FAIL_DROP_BRIDGED_IP_ROUTED 0 0 0 0 MTU_FAIL_ERSPAN 0 0 0 0
LINK_LOCAL_CHECK_FAIL_L3M_VALID 0 0 0 0 DENY_NOT_NO_IP_UNREACHABLE 0 0 0 0
MTU_FAIL_PUNT_TO_CPU_NOT_NO_IP_UNREACHABLE 0 0 0 0 LINK_LOCAL_CHECK_FAIL_NOT_NO_IP_UNREACHABLE
0 0 0 0 COPY_TO_CPU 0 0 0 0 EGR_L3_ERROR 0 0 0 0 EGR_L4_ERROR 0 0 0 0 EGR_L5_ERROR 0 0 0
0 0 EGR_HARDWARE_PARSE_EXCEPTION 0 0 0 0 EGR_SHOW_FORWARD_DROP 0 0 0 ****EXCEPTION STATS ASIC
INSTANCE 1 (asic/core 0/1)****
```

```
===== Asic/core |
NAME | prev | current | delta
===== 0 1
NO_EXCEPTION 13168 16679 3511 0 1 IPV4_CHECKSUM_ERROR 0 0 0 0 1 ROUTED_AND_IP_OPTIONS_EXCEPTION
81 103 22
--snip--
```

طخال ءق اطب تانايب راسم يلى فرشم - فرشم ل تايئاصحإ

ءحول ءه جاب ءنرت قمل ءطشن ل UADP 2.0 Supervisor هي جوت ءداعإل ASIC تايئاصحإ نم ققحت
تلمعتسا gig1/0/13 نراقلا، لاثم اذه ي ف . ءني عم ءي مام

جإخال يلى للاثم:

- امسفن ذفانم ل ءومجم نم اعزج ءت ي تال طخال ءق اطب يلى ءدوم ل تاه جاولا نم ققحت
- جرخ نم ي ءدرت ل قاطن ل نم ءي نائل ي ف تبا جيج 8 ءك راشمب ذفانم ءومجم لك تماق
فرشم ل هي جوت ءداعإل ASIC وحن ASIC طخال ءق اطب
- ASIC طخال ءق اطب بءك يلى (ماظن ل طاب ترا ءه جاب) SLI نم ءجاب ذفانم ءومجم لك نرتقت
فرشم ل هي جوت ءداعإل ASIC هاجتاب

rx16384to32767ByteFrames	0	tx16384to32767ByteFrames	0
rx8192to16383ByteFrames	0	tx8192to16383ByteFrames	0
rx4096to8191ByteFrames	0	tx4096to8191ByteFrames	0
rx2048to4095ByteFrames	0	tx2048to4095ByteFrames	0
rx1519to2047ByteFrames	51	tx1519to2047ByteFrames	0
rx1024to1518ByteFrames	15	tx1024to1518ByteFrames	0
rx512to1023ByteFrames	17	tx512to1023ByteFrames	187
rx256to511ByteFrames	3406	tx256to511ByteFrames	9407
rx128to255ByteFrames	6567	tx128to255ByteFrames	6580
rx65to127ByteFrames	11295	tx65to127ByteFrames	8583
rx64ByteFrames	18362	tx64ByteFrames	18458

---> Input queue (Igr = Ingress)

IgrPacketCounters:		EgrPacketCounters:	
packetsIn	97777	packetsIn	580324
packetsOut	97777	packetsEnqueueFcd_val	0
packetsDropped	3383	packetsMarkedForDrop	278
fpsSourcedPadErrorCount	0	padErrorPacketsIn	0
igrSourcedPadErrorCount	0	padErrorPacketsOut	0

For RWE for core 0:

RweTotalEnqStats:	
packetCount	580324
RweTotalDeqStats:	
packetCount	580046
FragmentCount	580046

For EQC for core 0:

EqcTotalEnqStats:	
Count	580704
EqcTotalDeqStats:	
Count	580324

For aqmRedQueueStats for asic port 12:

AqmRedQueueStats: (sum of all queues)

---> Output queue (Aqm = Active queue management)

acceptByteCnt0	0
acceptFrameCnt0	0
acceptByteCnt1	6407742
acceptFrameCnt1	43070
acceptByteCnt2	39609
acceptFrameCnt2	395
dropByteCnt0	0
dropFrameCnt0	0
dropByteCnt1	0
dropFrameCnt1	0
dropByteCnt2	0
dropFrameCnt2	0
outOfSoftBufDropByteCnt	0
outOfSoftBufDropFrameCnt	0
maxQebDropByteCnt	0
maxQebDropFrameCnt	0

For PBC for core 0:

PbcIngressErrorDropCount:		PbcEgressErrorDropCount:	
iCount	0	eS0Count	0
iCount	0	eS1Count	0
PbcCreditCount:		PbcEnqFcErrorDropCount:	
creditCount	64	fCount	0
rwePbcStall	0		

For local/core 0 Switching:

SqsCumulativeStatistics	
totalEnqStat	1368200

inserted slot 7: Possibly linecard is not inserted

Supervisor نېب فرشم لاهي جوت ءداع ال ASIC روظنم نم مكحت لاه رورم ءكرح قفدت نم ققحت
طخ لاه ءقاطب ASIC و Supervisor Active Supervisor ءل ASIC Supervisor Forwarding ASIC ءل
Card OCl. تاهجاو ربع طخ لاه ءقاطب ءل

C9400#show platform hardware cman fp active oci status

processing oci information:

chassis_type: 1
sup slot: 4
sup num oci ports: 8

slot_id 1 : oci_enable Enabled Link Status 0 (UP)
asic_id 1 core_id 0 oci_port 3 mac_id 0
NruRxByteGroupStats: rxBytes 417829462717812 NruTxByteGroupStats: txBytes
588911286106332

slot_id 2 : oci_enable Enabled Link Status 0 (UP)
asic_id 0 core_id 0 oci_port 1 mac_id 1
NruRxByteGroupStats: rxBytes 417938235716344 NruTxByteGroupStats: txBytes
588917607864892

slot_id 5 : oci_enable Enabled Link Status 0 (UP)
asic_id 1 core_id 0 oci_port 4 mac_id 1
