

# تالوحم ىلع 2 ةقبطلا ةزهجأ ةحص نم ققحتلا Catalyst 9000 Series Switches

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## ةمدقملا

ىلع هيچوتلا ةداعا و 2 ةقبطلا ةزهجأ ةجمر ةحص نم ققحتلا ةيئيفي دن تسملا اذه حضوي  
Catalyst 9400 Series Switches تالوحم

# ةيساسأل تابل طتمل

## تابل طتمل

دنتسملا اذهل ةصاخ تابل طتم دجوت ال

## ةمدختسملا تانوكمل

حاتفم sery (UADP 2.0) 9400 ةزافح ةداملا ىلع ةقيثو اذه يف ةمولعملا تسملا

الباق اذه لظي نكلو، 16.6.1 وه دنتسملا اذه يف مدختسملا جم انربل رادصا: ةظالم Cisco IOS® نم ثدحأل تارادصال ىلع قيبطلل

Catalyst 9000 switches تالوحم نم ىرخأ عاونأل دنتسملا اذه مادختسا كنكمي: ةظالم طخ ةقاطب ىل ريشي رمأ يا لهاجت نكلو

ةصاخ ةي لمعم ةئيب يف ةدوجوملا ةزهجال نم دنتسملا اذه يف ةدراول تامولعمل عاشنإ مت تناك اذا. (يضا رتفا) حوسمم نيوكتب دنتسملا اذه يف ةمدختسملا ةزهجال عيمج تادب رمأ يأل لمحتملا ريثأتلل كمهف نم دكأتف، ليعشتل ديقتك تكبش

## ةيساسأ تامولعم

UADP 2.0 forwarding ASICs (0، 1، 2) 3 (C9400-SUP-1) 1 فرشم 9400 ةزافح ةداملا نمضتي

ىلع UADP 2.0 هي جوت ةداعإ ASIC لك يوتحي:

- UADP 2.0 نم ةقباسلا لايجال يف ارفوتم اذه نكي مل - (0، 1) زكرملا يئانث جلاعم ASICs.
- نم ىرخأل UADP 2.0 ASICs تالوكوتوربب لاصتال مدختسي - (سدكملا تاهجا) SIFs ةيلخاد سدكم ةقلح لالخ
- ةحوللا لالخ نم رثكأ وأ ةدحاو طخ ةقاطبب لاصتال مدختسي - (ةكبشال تاهجا) NIF ةيلخل
- فرشملا ليصوت تاهجاو طخل تاقاطبب مزحلل هي جوت ةداعإ تارارق عيمج ذاختا متي طشنل فرشملا ىلع UADP 3 2.0 هي جوت ةداعإ ASICs تاقاطبب ةطساوب
- ةيداحأ ةلوسبب ASIC طخ ةقاطبب ىلع لاثملا اذه يف ةمدختسملا طخل تاقاطبب يوتحت مزحلل هي جوت ةداعإ تارارق نمضتت ال زكرملا
- ASIC تاقاطبب 3 نم رثكأ وأ دحاوب طخل ةقاطبب ىلع ةميدقلا ASIC طخل ةقاطبب لصتت ةيلخل ةحوللا لالخ نم فرشملا ىلع UADP 2.0 هي جوت ةداعإ
- تارارق عيمج ذاختاب فرشملا ىلع UADP 2.0 3 مزحلل هي جوت ةداعإ ASICs تاقاطبب موقت مزحلل هي جوت ةداعإ

## حلطصملا

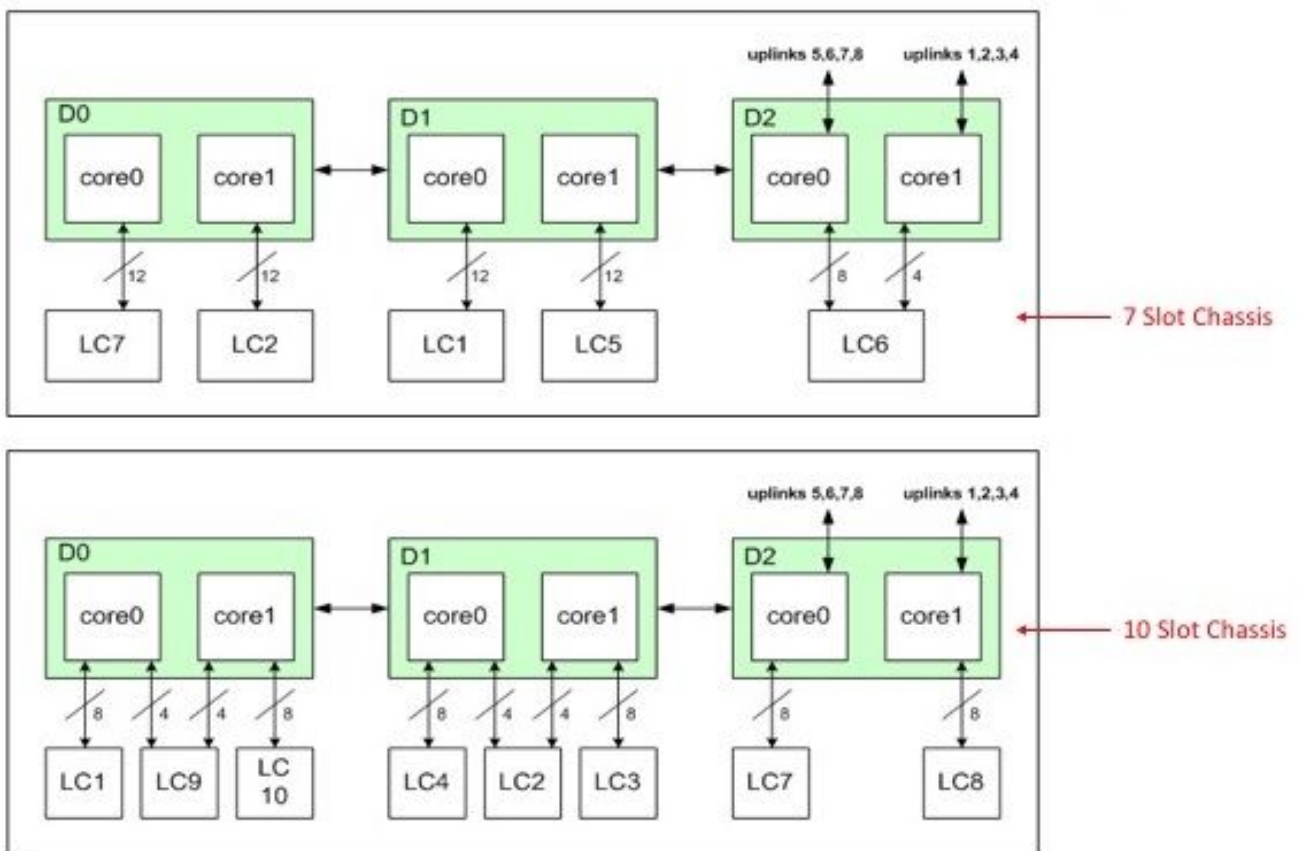
|                        |  |
|------------------------|--|
| مِينور كَأ             | فِي رَعْتَلَا  |
| يَب رَأ                | رَاس مَلَا جَلَا عَم   |
| عَزُوم                 | هِي جَوْتَلَا عِدَا عِلَا جَلَا عَم  |
| اَم تَم عَطَا          | ذِي فَن تَب مَو قَت يَتَلَا جَمَا نَرَبَلَا ةِي لَم ع. هِي جَوْتَلَا عِدَا عِلَا كَر حَم لِي غَشْت جَمَا نَرَبَلَا فَر شَم لَا هِي جَوْتَلَا عِدَا عِلَا ASIC جَمَا نَرَبَلَا.       |
| تَانِئَا كَلَا رِي دَم | عِدَا عِلَا يَف ةَن مَاز تَم رِي غ تَانِئَا كَلَا اَهَا نِي زَخ ت م تِي يَتَلَا FP جَمَا نَرَبَلَا MAC تَالَا خِدَا تَانِئَا كَلَا تَانَا يَب.                                       |
| يَب مَسَل              | يَو تَس م نِي ب لَق نَلَا Linux لِي غَش تَلَا مَاط نَلَا ةَك ر ت ش م لَا ةَر كَا ذَلَا رَا ب ت خِ ة هَا و (software-cpu) مَك ح تَلَا يَو تَس م و (hardware-UADP 2.0) تَانَا يَب لَا. |
| IFM                    | ة هَا وَا لَا رِي دَم جَمَا نَرَبَلَا ةِي لَم ع.   |
| IF_ID                  | ءَا ن ثَا م د خ ت سِي . ة د د ح م ة هَا وَا ل ت م ت ة د ي ر ف ة م ي ق ن ع ة رَا ب ع ة هَا وَا لَا ف ر ع م ل و ح م لَا يَف ة ي ل خَا د لَا ة ج م ر ب لَا.                             |
| Inst                   | ب : ة ل ص ت م لَا UADP 2.0 ASIC/Core ة هَا وَا نَأ ي لَا رِي شِي . لِي ث م لَا : 0=ASIC0/Core0، 1=ASIC0/Core1، 2=ASIC1/Core0، 3=ASIC1/Core1، 4=ASIC2/Core0، 5=ASIC2/Core1.           |
| كِي سَأ                | ب : ة هَا وَا لَا ط ب ت ر ت UADP 2.0 يَأ د د حِي 0=UADP 2.0 #0، 1=UADP 2.0 #1، 2= UADP 2.0 #2.   |
| بَل                    | ب : ط ب ت ر ت UADP 2.0 ة هَا وَا ل عَا و ن يَأ د د حِي 0=core0، 1=core1.   |
| ذ ف ن م لَا            | ن و ك ت ، ة ح ت ف لَا س ف ن ل خَا د . ة ح ت ف ل خَا د ا م ذ ف ن م ل ي ب ي ت ر ت لَا لِي ث م لَا م ق ر ر . ة د ي ر ف ذ ف ن م لَا مَاق رَأ عِي م ج.                                    |
| SubPort                | ءَا ن ي م ن و ك ي نَأ ءَا ن ي م front panel ل (CNTX) ر س يَأ ة ع و م ج م ض ءَا ن ي م ن ي ع ي (ي ع ر ف ءَا ن ي م ن و ك ي نَأ د ي ر ف ءَا ن ي م ن ي ع ي ا ع م CNTX & SubPort).         |
| كَا م                  | نَا م أ لَا ة ق دَا ص م) MACsec ة هَا وَا لِي غَش ت د ن ع هَا م ا د خ ت سَا م ت ي ي ذ لَا ة هَا وَا لَا ف ر ع م (رِي ف ش ت لَا وَا).   |

