

ASR 5000/5500系列故障排除端口/NPU相关问题

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简介

此条款提交关于怎样的想法排除故障各种端口相关问题ASR 5000和5500平台包括与网络处理器涉及的问题(NPU)和接触有点在林克聚合(滞后)问题。这些技术不是火箭科学和由工程师主要实际上知道，但是一个或更多在故障排除流程可能经常被跳过完全由于在仓促的失察通过往潜在的解决方法的步骤。条款首先从端口涉及的健康检查开始。然后它计划在的所有途径有条不紊的秩序。最终它提供超出那些人的基本端口故障排除范围要开掘深深的一系列的实时示例。

故障排除命令

show SNMP陷阱历史记录

寻找PortLinkUp和PortLinkDown模式。考虑：

- 它多频繁什么时候在发生和
- 多个端口或一个端口或者某其他模式
- 技术人员可能或可能不知道的维护工作

show port表全部

- 指示链路是否上上下下是
- 林克聚合(滞后) -确认端口在正确状态，或者+ (分配/激活)或| (同意/待机)。其他状态*或-需要进一步调查。

show port信息

- 多种信息例如链路状态、端口模式、端口设置、链路聚合(滞后)设置、SFP模块等等。

显示卡diag

-基本诊断信息，通常不是有用的那

rct stats [verbose]

-PSC/DPC/SMC/MIO()

show port利用率表

-是吞吐量什么预计在每日定时

-等价多路径(ECMP)和滞后端口应该相当均匀地传送

- Rx带宽在另一端的控制下

显示端口利用率表

-由VLAN ID划分端口使用率

-，如果编号小与端口使用率表比较，暗示数据包没进行它对从端口的NPU

show port数据链接抵抗<slot/port>

-在物理端口的报告数据包计数

-请检查多种故障计数器发现其中任一是否增加，并且以什么速率

-重要：这是在SSD两次收集可以有价值为相对排除故障在短时间内的数据包计数增加那些少量命令的之一

show port npu抵抗<slot/port> [vlan <vlan>]

-所有端口连接对系统的其余到网络处理器单元(NPU)，在已连接信息包服务查找的二者之一卡德(PSC，ASR 5000) (PSC是否通过冗余纵横制卡(RCC))直接地连接或被映射或者在管理输入-输出(减少) (ASR 5500)端口也查找。

-请检查多种故障计数器发现其中任一是否增加，并且以什么速率

-对于滞后实施，计数器为捕获在所有端口间的主端口报告总计在滞后组中和那么没有办法知道哪个端口导致失败。在那种情况下，ASR 5000，“show port npu stats调试all_pacs”在有希望地帮助的PSC #级别的报告故障计数指向罪犯卡。

-问题被看到了在failure计数器的增加从此命令是由造成的线卡的地方失败，“show port数据链接计数器”不显示问题。

-不是所有的NPU问题用此命令捉住。有其他技术支持仅NPU发出命令(即请显示npu stats调试all_pacs，显示npu stats sf all_pacs等等)丢弃问题的该捕获数据包哪些没有被覆盖此处。

-重要：这是在SSD两次收集可以有价值为相对排除故障在短时间内的数据包计数增加那些少量命令的之一

显示日志

-请寻找与端口涉及的所有条目包括设施npu、npuctrl等等。

show port收发器(ASR 5500仅)

-请寻找光级一致在所有端口间

修正操作

在以下步骤中的每一个之间，请检查上述命令的输出，如可适用，检测所有改进和变化在行为上。如果问题是间歇的，一适当的等候期可能是必要的在宣称成功/失败前。

这没有打算是必须被执行按顺序甚至完全的一严格的列表。有在排除故障这样问题扮演作用和的许多变量，因此这打算是指南，以便在最少，故障排除人员访问所有潜在的选项。那些与许多岁月体验可能熟悉其中一些途径，因为他们适用于其他平台，但是提醒清单总是一个好想法，并且那些没有平台的知识可能不是与一些的平台特定的途径和可以使用的命令。

切记：每个方案不同的，并且故障排除步骤将暴露将指明将来步骤在方案中将有所不同的最新信息。这是指南。

步骤考虑，并且接受的命令根据问题、潜在的用户影响和客户情绪的严重性将变化。

对冗余的端口或滞后的切换

- 需要考虑事实排除故障的端口当前处理流量或不处理流量
- ASR5000：而半尺寸线路卡将继续连接到同样PSC，大型的线路卡当前连接对不同的PSC (NPU)
- 交换不更改任何布线，并且如此那么可能执行不会产生在重新启动方案的端口的变化，但是在最少，如果问题在激活的端口，影响将最小化，因为当前是备用端口

交换电缆连接用冗余的端口

- 根据哪个电缆首先被拔，最终激活的端口可能是任一个端口，因此端口可能需要是获得的交换的上一步回到开始的布局
- ，如果问题用混乱的端口依然是，然后请ASR的该端口仔细地看
- ，如果对另一个端口的问题交换机，严密然后指望在远端的该端口连接

清洗光纤

- ，如果被清洗的端口是活跃的，然后需要交换回到在清洗以后
- 清洗光纤明确地是频繁地解决问题的活动

在路径替换元素，包括以太网电缆/光纤/patch面板/互联/轻拍

- ，如果被清洗的端口是活跃的，然后将需要交换回到在清洗以后
- 它也许是惊奇发现多么此步骤频繁地解决问题

在连接的任一/两边的Small Form-Factor Pluggable (SFP)更换

- SFP可以分开被订购
- 为了便于测试-请检查未使用SFP

ASR 5000仅：

线路卡重新启动

线路卡重新安装

-重新安装将完成重新启动扩展，并且是更加插入和值得尝试

PSC迁移

- PSC连接对主机问题端口的线卡(请显示卡映射/显示打牌用之轻便小桌全部))

PSC重新启动

PSC重新安装

- PSC迁移将导致重置的PSC，但是它不是重新启动的等同

-同样PSC重置比PSC重新启动插入

- PSC重新安装将完成PSC重新启动扩展在一个步骤的

-总计在上面，如果问题是解决的，做PSC激活的迁移再是必要确认问题是否是充分地解决的(假设PSC活动解决了重新启动的端口)。注意根据卡布局和开始的卡配置(即物理的线卡有问题在已连接PSC后？等等)，交换PSC回到激活可能或可能不导致PSC <->线卡映射和一样案件在活动前。

系统管理卡德(SMC)切换

SMC重新启动

SMC重新安装

ASR 5500仅：

减少切换

-这跟端口或滞后切换不同。交换的减少的所有激活的端口将变得暂挂。如果问题端口已经是活跃的在暂挂减少，则减少切换不更改端口状态，然而仍然是一个有效步骤

机箱重新加载

-，虽然不太可能，总是很可能，有可能用重新加载只解决的异常情况

在相邻交换机的硬件替换

在ASR 5x00 (PSC，LC，减少的硬件替换，SMC或RCC)

修正步骤命令参考：

卡迁移从<x>到<y> – PSC/DPC迁移

-，当增强杠杆是另一个方式时，请勿执行那然后请求卡或卡关闭结果

卡交换从<x>到<y> – SMC/MIO/LC/RCC切换

对<x>的端口交换机–非滞后端口切换

林克聚合对<x>的端口交换机–滞后切换

- X必须是重要的滞后端口或主设备的对根据方向

卡重新启动x

-卡重置是另一个选项，但是推荐重新启动

示例故障排除情况

暂挂PGW相互机箱会话恢复(ICSR)节点是接收大容积从Juniper MX-960的流量

此示例显示接收重大的流量的活动滞后端口机箱是服务冗余协议的均等想法(SRP)待机，在吞吐量应该几乎是零情况下。用于联合的以下两命令的值是端口显示接收的重大的流量，但是NPU不显示流量。这暗示流量在到达NPU前丢弃，可能在端口的。“show port数据链接抵抗”和“show port npu计数器” corroborate这，因为NPU计数器几乎不增加，当数据链接计数器迅速时增加。

```
[local]PGW-ICSR> show port utilization table
```

```
Sunday July 26 00:13:32 UTC 2015
```

Port	Type	----- Average Port Utilization (in mbps) -----					
		Current		5min		15min	
		Rx	Tx	Rx	Tx	Rx	Tx
5/1	1000 Ethernet	0	0	0	0	0	0
5/10	10G Ethernet	0	0	0	0	0	0
5/11	10G Ethernet	0	0	0	0	0	0
5/15	10G Ethernet	0	0	0	0	0	0
5/16	10G Ethernet	0	0	0	0	0	0
5/28	10G Ethernet	105	13	105	13	105	13
5/29	10G Ethernet	0	0	0	0	0	0
6/1	1000 Ethernet	0	0	0	0	0	0
6/10	10G Ethernet	4214	0	4121	0	3993	0
6/11	10G Ethernet	4089	0	4103	0	3995	0
6/15	10G Ethernet	4166	0	4172	0	3996	0
6/16	10G Ethernet	4163	0	4174	0	3997	0
6/28	10G Ethernet	0	0	0	0	0	0
6/29	10G Ethernet	1	0	1	0	1	0

```
[local]PGW-ICSR> show logical-port utilization table
```

```
Sunday July 26 00:13:45 UTC 2015
```

Slot/Port	vlan	----- Average Port Utilization (in mbps) -----					
		Current		5min		15min	
		Rx	Tx	Rx	Tx	Rx	Tx
5/10	2427	0	0	0	0	0	0
5/10	2407	0	0	0	0	0	0
5/10	2011	0	0	0	0	0	0
5/10	2405	0	0	0	0	0	0
5/10	2015	0	0	0	0	0	0
5/10	2455	0	0	0	0	0	0
6/10	2427	0	0	0	0	0	0
6/10	2407	0	0	0	0	0	0
6/10	2011	0	0	0	0	0	0
6/10	2405	0	0	0	0	0	0
6/10	2015	0	0	0	0	0	0
6/10	2455	0	0	0	0	0	0
6/29	31	0	0	0	0	0	0

```
[local]PGW-ICSR> clear port npu counters all
```

```
Saturday July 25 01:44:38 UTC 2015
```

```
[local]PGW-ICSR> clear port data count all
```

```
Saturday July 25 01:44:43 UTC 2015
```

```
[local]PGW-ICSR> show port data counters 6/10
Saturday July 25 01:45:30 UTC 2015
rt npu counteCounters for port 6/10:
Line Card 10 Gigabit Ethernet Port
Rx Counter          Data | Tx Counter          Data
-----+-----
RX Bytes            20310895783 | TX Bytes            9746
RX Unicast frames   25564965 | TX Unicast frames   41
RX Multicast frames      85 | TX Multicast frames 48
RX Broadcast frames    0 | TX Broadcast frames 0
RX Size 64 frames     338598 | TX Size 64 frames   9
RX Size 65 .. 127 fr  6881254 | TX Size 65 .. 127 fr 32
RX Size 128 .. 255 fr 4151284 | TX Size 128 .. 255 fr 48
RX Size 256 .. 511 fr 761933 | TX Size 256 .. 511 fr 0
RX Size 512 .. 1023 fr 599377 | TX Size 512 .. 1023 fr 0
RX Size 1024 .. 1518 fr 12678554 | TX Size 1024 .. 1518 fr 0
RX Size 1519 .. 1522 fr 154050 | TX Size 1519 .. 1522 fr 0
```

```
[local]PGW-ICSR> show port npu counters 6/10
Saturday July 25 01:45:31 UTC 2015
Counters for port 6/10
Counter          Rx Frames  Rx Bytes  Tx Frames  Tx Bytes
-----+-----
Unicast          147        11716    150        12234
Multicast        870        73376    416        51584
Broadcast         4          240      0           0
IPv4 unicast     66         4436     66         4550
IPv4 non-unicast 238        15232    0           0
IPv6 unicast     83         7400     84         7684
IPv6 non-unicast 632        8144     0           0
Fragments received 0           0        n/a        n/a
Packets reassembled 0           0        n/a        n/a
Fragments to kernel 0           0        n/a        n/a
HW error         0           0        n/a        n/a
Port non-operational 0           0        0           0
SRC MAC is multicast 0           0        n/a        n/a
Unknown VLAN tag 0           0        n/a        n/a
Other protocols  97         8240     n/a        n/a
Not IPv4         399        36472    n/a        n/a
Bad IPv4 header  0           0        n/a        n/a
```

在数据链接和npu计数器之间的丢失的信息包

ASR的5000此示例显示比较数据链接和npu计数器的输出。在这种情况下，组播和广播包配比在命令之间，但是npu的Rx计数是较少比对于数据链接。命令“显示npu stats调试”能不在所有的情况下可能占差异，但是，象案件在这里从该命令的计数器都不能占差异的地方。

```
[local]DO-HSGW> clear port npu counters all
Thursday August 06 02:05:51 UTC 2015
```

```
[local]DO-HSGW> clear port datalink counters all
Thursday August 06 02:05:52 UTC 2015
```

```
[local]DO-HSGW> show npu stats debug all-pacs clear
Thursday August 06 02:05:52 UTC 2015
```

```
[local]DO-HSGW> show card table
Thursday August 06 02:18:59 UTC 2015
Slot          Card Type          Oper State  SPOF  Attach
-----+-----
```