NruRxByteGroupStats: rxBytes 53195855717244 NruTxByteGroupStats: txBytes
588915422236932

slot_id 6 : oci_enable Enabled Link Status 1 (DOWN)
asic_id 2 core_id 0 oci_port 6 mac_id 0
NruRxByteGroupStats: rxBytes 0 NruTxByteGroupStats: txBytes 0

slot_id 7 : oci_enable Enabled Link Status 1 (DOWN)
asic_id 0 core_id 0 oci_port 2 mac_id 2
NruRxByteGroupStats: rxBytes 0 NruTxByteGroupStats: txBytes 0

ءقاطب تانايب راسم ءل فرشم - طخ لاه ءقاطب تايئاصح طخ لاه

ءيم ام ءحول ءهجاوب ءنرتقم لاه ءل و ال بعك لاه تاذ طخ لاه ءقاطب ASIC تايئاصح نم ققحت
زكريكرت لاه gig1/0/13 نراق لاه، لاه اذ ءي ءن ءي.

ءاخ لاه ءل لاه:

- ءل IQS لاه نم مءقءي و ءاني مءلءسي نراق ءكبش لاه، gig 1/0/13 نم مءلءسي طبر لءءي
نراق ءمءك لاه.
- SQS، AQM، ءل لاه نم ءءري و اء، رءا ASIC فرشم ءل نراق ءمءك لاه نم ام طبر بهءي، ءانه نم
gig 1/0/13 نم ءب نراق ءكبش لاه ءرا ءبهءي ءل ءءب و EQC، ESM، RWE،
- رءمء مء Gig 1/0/13 SIF نم ءءء ءل رءا لاه فرشم لاه ASIC تاهجاو نم ءلءسرءم لاه مءلءءء
gig 1/0/13 نم NifTx ءءء مء EQC و ESM و RWE و AQM و SQS ربع
- هءه راطءن الاء مءاوق نم طووقس ءالءء ءي ار اء. TX راطءن الاء مءاوق 8 ءءء، AQM لءبسن لاه،
ءزهءا راهءا: طووقس ءالءء هءاوء راطءن الاء مءاوق نم ءي ءءءء رءا لاه اءه مءءءءس ءل ءلءمءي
gig راطءن الاء مءاوق ءالءء ءطشن لاه راطءن الاء مءاوق ءي ءءءء مء ءلء ءس الاء مءاوق لاه
1/0/13

C9400#show platform hardware iomd 1/0 data-path 13 detail ----> slot 1, interface 13

rxMacOverrunFrames	0	txMacUnderrunFrames	0
rxIpgViolationFrames	0	txDeferredFrames	0
rxOamDroppedFrames	0	txExcessiveDeferralFrames	0
rxSymbolErrorFrames	0	txOkMultipleCollisionFrames	0
rxValidOversizeFrames	0	txOkSingleCollisionFrames	0
rxValidUndersizeFrames	0	goldFramesTruncated	0
NifRxSizeGroupStats:		NifTxSizeGroupStats:	
rx32768toMtuFrames	0	tx32768toMtuFrames	0
rx16384to32767ByteFrames	0	tx16384to32767ByteFrames	0
rx8192to16383ByteFrames	0	tx8192to16383ByteFrames	0
rx4096to8191ByteFrames	0	tx4096to8191ByteFrames	0
rx2048to4095ByteFrames	0	tx2048to4095ByteFrames	0
rx1519to2047ByteFrames	51	tx1519to2047ByteFrames	0
rx1024to1518ByteFrames	15	tx1024to1518ByteFrames	0
rx512to1023ByteFrames	17	tx512to1023ByteFrames	186
rx256to511ByteFrames	3374	tx256to511ByteFrames	9318
rx128to255ByteFrames	6505	tx128to255ByteFrames	6518
rx65to127ByteFrames	11237	tx65to127ByteFrames	8526
rx64ByteFrames	18191	tx64ByteFrames	18286

---> Input queue (Igr = Ingress)

IgrPacketCounters:		EgrPacketCounters:	
packetsIn	97078	packetsIn	576307
packetsOut	97078	packetsEnqueueFcd_val	0
packetsDropped	0	packetsMarkedForDrop	0
fpsSourcedPadErrorCount	0	padErrorPacketsIn	0
igrSourcedPadErrorCount	0	padErrorPacketsOut	0

For aqmRedQueueStats for asic port 12:

---> Output queue (Agm = Active queue management)

AqmRedQueueStats:		(sum of all queues)
acceptByteCnt0	0	
acceptFrameCnt0	0	
acceptByteCnt1	0	
acceptFrameCnt1	0	
acceptByteCnt2	6440428	
acceptFrameCnt2	42834	
dropByteCnt0	0	
dropFrameCnt0	0	
dropByteCnt1	0	
dropFrameCnt1	0	
dropByteCnt2	0	
dropFrameCnt2	0	
outOfSoftBufDropByteCnt	0	
outOfSoftBufDropFrameCnt	0	
maxQebDropByteCnt	0	
maxQebDropFrameCnt	0	

SLI MAC 9 - SUP 0: (an ACTIVE sup in slot 3)

SliTxByteGroupStats:		SliRxByteGroupStats:	
txBytes	4457854	rxBytes	6440428

SLI MAC 1 - SUP 1:

SliTxByteGroupStats:		SliRxByteGroupStats:	
txBytes	0	rxBytes	0

أذه دعاسي .ةيمامأل ةحولل ةهجال طخال ةقابط روظنم نم قفدتلالي فم كحتل ةلإ نم ققحت
ةهجال اولى لع ماحدزا يا ديدحت ي ف

- ةمئاق مقررلى ةراشإل مئيف ال ةوقفدتلالي فم كحتل ةلإ دوجو مدع دنع "-" مئقلى نوكت

(مأحذالال) قفدتلال يف مكحتلال هأوي يذلأ راطتالال

- طألأ ةقأطب نم ةهأوالأ ةطساوب هلابقتسا يف يذلأ قفدتلال يف مكحتلال ريرمت مآي لكشب AQM طقسآ شآف فرشمالال علل Supervisor ASIC الال طألأ ةقأطب الال Supervisor ASIC الال اصآا الال (نراق مكحت قاطنلال أراآ) الال OCI الال Supervisor ASIC الال رآ شآفب الال ذومن نم مكحت قفدتلال ريشي نأآلمعآسا نوآي نأآلشن فرشمو ةقأطب طألأ نيأ ةأنق فرشم الال ةقأطب طألأ