|          |  |
|----------|--|
| CNTX     | ةيمامألة ءءوللة ءءءو نوكل ءمءنء ءفنم ىل ءءومءم مقرر بسءننن .قائسلل<br>مءنن ءنرف ءفنم ىلء فرءننن ءم (Cntx & SubPort) ىلءرف لبق نم ءموءءم<br>(نطابلل نم هرلءصء). |
| LPN      | ءءءو ب نرءقملل ىل قطنم لل ءفنم لل مقرر.  |
| GPN      | ءءءو ب نرءقملل مءل لل ءفنم لل مقرر.  |
| NIF بءءك | ءررءم لل ءءبش لل ءلصو = NRU ، ءءبش لل ءءءو   |
| IF_IS    | ءانءل لوءم لل اءء مءءءسئ .ءنننم ءءءو لءمء ءءنرف ءمئق هءه .ءءءو لل فرءم<br>لوءم لل ىل ءلءء ءءمرب ءءء.   |
| Port_LE  | ءءءو لل نئوكل وه اءه .ءفنم لل ل قطنم لل نائل لل  |
| مؤ       | نئائل الل ءانائل ءءءاق ىل FP ءمرب ءامولءم .ءنمءم لل رئل ءانئائل ءرءل<br>نئائل.   |
| VP       | ىلرءظلل ءفنم لل  |
| مطم      | MAC نئوانء لوءء رئل  |
| ىل ب رآ  | راسم لل ءلءم   |
| OM_PTR   | ءانئائل ءرءل رءمؤم   |
| TBL_ID   | VLAN ءءبش = لوءءل فرءم   |
| نمرك     | لءلرءم   |
| ءزوم     | هئءوئل ءءءل ءلءم   |
| fp_port  | ءمءمألة ءءولل ءفانم.   |
| فئس      | ىلء UADP 2.0 هئءوئل ءءءل ىلءل ءلءل ASIC ءاقاطب وءن) سءءم لل ءءءو<br>(فرءم لل).   |

|             |   |
|-------------|---|
| NIF         | (ةيمامألا ةحوللا ةهجاو وحن) ةكبشلا ةهجاو                                  |
| IGR / EGR   | جرخم/لخدم   |
| صقأ         | لوخدلا راطتنا مئاق لودجم  |
| SQS         | سدكملا راطتنا مئاق لودجم  |
| يس يب       | مزلل تقؤملا نزخملا عمجم   |
| مقأ         | مأخذالا ةرادا صحف متي اذه .ةطشنلا راطتنا مئاق ةرادا                       |
| ديسكأ       | ةطشنلا راطتنا مئاق ةرادا يئوشعلا ركبملا فشكلا                             |
| EQC         | جورخلا راطتنا مئاق مكحت ةدحو  |
| ESM         | جورخلا لودجم ةرادا  |
| ور          | ةمزللا نم سأللا تامولعم فذح وأ ةفاضلا .ةباتكلا ةداعلا كرحم                |
| دامويآ      | لاخدالا جارخا ةدحو ليغشت جم انرب  |
| fp_port     | ةيمامألا ةحوللا ذفنم  |
| NIF         | (ةيمامألا ةحوللا ةهجاو وحن) ةكبشلا ةهجاو                                  |
| SLI         | (فرشملا وحن) ماظنلا طابترا ةهجاو  |
| IGR / EGR = | جرخم/لخدم   |
| ديسكأ       | ةطشنلا راطتنا مئاق ةرادا يئوشعلا ركبملا فشكلا                             |
| OCI         | فرشملا و طخللا ةقاطب نيبي لخد لاصتا ةانق = قاطنلا جارخ مكحتلا ةهجاو طشنلا |

|             |  |
|-------------|--|
| مطم         | MAC نيوانع لودج ري دم  |
| MAC لقن ددع | <p>ةديج ةهجاو ىلع (هولع فرعتلا مت يذلا) MAC ناوانع لقن تارم ددع وه اذه ههجاو نم ايلع ف يئاهن فيضم لقن متي ام دنع تالقننتلا ددع ثدحي نأ نكمي ةطقن ىل (AP) لوصو ةطقن نم يكلسال فيضم بوجي ام دنع وأ ،يرخأ ىل ةرجشلا راسم ريغت ي ام دنع وأ ،ةفلتخم ةهجاو ىلع ةلصتم يرخأ لوصو راركتلا تاقلح وأ ةعرفتملا</p> |

## Line Card (LC) to UADP 2.0 Mapping



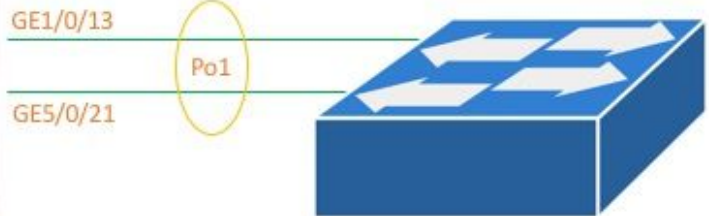
UADP ىل طخ ةقابط

طاطخملا

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



Neighbor device  
 SVI 100 IP: 100.100.100.53 / 24  
 SVI 100 MAC: 20bb.c05e.5351