[local]DO-HSGW> show port npu count 21/1

Thursday August 06 02:13:52 UTC 2015

Counters for port 21/1

sCounter	Rx Frames	Rx Bytes	Tx Frames	Tx Bytes
Unicast 2502	289800	1726	308932	
Multicast 1091	92000	0	0	
Broadcast 1231	79781	0	0	
IPv4 unicast	2400	283272	1624	304240
IPv4 non-unicast	534	34176	0	0
IPv6 unicast	0	0	0	0
IPv6 non-unicast	539	52982	0	0
Fragments received	0	0	n/a	n/a
Packets reassembled	0	0	n/a	n/a
Fragments to kernel	0	0	n/a	n/a
HW error	0	0	n/a	n/a
Port non-operational	0	0	0	0
SRC MAC is multicast	0	0	n/a	n/a
Unknown VLAN tag	0	0	n/a	n/a
Other protocols	50	7850	n/a	n/a
Not IPv4	0	0	n/a	n/a
Bad IPv4 header	0	0	n/a	n/a
IPv4 MRU exceeded	0	0	n/a	n/a
TCP tiny fragment	0	0	0	0
No ACL match	0	0	0	0
Filtered by ACL	0	0	0	0
TTL expired	0	0	n/a	n/a
Flow lookup twice	0	0	n/a	n/a
Unknown IPv4 class	0	0	n/a	n/a
Too short: IP	0	0	n/a	n/a
Too short: ICMP	0	0	0	0
Too short: IGMP	0	0	0	0
Too short: TCP	0	0	0	0
Too short: UDP	0	0	0	0
Too short: IPIP	0	0	n/a	n/a
Too short: GRE	0	0	n/a	n/a
Too short: GRE key	0	0	n/a	n/a
Don't frag discards	n/a	n/a	0	0
Fragment packets	n/a	n/a	0	0
Fragment fragments	n/a	n/a	0	0
IPv4VlanMap dropped	0	0	n/a	n/a
IPSec NATT keep alive	0	0	n/a	n/a
MPLS Flow not found	0	0	n/a	n/a
MPLS unicast	0	0	0	0
Size < 17	0	0	0	0
Size 17 .. 64	1834	117376	102	4692
Size 65 .. 127	1385	113948	36	2520
Size 128 .. 255	1589	225633	1191	170710
Size 256 .. 511	16	4624	397	131010
Size 512 .. 1023	0	0	0	0
Size 1024 .. 2047	0	0	0	0
Size 2048 .. 4095	0	0	0	0
Size 4096 .. 4500	0	0	0	0
Size > 4500	0	0	0	0

[local]DO-HSGW> show port data counters 21/1

Thursday August 06 02:13:52 UTC 2015

how npu Counters for port 21/1:

Line Card Gigabit Ethernet Port

Rx Counter	Data	Tx Counter	Data
-----+-----			

```

RX Unicast frames 5555 | TX Unicast frames          1726
RX Multicast frames 1091 | TX Multicast frames          0
RX Broadcast frames 1233 | TX Broadcast frames          0
RX Size 64 frames          0 | TX Size 64 frames          102
RX Size 65 .. 127 fr      4219 | TX Size 65 .. 127 fr      36
RX Size 128 .. 255 fr    1681 | TX Size 128 .. 255 fr    1191
RX Size 256 .. 511 fr     49 | TX Size 256 .. 511 fr    397
RX Size 512 .. 1023 fr   1828 | TX Size 512 .. 1023 fr   0
RX Size 1024 .. 1518 fr   18 | TX Size 1024 .. 1518 fr   0
RX Size > 1518 frames     84 | TX Size > 1518 frames     0
RX Bytes OK              1934599 | TX Bytes OK              317264
RX Bytes BAD              0 | TX Bytes BAD              0
RX SHORT OK              0 | TX PAUSE                  0
RX SHORT CRC              0 | TX ERR                    0
RX OVF                    0 |
RX NORM CRC              0 |
RX LONG OK               0 |
RX LONG CRC              0 |
RX PAUSE                  0 |
RX FALS CRS              0 |
RX SYM ERR               0 |
RX FIFO CORR ECC ERR     0 | TX FIFO CORR ECC ERR     0
RX FIFO UNREC ECC ERR    0 | TX FIFO UNREC ECC ERR    0
RX Disc frames           0 | TX Disc frames           0
RX Disc bytes            0 | TX Disc bytes            0
RX ERR frames            0 | TX ERR frames            0
-----+-----

```

```

[local]DO-HSGW> show npu stats debug slot 5
Thursday August 06 02:13:53 UTC 2015
NPU debug stats for slot 5
Total number of NPU debug stat counters: 267

```

```

WARN: -----
          lc-rx-drop (id: 234)          50

INFO: -----
          csix-idle-cnt (id: 29)        36268853
          npu-resent-fc-msg (id: 45)    951
          npu-tx-fc-cframe (id: 46)    44701
          npu-rx-sf-xon (id: 60)       13316
          cp2npu-unk-mac-drop-cnt (id: 153) 177255
          ipv6-unk-nexthdr (id: 155)    262
          rx-cp-sft-pkt (id: 164)      33439
          rx-sf0-sft-pkt (id: 165)     33439
          rx-sf1-sft-pkt (id: 166)     33439
          lc-rx-arp-slowpath (id: 316)   70
          flow-notfound-done-slowpath (id: 325) 1233
          flow-lkup-done-slowpath (id: 326) 3473

```

数据链接TX暂停和RX在ASR 5000的OVF

TX暂停表明此端口到达了某最大负荷时间并且发送暂停帧到对等体交换机，因此对等体交换机可以温文地减少往此端口的流量。然而，看起来对等体交换机没有用流量控制启用并且有一些计数器在端口指示一些溢出丢包的线卡。

即使平均的端口使用率不达到峰值(类似6 GBPS)，端口可能接收可能导致TX暂停流量的一突然的尖峰。因此，是可行的有流量控制总是以防万一启用在对等体交换机。

show port datalink counters

```

Counters for port 21/1: Line Card 10 Gigabit Ethernet Port Rx Counter Data | Tx Counter Data ---
----- + ----- RX Unicast frames
11562820841545 | TX Unicast frames 8643405785924 RX Multicast frames 401729121 | TX Multicast
frames 0 RX Broadcast frames 16900986 | TX Broadcast frames 0 RX Size 64 frames 2562649224215 |
TX Size 64 frames 5324800463761 RX Size 65 .. 127 fr 1827916995441 | TX Size 65 .. 127 fr
1921108746736 RX Size 128 .. 255 fr 527160156402 | TX Size 128 .. 255 fr 377388275894 RX Size
256 .. 511 fr 384674712910 | TX Size 256 .. 511 fr 285180922294 RX Size 512 .. 1023 fr
335734722295 | TX Size 512 .. 1023 fr 248088896685 RX Size 1024 .. 1518 fr 5894848662488 | TX
Size 1024 .. 1518 fr 486837840991 RX Size > 1518 frames 29836364100 | TX Size > 1518 frames 0 RX
Bytes OK 9248285853715092 | TX Bytes OK 1491301613652484 RX Bytes BAD 5358 | TX Bytes BAD 0 RX
SHORT OK 0 | TX PAUSE 639563
RX SHORT CRC 0 | TX ERR 0
RX OVF 12768 |
RX NORM CRC 0 |
RX LONG OK 0 |
RX LONG CRC 0 |
RX PAUSE 0 |
RX FALS CRS 0 |
RX SYM ERR 0 |
RX SPI FRAME COUNT 11555373252519 | TX SPI FRAME COUNT 8637801817136
RX SPI LEN ERR 0 | TX SPI LEN ERR 0
RX SPI DIP 2 ERR 0 | TX SPI DIP 4 ERR 0
RX SPI STATUS OOF ERR 0 | TX SPI DATA OOF ERR 0
RX FIFO OVERFLOW 0 | TX FIFO FULL DROP 0
RX PAUSE COUNT 0 | TX DIP 4 PACKET DROP 0
SPI EOP/ABORT 0 |
RX FRAGMENTS COUNT 0 |
RX MAC ERR 26 |
RX JABBER COUNT 0 |

```

一非常低级命令(仅技术支持，可以从SSD获取)是“显示数据拥塞slot x”。在此示例注意在slot 5 (默认的高拥塞连接对XCLC 21/1)在对交换矩阵(SF)接口的NPU。特别地，流量控制消息传送高计数从交换矩阵的到NPU，与丢包一起大量同样方向确认问题。

***** Data-path congestion information for slot 5 *****

NPU Percentage of Frames Dropped:

Subsystem	5 Sec	5 Min	15 Min	Total Frames and Drops
LC Top rx	0.00%	0.00%	0.00%	Frames: 715193480189 Drops: 0
LC Top tx	0.00%	0.00%	0.00%	Frames: 0 Drops: 0
LC Bot rx	0.00%	0.00%	0.00%	Frames: 0 Drops: 0
LC Bot tx	0.00%	0.00%	0.00%	Frames: 0 Drops: 0
LC RCC1 rx	0.00%	0.00%	0.00%	Frames: 0 Drops: 0
LC RCC1 tx	0.00%	0.00%	0.00%	Frames: 0 Drops: 0
LC RCC2 rx	0.00%	0.00%	0.00%	Frames: 0 Drops: 0
LC RCC2 tx	0.00%	0.00%	0.00%	Frames: 0 Drops: 0
CPU rx	0.00%	0.00%	0.00%	Frames: 121566003797 Drops: 0
CPU tx	0.00%	0.00%	0.00%	Frames: 59870967969 Drops: 35226625
SF A rx	0.00%	0.00%	0.00%	Frames: 224008179 Drops: 0

```

SF A tx | 0.01% | 0.00% | 0.00% | Frames: 378241304254 | | | Drops: 274645028
SF B rx | 0.00% | 0.00% | 0.00% | 0.00% | Frames: 656009419
      | | | | | Drops: 0
SF B tx | 0.00% | 0.00% | 0.00% | Frames: 392219947264 | | | Drops: 320394097
EDC rx  | 0.00% | 0.00% | 0.00% | Frames: 0
      | | | | | Drops: 0
EDC tx  | 0.00% | 0.00% | 0.00% | Frames: 0
      | | | | | Drops: 0

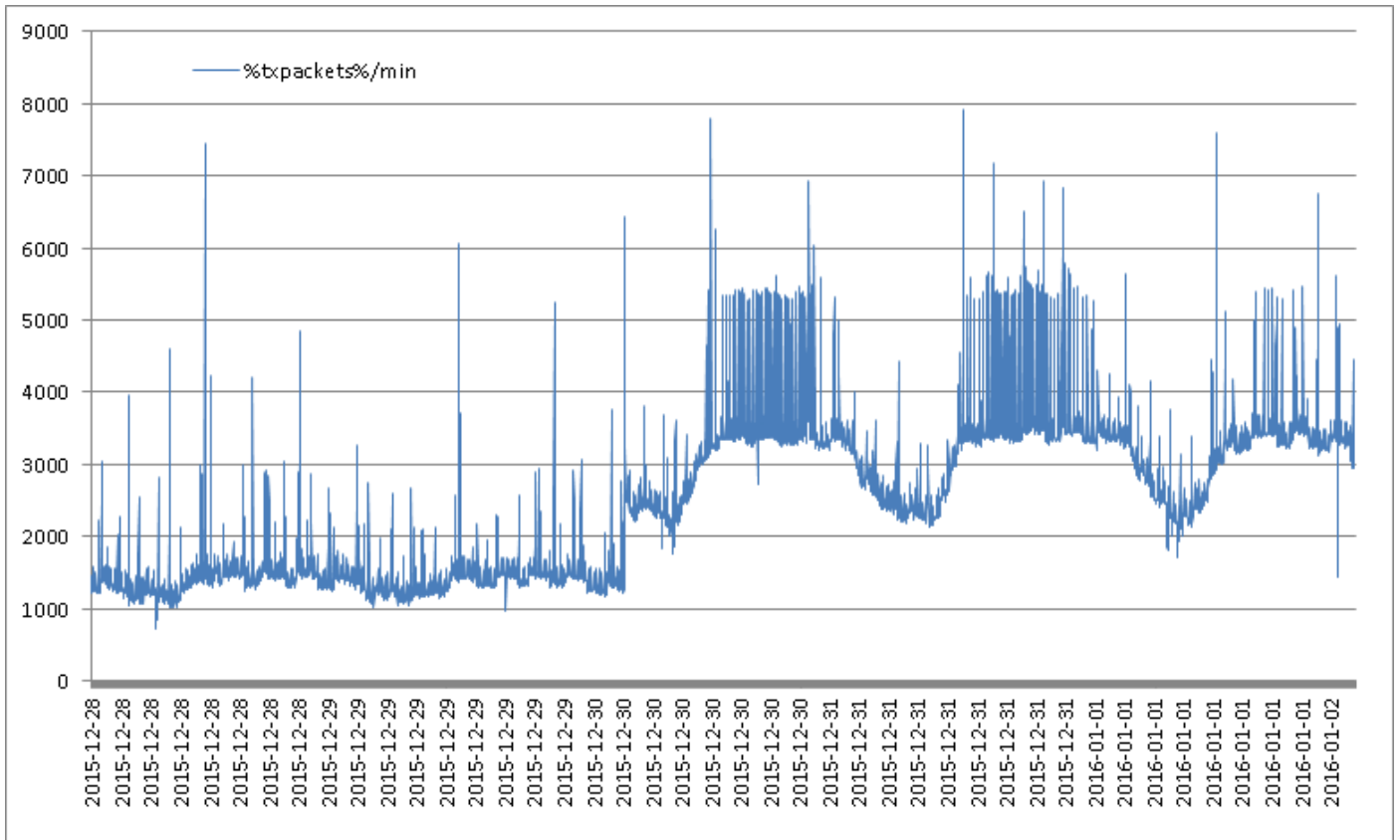
```