```
C9400#show platform hardware iomd 1/0 flowcontrol status ---> slot 1
```

```
Slot 1 - number of ports 48
```

```
slot 1:  Port 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24
         IsmF  -  -  -  -  -  -  -  -  -  -  -  -  -  -  -  -  -  -  -  -  -  -  -  -
         IqmC  -  -  -  -  -  -  -  -  -  -  -  -  -  -  -  -  -  -  -  -  -  -  -  -
         Port 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48
         IsmF  -  -  -  -  -  -  -  -  -  -  -  -  -  -  -  -  -  -  -  -  -  -  -  -
         IqmC  -  -  -  -  -  -  -  -  -  -  -  -  -  -  -  -  -  -  -  -  -  -  -  -
```

ةقأطب بعلك ASIC نيأ طألأ ةقأطب ASIC روظنم نم قفدتلال رورم ةكأرأ نأ نم ذكأآ طآيآأوا طشن فرشمالال فرشمالال Supervisor Forwarding ASIC و طألأ ةقأطب الال طألأ OCI. آاهأوالال الال نم

- طألأ ةقأطب نيأ ةلأالال لاصآالال آاونق = قاطنلال أراآ مكحتلال ةهأوا = OCI = نيأ طآيآأوالال او نيأ طشنالال نيأ فرشمالال

```
C9400#show platform hardware iomd 1/0 oci status ---> slot 1
```

```
Asic 0, Mac 10, Tx OCI Config 0, OCI Merge FALSE, OCI Enabled, Link Status 0 (UP)
Network Port Range 0---47, Local Port Range 0---47
NifRxByteGroupStats:  rxBytes 177402572782108          NifTxByteGroupStats:  txBytes
141925777717156
```