<#root>

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
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--
```

<#root>

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

```

<#root>

C9400#

show running-config interface port-channel 1

```

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

```

<#root>

C9400#

show running-config interface gigabitEthernet 1/0/13

```

interface GigabitEthernet1/0/13
switchport trunk allowed vlan 100
switchport mode trunk
channel-group 1 mode active

```

<#root>

C9400#

show running-config interface gigabitEthernet 5/0/21

```

interface GigabitEthernet5/0/21
switchport trunk allowed vlan 100
switchport mode trunk
channel-group 1 mode active

```

<#root>

C9400#

show etherchannel summary

--snip--

```

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

```



يُعدّ دليل الماعل نيوكتل رماً ني مضمّت show platform رم أو بل طتت أن نكمي: عّظالم نايب ل ي ف ةمدخلل

## ةهجاو ل ةجرمرب

### UADP 2.0 لي ثم ني عت ةهجاو

ASIC دح إلى طخال تا قاطب عي مچل ةم ام أ ل ةحول ل ةهجاو طي طخت ةهجاو ل ةجرمرب رم أ ضرعي طشن ل فرشم ل إلى ع UADP 2.0 3 هيجوت ةداع ل

### تاجرشم ل إلى ع ل اثم

يلي ام ل اثم ل اذ ح ضوي:

- فرشم ل إلى ع (UADP 2.0 ASIC 1، Core 0) 2 هاجت ل UADP 2.0 ب: gig1/0/3 ةهجاو ل لصتت
- إلى ع (UADP 2.0 ASIC 1، Core 1) 3 هاجت ل UADP 2.0 ب: ةلصت م gig5/0/21 ةهجاو ل فرشم ل

<#root>

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--              |       |      |      |      |      |         |     |      |     |      |      |        |

## ةي ئاي زي ف ل ةهجاو ل ةجرمرب

نم IF\_ID ةمي ق إلى عءان ب Gig1/0/3 ل جمان ربل نيوكت لي صافات show platform رم أ ضرعي ق باس ل رم أو ل ل اثم

<#root>

C9400#

```
show platform software fed active ifm if-id 0x13
```

```
Interface IF_ID : 0x0000000000000013
Interface Name : GigabitEthernet1/0/13
Interface Block Pointer : 0x7fe5c5aab7b8
Interface State : READY
```

Interface Status : ADD, UPD  
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 نم PORT\_LE ةميق قىل عءانب Gig1/0/3 ل لىصفت لىكشت زاهجال رما اذه ضرعى قباال.

| ةمىقلا   | فىرعتلا                        |
|----------|--------------------------------|
| ةمىقلا 0 | ةمىقلا نىيىعت مئىم.            |
| ةمىقلا 1 | تالاحال مظعم فى ةنىعمل ةمىقلا. |

<#root>

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-f
priv_ri/priv_si Handle: (nil)Hardware Indices/Handles: index2:0xc mtu_index/13u_ri_index2:0x4 sm handle
```

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 كنب FP جماربو، FP ةجمربب RP موقى، هذه EtherChannel ةجمرب لاثم تاجرم في ةزهجأ هيجوت ةداعإل فرشملا ةجمرب ليلاردىفلا يطايتحال كنب موقى م، ليلاردىفلا تالخدإ نيزخت مويونئالكال تانايب ةدعاق في تانئالك RP جمانرب تالخدإ نيزخت موي ASIC. تانئالكال تانايب ةدعاق في ةنمازتم ريغ تانئالك FP جمانرب.

<#root>

C9400#

```
show etherchannel summary
```

--snip--

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

ديحتل ةئزجتلا ةيلمع في همادختسا موي. جارخال اذه في يرفص ريغ وه ةومجملا عانق جتنى رورم ةكرح قفدت يا ثيح EtherChannel في طابترالا.

<#root>

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-                |     |        |

<#root>

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: اني ملل لي كش التل رم اذه يدبي

<#root>

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] : 00000000000000

13 ---> Gig1/0/13 from previous command output

Index[3] : 00000000000000

8f ---> 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 0)
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 ترمألا اذه ضرعي.

|             |  |
|-------------|--|
| لېښم/راصتخا | في عتال  |
| IFM         | ةهجاو ل ري دم  |
| لېښم        | ف ع م م ع م ASIC 2 (UADP 2.0 ASIC 1, Core 0) لېښم لى ل ع Gig1/0/13<br>ةهجاو ل 0x13 |

|      |   |
|------|---|
| ليثم | Gig5/0/21 فرع م عم (1 Core، 1 ASIC UADP 2.0، 3 ليثم لى ل ع 0x8f ة ح اول ل |
|------|---|

<#root>

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--              |       |      |      |      |      |         |     |      |     |      |      |        |

### ليكش ت EtherChannel ل م اش

<#root>

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 address is used to determine

<#root>

C9400#

show platform software ether-channel fp active global-config

#### Forwarding Manager EtherChannel Global Configuration Information

Frame Dist Method: Dest-IP-Address  
AOM ID: 27  
Status:

Done -----> Programming in hardware is complete (FP received acknowledgement from FED)

<#root>

C9400#





---> ASIC instance 2 = Supervisor ASIC 1, core 0

-----  
LEAD\_VLAN\_ALLOW\_SNOOPING\_IGMP\_OR\_MLD\_IPV4 value 0 Pass  
LEAD\_VLAN\_ALLOW\_SNOOPING\_IGMP\_OR\_MLD\_IPV6 value 0 Pass  
LEAD\_VLAN\_ARP\_OR\_ND\_SNOOPING\_ENABLED\_IPV4 value 0 Pass  
LEAD\_VLAN\_ARP\_OR\_ND\_SNOOPING\_ENABLED\_IPV6 value 0 Pass  
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 ةرجش ل ةج مرب

<#root>

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-channel1)  
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           |
| Po1       | Root | FWD | 3    | 128.2473 | P2p Peer(STP) |

<#root>

C9400#

show etherchannel summary

--snip--

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

1-channel-ذف نمل ةعرفت ممل ةرجش ل ةيجوت ةداع ةلاح رم او ال هذه ضرت

<#root>

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      |
| Port-channel1        | 748 | 0      |

<#root>

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 ةكبشلة عرفتملة ةرشللة ةزهجأ هيجوت ةداعلة لال رم اوألا ضرعت

<#root>

C9400#

show platform software fed active vp summary vlan 100

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

<#root>

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

<#root>

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) ططخمل ربيغت تامالع! نأ نم دكأت. ةدمملا ةرشل رارقتس! نم ققحت اهتيؤر.

<#root>

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 يوتسملل هيجوت ةداع! ةجمرب

<#root>

C9400#

```
show etherchannel summary
```

--snip--

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

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

<#root>

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

<#root>

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

## تاي ج م ر ب ة ج م ر ب

اريخأ FED موقوي م ث، FED و FED ج م ا ر ب و FP و FP ج م ا ر ب ب RP موقوي، ةي ل ل ا ج ا ر خ ل ا ة ل ث م ا ي ف ي ف ت ا ن ئ ا ك ك MAC ت ا ل ا خ د ا ن ي ز خ ت م ت ي RP ج م ا ر ب ASIC. ة ز ه ج ا ه ي ج و ت ة د ا ع ا ل ف ر ش م ل ا ة ج م ر ب ب ة ن م ا ز ت م ر ي غ ت ا ن ئ ا ك ك FP ج م ا ن ر ب ب ة ص ا خ ل ا MAC ت ا ل ا خ د ا ن ي ز خ ت م ت ي و ت ا ن ئ ا ك ل ا ت ا ن ا ي ب ة د ع ا ق ت ا ن ئ ا ك ل ا ت ا ن ا ي ب ة د ع ا ق ي ف .

<#root>

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

<#root>

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-
```