NPU Received Flow Control Events:

Event	5 Sec	5 Min	15 Min	Total Event Count
rx-sf-xoff	21668	843417	2358340	828378025
rx-sf-xon	21811	851786	2383440	873518866
rx-lc-xoff	0	0	0	0
rx-lc-xon	0	0	0	0
rx-cp-xoff	53	5021	15176	17316366
rx-cp-xon	53	5021	15176	17316366
rx-edc-xoff	0	0	0	0
rx-edc-xon	0	0	0	0

增加TX ERR由于在ASR 5500管理端口的不匹配的端口设置

在本例中，开始的票打开参考在TX ERR的一增加在端口5/1抵抗，ASR的5500管理端口。在一个站点，“未被注意”，当一问题在实现事件记录文件的创建和生成的MOP之后被执行了，Enhance正在充电服务功能。相关性不可能做在实现该功能和一突然的增加之间在这些疏忽方面，除了注意到，也有一突然的增加在吞吐量管理端口的，应该只运载管理数据流在12/30，当变动做了。此处从模式PORTSch1的可变txpackets被注标显示增加的：



网络的审计显示问题在许多节点发生，例如这是审计的一个小片断：

```

***** Data-path congestion information for slot 5 *****

```

NPU Percentage of Frames Dropped:

Subsystem	5 Sec	5 Min	15 Min	Total Frames and Drops
LC Top rx	0.00%	0.00%	0.00%	Frames: 715193480189 Drops: 0
LC Top tx	0.00%	0.00%	0.00%	Frames: 0 Drops: 0
LC Bot rx	0.00%	0.00%	0.00%	Frames: 0 Drops: 0
LC Bot tx	0.00%	0.00%	0.00%	Frames: 0 Drops: 0
LC RCC1 rx	0.00%	0.00%	0.00%	Frames: 0 Drops: 0
LC RCC1 tx	0.00%	0.00%	0.00%	Frames: 0 Drops: 0
LC RCC2 rx	0.00%	0.00%	0.00%	Frames: 0 Drops: 0
LC RCC2 tx	0.00%	0.00%	0.00%	Frames: 0 Drops: 0
CPU rx	0.00%	0.00%	0.00%	Frames: 121566003797 Drops: 0
CPU tx	0.00%	0.00%	0.00%	Frames: 59870967969 Drops: 35226625
SF A rx	0.00%	0.00%	0.00%	Frames: 224008179 Drops: 0
SF A tx	0.01%	0.00%	0.00%	Frames: 378241304254 Drops: 274645028
SF B rx	0.00%	0.00%	0.00%	Frames: 656009419 Drops: 0
SF B tx	0.00%	0.00%	0.00%	Frames: 392219947264 Drops: 320394097
EDC rx	0.00%	0.00%	0.00%	Frames: 0 Drops: 0
EDC tx	0.00%	0.00%	0.00%	Frames: 0 Drops: 0

NPU Received Flow Control Events:

Event	5 Sec	5 Min	15 Min	Total Event Count
rx-sf-xoff	21668	843417	2358340	828378025 rx-sf-xon 21811 851786 2383440 873518866
rx-lc-xoff	0	0	0	0
rx-lc-xon	0	0	0	0
rx-cp-xoff	53	5021	15176	17316366
rx-cp-xon	53	5021	15176	17316366
rx-edc-xoff	0	0	0	0
rx-edc-xon	0	0	0	0

去回到对旧有SSDs (因为仅基本计数器由Bulkstats跟踪), 能被看到错误迟缓地发生12/30, 另一方面, 但是在MOP执行以后, 错误发生以更高的速率:

Thursday November 19 13:41:44 UTC 2015

Counters for port 5/1:

Line Card Gigabit Ethernet Port

Rx Counter	Data	Tx Counter	Data
RX SHORT CRC	0	TX ERR	5927969

Monday November 30 13:35:45 UTC 2015

Counters for port 5/1:

Line Card Gigabit Ethernet Port

Rx Counter	Data	Tx Counter	Data
RX SHORT CRC	0	TX ERR	6116249

Tuesday December 01 13:39:26 UTC 2015

Counters for port 5/1:

Line Card Gigabit Ethernet Port

Rx Counter	Data	Tx Counter	Data
RX SHORT CRC	0	TX ERR	6130958

Counters cleared ...

[local]ASR5500-PGW> show port datalink counters 5/1

Monday **January 04 02:41:29** UTC 2016

Counters for port 5/1:

Line Card Gigabit Ethernet Port

Rx Counter	Data	Tx Counter	Data
RX Unicast frames	171008921	TX Unicast frames	221976127
RX SHORT CRC	0	TX ERR	5852770

***** show port datalink counters *****

Tuesday **January 05 13:38:51** UTC 2016

Rx Counter	Data	Tx Counter	Data
RX Unicast frames	216450269	TX Unicast frames	8080952673
RX SHORT CRC	0	TX ERR	11497275

***** show port info *****

Tuesday January 05 13:33:07 UTC 2016

Port: 5/1

Port Type : 1000 Ethernet
Configured Duplex : Auto
Configured Speed : Auto
Link State : Up
Link Duplex : Half
Link Speed : 100 Mb

Issue fixed ...

Wednesday January 06 14:29:28 UTC 2016

Counters for port 5/1:

Line Card Gigabit Ethernet Port

Rx Counter	Data	Tx Counter	Data
RX SHORT CRC	0	TX ERR	0

[local]PGW> show port info 5/1

Wednesday January 06 12:58:50 UTC 2016

Port: 5/1

Port Type : 1000 Ethernet
Role : Management Port
Configured Duplex : Auto
Configured Speed : Auto
Link State : Up
Link Duplex : Full
Link Speed : 1000 Mb

问题结果是在端口设置的一不匹配在连接的ASR 5500和新的交换机之间，连结7000。修正是设置两端的端口自动交涉。而连结手工设置为全双工，ASR 5500已经设置为自动。修正：

ASR 5500 (already set to this)

```
port ethernet 5/1
  medium speed 1000 duplex full
  no shutdown
  bind interface 5/1-MGMT local
#exit
```

Nexus 7K (needed to be set to this)

```
interface Ethernet152/1/11
  description MGMT-PORT-5/01
  switchport
  switchport access vlan 10
  spanning-tree port type edge
  no snmp trap link-status
  no shutdown
```

它结果问题一直发生，但是未曾被注意了，因为唯一的指示器是不是某事可以通过其中任一自动化的报告被测量的TX ERR计数器，因为没有任何东西的bulkstat变量在基本端口计数器(Tx/rx数据包/字节等等)之外。但是问题严重地被恶化了，当MOP运行了，并且，因为Tx/rx数据包由Bulkstats捕获并且是客户测量的KPI，它然后被注意了。

因此下一个问题是导致的什么在流量的突然的增加？更改的考试显示“**通过本地上下文**”呼叫的以下设置，指定使用本地上下文端口(5/1或6/1)新的事件流量的而不是端口5/29在ECS上下文现有事件数据(EDR)计费记录流量(和继续是)在该上下文总是被派出了现有端口5/29。因为该设置很少用于所有客户设置，这不是一次明显的查找。

```
context ECS
  interface 5/29-ECS
    ip address 10.192.102.75 255.255.255.0
  #exit
```

session-event-module

```
file name evt-repo rotation volume 40000000 rotation time 120 storage-limit 500000000
exclude-checksum-record time-stamp rotated-format compression gzip
event transfer-mode push primary encrypted-url +A19y2j... via local-context module-only

edr-module active-charging-service
file name FDR70 rotation volume 40000000 rotation time 300 storage-limit 500000000 headers
reset-indicator edr-format-name trap-on-file-delete charging-service-name omit compression gzip
file-sequence-number rulebase-seq-num
cdr use-harddisk
cdr remove-file-after-transfer
cdr transfer-mode push primary encrypted-url +A0d2...
```

增加Bad帧和Tx冲突在管理端口由于半双工

接口组成24/1-MGMT接口的24/1和25/1体验“Bad帧”，“TX冲突”和“TX延迟冲突”。

从显示支持详细信息：

```
***** show port datalink counters *****
```

Friday January 03 14:14:59 UTC 2014

Counters for port 25/1:

SPIO 10/100/1000 Ethernet port

Rx Counter	Data	Tx Counter	Data
RX Bytes	12808872101	TX Bytes	20451927433
RX BAD frames	0	TX BAD frames 1403971	
RX Runt frames	0	TX Runt frames	0
RX Oversize frames	0	TX Oversize frames	0
RX Good frames	95621882	TX Good frames	39395979
RX Multicast frames	6686008	TX Collisions 1501475	
RX Broadcast frames	56656415	TX Excessive collis	0
RX Code ERROR	0	TX Late Collisions 1403968	
RX CRC ERROR	0	TX CRC ERROR	0
RX length ERROR	0	TX ABORT	3
RX Align ERROR	0		

从稍微以后的系统，请注意在Bad帧和冲突/延迟冲突的增加：

```
[local]DO-HSGW> show port datalink counters 25/1
```

Friday January 03 14:26:04 UTC 2014

Counters for port 25/1:

SPIO 10/100/1000 Ethernet port

Rx Counter	Data	Tx Counter	Data
RX Bytes	12809750383	TX Bytes	20456667635
RX BAD frames	0	TX BAD frames 1404930	
RX Runt frames	0	TX Runt frames	0
RX Oversize frames	0	TX Oversize frames	0
RX Good frames	95628788	TX Good frames	39400838
RX Multicast frames	6686366	TX Collisions 1502503	
RX Broadcast frames	56659440	TX Excessive collis	0
RX Code ERROR	0	TX Late Collisions 1404927	
RX CRC ERROR	0	TX CRC ERROR	0
RX length ERROR	0	TX ABORT	3
RX Align ERROR	0		

这通常是预示的在以太网接口的任一个末端的配置不匹配。两个管理端口协商作为半双工：

```
[local]DO-HSGW> show port info 24/1
```

Friday January 03 14:33:19 UTC 2014

Port: 24/1

Port Type : 1000 Ethernet Dual Media
Role : Management Port
Description : (None Set)
Controlled By Card : 8 (System Management Card)
Redundancy Mode : Port Mode
Framing Mode : Unspecified
Redundant With : 25/1
Preferred Port : Non-Revertive
Physical ifIndex : 402718720
Administrative State : Enabled
Configured Duplex : Auto
Configured Speed : Auto
Media Selection : RJ45
MAC Address : 00-05-47-02-5D-EE

```
Link State           : Up
Link Duplex        : Half
Link Speed           : 100 Mb
Link Aggregation Group : None
Logical ifIndex      : 402718721
Operational State    : Down, Standby
SFP Module           : Present (1000BASE-SX, M5, M610G SFP+Cu)
```

链路的另一端，思科Catalyst 6500，设置加速= 100和双工=全双工。要调整问题，请硬编码ASR 5000也全双工：

```
[local]DO-HSGW> show port info 24/1
Friday January 03 14:33:19 UTC 2014
Port: 24/1
Port Type           : 1000 Ethernet Dual Media
Role                : Management Port
Description         : (None Set)
Controlled By Card  : 8 (System Management Card)
Redundancy Mode     : Port Mode
Framing Mode        : Unspecified
Redundant With      : 25/1
Preferred Port      : Non-Revertive
Physical ifIndex    : 402718720
Administrative State : Enabled
Configured Duplex : Auto
Configured Speed    : Auto
Media Selection      : RJ45
MAC Address         : 00-05-47-02-5D-EE
Link State          : Up
Link Duplex        : Half
Link Speed          : 100 Mb
Link Aggregation Group : None
Logical ifIndex     : 402718721
Operational State   : Down, Standby
SFP Module          : Present (1000BASE-SX, M5, M610G SFP+Cu)
```