```
Asic 0, Mac 11, Tx OCI Config 0, OCI Merge FALSE, OCI Enabled, Link Status 0 (UP)
Network Port Range 0---47, Local Port Range 0---47
NifRxByteGroupStats:  rxBytes 963489284          NifTxByteGroupStats:  txBytes 770809988
```

يالال ذفانملا ةومأم سفن نم اعزآ دعال يآلال طألأ ةقأطب الال ةدومالال آاهأوالال نم ققآآ ةقأطب الال طألأ ةقأطب بعلك ASIC نم يآرآلال قاطنلال نم ةنيآالال يف آبأأأ 8 كراشآ (فرشمالال) Supervisor الال Supervisor Forwarding الال فرشمالال هآوت ةءاعال ASIC هأآآ طألأ وآن ASIC طألأ ةقأطب بعلك الال (مأظنلال طابآرا ةهأوا) SLI نم دأواب ذفانم ةومأم لك نرآآآ فرشمالال

```
C9400#show platform hardware iomd 1/0 portgroups ---> slot 1
```

```
Port Interface Status Interface Group Max <-- aggregate bandwidth for 8 ports
Group Bandwith Bandwidth
```

```
1      TenGigabitEthernet1/0/1      up      1G
1      TenGigabitEthernet1/0/2      down    1G
1      TenGigabitEthernet1/0/3      admindown 1G
1      TenGigabitEthernet1/0/4      down    1G
1      TenGigabitEthernet1/0/5      down    1G      8G
1      TenGigabitEthernet1/0/6      down    1G
```


1	TenGigabitEthernet1/0/7	down	1G	
1	TenGigabitEthernet1/0/8	down	1G	
2	TenGigabitEthernet1/0/9	down	1G	
2	TenGigabitEthernet1/0/10	down	1G	
2	TenGigabitEthernet1/0/11	down	1G	
2	TenGigabitEthernet1/0/12	down	1G	
2	TenGigabitEthernet1/0/13	up	1G	8G
2	TenGigabitEthernet1/0/14	down	1G	
2	TenGigabitEthernet1/0/15	down	1G	
2	TenGigabitEthernet1/0/16	down	1G	
3	TenGigabitEthernet1/0/17	down	1G	
3	TenGigabitEthernet1/0/18	down	1G	
3	TenGigabitEthernet1/0/19	down	1G	
3	TenGigabitEthernet1/0/20	down	1G	
3	TenGigabitEthernet1/0/21	down	1G	8G
3	TenGigabitEthernet1/0/22	down	1G	
3	TenGigabitEthernet1/0/23	down	1G	
3	TenGigabitEthernet1/0/24	down	1G	
4	TenGigabitEthernet1/0/25	down	1G	
4	TenGigabitEthernet1/0/26	down	1G	
4	TenGigabitEthernet1/0/27	down	1G	
4	TenGigabitEthernet1/0/28	down	1G	
4	TenGigabitEthernet1/0/29	down	1G	8G
4	TenGigabitEthernet1/0/30	down	1G	
4	TenGigabitEthernet1/0/31	down	1G	
4	TenGigabitEthernet1/0/32	down	1G	
5	TenGigabitEthernet1/0/33	down	1G	
5	TenGigabitEthernet1/0/34	down	1G	
5	TenGigabitEthernet1/0/35	down	1G	
5	TenGigabitEthernet1/0/36	down	1G	
5	TenGigabitEthernet1/0/37	down	1G	8G
5	TenGigabitEthernet1/0/38	down	1G	
5	TenGigabitEthernet1/0/39	down	1G	
5	TenGigabitEthernet1/0/40	down	1G	
6	TenGigabitEthernet1/0/41	down	1G	
6	TenGigabitEthernet1/0/42	down	1G	
6	TenGigabitEthernet1/0/43	down	1G	
6	TenGigabitEthernet1/0/44	down	1G	
6	TenGigabitEthernet1/0/45	down	1G	8G
6	TenGigabitEthernet1/0/46	down	1G	
6	TenGigabitEthernet1/0/47	down	1G	
6	TenGigabitEthernet1/0/48	up	1G	

ةمچرتل هذه لوج

ةللأل تاي نقتل نمة ومة مادختساب دن تسمل اذة Cisco تمةرت
ملاعلاء انء مء مء نمة دختسمل معد و تمة مء دقتل ةر شبل او
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ىل إأمءءاد ءوچرلاب ةصوء و تامةرتل هذه ةقء نء اهءل وئس م Cisco
Systems (رفوتم طبارل) ةل صأل ةل ءل ءن إل دن تسمل