<#root>

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
```

<#root>

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 ةجرب

<#root>

C9400#

```
show platform softwarefed 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 | GigabitE |

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 ةحمررب

| حل طصم             | في رعت لا   |
|--------------------|---|
| vlan:10            | ايلخاد 10 (MVID) VLAN ID ططخي لمعتسي 100 VLAN. MVID 10 جلاع م.<br>حات فم لا لخاد. |
| gpn:1104           | Port-channel 1 ل يملع لا ذفنم لا مقرر.  |
| mac:0x20bbc05e5351 | MAC 20bb.c05e.5351 ناوع   |

MacHandle: ةحمررب تاجرمل لاثم اذه

<#root>

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 Lk  
priv\_ri/priv\_si Handle: (nil)Hardware Indices/Handles: handle [ASIC: 0]: 0x7fe5c6aed898 handle [ASIC: 1]  
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

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  
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 au  
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\_mas

Detailed Resource Information (ASIC#1)

--snip--

Detailed Resource Information (ASIC#2)

--snip--

<#root>

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          |
|---------|-------------------|--------------------|--------------------|--------------------|--------------------|
| 100     | 0x000000000420011 | 0x00007fe5c4616ef8 | 0x00007fe5c4617778 | 0x00007fe5c50dac28 | 0x00000000000002ea |

<#root>

C9400#

show platform software fed active ifm mappings etherchannel

Mappings Table

| Chan | Interface     | IF_ID      |
|------|---------------|------------|
| 1    | Port-channel1 | 0x000002ec |

--snip--

<#root>

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--

 تلمعتسا، channel-ءانيم نم ال دب نراق ديحو ناك ىلع تملع mac ل نراق ل: ةظالم ططخي هجاوي نأ GPN ل ددحي نأ رمأ اذه

<#root>

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--

ريديس ةجرمرب

|  |  |
|--|--|
| حل طصم   | في رعتال   |
| ل ددو كي س   | (سر هف ل ةباتك ةداع   = RI) ةمزحل ةباتك ةداع   تامول عم . ةطحمل سر هف ضرب قم ل ددو كي س (ةهوجل سر هف = DI) ةرداصل ل ةهوجل تامول عم و |
| دحاولا فرشم ل ASIC ىلع زكرم ل يئان ثل ل ثام تمل ل خسن ل ل ةي طقن ةروص: |  |
|  | في رعتال اراص تخ   حل طصم  |
|  | ي ل حمل ل ASIC (LD = تاناي ب ةي ل حم) ر دصم ك بل هس فن ل ، ASIC هس فن ل ل ىلع ةي اغ  |

|  |   |                                |
|--|---|--------------------------------|
|  | ةيساسأ ةخسن<br>(صرقلا)<br>= طوغضملا<br>تانايبلا<br>ةيساسألا | رخآ زكرم، هسفن ASIC ىلع ةهجولا |
|  | دعب نع ASIC<br>(RD = تانايب<br>دعب نع)                      | رخآ ASIC ىلع ةهجو              |

<#root>

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
priv_ri/priv_si Handle: 0x7fe5c6864938Hardware Indices/Handles: index0:0xcd mtu_index/13u_ri_index0:0x0
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 07 00 20 bb c0 5e 53 51 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--

<#root>

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)

cmi1 = 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)

cmi1 = 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--
```

```
<#root>
```

```
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--              |       |      |      |      |      |         |     |      |     |      |      |        |

```
<#root>
```

```
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| لاخذ| اذه نأل ارظن MAC هي جوت ةداع| لوح ةعقوت م تامولعم دجوت ال 2.

```
<#root>
```

```
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--

<#root>

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

### ليديد ةجمررب

|          |  |
|----------|--|
| مينوركا  | فيرعتلا  |
| diHandle | ةرداصللا ةهجاوولا تامولعم يه هذه. ةهجاوولا سرهف ضبقم |

<#root>

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-priv\_ri/priv\_si Handle: (nil)Hardware Indices/Handles: index0:0x51c2 mtu\_index/13u\_ri\_index0:0x0 index1  
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)

cmi1 = 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)

cmi1 = 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--

<#root>

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--
```

<#root>

C9400#

show etherchannel summary

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

## 2 ةقيرطال - ةزهجال ةجررب

| حلطصم              | فيعرعال   |
|--------------------|---|
| vlan:10            | ايلخاد 10 (MVID) VLAN ID ططخي لمعتسي 100 VLAN. MVID جاعل 10. VLAN 100 جاعل ل خاد. |
| gpn:1104           | Port-channel 1 ل يماعل ذفنم ل مقرر.   |
| mac:0x20bbc05e5351 | MAC 20bb.c05e.5351 ناونع  |

ةزهجال ةجررب ةقيرطال يثال لاثم ل اخال:

<#root>

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\_flo

MASK: vlan 0, mac 0x0, l3\_if 0, gpn 0, epoch 0, static 0, flood\_en 0, vlan\_lead\_wless\_flood\_en 0, client  
SRC\_AD: need\_to\_learn 0, lrn\_v 0, catchall 0, static\_mac 0, chain\_ptr\_v 0, chain\_ptr 0, static\_entry\_v  
DST\_AD: si 0xc7, bridge 0, replicate 0, blk\_fwd\_o 0, v4\_mac 0, v6\_mac 0, catchall 0, ign\_src\_lrn 0, por  
--snip--

<#root>

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          |
|---------|-------------------|--------------------|--------------------|--------------------|--------------------|
| 100     | 0x000000000420011 | 0x00007fe5c4616ef8 | 0x00007fe5c4617778 | 0x00007fe5c50dac28 | 0x00000000000002ea |

<#root>

C9400#

show platform software fed active ifm mappings etherchannel

Mappings Table

| Chan | Interface     | IF_ID      |
|------|---------------|------------|
| 1    | Port-channel1 | 0x000002ec |

--snip--

<#root>

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--
```

 يلات ال channel-ءانيم نم ال دب نراق ديحو ناك لى لع تم لع mac ل نأ نراق ل ا اذا: ةظالم  
ططخي هجاوي نأ GPN ل نيعي نأ رمأ تلمعتسا:

<#root>

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--

## TCAM مادختسا

مدع نامضل Supervisor ASIC ل يثم لك لى لع MAC ناو نع تال ا خ د ا ل TCAM مادختسا نم ققحت  
ةزه ا ل تال ا خ د ا ل نيزختل TCAM ةحاسم دافن

<#root>

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 |
|-------------------------|------------|-------------|
| 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--                                  |             |     |

## ةججان ةزهجأ ةجمر ب

تجمر ب و تايطعم ةدعاق نئالكلا يف تنزخ (اذكهو، VLAN، نراق، MAC ناو نع ناك اذا ام) ةمس لك تانئالكك زاهجال لخاد.

يطايتحالال كنب موقوي مئ نمو، FED و FED و FP و FP جماربب (RP) يطايتحالال جمانربال موقوي RP جمانرب تالخالدا نيزخت مئ. ASIC ةزهجأ هيجوت ةدعال فرشمال زيهجتب اريخأ لارديلال ةماتم ريغ تانئالكك FP جمانرب تالخالدا نيزخت مئ و نئالكلا تانايب ةدعاق يف تانئالكك تانئالكلا تانايب ةدعاق يف.

عضوب هرودب موقوي يذلا) لارديلال يطايتحالال كنب جمارب مئ دقتب fp قودنص موقوي ام دنع لئ ةيرابخ ةلاسري لارديلال يطايتحالال كنب لسري، (ASIC لئ وحت لئ فرشمال جمارب جمانرب لئ هتلاخاب لابقستسال/الاسرال جمانرب موقوي مئ. رامثتسال تامازتال قودنص ةزهجأ ةجمر ب تناك اذا. جاجنب تلمتكا دق ةزهجال ةجمر ب نأ لئ ريشيل (RP) كلسالال لاسرال وأ لكاشم دوجو نم ققحتلل لئال رمأل مادختسا كنب مئ، ةححص ريغ وأ ةدوقم FED تامولعم.