或者二者择一，请设置两边是自动协调。

但是有一端一样自动和另一侧，象全双工可能导致半双工建立。

意外的滞后切换-滞后波尔特23/1问题

下列被观察了滞后的端口23/1在滞后协商的状态被滞留了在一个意外的滞后切换以后的地方：

```
2015-May-15+16:47:40.410 [snmp 22002 info] [1/0/13147 <lagmgr:0>
trap_api.c:2387] [software internal system syslog] Internal trap notification
1205 (LAGGroupUp) card:19, port:1, partner:(007F,64-87-88-66-F7-C0,0016)
2015-May-15+16:47:40.410 [snmp 22002 info] [1/0/13147 <lagmgr:0>
trap_api.c:2387] [software internal system syslog] Internal trap notification
1204 (LAGGroupDown) card:19, port:1, partner:(007F,64-87-88-67-87-C0,0016)

2015-May-15+16:47:40.410 [lagmgr 179050 warning] [1/0/13147 <lagmgr:0>
lagmgr_state.c:1314] [software internal system critical-info syslog] LAG group
50 (global) with master port 19/1 has changed partner
from (007F,64-87-88-67-87-C0,0016) on 17/1, 19/1, 23/1, 27/1, 29/1
to (007F,64-87-88-66-F7-C0,0016) on 18/1, 20/1, 26/1, 28/1, 30/1
```

```
[local]PDSN> show port table | grep LA 17/1 Srvc 10G Ethernet Enabled Up Up Active None LA~ 19/1
18/1 Srvc 10G Ethernet Enabled Up Up Active None LA+ 19/1 19/1 Srvc 10G Ethernet Enabled - Up -
None LA~ 19/1 20/1 Srvc 10G Ethernet Enabled Up Up Active None LA+ 19/1 23/1 Srvc 10G Ethernet
Enabled Up Up Active None LA* 19/1
26/1 Srvc 10G Ethernet Enabled Up Up Active None LA+ 19/1
27/1 Srvc 10G Ethernet Enabled Up Up Active None LA~ 19/1
28/1 Srvc 10G Ethernet Enabled Up Up Active None LA+ 19/1
29/1 Srvc 10G Ethernet Enabled Up Up Active None LA~ 19/1
30/1 Srvc 10G Ethernet Enabled Up Up Active None LA+ 19/1
```

```
[local]PDSN> show port info 23/1
```

```
Port: 23/1
Port Type          : 10G Ethernet
Role               : Service Port
Description        : Ingress-Egress Line Card
Controlled By Card : 7 (Packet Services Card 3)
Redundancy Mode    : Port Mode
Framing Mode       : Unspecified
Redundant With     : Not Redundant
Preferred Port     : Non-Revertive
Physical ifIndex   : 385941504
Administrative State : Enabled
Configured Duplex  : Auto
Configured Speed   : Auto
Configured Flow Control : Enabled
MAC Address        : 00-05-47-02-A6-96
Link State         : Up
Link Duplex        : Full
Link Speed         : 10 Gb
Flow Control       : Enabled
Link Aggregation Group : 50 (global, member)
Link Aggregation LACP : Active, Short, Auto
Link Aggregation Master : 19/1
Link Aggregation State : Agreed with LACP peer
Link Aggregation Actor : (8000,00-05-47-02-B1-97,001A,8000,1701)
Link Aggregation Peer  : (007F,64-87-88-67-87-C0,0016,007F,0013)
Logical ifIndex     : 385941505
Operational State   : Up, Active
SFP Module          : Present (10G Base SR)
```

```
[local]PDSN>show card diag 23
```

```
Card 23:
Counters:
  In Service Date      : Tue Aug 24 06:58:31 2010 (Estimated)
Status:
  IDEEPROM Magic Number : Good
  Card Diagnostics      : Pass
  Current Failure       : None
  Last Failure          : None
  Card Usable           : Yes
Current Environment:
  Temperature: Card     : 48 C (limit 90 C)
  Temperature: LM87    : 49 C (limit 85 C)
  Temperature: PHY     : 48 C (limit 90 C)
  Voltage: 1.2V        : 1.205 V (min 1.140 V, max 1.260 V)
  Voltage: 1.2V        : 1.205 V (min 1.140 V, max 1.260 V)
  Voltage: 2.5V        : 2.522 V (min 2.375 V, max 2.625 V)
  Voltage: 3.3V        : 3.285 V (min 3.135 V, max 3.465 V)
  Voltage: 1.8V        : 1.805 V (min 1.710 V, max 1.890 V)
```

数据链接计数器没有显示任何问题 : :


```
2015-May-15+16:47:40.410 [snmp 22002 info] [1/0/13147 <lagmgr:0>
trap_api.c:2387] [software internal system syslog] Internal trap notification
1205 (LAGGroupUp) card:19, port:1, partner:(007F,64-87-88-66-F7-C0,0016)
2015-May-15+16:47:40.410 [snmp 22002 info] [1/0/13147 <lagmgr:0>
trap_api.c:2387] [software internal system syslog] Internal trap notification
1204 (LAGGroupDown) card:19, port:1, partner:(007F,64-87-88-67-87-C0,0016)
```

```
2015-May-15+16:47:40.410 [lagmgr 179050 warning] [1/0/13147 <lagmgr:0>
lagmgr_state.c:1314] [software internal system critical-info syslog] LAG group
50 (global) with master port 19/1 has changed partner
from (007F,64-87-88-67-87-C0,0016) on 17/1, 19/1, 23/1, 27/1, 29/1
to (007F,64-87-88-66-F7-C0,0016) on 18/1, 20/1, 26/1, 28/1, 30/1
```

```
[local]PDSN> show port table | grep LA 17/1 Srvc 10G Ethernet Enabled Up Up Active None LA~ 19/1
18/1 Srvc 10G Ethernet Enabled Up Up Active None LA+ 19/1 19/1 Srvc 10G Ethernet Enabled - Up -
None LA~ 19/1 20/1 Srvc 10G Ethernet Enabled Up Up Active None LA+ 19/1 23/1 Srvc 10G Ethernet
Enabled Up Up Active None LA* 19/1
26/1 Srvc 10G Ethernet Enabled Up Up Active None LA+ 19/1
27/1 Srvc 10G Ethernet Enabled Up Up Active None LA~ 19/1
28/1 Srvc 10G Ethernet Enabled Up Up Active None LA+ 19/1
29/1 Srvc 10G Ethernet Enabled Up Up Active None LA~ 19/1
30/1 Srvc 10G Ethernet Enabled Up Up Active None LA+ 19/1
```

```
[local]PDSN> show port info 23/1
```

```
Port: 23/1
Port Type : 10G Ethernet
Role : Service Port
Description : Ingress-Egress Line Card
Controlled By Card : 7 (Packet Services Card 3)
Redundancy Mode : Port Mode
Framing Mode : Unspecified
Redundant With : Not Redundant
Preferred Port : Non-Revertive
Physical ifIndex : 385941504
Administrative State : Enabled
Configured Duplex : Auto
Configured Speed : Auto
Configured Flow Control : Enabled
MAC Address : 00-05-47-02-A6-96
Link State : Up
Link Duplex : Full
Link Speed : 10 Gb
Flow Control : Enabled
Link Aggregation Group : 50 (global, member)
Link Aggregation LACP : Active, Short, Auto
Link Aggregation Master : 19/1
Link Aggregation State : Agreed with LACP peer
Link Aggregation Actor : (8000,00-05-47-02-B1-97,001A,8000,1701)
Link Aggregation Peer : (007F,64-87-88-67-87-C0,0016,007F,0013)
Logical ifIndex : 385941505
Operational State : Up, Active
SFP Module : Present (10G Base SR)
```

```
[local]PDSN>show card diag 23
```

```
Card 23:
```

```
Counters:
In Service Date : Tue Aug 24 06:58:31 2010 (Estimated)
```

Status:

IDEEPROM Magic Number : Good
Card Diagnostics : Pass
Current Failure : None
Last Failure : None
Card Usable : Yes

Current Environment:

Temperature: Card : 48 C (limit 90 C)
Temperature: LM87 : 49 C (limit 85 C)
Temperature: PHY : 48 C (limit 90 C)
Voltage: 1.2V : 1.205 V (min 1.140 V, max 1.260 V)
Voltage: 1.2V : 1.205 V (min 1.140 V, max 1.260 V)
Voltage: 2.5V : 2.522 V (min 2.375 V, max 2.625 V)
Voltage: 3.3V : 3.285 V (min 3.135 V, max 3.465 V)
Voltage: 1.8V : 1.805 V (min 1.710 V, max 1.890 V)

NPU计数器也是好的。这是端口23/1计数器几秒钟后，并且坏的什么都不增加：

```
2015-May-15+16:47:40.410 [snmp 22002 info] [1/0/13147 <lagmgr:0>
trap_api.c:2387] [software internal system syslog] Internal trap notification
1205 (LAGGroupUp) card:19, port:1, partner:(007F,64-87-88-66-F7-C0,0016)
2015-May-15+16:47:40.410 [snmp 22002 info] [1/0/13147 <lagmgr:0>
trap_api.c:2387] [software internal system syslog] Internal trap notification
1204 (LAGGroupDown) card:19, port:1, partner:(007F,64-87-88-67-87-C0,0016)
```

```
2015-May-15+16:47:40.410 [lagmgr 179050 warning] [1/0/13147 <lagmgr:0>
lagmgr_state.c:1314] [software internal system critical-info syslog] LAG group
50 (global) with master port 19/1 has changed partner
from (007F,64-87-88-67-87-C0,0016) on 17/1, 19/1, 23/1, 27/1, 29/1
to (007F,64-87-88-66-F7-C0,0016) on 18/1, 20/1, 26/1, 28/1, 30/1
```

```
[local]PDSN> show port table | grep LA 17/1 Srvc 10G Ethernet Enabled Up Up Active None LA~ 19/1
18/1 Srvc 10G Ethernet Enabled Up Up Active None LA+ 19/1 19/1 Srvc 10G Ethernet Enabled - Up -
None LA~ 19/1 20/1 Srvc 10G Ethernet Enabled Up Up Active None LA+ 19/1 23/1 Srvc 10G Ethernet
Enabled Up Up Active None LA* 19/1
26/1 Srvc 10G Ethernet Enabled Up Up Active None LA+ 19/1
27/1 Srvc 10G Ethernet Enabled Up Up Active None LA~ 19/1
28/1 Srvc 10G Ethernet Enabled Up Up Active None LA+ 19/1
29/1 Srvc 10G Ethernet Enabled Up Up Active None LA~ 19/1
30/1 Srvc 10G Ethernet Enabled Up Up Active None LA+ 19/1
```

```
[local]PDSN> show port info 23/1
```

```
Port: 23/1
Port Type : 10G Ethernet
Role : Service Port
Description : Ingress-Egress Line Card
Controlled By Card : 7 (Packet Services Card 3)
Redundancy Mode : Port Mode
Framing Mode : Unspecified
Redundant With : Not Redundant
Preferred Port : Non-Revertive
Physical ifIndex : 385941504
Administrative State : Enabled
Configured Duplex : Auto
Configured Speed : Auto
Configured Flow Control : Enabled
MAC Address : 00-05-47-02-A6-96
Link State : Up
```

```
Link Duplex          : Full
Link Speed           : 10 Gb
Flow Control        : Enabled
Link Aggregation Group : 50 (global, member)
Link Aggregation LACP : Active, Short, Auto
Link Aggregation Master : 19/1
Link Aggregation State : Agreed with LACP peer
Link Aggregation Actor : (8000,00-05-47-02-B1-97,001A,8000,1701)
Link Aggregation Peer : (007F,64-87-88-67-87-C0,0016,007F,0013)
Logical ifIndex     : 385941505
Operational State   : Up, Active
SFP Module          : Present (10G Base SR)
```

```
[local]PDSN>show card diag 23
```

```
Card 23:
```

```
Counters:
```

```
In Service Date      : Tue Aug 24 06:58:31 2010 (Estimated)
```

```
Status:
```

```
IDEEPROM Magic Number : Good
```

```
Card Diagnostics      : Pass
```

```
Current Failure       : None
```

```
Last Failure         : None
```

```
Card Usable          : Yes
```

```
Current Environment:
```

```
Temperature: Card     : 48 C (limit 90 C)
```

```
Temperature: LM87     : 49 C (limit 85 C)
```

```
Temperature: PHY      : 48 C (limit 90 C)
```

```
Voltage: 1.2V         : 1.205 V (min 1.140 V, max 1.260 V)
```

```
Voltage: 1.2V         : 1.205 V (min 1.140 V, max 1.260 V)
```

```
Voltage: 2.5V         : 2.522 V (min 2.375 V, max 2.625 V)
```

```
Voltage: 3.3V         : 3.285 V (min 3.135 V, max 3.465 V)
```

```
Voltage: 1.8V         : 1.805 V (min 1.710 V, max 1.890 V)
```