<#root>

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، ةقلم ل لكاشم ل ةلاح يف ةيرفص ريغ تانئاك رهظي قباس ل رمأل ناك اذا  
ينعمل نئالك ل مقرر لىل ع روثع ل ل رمأل:

<#root>

C9400#

```
show platform software object-manager fp active pending-issue-update
```

نئالك ل مقرب ةطبترم ل ةقلم ل ةيرفص ل ددحت ل رمأل اذه مدختسأ مث:

<#root>

C9400#

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

فرعتي مل نئالك ل (Del Pend) قلم ل فذل نم ققحت ل ل رمأل اذه مدختسأ، RP بنج لىل ع  
ه لىل ع FP.

<#root>

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_dpiddb    | 164   | 0        | 10    |
| CHANNEL_DPIDB | channel_dpiddb | 0     | 0        | 12    |
| VIRTUAL_DPIDB | virtual_dpiddb | 503   | 0        | 13    |
| SW_DPIDB      | sw_dpiddb      | 0     | 0        | 17    |
| VLAN          | vlan           | 0     | 0        | 19    |

--snip--

# تحصيل صحت

## محتال ىوتسم تاناىب رورم ةكرحو ةساىس

رورم ةكرحل UADP 2.0-زاهجلا ىف (محتال ىوتسم ةساىس) CoPP طاقسإ تالاح نم ققحت رثؤى نأ نكمىو. جمارب لل (CPU) ةىزكرملا ةجلال عملا ةدحو ىلإ اهؤاقتنا مئى ىتلل تاناىبلا ةدتمملا ةرچشلل رارقستساو MAC ملعت ىلع كلذ.

```
<#root>
```

```
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

```

ءءارق لل ةطاس بوءة قد رثكأ قيسنتب انه قباس لل لاثم لك CoPP تاءرخم سفن ضرع متي (طوغضم).

<#root>

C9400#

```
show platform hardware fed active qos queue stats internal cpu policer
```

### CPU Queue Statistics

| ===== |        |                           |         |                |            |                   |                    |
|-------|--------|---------------------------|---------|----------------|------------|-------------------|--------------------|
| QId   | PlcIdx | Queue Name                | Enabled | (default) Rate | (set) Rate | Queue Drop(Bytes) | Queue 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 Index | Policer Accept Bytes | Policer Accept Frames | Policer Drop Bytes | Policer Drop 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 Exc |
| 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) ةي زكرم لة ةل اع م ل ة دحو ني م ض ت راس م تاي ئ اص ح ا نم ق ق ح ت  
 (CPU) ةي زكرم لة ةل اع م ل ة دحو روظنم نم جم ارب لل (CPU) ةي زكرم لة ةل اع م ل ة دحو تاي ئ اص ح ا .

<#root>

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 protocol 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     |

Lsmp11/3 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, 65953525 bytes, 0 underruns
 0 output errors, 0 collisions, 0 interface resets
 0 unknown protocol drops
 0 output buffer failures, 0 output buffers swapped out

```

<#root>

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 consumed | Total forwarded | Length error | Dot1q encap exceeded | Other linktype |
|---------------------------|----------------|-----------------|--------------|----------------------|----------------|
| MPLS ICMP Can't Fragment  | 0              | 0               | 0            | 0                    | 0              |
| IPv4 Options              | 0              | 0               | 0            | 0                    | 0              |
| Layer2 control and legacy | 0              | 0               | 0            | 0                    | 0              |
| PPP Control               | 0              | 0               | 0            | 0                    | 0              |
| CLNS IS-IS Control        | 0              | 0               | 0            | 0                    | 0              |
| HDLC keepalives           | 0              | 0               | 0            | 0                    | 0              |

--snip--

فرشمالا وحن CPU-جم انربال (CPU) ةيزك رمال ةجال عمل ةدحو ل اءدا راسم تايا ئاصءا نم ققءء  
 ةيزك رمال ةجال عمل ةدحو روظنم نم (ةزهءال ال ع

<#root>

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

```

روظنم نم (CPU) ةيزك رمل ةجال عمل ةدحوب ةصاخلا جارخال/الخالإال راسم تايئاصحإ نم ققحت  
FED (UADP 2.0).

<#root>

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 (ةزهأالآ لىل ع فرشمال) (CPU) ةيتركرمال ةجالعمال ةدحو ني مضت راسم تايايئاصح! نم ققحت  
(فرشمال) (FED) ةيتركرمال ةجالعمال ةدحو روظنم

<#root>

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) ةيتركرمال ةجالعمال ةدحو ل رافرفال راظتال مئاق ةحص نم ققحت  
(فرشمال) ةيتركرمال ةجالعمال ةدحو

<#root>

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         |

<#root>

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 Super  
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 ان ربالا (CPU) ة يزك رمالا ة جلال عمال ة دحو لاد ادا راسم تايا ئاصحا نم ققحت  
(فرش مالا) (Fed) ة يزك رمالا ة جلال عمال ة دحو روظنم نم (ةزهجالا لعل).

<#root>

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 ة يدرفالا (CPU) ة يزك رمالا ة جلال عمال ة دحو لاد ادا راطنا مئاوق ة حص نم ققحت

(UADP 2.0).

<#root>

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 شرح تايئاصح

<#root>

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
```

<#root>

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)#C9400(config)#

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

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

<#root>

C9400#

show mac address-table notification mac-move

MAC Move Notification:

enabled

<#root>

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 تايلمع

ةمزنح طاقسي UADP 2.0 هي جوت ةداعإل ASIC نأل بابسأ ي رمأل اذه حضوي

<#root>

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 0       | IPV4_CHECKSUM_ERROR             | 0    | 0       | 0     |
| 0 0       | ROUTED_AND_IP_OPTIONS_EXCEPTION | 0    | 0       | 0     |
| 0 0       | CTS_FILTERED_EXCEPTION          | 0    | 0       | 0     |

|   |   |   |   |   |   |
|---|---|---|---|---|---|
| 0 | 0 | SIA_TTL_ZERO                                | 0 | 0 | 0 |
| 0 | 0 | ALLOW_NATIVE_EXCEPTION_COUNT                | 0 | 0 | 0 |
| 0 | 0 | ALLOW_DOT1Q_EXCEPTION_COUNT                 | 0 | 0 | 0 |
| 0 | 0 | ALLOW_PRIORITY_TAGGED_EXCEPTION_COUNT       | 0 | 0 | 0 |
| 0 | 0 | ALLOW_UNKNOWN_ETHER_TYPE_EXCEPTION          | 0 | 0 | 0 |
| 0 | 0 | IP_SOURCE_GUARD_VIOLATION                   | 0 | 0 | 0 |
| 0 | 0 | SECURE_L3IF_LEARNING_VIOLATION              | 0 | 0 | 0 |
| 0 | 0 | AUTH_DRIVEN_DROP                            | 0 | 0 | 0 |
| 0 | 0 | VLAN_LOADBALANCE_GROUP_DENY                 | 0 | 0 | 0 |
| 0 | 0 | RPF_UNICAST_FAIL                            | 0 | 0 | 0 |
| 0 | 0 | RPF_UNICAST_FAIL_SUPPRESS                   | 0 | 0 | 0 |
| 0 | 0 | RPF_UNICAST_CHECK_INCOMPLETE                | 0 | 0 | 0 |
| 0 | 0 | RPF_MULTICAST_FAIL                          | 0 | 0 | 0 |
| 0 | 0 | PKT_DROP_COUNT                              | 0 | 0 | 0 |
| 0 | 0 | SOURCE_ROUTE_EXCEPTION                      | 0 | 0 | 0 |
| 0 | 0 | IGR_MISC_FATAL_ERROR                        | 0 | 0 | 0 |
| 0 | 0 | BLOCK_FORWARD                               | 0 | 0 | 0 |
| 0 | 0 | POLICER_DROP                                | 0 | 0 | 0 |
| 0 | 0 | DENY_ROUTE                                  | 0 | 0 | 0 |
| 0 | 0 | DENY_BRIDGE                                 | 0 | 0 | 0 |
| 0 | 0 | STATIC_MAC_VIOLATION                        | 0 | 0 | 0 |
| 0 | 0 | STATIC_IP_VIOLATION                         | 0 | 0 | 0 |
| 0 | 0 | FPM_DROP_PACKET                             | 0 | 0 | 0 |
| 0 | 0 | IGR_EXCEPTION_L4_ERROR                      | 0 | 0 | 0 |
| 0 | 0 | IGR_EXCEPTION_L5_ERROR                      | 0 | 0 | 0 |
| 0 | 0 | IGR_EXCEPTION_HARDWARE_PARSE_EXCEPTION      | 0 | 0 | 0 |
| 0 | 0 | IGR_EXCEPTION_INVALID_VLAN_DROP             | 0 | 0 | 0 |
| 0 | 0 | IGR_EXCEPTION_31                            | 0 | 0 | 0 |
| 0 | 0 | FRAGMENTING_IPV4_WITH_OPTIONS               | 0 | 0 | 0 |
| 0 | 0 | FRAGMENTING_IPV6_WITH_EXTENSIONS            | 0 | 0 | 0 |
| 0 | 0 | ICMP_REDIRECT                               | 0 | 0 | 0 |
| 0 | 0 | MTU_FAIL_PUNT_TO_CPU_NO_IP_UNREACHABLE      | 0 | 0 | 0 |
| 0 | 0 | LINK_LOCAL_CHECK_FAIL_NO_IP_UNREACHABLE     | 0 | 0 | 0 |
| 0 | 0 | IP_UNICAST_TTL_REACHED_ZERO                 | 0 | 0 | 0 |
| 0 | 0 | MISC_FATAL_ERROR                            | 0 | 0 | 0 |
| 0 | 0 | STP_OR_FLEXLINK_DROP                        | 0 | 0 | 0 |
| 0 | 0 | PROTECTED_PORT_DROP                         | 0 | 0 | 0 |
| 0 | 0 | PVLAN_ISOLATED_CHECK_FAILED                 | 0 | 0 | 0 |
| 0 | 0 | PVLAN_COMMUNITY_CHECK_FAILED                | 0 | 0 | 0 |
| 0 | 0 | DEJA_VU_CHECK_FAILED                        | 0 | 0 | 0 |
| 0 | 0 | NOT_VLAN_LOAD_BALANCE_GROUP_ALLOWED         | 0 | 0 | 0 |
| 0 | 0 | RSPAN_DROP                                  | 0 | 0 | 0 |
| 0 | 0 | SPLIT_HORIZON_DROP                          | 0 | 0 | 0 |
| 0 | 0 | SYSTEM_TTL_DROP                             | 0 | 0 | 0 |
| 0 | 0 | PRUNED                                      | 0 | 0 | 0 |
| 0 | 0 | DENY_NO_IP_UNREACHABLE                      | 0 | 0 | 0 |
| 0 | 0 | IP_MULTICAST_TTL_REACHED_ZERO               | 0 | 0 | 0 |
| 0 | 0 | MTU_FAIL_DROP_BRIDGED                       | 0 | 0 | 0 |
| 0 | 0 | MTU_FAIL_DROP_BRIDGED_IP_ROUTED             | 0 | 0 | 0 |
| 0 | 0 | MTU_FAIL_ERSPAN                             | 0 | 0 | 0 |
| 0 | 0 | LINK_LOCAL_CHECK_FAIL_L3M_VALID             | 0 | 0 | 0 |
| 0 | 0 | DENY_NOT_NO_IP_UNREACHABLE                  | 0 | 0 | 0 |
| 0 | 0 | MTU_FAIL_PUNT_TO_CPU_NOT_NO_IP_UNREACHABLE  | 0 | 0 | 0 |
| 0 | 0 | LINK_LOCAL_CHECK_FAIL_NOT_NO_IP_UNREACHABLE | 0 | 0 | 0 |
| 0 | 0 | COPY_TO_CPU                                 | 0 | 0 | 0 |
| 0 | 0 | EGR_L3_ERROR                                | 0 | 0 | 0 |
| 0 | 0 | EGR_L4_ERROR                                | 0 | 0 | 0 |
| 0 | 0 | EGR_L5_ERROR                                | 0 | 0 | 0 |
| 0 | 0 | EGR_HARDWARE_PARSE_EXCEPTION                | 0 | 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--
```

## طخلال ةق اطب تانايب راسم ىلإ فرشم - فرشم ل تايئاصحإ

ةحول ةهجاوب ةنرتقم ل ةطشن ل Supervisor UADP 2.0 هيجوت ةداعإل ASIC تايئاصحإ نم ققحت تلمعتسا gig1/0/13 نراقلا، لاثم اذه يف .ةنيعم ةيما

جإرخإل ىلع لاثم

- اهسفن ذفانم ل ةعومجم نم اعزج دعيتي ل طخلال ةق اطب ىلع ةدوجوم ل تاهجاول نم ققحت
- جرخ نم يددرت ل قاطن ل نم ةيناثل ي ف تبايج 8 ةكراشمب ذفانم ةعومجم لك تماق فرشم ل هيجوت ةداعإل ASIC وحن ASIC طخلال ةق اطب
- طخلال ةق اطب بعك ىلع (ماظن ل طابتر ةهجاو) SLI نم دجاوب ذفانم ةعومجم لك نرتقت فرشم ل هيجوت ةداعإل ASIC هاجت اب ASIC

<#root>

C9400#

```
show platform hardware cman fp active data-path 1 13 detail ---> Slot 1, interface 13
```

```
showing cman data-path for frontpanel 1/0/13
```

```
fp_portmap.xml: ---> Supervisor ASIC 1, core 0 is associated with front panel (fp) interface Gig1/0/13
```

```
id 13 asic 1 core 0 port 12 mac 0 subport 4 contextid 0 maxspeed DEV_PORT_SPEED_1G gpn 113 active 1
```

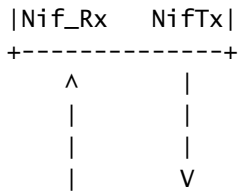
data path:

slot 3

```
+-- ACTIVE_SUP ---+
| Sif 0 |
| IQS SQS |
```

```
---> Supervisor ASIC 1, core 0 on the slot 3 active Supervisor associated with interface Gig1/0/13
```

```
| PBC |
| AQM |
| EQC |
| ESM |
| RWE |
| ASIC 1 |
| Core 0 |
| Asic Port 12 |
| (Mac 0) |
```



=====  
Nif MAC 0 Inforation:

NifRxByteGroupStats:

```

rxBytes          4495494
NifRxByteDestinationGroupStats:
rxUnicastBytes   1174628
rxMulticastBytes 3320866
rxBroadcastBytes 0

```

NifRxPortStatusGroupStats:

```

rxUnicastFrames  18326
rxMulticastFrames 21387
rxBroadcastFrames 0
rxPauseFrames    0
rxCos0PauseFrames 0
rxCos1PauseFrames 0
rxCos2PauseFrames 0
rxCos3PauseFrames 0
rxCos4PauseFrames 0
rxCos5PauseFrames 0
rxCos6PauseFrames 0
rxCos7PauseFrames 0
rxOamProcessedFrames 0

```

NifRxPortStatusGroupStats:

```

rxCollisionFragments 0
rxFcsErrorFrames      0
rxInvalidOversizeFrames 0
rxMacOverrunFrames    0
rxIpgViolationFrames  0
rxOamDroppedFrames    0
rxSymbolErrorFrames   0
rxValidOversizeFrames 0
rxValidUndersizeFrames 0