但是在端口23/1的技术支持command命令“请显示滞后事件”显示的连续事件。这是看到报告的问题的最佳方法。

```
2015-May-15+16:47:40.410 [snmp 22002 info] [1/0/13147 <lagmgr:0>
trap_api.c:2387] [software internal system syslog] Internal trap notification
1205 (LAGGroupUp) card:19, port:1, partner:(007F,64-87-88-66-F7-C0,0016)
```

```
2015-May-15+16:47:40.410 [snmp 22002 info] [1/0/13147 <lagmgr:0>
trap_api.c:2387] [software internal system syslog] Internal trap notification
1204 (LAGGroupDown) card:19, port:1, partner:(007F,64-87-88-67-87-C0,0016)
```

```
2015-May-15+16:47:40.410 [lagmgr 179050 warning] [1/0/13147 <lagmgr:0>
lagmgr_state.c:1314] [software internal system critical-info syslog] LAG group
50 (global) with master port 19/1 has changed partner
from (007F,64-87-88-67-87-C0,0016) on 17/1, 19/1, 23/1, 27/1, 29/1
to (007F,64-87-88-66-F7-C0,0016) on 18/1, 20/1, 26/1, 28/1, 30/1
```

```
[local]PDSN> show port table | grep LA 17/1 Srvc 10G Ethernet Enabled Up Up Active None LA~ 19/1
18/1 Srvc 10G Ethernet Enabled Up Up Active None LA+ 19/1 19/1 Srvc 10G Ethernet Enabled - Up -
None LA~ 19/1 20/1 Srvc 10G Ethernet Enabled Up Up Active None LA+ 19/1 23/1 Srvc 10G Ethernet
Enabled Up Up Active None LA* 19/1
26/1 Srvc 10G Ethernet Enabled Up Up Active None LA+ 19/1
27/1 Srvc 10G Ethernet Enabled Up Up Active None LA~ 19/1
28/1 Srvc 10G Ethernet Enabled Up Up Active None LA+ 19/1
29/1 Srvc 10G Ethernet Enabled Up Up Active None LA~ 19/1
30/1 Srvc 10G Ethernet Enabled Up Up Active None LA+ 19/1
```

```
[local]PDSN> show port info 23/1
```

```
Port: 23/1
Port Type           : 10G Ethernet
Role                : Service Port
Description         : Ingress-Egress Line Card
Controlled By Card  : 7 (Packet Services Card 3)
Redundancy Mode     : Port Mode
Framing Mode        : Unspecified
Redundant With      : Not Redundant
Preferred Port      : Non-Revertive
Physical ifIndex    : 385941504
Administrative State : Enabled
Configured Duplex   : Auto
Configured Speed    : Auto
Configured Flow Control : Enabled
MAC Address         : 00-05-47-02-A6-96
Link State          : Up
Link Duplex         : Full
Link Speed          : 10 Gb
Flow Control        : Enabled
Link Aggregation Group : 50 (global, member)
Link Aggregation LACP : Active, Short, Auto
Link Aggregation Master : 19/1
Link Aggregation State : Agreed with LACP peer
Link Aggregation Actor : (8000,00-05-47-02-B1-97,001A,8000,1701)
Link Aggregation Peer : (007F,64-87-88-67-87-C0,0016,007F,0013)
Logical ifIndex     : 385941505
Operational State   : Up, Active
SFP Module          : Present (10G Base SR)
```

```
[local]PDSN>show card diag 23
```

```
Card 23:
```

```
Counters:
```

```
  In Service Date       : Tue Aug 24 06:58:31 2010 (Estimated)
```

```
Status:
```

```
  IDEEPROM Magic Number : Good
```

```
  Card Diagnostics      : Pass
```

```
  Current Failure       : None
```

```
  Last Failure          : None
```

```
  Card Usable           : Yes
```

```
Current Environment:
```

```
  Temperature: Card     : 48 C (limit 90 C)
```

```
  Temperature: LM87     : 49 C (limit 85 C)
```

```
  Temperature: PHY      : 48 C (limit 90 C)
```

```
  Voltage: 1.2V         : 1.205 V (min 1.140 V, max 1.260 V)
```

```
  Voltage: 1.2V         : 1.205 V (min 1.140 V, max 1.260 V)
```

```
  Voltage: 2.5V         : 2.522 V (min 2.375 V, max 2.625 V)
```

```
  Voltage: 3.3V         : 3.285 V (min 3.135 V, max 3.465 V)
```

```
  Voltage: 1.8V         : 1.805 V (min 1.710 V, max 1.890 V)
```

下维护窗口，思科接触了，并且PSC迁移完成放置卡映射回到默认映射(以便PSC物理的被映射对线卡在它后：7 + 16 = 23)，作为迁移执行的上一个对联系思科。

```
2015-May-15+16:47:40.410 [snmp 22002 info] [1/0/13147 <lagmgr:0>
trap_api.c:2387] [software internal system syslog] Internal trap notification
1205 (LAGGroupUp) card:19, port:1, partner:(007F,64-87-88-66-F7-C0,0016)
2015-May-15+16:47:40.410 [snmp 22002 info] [1/0/13147 <lagmgr:0>
trap_api.c:2387] [software internal system syslog] Internal trap notification
1204 (LAGGroupDown) card:19, port:1, partner:(007F,64-87-88-67-87-C0,0016)
2015-May-15+16:47:40.410 [lagmgr 179050 warning] [1/0/13147 <lagmgr:0>
```

lagmgr_state.c:1314] [software internal system critical-info syslog] LAG group
50 (global) with master port 19/1 has changed partner
from (007F,64-87-88-67-87-C0,0016) on 17/1, 19/1, 23/1, 27/1, 29/1
to (007F,64-87-88-66-F7-C0,0016) on 18/1, 20/1, 26/1, 28/1, 30/1

```
[local]PDSN> show port table | grep LA 17/1 Srvc 10G Ethernet Enabled Up Up Active None LA~ 19/1
18/1 Srvc 10G Ethernet Enabled Up Up Active None LA+ 19/1 19/1 Srvc 10G Ethernet Enabled - Up -
None LA~ 19/1 20/1 Srvc 10G Ethernet Enabled Up Up Active None LA+ 19/1 23/1 Srvc 10G Ethernet
Enabled Up Up Active None LA* 19/1
```

26/1	Srvc 10G Ethernet	Enabled	Up	Up	Active	None	LA+ 19/1
27/1	Srvc 10G Ethernet	Enabled	Up	Up	Active	None	LA~ 19/1
28/1	Srvc 10G Ethernet	Enabled	Up	Up	Active	None	LA+ 19/1
29/1	Srvc 10G Ethernet	Enabled	Up	Up	Active	None	LA~ 19/1
30/1	Srvc 10G Ethernet	Enabled	Up	Up	Active	None	LA+ 19/1

```
[local]PDSN> show port info 23/1
```

Port: 23/1

Port Type : 10G Ethernet
Role : Service Port
Description : Ingress-Egress Line Card
Controlled By Card : 7 (Packet Services Card 3)
Redundancy Mode : Port Mode
Framing Mode : Unspecified
Redundant With : Not Redundant
Preferred Port : Non-Revertive
Physical ifIndex : 385941504
Administrative State : Enabled
Configured Duplex : Auto
Configured Speed : Auto
Configured Flow Control : Enabled
MAC Address : 00-05-47-02-A6-96
Link State : Up
Link Duplex : Full
Link Speed : 10 Gb
Flow Control : Enabled
Link Aggregation Group : 50 (global, member)
Link Aggregation LACP : Active, Short, Auto
Link Aggregation Master : 19/1
Link Aggregation State : Agreed with LACP peer
Link Aggregation Actor : (8000,00-05-47-02-B1-97,001A,8000,1701)
Link Aggregation Peer : (007F,64-87-88-67-87-C0,0016,007F,0013)
Logical ifIndex : 385941505
Operational State : Up, Active
SFP Module : Present (10G Base SR)

```
[local]PDSN>show card diag 23
```

Card 23:

Counters:

In Service Date : Tue Aug 24 06:58:31 2010 (Estimated)

Status:

IDEEPROM Magic Number : Good

Card Diagnostics : Pass

Current Failure : None

Last Failure : None

Card Usable : Yes

Current Environment:

Temperature: Card : 48 C (limit 90 C)

Temperature: LM87 : 49 C (limit 85 C)

Temperature: PHY : 48 C (limit 90 C)

Voltage: 1.2V : 1.205 V (min 1.140 V, max 1.260 V)

Voltage: 1.2V : 1.205 V (min 1.140 V, max 1.260 V)

Voltage: 2.5V : 2.522 V (min 2.375 V, max 2.625 V)
Voltage: 3.3V : 3.285 V (min 3.135 V, max 3.465 V)
Voltage: 1.8V : 1.805 V (min 1.710 V, max 1.890 V)

重新启动线卡23执行：

```
2015-May-15+16:47:40.410 [snmp 22002 info] [1/0/13147 <lagmgr:0>
trap_api.c:2387] [software internal system syslog] Internal trap notification
1205 (LAGGroupUp) card:19, port:1, partner:(007F,64-87-88-66-F7-C0,0016)
2015-May-15+16:47:40.410 [snmp 22002 info] [1/0/13147 <lagmgr:0>
trap_api.c:2387] [software internal system syslog] Internal trap notification
1204 (LAGGroupDown) card:19, port:1, partner:(007F,64-87-88-67-87-C0,0016)
```

```
2015-May-15+16:47:40.410 [lagmgr 179050 warning] [1/0/13147 <lagmgr:0>
lagmgr_state.c:1314] [software internal system critical-info syslog] LAG group
50 (global) with master port 19/1 has changed partner
from (007F,64-87-88-67-87-C0,0016) on 17/1, 19/1, 23/1, 27/1, 29/1
to (007F,64-87-88-66-F7-C0,0016) on 18/1, 20/1, 26/1, 28/1, 30/1
```

```
[local]PDSN> show port table | grep LA 17/1 Srvc 10G Ethernet Enabled Up Up Active None LA~ 19/1
18/1 Srvc 10G Ethernet Enabled Up Up Active None LA+ 19/1 19/1 Srvc 10G Ethernet Enabled - Up -
None LA~ 19/1 20/1 Srvc 10G Ethernet Enabled Up Up Active None LA+ 19/1 23/1 Srvc 10G Ethernet
Enabled Up Up Active None LA* 19/1
26/1 Srvc 10G Ethernet Enabled Up Up Active None LA+ 19/1
27/1 Srvc 10G Ethernet Enabled Up Up Active None LA~ 19/1
28/1 Srvc 10G Ethernet Enabled Up Up Active None LA+ 19/1
29/1 Srvc 10G Ethernet Enabled Up Up Active None LA~ 19/1
30/1 Srvc 10G Ethernet Enabled Up Up Active None LA+ 19/1
```

```
[local]PDSN> show port info 23/1
```

```
Port: 23/1
Port Type : 10G Ethernet
Role : Service Port
Description : Ingress-Egress Line Card
Controlled By Card : 7 (Packet Services Card 3)
Redundancy Mode : Port Mode
Framing Mode : Unspecified
Redundant With : Not Redundant
Preferred Port : Non-Revertive
Physical ifIndex : 385941504
Administrative State : Enabled
Configured Duplex : Auto
Configured Speed : Auto
Configured Flow Control : Enabled
MAC Address : 00-05-47-02-A6-96
Link State : Up
Link Duplex : Full
Link Speed : 10 Gb
Flow Control : Enabled
Link Aggregation Group : 50 (global, member)
Link Aggregation LACP : Active, Short, Auto
Link Aggregation Master : 19/1
Link Aggregation State : Agreed with LACP peer
Link Aggregation Actor : (8000,00-05-47-02-B1-97,001A,8000,1701)
Link Aggregation Peer : (007F,64-87-88-67-87-C0,0016,007F,0013)
Logical ifIndex : 385941505
Operational State : Up, Active
SFP Module : Present (10G Base SR)
```

```
[local]PDSN>show card diag 23
```

Card 23:

Counters:

In Service Date : Tue Aug 24 06:58:31 2010 (Estimated)

Status:

IDEEPROM Magic Number : Good

Card Diagnostics : Pass

Current Failure : None

Last Failure : None

Card Usable : Yes

Current Environment:

Temperature: Card : 48 C (limit 90 C)

Temperature: LM87 : 49 C (limit 85 C)

Temperature: PHY : 48 C (limit 90 C)

Voltage: 1.2V : 1.205 V (min 1.140 V, max 1.260 V)

Voltage: 1.2V : 1.205 V (min 1.140 V, max 1.260 V)

Voltage: 2.5V : 2.522 V (min 2.375 V, max 2.625 V)

Voltage: 3.3V : 3.285 V (min 3.135 V, max 3.465 V)

Voltage: 1.8V : 1.805 V (min 1.710 V, max 1.890 V)