```

NifRxSizeGroupStats:

```

rx32768toMtuFrames 0
rx16384to32767ByteFrames 0
rx8192to16383ByteFrames 0
rx4096to8191ByteFrames 0
rx2048to4095ByteFrames 0
rx1519to2047ByteFrames 51
rx1024to1518ByteFrames 15
rx512to1023ByteFrames 17
rx256to511ByteFrames 3406
rx128to255ByteFrames 6567
rx65to127ByteFrames 11295
rx64ByteFrames      18362

```

NifTxByteGroupStats:

```

txBytes          6499427
NifTxByteDestinationGroupStats:
txUnicastBytes   1175536
txMulticastBytes 5298482
txBroadcastBytes 25409

```

NifTxFrameDestinationGroupStats:

```

txUnicastFrames  18330
txMulticastFrames 24834
txBroadcastFrames 51
txPauseFrames    0
txCos0PauseFrames 0
txCos1PauseFrames 0
txCos2PauseFrames 0
txCos3PauseFrames 0
txCos4PauseFrames 0
txCos5PauseFrames 0
txCos6PauseFrames 0
txCos7PauseFrames 0
txOamFrames      0

```

NifTxPortStatusGroupStats:

```

txLateCollisionFrames 0
txsystemFcsErrorFrames 0
txOversizeFrames      0
txMacUnderrunFrames   0
txDeferredFrames      0
txExcessiveDeferralFrames 0
txOkMultipleCollisionFrames 0
txOkSingleCollisionFrames 0
goldFramesTruncated   0

```

NifTxSizeGroupStats:

```

tx32768toMtuFrames 0
tx16384to32767ByteFrames 0
tx8192to16383ByteFrames 0
tx4096to8191ByteFrames 0
tx2048to4095ByteFrames 0
tx1519to2047ByteFrames 0
tx1024to1518ByteFrames 0
tx512to1023ByteFrames 187
tx256to511ByteFrames 9407
tx128to255ByteFrames 6580
tx65to127ByteFrames 8583
tx64ByteFrames      18458

```

-----> Input queue (Igr = Ingress)

IgrPacketCounters:

```

packetsIn          97777
packetsOut          97777
packetsDropped     3383
fpsSourcedPadErrorCount 0
igrSourcedPadErrorCount 0

```

EgrPacketCounters:

```

packetsIn          580324
packetsEnqueueFcd_val 0
packetsMarkedForDrop 278
padErrorPacketsIn  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   |
| totalDeqStat             | 1368200   |
| totalDropStat            | 0         |
| SqsCumulativeStatisticsB |           |
| totalEnqStat             | 173449513 |
| totalDeqStat             | 173449513 |
| totalDropStat            | 0         |

=====

For local/core 1 Switching:

|                          |           |
|--------------------------|-----------|
| SqsCumulativeStatistics  |           |
| totalEnqStat             | 890114    |
| totalDeqStat             | 890114    |
| totalDropStat            | 0         |
| SqsCumulativeStatisticsB |           |
| totalEnqStat             | 105061923 |
| totalDeqStat             | 105061923 |
| totalDropStat            | 0         |

=====

For Sif 0 Switching:

|                    |  |                    |  |          |
|--------------------|--|--------------------|--|----------|
| SifSifPbcCnt0:     |  | Count              |  | 81302675 |
| SifSifPbcCnt1:     |  | Count              |  | 58187651 |
| SifRacCopiedCnt:   |  | SifRacCopiedCnt[0] |  | 35850468 |
| SifRacCopiedCnt[1] |  | SifRacCopiedCnt[1] |  | 19265491 |
| SifRacCopiedCnt[2] |  | SifRacCopiedCnt[2] |  | 23814855 |
| SifRacCopiedCnt[3] |  | SifRacCopiedCnt[3] |  | 32727259 |
| SifRacCopiedCnt[4] |  | SifRacCopiedCnt[4] |  | 38376676 |
| SifRacCopiedCnt[5] |  | SifRacCopiedCnt[5] |  | 22176467 |

For Sif 1 Switching:

|                    |  |                    |  |          |
|--------------------|--|--------------------|--|----------|
| SifSifPbcCnt0:     |  | Count              |  | 40956521 |
| SifSifPbcCnt1:     |  | Count              |  | 40956521 |
| SifRacCopiedCnt:   |  | SifRacCopiedCnt[0] |  | 8615615  |
| SifRacCopiedCnt[1] |  | SifRacCopiedCnt[1] |  | 7489596  |
| SifRacCopiedCnt[2] |  | SifRacCopiedCnt[2] |  | 7608895  |
| SifRacCopiedCnt[3] |  | SifRacCopiedCnt[3] |  | 8717898  |
| SifRacCopiedCnt[4] |  | SifRacCopiedCnt[4] |  | 9685735  |
| SifRacCopiedCnt[5] |  | SifRacCopiedCnt[5] |  | 7866174  |

في اذه دعاسي .ةيمامال ةحولل ةهجال اول فرشم روظنم نم قفدتلالي في مكحتلالي ةلاح نم ققحت  
ةهجالوالي لعل ماحدزالي اءانه ناك اذا ام لعل فرعتلالي

<#root>

C9400#

show platform hardware cman fp active flowcontrol status

|  |  |
|--|--|
| 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 |
| EsmF   | -                      |
| IqsC   | -                      |
| 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 |  |
| EsmF   | -                      |
| IqsC   | -                      |
| slot 2:  | 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 |
| EsmF   | -                      |
| IqsC   | -                      |
| 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 |  |
| EsmF   | -                      |
| IqsC   | -                      |
| slot 3:  | Port 01 02 03 04 05 06 07 08 09 10   |
| EsmF   | - - - - - - - - - - - -  |
| IqsC 01  | - - - - - - - - - - - -  |
| slot 4:  | Port 01 02 03 04 05 06 07 08 09 10   |
| EsmF   | - - - - - - - - - - - -  |
| IqsC   | - - - - - - - - - - - -  |
| slot 5:  | 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 |



## جارجالال ىلع لاثم:

- IQS لالخال نم مدقتي و عاني نم ملتسي نراق ةكبشلا، gig 1/0/13 نم ملتسي طبر لخدني نراق ةموكلال ىلإ.
- SQS، AQM، لالخال نم عجري وأ، رخآ ASIC فرشم ىلإ نراق ةموكلال نم اما طبر بهذي، كانه نم EQC، ESM، RWE، نراق ةكبشلا جراح بهذي كلذ دعبو، gig 1/0/13 نم ثب نراق ةكبشلا جراح بهذي كلذ دعبو.
- مث Gig 1/0/13 SIF نم جرخت يتلا رخآ ASIC فرشملا ASIC تاهجاو نم ةلسرمل مزحلا لخدت مث Gig 1/0/13 NifTx جرخت مث RWE و ESM و EQC و AQM و SQS ربع رمت.
- راطت نال مئوق نم طوقس تالاح تيأر اذا TX راطت نال مئوق 8 دجوت، AQM ل ةبسنلاب راهظا: طوقس تالاح هجاوت راطت نال مئوق نم يأ ديدحتل رمالا اذه مادختسا كنكمي، هذه راطت نال مئوق تالاح ةطشنال راطت نال مئوق ةيذغت مت يتلا يساسال اماظنلا ةزهجأ gig 1/0/13

<#root>

C9400#

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

```
lcportmap.xml: ---> Line Card (lc) ASIC instance 0 is associated with interface Gig1/0/13
```

```
id 13 asic 0 asicport 12 mac 23 contextid 12 intl_port_sup0 9 intl_port_sup1 1 maxspeed DEV_PORT_SPEED_1G
```

```
fp_portmap.xml: ---> Supervisor ASIC 1, core 0 is associated with front panel (fp) interface Gig1/0/13
```

```
id 13 asic 1 core 0 port 12 mac 0 subport 4 contextid 0 maxspeed DEV_PORT_SPEED_1G gpn 113 active 1
```

data path:

slot 3