端口当前在一好状态 :

```
2015-May-15+16:47:40.410 [snmp 22002 info] [1/0/13147 <lagmgr:0>
trap_api.c:2387] [software internal system syslog] Internal trap notification
1205 (LAGGroupUp) card:19, port:1, partner:(007F,64-87-88-66-F7-C0,0016)
```

```
2015-May-15+16:47:40.410 [snmp 22002 info] [1/0/13147 <lagmgr:0>
trap_api.c:2387] [software internal system syslog] Internal trap notification
1204 (LAGGroupDown) card:19, port:1, partner:(007F,64-87-88-67-87-C0,0016)
```

```
2015-May-15+16:47:40.410 [lagmgr 179050 warning] [1/0/13147 <lagmgr:0>
lagmgr_state.c:1314] [software internal system critical-info syslog] LAG group
50 (global) with master port 19/1 has changed partner
from (007F,64-87-88-67-87-C0,0016) on 17/1, 19/1, 23/1, 27/1, 29/1
to (007F,64-87-88-66-F7-C0,0016) on 18/1, 20/1, 26/1, 28/1, 30/1
```

```
[local]PDSN> show port table | grep LA 17/1 Srvc 10G Ethernet Enabled Up Up Active None LA~ 19/1
18/1 Srvc 10G Ethernet Enabled Up Up Active None LA+ 19/1 19/1 Srvc 10G Ethernet Enabled - Up -
None LA~ 19/1 20/1 Srvc 10G Ethernet Enabled Up Up Active None LA+ 19/1 23/1 Srvc 10G Ethernet
Enabled Up Up Active None LA* 19/1
```

26/1	Srvc 10G Ethernet	Enabled	Up	Up	Active	None	LA+ 19/1
27/1	Srvc 10G Ethernet	Enabled	Up	Up	Active	None	LA~ 19/1
28/1	Srvc 10G Ethernet	Enabled	Up	Up	Active	None	LA+ 19/1
29/1	Srvc 10G Ethernet	Enabled	Up	Up	Active	None	LA~ 19/1
30/1	Srvc 10G Ethernet	Enabled	Up	Up	Active	None	LA+ 19/1

```
[local]PDSN> show port info 23/1
```

Port: 23/1

Port Type : 10G Ethernet

Role : Service Port

Description : Ingress-Egress Line Card

Controlled By Card : 7 (Packet Services Card 3)

Redundancy Mode : Port Mode

Framing Mode : Unspecified

Redundant With : Not Redundant

Preferred Port : Non-Revertive

Physical ifIndex : 385941504

Administrative State : Enabled

Configured Duplex : Auto

Configured Speed : Auto

Configured Flow Control : Enabled

MAC Address : 00-05-47-02-A6-96

```

Link State           : Up
Link Duplex          : Full
Link Speed           : 10 Gb
Flow Control         : Enabled
Link Aggregation Group : 50 (global, member)
Link Aggregation LACP : Active, Short, Auto
Link Aggregation Master : 19/1
Link Aggregation State : Agreed with LACP peer
Link Aggregation Actor : (8000,00-05-47-02-B1-97,001A,8000,1701)
Link Aggregation Peer : (007F,64-87-88-67-87-C0,0016,007F,0013)
Logical ifIndex      : 385941505
Operational State    : Up, Active
SFP Module           : Present (10G Base SR)

```

```
[local]PDSN>show card diag 23
```

```
Card 23:
```

```
Counters:
```

```
In Service Date      : Tue Aug 24 06:58:31 2010 (Estimated)
```

```
Status:
```

```
IDEEPROM Magic Number : Good
```

```
Card Diagnostics      : Pass
```

```
Current Failure       : None
```

```
Last Failure         : None
```

```
Card Usable           : Yes
```

```
Current Environment:
```

```
Temperature: Card     : 48 C (limit 90 C)
```

```
Temperature: LM87     : 49 C (limit 85 C)
```

```
Temperature: PHY      : 48 C (limit 90 C)
```

```
Voltage: 1.2V         : 1.205 V (min 1.140 V, max 1.260 V)
```

```
Voltage: 1.2V         : 1.205 V (min 1.140 V, max 1.260 V)
```

```
Voltage: 2.5V         : 2.522 V (min 2.375 V, max 2.625 V)
```

```
Voltage: 3.3V         : 3.285 V (min 3.135 V, max 3.465 V)
```

```
Voltage: 1.8V         : 1.805 V (min 1.710 V, max 1.890 V)
```

但是Juniper侧仍然有错误(没有显示的输出此处)。

问题依然是未解决在Juniper侧。

光纤然后移动从23/1到17/1，并且错误和23/1呆在一起并且搬到在Juniper侧的一个不同的端口。

```

2015-May-15+16:47:40.410 [snmp 22002 info] [1/0/13147 <lagmgr:0>
trap_api.c:2387] [software internal system syslog] Internal trap notification
1205 (LAGGroupUp) card:19, port:1, partner:(007F,64-87-88-66-F7-C0,0016)
2015-May-15+16:47:40.410 [snmp 22002 info] [1/0/13147 <lagmgr:0>
trap_api.c:2387] [software internal system syslog] Internal trap notification
1204 (LAGGroupDown) card:19, port:1, partner:(007F,64-87-88-67-87-C0,0016)

```

```

2015-May-15+16:47:40.410 [lagmgr 179050 warning] [1/0/13147 <lagmgr:0>
lagmgr_state.c:1314] [software internal system critical-info syslog] LAG group
50 (global) with master port 19/1 has changed partner
from (007F,64-87-88-67-87-C0,0016) on 17/1, 19/1, 23/1, 27/1, 29/1
to (007F,64-87-88-66-F7-C0,0016) on 18/1, 20/1, 26/1, 28/1, 30/1

```

```

[local]PDSN> show port table | grep LA 17/1 Srvc 10G Ethernet Enabled Up Up Active None LA~ 19/1
18/1 Srvc 10G Ethernet Enabled Up Up Active None LA+ 19/1 19/1 Srvc 10G Ethernet Enabled - Up -
None LA~ 19/1 20/1 Srvc 10G Ethernet Enabled Up Up Active None LA+ 19/1 23/1 Srvc 10G Ethernet
Enabled Up Up Active None LA* 19/1
26/1 Srvc 10G Ethernet Enabled Up Up Active None LA+ 19/1
27/1 Srvc 10G Ethernet Enabled Up Up Active None LA~ 19/1

```


28/1	Srvc 10G Ethernet	Enabled	Up	Up	Active	None	LA+	19/1
29/1	Srvc 10G Ethernet	Enabled	Up	Up	Active	None	LA~	19/1
30/1	Srvc 10G Ethernet	Enabled	Up	Up	Active	None	LA+	19/1

[local]PDSN> show port info 23/1

```

Port: 23/1
Port Type           : 10G Ethernet
Role                : Service Port
Description         : Ingress-Egress Line Card
Controlled By Card  : 7 (Packet Services Card 3)
Redundancy Mode     : Port Mode
Framing Mode        : Unspecified
Redundant With      : Not Redundant
Preferred Port      : Non-Revertive
Physical ifIndex    : 385941504
Administrative State : Enabled
Configured Duplex   : Auto
Configured Speed    : Auto
Configured Flow Control : Enabled
MAC Address         : 00-05-47-02-A6-96
Link State          : Up
Link Duplex         : Full
Link Speed          : 10 Gb
Flow Control        : Enabled
Link Aggregation Group : 50 (global, member)
Link Aggregation LACP : Active, Short, Auto
Link Aggregation Master : 19/1
Link Aggregation State : Agreed with LACP peer
Link Aggregation Actor : (8000,00-05-47-02-B1-97,001A,8000,1701)
Link Aggregation Peer : (007F,64-87-88-67-87-C0,0016,007F,0013)
Logical ifIndex     : 385941505
Operational State   : Up, Active
SFP Module          : Present (10G Base SR)

```

[local]PDSN>show card diag 23

```

Card 23:
Counters:
  In Service Date      : Tue Aug 24 06:58:31 2010 (Estimated)
Status:
  IDEEPROM Magic Number : Good
  Card Diagnostics      : Pass
  Current Failure       : None
  Last Failure          : None
  Card Usable           : Yes
Current Environment:
  Temperature: Card     : 48 C (limit 90 C)
  Temperature: LM87    : 49 C (limit 85 C)
  Temperature: PHY     : 48 C (limit 90 C)
  Voltage: 1.2V        : 1.205 V (min 1.140 V, max 1.260 V)
  Voltage: 1.2V        : 1.205 V (min 1.140 V, max 1.260 V)
  Voltage: 2.5V        : 2.522 V (min 2.375 V, max 2.625 V)
  Voltage: 3.3V        : 3.285 V (min 3.135 V, max 3.465 V)
  Voltage: 1.8V        : 1.805 V (min 1.710 V, max 1.890 V)

```

光纤移动回到原始位置，并且问题仍然是端口23/1 (这是全部从Juniper的方面，因为如上所述，问题在ASR 5000不再被看到在重新启动线卡以后23)。

2015-May-15+16:47:40.410 [snmp 22002 info] [1/0/13147 <lagmgr:0>
trap_api.c:2387] [software internal system syslog] Internal trap notification
1205 (**LAGGroupUp**) card:19, port:1, partner:(007F,64-87-88-66-F7-C0,0016)
2015-May-15+16:47:40.410 [snmp 22002 info] [1/0/13147 <lagmgr:0>
trap_api.c:2387] [software internal system syslog] Internal trap notification
1204 (**LAGGroupDown**) card:19, port:1, partner:(007F,64-87-88-67-87-C0,0016)

2015-May-15+16:47:40.410 [lagmgr 179050 warning] [1/0/13147 <lagmgr:0>
lagmgr_state.c:1314] [software internal system critical-info syslog] LAG group
50 (global) with master port 19/1 has changed partner
from (007F,64-87-88-67-87-C0,0016) on 17/1, 19/1, 23/1, 27/1, 29/1
to (007F,64-87-88-66-F7-C0,0016) on 18/1, 20/1, 26/1, 28/1, 30/1

```
[local]PDSN> show port table | grep LA 17/1 Srvc 10G Ethernet Enabled Up Up Active None LA~ 19/1
18/1 Srvc 10G Ethernet Enabled Up Up Active None LA+ 19/1 19/1 Srvc 10G Ethernet Enabled - Up -
None LA~ 19/1 20/1 Srvc 10G Ethernet Enabled Up Up Active None LA+ 19/1 23/1 Srvc 10G Ethernet
Enabled Up Up Active None LA* 19/1
26/1 Srvc 10G Ethernet Enabled Up Up Active None LA+ 19/1
27/1 Srvc 10G Ethernet Enabled Up Up Active None LA~ 19/1
28/1 Srvc 10G Ethernet Enabled Up Up Active None LA+ 19/1
29/1 Srvc 10G Ethernet Enabled Up Up Active None LA~ 19/1
30/1 Srvc 10G Ethernet Enabled Up Up Active None LA+ 19/1
```

[local]PDSN> show port info 23/1

```
Port: 23/1
Port Type           : 10G Ethernet
Role                : Service Port
Description         : Ingress-Egress Line Card
Controlled By Card  : 7 (Packet Services Card 3)
Redundancy Mode     : Port Mode
Framing Mode        : Unspecified
Redundant With      : Not Redundant
Preferred Port      : Non-Revertive
Physical ifIndex    : 385941504
Administrative State : Enabled
Configured Duplex   : Auto
Configured Speed    : Auto
Configured Flow Control : Enabled
MAC Address         : 00-05-47-02-A6-96
Link State          : Up
Link Duplex         : Full
Link Speed          : 10 Gb
Flow Control        : Enabled
Link Aggregation Group : 50 (global, member)
Link Aggregation LACP : Active, Short, Auto
Link Aggregation Master : 19/1
Link Aggregation State : Agreed with LACP peer
Link Aggregation Actor : (8000,00-05-47-02-B1-97,001A,8000,1701)
Link Aggregation Peer  : (007F,64-87-88-67-87-C0,0016,007F,0013)
Logical ifIndex     : 385941505
Operational State    : Up, Active
SFP Module          : Present (10G Base SR)
```

[local]PDSN>show card diag 23

```
Card 23:
Counters:
  In Service Date      : Tue Aug 24 06:58:31 2010 (Estimated)
Status:
  IDEEPROM Magic Number : Good
  Card Diagnostics      : Pass
  Current Failure       : None
```

```

Last Failure          : None
Card Usable          : Yes
Current Environment:
Temperature: Card     : 48 C (limit 90 C)
Temperature: LM87    : 49 C (limit 85 C)
Temperature: PHY     : 48 C (limit 90 C)
Voltage: 1.2V        : 1.205 V (min 1.140 V, max 1.260 V)
Voltage: 1.2V        : 1.205 V (min 1.140 V, max 1.260 V)
Voltage: 2.5V        : 2.522 V (min 2.375 V, max 2.625 V)
Voltage: 3.3V        : 3.285 V (min 3.135 V, max 3.465 V)
Voltage: 1.8V        : 1.805 V (min 1.710 V, max 1.890 V)

```

交换在23/1和17/1之间的SFP没有更改什么。

```

2015-May-15+16:47:40.410 [snmp 22002 info] [1/0/13147 <lagmgr:0>
trap_api.c:2387] [software internal system syslog] Internal trap notification
1205 (LAGGroupUp) card:19, port:1, partner:(007F,64-87-88-66-F7-C0,0016)
2015-May-15+16:47:40.410 [snmp 22002 info] [1/0/13147 <lagmgr:0>
trap_api.c:2387] [software internal system syslog] Internal trap notification
1204 (LAGGroupDown) card:19, port:1, partner:(007F,64-87-88-67-87-C0,0016)