```
+--ACTIVE SUP--+
```

```
| |
```

```
---> Supervisor ASIC 1, core 0 on the slot 3 active Supervisor associated with interface Gig1/0/13
```

```
| ASIC 1 |
```

```
| Core 0 |
```

```
| Asic Port 12 |
```

```
| |
```

```
| (Mac 0) |
```

```
| Nif_Rx NifTx |
```

```
+-----+
```

```
| |
```

```
| |
```

```
SLI MAC 9 | |
```

```
+-----+
```

```
| SLI_Tx SLI_Rx |
```

```
---> Line Card 1. The statistic output below is only for this Line card ASIC
```

```
| |
```

```
| ASIC 0 |
```

```
| Asic Port 12 |
```

```
| |
```

```
| (Mac 23) |
```

| NIF\_Rx NIF\_Tx|  
+-----+

Front Port 1/0/13

^ |  
| |  
| |  
| V

=====

Nif MAC 23 Inforation:

NifRxByteGroupStats:  
rxBytes 4457854  
NifRxByteDestinationGroupStats:  
rxUnicastBytes 1163684  
rxMulticastBytes 3294170  
rxBroadcastBytes 0  
NifRxPortStatusGroupStats:  
rxUnicastFrames 18155  
rxMulticastFrames 21235  
rxBroadcastFrames 0  
rxPauseFrames 0  
rxCos0PauseFrames 0  
rxCos1PauseFrames 0  
rxCos2PauseFrames 0  
rxCos3PauseFrames 0  
rxCos4PauseFrames 0  
rxCos5PauseFrames 0  
rxCos6PauseFrames 0  
rxCos7PauseFrames 0  
rxOamProcessedFrames 0  
NifRxPortStatusGroupStats:  
rxCollisionFragments 0  
rxFcsErrorFrames 0  
rxInvalidOversizeFrames 0  
rxMacOverrunFrames 0  
rxIpgViolationFrames 0  
rxOamDroppedFrames 0  
rxSymbolErrorFrames 0  
rxValidOversizeFrames 0  
rxValidUndersizeFrames 0  
NifRxSizeGroupStats:  
rx32768toMtuFrames 0  
rx16384to32767ByteFrames 0  
rx8192to16383ByteFrames 0  
rx4096to8191ByteFrames 0  
rx2048to4095ByteFrames 0  
rx1519to2047ByteFrames 51  
rx1024to1518ByteFrames 15  
rx512to1023ByteFrames 17  
rx256to511ByteFrames 3374  
rx128to255ByteFrames 6505  
rx65to127ByteFrames 11237  
rx64ByteFrames 18191

NifTxByteGroupStats:  
txBytes 6440428  
NifTxByteDestinationGroupStats:  
txUnicastBytes 1164528  
txMulticastBytes 5250491  
txBroadcastBytes 25409  
NifTxFrameDestinationGroupStats:  
txUnicastFrames 18158  
txMulticastFrames 24625  
txBroadcastFrames 51  
txPauseFrames 0  
txCos0PauseFrames 0  
txCos1PauseFrames 0  
txCos2PauseFrames 0  
txCos3PauseFrames 0  
txCos4PauseFrames 0  
txCos5PauseFrames 0  
txCos6PauseFrames 0  
txCos7PauseFrames 0  
txOamFrames 0  
NifTxPortStatusGroupStats:  
txLateCollisionFrames 0  
txsystemFcsErrorFrames 0  
txOversizeFrames 0  
txMacUnderrunFrames 0  
txDeferredFrames 0  
txExcessiveDeferralFrames 0  
txOkMultipleCollisionFrames 0  
txOkSingleCollisionFrames 0  
goldFramesTruncated 0  
NifTxSizeGroupStats:  
tx32768toMtuFrames 0  
tx16384to32767ByteFrames 0  
tx8192to16383ByteFrames 0  
tx4096to8191ByteFrames 0  
tx2048to4095ByteFrames 0  
tx1519to2047ByteFrames 0  
tx1024to1518ByteFrames 0  
tx512to1023ByteFrames 186  
tx256to511ByteFrames 9318  
tx128to255ByteFrames 6518  
tx65to127ByteFrames 8526  
tx64ByteFrames 18286

=====

-----> Input queue (Igr = Ingress)

IgrPacketCounters:  
packetsIn 97078

EgrPacketCounters:  
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:

AqmRedQueueStats: (sum of all queues) ---> Output queue (Aqm = Active queue management)

|                          |         |
|--------------------------|---------|
| 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 |

اذه دعاسي .ةيمامألا ةحوللا ةهجاول طخال ةقاطب روظنم نم قفدتلا يف مكحتلا ةلاح نم ققحت اذ ةهجاوللا ىلع ماحدزا يا ديدحت يف

- ةمئاق مقرر ىلا ةراشإلا متي يف ال او قفدتلا يف مكحتلا دوجو مدع دنع "-" ميقلا نوكت (ماحدزالا) قفدتلا يف مكحتلا هجاوي يذلا راطتال
- طخال ةقاطب نم ةهجاول ةطساوب هلابقتسا متي يذلا قفدتلا يف مكحتلا ريرمت متي لكشب AQM طقس ت شيح فرشملا ىلع Supervisor ASIC لى طخال ةقاطب ىلع ASIC لاصتا يلخاد (نراق مكحت قاطنلا جراخ) ل OCI ل Supervisor Asic. ىلع ىرت شيح بيحذوم نم مكحت قفدتلا ريشي نأ تلمعتسا نوكي نأ طاشن فرشمو ةقاطب طخال نيبة انق فرشم ىلا ةقاطب طخ

<#root>

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 | -  | -  | -  | -  | -  | -  | -  | -  | -  | -  | -  | -  | -  | -  | -  | -  | -  | -  | -  | -  | -  | -  | -  | -  |

ةقاطب بعبك ASIC نيبتلخاللة قاطبل ASIC روظنم نم قفدتت مكحتل رورم ةكرح نأ نم دكأت  
يطايتحاو طشن فرشمال فرشمال لىل ASIC Supervisor Forwarding و طخاللة قاطب لىل طخال  
OCI. تاهجاو لالخال نم

- OCI = قاطب نيبتلخاللة قاطبل جراح مكحتل لىل ةهجاو = قاطنل جراح مكحتل لىل ةهجاو  
نيطايتحاو طشن فرشمال لىل

<#root>

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
```

يتل ذفانم الة وومجم سفن نم اعزج دعت يتل طخاللة قاطب لىل ةدوجومال تاهجاو اول نم ققحت  
ةقاطب لىل طخاللة قاطب بعبك ASIC نم يددرتل قاطنل نم ةيئاتل يفتباجي ج 8 كراشت  
(فرشمال) Supervisor لىل Supervisor Forwarding لىل فرشمال هيچوت ةداعل ASIC هاجت طخال  
وحن ASIC طخاللة قاطب بعبك لىل (ماظنل طايترا ةهجاو) SLI نم دجاوب ذفانم ةدوجوم لىل نرتقت  
فرشمال.

<#root>

C9400#

show platform hardware iomd 1/0 portgroups ---> slot 1

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

Group                          Bandwidth
```

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 لوح

ةللأل تاي نقتل نم ةومجم مادختساب دن تسمل اذه Cisco تچرت  
ملاعلاء انء عي مچ ي ف ني مدخت سمل لمعد ي وتحم مي دقتل ةيرش بل او  
امك ةقيقد نوك تنل ةللأل ةمچرت لصف ان ةظحال مچري. ةصاغل مه تلبل  
Cisco يلخت. فرتحم مچرت مامدقي يتل ةيفارتحال ةمچرتل عم لالحل وه  
ىل اءءاد ةوچرلاب ي صوء وتامچرتل هذه ةقدنع اهتيل وئسم Cisco  
Systems (رفوتم طبارل) ي لصلال يزي لچنل دن تسمل