```

```

2015-May-15+16:47:40.410 [lagmgr 179050 warning] [1/0/13147 <lagmgr:0>
lagmgr_state.c:1314] [software internal system critical-info syslog] LAG group
50 (global) with master port 19/1 has changed partner
from (007F,64-87-88-67-87-C0,0016) on 17/1, 19/1, 23/1, 27/1, 29/1
to (007F,64-87-88-66-F7-C0,0016) on 18/1, 20/1, 26/1, 28/1, 30/1

```

```

[local]PDSN> show port table | grep LA 17/1 Srvc 10G Ethernet Enabled Up Up Active None LA~ 19/1
18/1 Srvc 10G Ethernet Enabled Up Up Active None LA+ 19/1 19/1 Srvc 10G Ethernet Enabled - Up -
None LA~ 19/1 20/1 Srvc 10G Ethernet Enabled Up Up Active None LA+ 19/1 23/1 Srvc 10G Ethernet
Enabled Up Up Active None LA* 19/1
26/1 Srvc 10G Ethernet Enabled Up Up Active None LA+ 19/1
27/1 Srvc 10G Ethernet Enabled Up Up Active None LA~ 19/1
28/1 Srvc 10G Ethernet Enabled Up Up Active None LA+ 19/1
29/1 Srvc 10G Ethernet Enabled Up Up Active None LA~ 19/1
30/1 Srvc 10G Ethernet Enabled Up Up Active None LA+ 19/1

```

```
[local]PDSN> show port info 23/1
```

```

Port: 23/1
Port Type          : 10G Ethernet
Role               : Service Port
Description        : Ingress-Egress Line Card
Controlled By Card : 7 (Packet Services Card 3)
Redundancy Mode    : Port Mode
Framing Mode       : Unspecified
Redundant With     : Not Redundant
Preferred Port     : Non-Revertive
Physical ifIndex   : 385941504
Administrative State : Enabled
Configured Duplex  : Auto
Configured Speed   : Auto
Configured Flow Control : Enabled
MAC Address        : 00-05-47-02-A6-96
Link State         : Up
Link Duplex        : Full
Link Speed         : 10 Gb
Flow Control       : Enabled
Link Aggregation Group : 50 (global, member)
Link Aggregation LACP : Active, Short, Auto
Link Aggregation Master : 19/1

```

```
Link Aggregation State : Agreed with LACP peer
Link Aggregation Actor : (8000,00-05-47-02-B1-97,001A,8000,1701)
Link Aggregation Peer  : (007F,64-87-88-67-87-C0,0016,007F,0013)
Logical ifIndex        : 385941505
Operational State      : Up, Active
SFP Module             : Present (10G Base SR)
```

```
[local]PDSN>show card diag 23
```

```
Card 23:
```

```
Counters:
```

```
  In Service Date      : Tue Aug 24 06:58:31 2010 (Estimated)
```

```
Status:
```

```
  IDEEPROM Magic Number : Good
```

```
  Card Diagnostics      : Pass
```

```
  Current Failure       : None
```

```
  Last Failure          : None
```

```
  Card Usable           : Yes
```

```
Current Environment:
```

```
  Temperature: Card     : 48 C (limit 90 C)
```

```
  Temperature: LM87     : 49 C (limit 85 C)
```

```
  Temperature: PHY      : 48 C (limit 90 C)
```

```
  Voltage: 1.2V         : 1.205 V (min 1.140 V, max 1.260 V)
```

```
  Voltage: 1.2V         : 1.205 V (min 1.140 V, max 1.260 V)
```

```
  Voltage: 2.5V         : 2.522 V (min 2.375 V, max 2.625 V)
```

```
  Voltage: 3.3V         : 3.285 V (min 3.135 V, max 3.465 V)
```

```
  Voltage: 1.8V         : 1.805 V (min 1.710 V, max 1.890 V)
```

重新安装线卡23/1清除了在Juniper侧的问题。

```
2015-May-15+16:47:40.410 [snmp 22002 info] [1/0/13147 <lagmgr:0>
trap_api.c:2387] [software internal system syslog] Internal trap notification
1205 (LAGGroupUp) card:19, port:1, partner:(007F,64-87-88-66-F7-C0,0016)
2015-May-15+16:47:40.410 [snmp 22002 info] [1/0/13147 <lagmgr:0>
trap_api.c:2387] [software internal system syslog] Internal trap notification
1204 (LAGGroupDown) card:19, port:1, partner:(007F,64-87-88-67-87-C0,0016)
```

```
2015-May-15+16:47:40.410 [lagmgr 179050 warning] [1/0/13147 <lagmgr:0>
lagmgr_state.c:1314] [software internal system critical-info syslog] LAG group
50 (global) with master port 19/1 has changed partner
from (007F,64-87-88-67-87-C0,0016) on 17/1, 19/1, 23/1, 27/1, 29/1
to (007F,64-87-88-66-F7-C0,0016) on 18/1, 20/1, 26/1, 28/1, 30/1
```

```
[local]PDSN> show port table | grep LA 17/1 Srvc 10G Ethernet Enabled Up Up Active None LA~ 19/1
18/1 Srvc 10G Ethernet Enabled Up Up Active None LA+ 19/1 19/1 Srvc 10G Ethernet Enabled - Up -
None LA~ 19/1 20/1 Srvc 10G Ethernet Enabled Up Up Active None LA+ 19/1 23/1 Srvc 10G Ethernet
Enabled Up Up Active None LA* 19/1
26/1 Srvc 10G Ethernet Enabled Up Up Active None LA+ 19/1
27/1 Srvc 10G Ethernet Enabled Up Up Active None LA~ 19/1
28/1 Srvc 10G Ethernet Enabled Up Up Active None LA+ 19/1
29/1 Srvc 10G Ethernet Enabled Up Up Active None LA~ 19/1
30/1 Srvc 10G Ethernet Enabled Up Up Active None LA+ 19/1
```

```
[local]PDSN> show port info 23/1
```

```
Port: 23/1
```

```
  Port Type           : 10G Ethernet
```

```
  Role                 : Service Port
```

```
  Description         : Ingress-Egress Line Card
```

```
  Controlled By Card  : 7 (Packet Services Card 3)
```

```
  Redundancy Mode     : Port Mode
```

```
  Framing Mode        : Unspecified
```

```
Redundant With      : Not Redundant
Preferred Port      : Non-Revertive
Physical ifIndex    : 385941504
Administrative State : Enabled
Configured Duplex   : Auto
Configured Speed    : Auto
Configured Flow Control : Enabled
MAC Address         : 00-05-47-02-A6-96
Link State          : Up
Link Duplex         : Full
Link Speed          : 10 Gb
Flow Control        : Enabled
Link Aggregation Group : 50 (global, member)
Link Aggregation LACP : Active, Short, Auto
Link Aggregation Master : 19/1
Link Aggregation State : Agreed with LACP peer
Link Aggregation Actor : (8000,00-05-47-02-B1-97,001A,8000,1701)
Link Aggregation Peer : (007F,64-87-88-67-87-C0,0016,007F,0013)
Logical ifIndex     : 385941505
Operational State   : Up, Active
SFP Module          : Present (10G Base SR)
```

```
[local]PDSN>show card diag 23
```

```
Card 23:
```

```
Counters:
```

```
In Service Date      : Tue Aug 24 06:58:31 2010 (Estimated)
```

```
Status:
```

```
IDEEPROM Magic Number : Good
```

```
Card Diagnostics      : Pass
```

```
Current Failure       : None
```

```
Last Failure          : None
```

```
Card Usable           : Yes
```

```
Current Environment:
```

```
Temperature: Card     : 48 C (limit 90 C)
```

```
Temperature: LM87     : 49 C (limit 85 C)
```

```
Temperature: PHY      : 48 C (limit 90 C)
```

```
Voltage: 1.2V         : 1.205 V (min 1.140 V, max 1.260 V)
```

```
Voltage: 1.2V         : 1.205 V (min 1.140 V, max 1.260 V)
```

```
Voltage: 2.5V         : 2.522 V (min 2.375 V, max 2.625 V)
```

```
Voltage: 3.3V         : 3.285 V (min 3.135 V, max 3.465 V)
```

```
Voltage: 1.8V         : 1.805 V (min 1.710 V, max 1.890 V)
```

在Juniper路由器的无法解释的端口错误并列与XGLC波尔特27/1 (用户影响)

此下一个示例，有应用的许多同样故障排除步骤并且值得学习。它从一些未知resmgr 14537警告日志开始报告与端口一起25/1跳动，但是被转变成端口27/1问题和增加的呼叫建立故障。

```
2015-May-15+16:47:40.410 [snmp 22002 info] [1/0/13147 <lagmgr:0>
trap_api.c:2387] [software internal system syslog] Internal trap notification
1205 (LAGGroupUp) card:19, port:1, partner:(007F,64-87-88-66-F7-C0,0016)
2015-May-15+16:47:40.410 [snmp 22002 info] [1/0/13147 <lagmgr:0>
trap_api.c:2387] [software internal system syslog] Internal trap notification
1204 (LAGGroupDown) card:19, port:1, partner:(007F,64-87-88-67-87-C0,0016)
```

```
2015-May-15+16:47:40.410 [lagmgr 179050 warning] [1/0/13147 <lagmgr:0>
lagmgr_state.c:1314] [software internal system critical-info syslog] LAG group
50 (global) with master port 19/1 has changed partner
from (007F,64-87-88-67-87-C0,0016) on 17/1, 19/1, 23/1, 27/1, 29/1
to (007F,64-87-88-66-F7-C0,0016) on 18/1, 20/1, 26/1, 28/1, 30/1
```

```
[local]PDSN> show port table | grep LA 17/1 Srvc 10G Ethernet Enabled Up Up Active None LA~ 19/1
18/1 Srvc 10G Ethernet Enabled Up Up Active None LA+ 19/1 19/1 Srvc 10G Ethernet Enabled - Up -
None LA~ 19/1 20/1 Srvc 10G Ethernet Enabled Up Up Active None LA+ 19/1 23/1 Srvc 10G Ethernet
Enabled Up Up Active None LA* 19/1
26/1 Srvc 10G Ethernet Enabled Up Up Active None LA+ 19/1
27/1 Srvc 10G Ethernet Enabled Up Up Active None LA~ 19/1
28/1 Srvc 10G Ethernet Enabled Up Up Active None LA+ 19/1
29/1 Srvc 10G Ethernet Enabled Up Up Active None LA~ 19/1
30/1 Srvc 10G Ethernet Enabled Up Up Active None LA+ 19/1
```

```
[local]PDSN> show port info 23/1
```

```
Port: 23/1
Port Type          : 10G Ethernet
Role               : Service Port
Description        : Ingress-Egress Line Card
Controlled By Card : 7 (Packet Services Card 3)
Redundancy Mode    : Port Mode
Framing Mode       : Unspecified
Redundant With     : Not Redundant
Preferred Port     : Non-Revertive
Physical ifIndex   : 385941504
Administrative State : Enabled
Configured Duplex  : Auto
Configured Speed   : Auto
Configured Flow Control : Enabled
MAC Address        : 00-05-47-02-A6-96
Link State         : Up
Link Duplex        : Full
Link Speed         : 10 Gb
Flow Control       : Enabled
Link Aggregation Group : 50 (global, member)
Link Aggregation LACP : Active, Short, Auto
Link Aggregation Master : 19/1
Link Aggregation State : Agreed with LACP peer
Link Aggregation Actor : (8000,00-05-47-02-B1-97,001A,8000,1701)
Link Aggregation Peer  : (007F,64-87-88-67-87-C0,0016,007F,0013)
Logical ifIndex     : 385941505
Operational State   : Up, Active
SFP Module          : Present (10G Base SR)
```

```
[local]PDSN>show card diag 23
```

```
Card 23:
Counters:
  In Service Date      : Tue Aug 24 06:58:31 2010 (Estimated)
Status:
  IDEEPROM Magic Number : Good
  Card Diagnostics      : Pass
  Current Failure       : None
  Last Failure          : None
  Card Usable           : Yes
Current Environment:
  Temperature: Card     : 48 C (limit 90 C)
  Temperature: LM87     : 49 C (limit 85 C)
  Temperature: PHY      : 48 C (limit 90 C)
  Voltage: 1.2V         : 1.205 V (min 1.140 V, max 1.260 V)
  Voltage: 1.2V         : 1.205 V (min 1.140 V, max 1.260 V)
  Voltage: 2.5V         : 2.522 V (min 2.375 V, max 2.625 V)
  Voltage: 3.3V         : 3.285 V (min 3.135 V, max 3.465 V)
  Voltage: 1.8V         : 1.805 V (min 1.710 V, max 1.890 V)
```

端口使用率是参差不齐的在端口27/1 :

```
2015-May-15+16:47:40.410 [snmp 22002 info] [1/0/13147 <lagmgr:0>
trap_api.c:2387] [software internal system syslog] Internal trap notification
1205 (LAGGroupUp) card:19, port:1, partner:(007F,64-87-88-66-F7-C0,0016)
2015-May-15+16:47:40.410 [snmp 22002 info] [1/0/13147 <lagmgr:0>
trap_api.c:2387] [software internal system syslog] Internal trap notification
1204 (LAGGroupDown) card:19, port:1, partner:(007F,64-87-88-67-87-C0,0016)
```

```
2015-May-15+16:47:40.410 [lagmgr 179050 warning] [1/0/13147 <lagmgr:0>
lagmgr_state.c:1314] [software internal system critical-info syslog] LAG group
50 (global) with master port 19/1 has changed partner
from (007F,64-87-88-67-87-C0,0016) on 17/1, 19/1, 23/1, 27/1, 29/1
to (007F,64-87-88-66-F7-C0,0016) on 18/1, 20/1, 26/1, 28/1, 30/1
```

```
[local]PDSN> show port table | grep LA 17/1 Srvc 10G Ethernet Enabled Up Up Active None LA~ 19/1
18/1 Srvc 10G Ethernet Enabled Up Up Active None LA+ 19/1 19/1 Srvc 10G Ethernet Enabled - Up -
None LA~ 19/1 20/1 Srvc 10G Ethernet Enabled Up Up Active None LA+ 19/1 23/1 Srvc 10G Ethernet
Enabled Up Up Active None LA* 19/1
26/1 Srvc 10G Ethernet Enabled Up Up Active None LA+ 19/1
27/1 Srvc 10G Ethernet Enabled Up Up Active None LA~ 19/1
28/1 Srvc 10G Ethernet Enabled Up Up Active None LA+ 19/1
29/1 Srvc 10G Ethernet Enabled Up Up Active None LA~ 19/1
30/1 Srvc 10G Ethernet Enabled Up Up Active None LA+ 19/1
```

```
[local]PDSN> show port info 23/1
```

```
Port: 23/1
Port Type : 10G Ethernet
Role : Service Port
Description : Ingress-Egress Line Card
Controlled By Card : 7 (Packet Services Card 3)
Redundancy Mode : Port Mode
Framing Mode : Unspecified
Redundant With : Not Redundant
Preferred Port : Non-Revertive
Physical ifIndex : 385941504
Administrative State : Enabled
Configured Duplex : Auto
Configured Speed : Auto
Configured Flow Control : Enabled
MAC Address : 00-05-47-02-A6-96
Link State : Up
Link Duplex : Full
Link Speed : 10 Gb
Flow Control : Enabled
Link Aggregation Group : 50 (global, member)
Link Aggregation LACP : Active, Short, Auto
Link Aggregation Master : 19/1
Link Aggregation State : Agreed with LACP peer
Link Aggregation Actor : (8000,00-05-47-02-B1-97,001A,8000,1701)
Link Aggregation Peer : (007F,64-87-88-67-87-C0,0016,007F,0013)
Logical ifIndex : 385941505
Operational State : Up, Active
SFP Module : Present (10G Base SR)
```

```
[local]PDSN>show card diag 23
```

```
Card 23:
```

```
Counters:
```

```
In Service Date : Tue Aug 24 06:58:31 2010 (Estimated)
```

Status:

IDEEPROM Magic Number : Good
Card Diagnostics : Pass
Current Failure : None
Last Failure : None
Card Usable : Yes

Current Environment:

Temperature: Card : 48 C (limit 90 C)
Temperature: LM87 : 49 C (limit 85 C)
Temperature: PHY : 48 C (limit 90 C)
Voltage: 1.2V : 1.205 V (min 1.140 V, max 1.260 V)
Voltage: 1.2V : 1.205 V (min 1.140 V, max 1.260 V)
Voltage: 2.5V : 2.522 V (min 2.375 V, max 2.625 V)
Voltage: 3.3V : 3.285 V (min 3.135 V, max 3.465 V)
Voltage: 1.8V : 1.805 V (min 1.710 V, max 1.890 V)

在有问题的PDSN的接口的Juniper MX-960侧，输入错误不断地增加：

```
2015-May-15+16:47:40.410 [snmp 22002 info] [1/0/13147 <lagmgr:0>
trap_api.c:2387] [software internal system syslog] Internal trap notification
1205 (LAGGroupUp) card:19, port:1, partner:(007F,64-87-88-66-F7-C0,0016)
2015-May-15+16:47:40.410 [snmp 22002 info] [1/0/13147 <lagmgr:0>
trap_api.c:2387] [software internal system syslog] Internal trap notification
1204 (LAGGroupDown) card:19, port:1, partner:(007F,64-87-88-67-87-C0,0016)
```

```
2015-May-15+16:47:40.410 [lagmgr 179050 warning] [1/0/13147 <lagmgr:0>
lagmgr_state.c:1314] [software internal system critical-info syslog] LAG group
50 (global) with master port 19/1 has changed partner
from (007F,64-87-88-67-87-C0,0016) on 17/1, 19/1, 23/1, 27/1, 29/1
to (007F,64-87-88-66-F7-C0,0016) on 18/1, 20/1, 26/1, 28/1, 30/1
```

```
[local]PDSN> show port table | grep LA 17/1 Srvc 10G Ethernet Enabled Up Up Active None LA~ 19/1
18/1 Srvc 10G Ethernet Enabled Up Up Active None LA+ 19/1 19/1 Srvc 10G Ethernet Enabled - Up -
None LA~ 19/1 20/1 Srvc 10G Ethernet Enabled Up Up Active None LA+ 19/1 23/1 Srvc 10G Ethernet
Enabled Up Up Active None LA* 19/1
26/1 Srvc 10G Ethernet Enabled Up Up Active None LA+ 19/1
27/1 Srvc 10G Ethernet Enabled Up Up Active None LA~ 19/1
28/1 Srvc 10G Ethernet Enabled Up Up Active None LA+ 19/1
29/1 Srvc 10G Ethernet Enabled Up Up Active None LA~ 19/1
30/1 Srvc 10G Ethernet Enabled Up Up Active None LA+ 19/1
```

```
[local]PDSN> show port info 23/1
```

```
Port: 23/1
Port Type : 10G Ethernet
Role : Service Port
Description : Ingress-Egress Line Card
Controlled By Card : 7 (Packet Services Card 3)
Redundancy Mode : Port Mode
Framing Mode : Unspecified
Redundant With : Not Redundant
Preferred Port : Non-Revertive
Physical ifIndex : 385941504
Administrative State : Enabled
Configured Duplex : Auto
Configured Speed : Auto
Configured Flow Control : Enabled
MAC Address : 00-05-47-02-A6-96
Link State : Up
Link Duplex : Full
Link Speed : 10 Gb
Flow Control : Enabled
```



```

Link Aggregation Group : 50 (global, member)
Link Aggregation LACP : Active, Short, Auto
Link Aggregation Master : 19/1
Link Aggregation State : Agreed with LACP peer
Link Aggregation Actor : (8000,00-05-47-02-B1-97,001A,8000,1701)
Link Aggregation Peer : (007F,64-87-88-67-87-C0,0016,007F,0013)
Logical ifIndex : 385941505
Operational State : Up, Active
SFP Module : Present (10G Base SR)

```

```
[local]PDSN>show card diag 23
```

```
Card 23:
```

```
Counters:
```

```
In Service Date : Tue Aug 24 06:58:31 2010 (Estimated)
```

```
Status:
```

```
IDEEPROM Magic Number : Good
```

```
Card Diagnostics : Pass
```

```
Current Failure : None
```

```
Last Failure : None
```

```
Card Usable : Yes
```

```
Current Environment:
```

```
Temperature: Card : 48 C (limit 90 C)
```

```
Temperature: LM87 : 49 C (limit 85 C)
```

```
Temperature: PHY : 48 C (limit 90 C)
```

```
Voltage: 1.2V : 1.205 V (min 1.140 V, max 1.260 V)
```

```
Voltage: 1.2V : 1.205 V (min 1.140 V, max 1.260 V)
```

```
Voltage: 2.5V : 2.522 V (min 2.375 V, max 2.625 V)
```

```
Voltage: 3.3V : 3.285 V (min 3.135 V, max 3.465 V)
```

```
Voltage: 1.8V : 1.805 V (min 1.710 V, max 1.890 V)
```

清洗了PDSN的端口结果，并且有滞后切换，并且端口不平衡状态是离开在重新激活的(偶数)端口与在Juniper旁边终止的错误一起。Previously与Mobile IP呼叫建立涉及的被看到的CHAP和LCP错误也终止了。

```

2015-May-15+16:47:40.410 [snmp 22002 info] [1/0/13147 <lagmgr:0>
trap_api.c:2387] [software internal system syslog] Internal trap notification
1205 (LAGGroupUp) card:19, port:1, partner:(007F,64-87-88-66-F7-C0,0016)

```

```

2015-May-15+16:47:40.410 [snmp 22002 info] [1/0/13147 <lagmgr:0>
trap_api.c:2387] [software internal system syslog] Internal trap notification
1204 (LAGGroupDown) card:19, port:1, partner:(007F,64-87-88-67-87-C0,0016)

```

```

2015-May-15+16:47:40.410 [lagmgr 179050 warning] [1/0/13147 <lagmgr:0>
lagmgr_state.c:1314] [software internal system critical-info syslog] LAG group
50 (global) with master port 19/1 has changed partner
from (007F,64-87-88-67-87-C0,0016) on 17/1, 19/1, 23/1, 27/1, 29/1
to (007F,64-87-88-66-F7-C0,0016) on 18/1, 20/1, 26/1, 28/1, 30/1

```

```

[local]PDSN> show port table | grep LA 17/1 Srvc 10G Ethernet Enabled Up Up Active None LA~ 19/1
18/1 Srvc 10G Ethernet Enabled Up Up Active None LA+ 19/1 19/1 Srvc 10G Ethernet Enabled - Up -
None LA~ 19/1 20/1 Srvc 10G Ethernet Enabled Up Up Active None LA+ 19/1 23/1 Srvc 10G Ethernet
Enabled Up Up Active None LA* 19/1
26/1 Srvc 10G Ethernet Enabled Up Up Active None LA+ 19/1
27/1 Srvc 10G Ethernet Enabled Up Up Active None LA~ 19/1
28/1 Srvc 10G Ethernet Enabled Up Up Active None LA+ 19/1
29/1 Srvc 10G Ethernet Enabled Up Up Active None LA~ 19/1
30/1 Srvc 10G Ethernet Enabled Up Up Active None LA+ 19/1

```

```
[local]PDSN> show port info 23/1
```

```
Port: 23/1
```

```
Port Type : 10G Ethernet
```

```
Role : Service Port
Description : Ingress-Egress Line Card
Controlled By Card : 7 (Packet Services Card 3)
Redundancy Mode : Port Mode
Framing Mode : Unspecified
Redundant With : Not Redundant
Preferred Port : Non-Revertive
Physical ifIndex : 385941504
Administrative State : Enabled
Configured Duplex : Auto
Configured Speed : Auto
Configured Flow Control : Enabled
MAC Address : 00-05-47-02-A6-96
Link State : Up
Link Duplex : Full
Link Speed : 10 Gb
Flow Control : Enabled
Link Aggregation Group : 50 (global, member)
Link Aggregation LACP : Active, Short, Auto
Link Aggregation Master : 19/1
Link Aggregation State : Agreed with LACP peer
Link Aggregation Actor : (8000,00-05-47-02-B1-97,001A,8000,1701)
Link Aggregation Peer : (007F,64-87-88-67-87-C0,0016,007F,0013)
Logical ifIndex : 385941505
Operational State : Up, Active
SFP Module : Present (10G Base SR)
```

```
[local]PDSN>show card diag 23
```

```
Card 23:
```

```
Counters:
```

```
In Service Date : Tue Aug 24 06:58:31 2010 (Estimated)
```

```
Status:
```

```
IDEEPROM Magic Number : Good
```

```
Card Diagnostics : Pass
```

```
Current Failure : None
```

```
Last Failure : None
```

```
Card Usable : Yes
```

```
Current Environment:
```

```
Temperature: Card : 48 C (limit 90 C)
```

```
Temperature: LM87 : 49 C (limit 85 C)
```

```
Temperature: PHY : 48 C (limit 90 C)
```

```
Voltage: 1.2V : 1.205 V (min 1.140 V, max 1.260 V)
```

```
Voltage: 1.2V : 1.205 V (min 1.140 V, max 1.260 V)
```

```
Voltage: 2.5V : 2.522 V (min 2.375 V, max 2.625 V)
```

```
Voltage: 3.3V : 3.285 V (min 3.135 V, max 3.465 V)
```

```
Voltage: 1.8V : 1.805 V (min 1.710 V, max 1.890 V)
```

Juniper SFP (JuniperPDSN0/1/227/1) 27

```
show interfaces xe-0/1/2 extensive | grep Error
```

```
BPDU Error: None, MAC-REWRITE Error: None, Loopback: None,
```

```
Input errors:
```

```
Errors: 2898, Drops: 0, Framing errors: 114, Runts: 0, Policed discards: 0,
```

```
L3 incompletes: 2784, L2 channel errors: 0, L2 mismatch timeouts: 0,
```

```
FIFO errors: 0, Resource errors: 0
```

SFPPDSN XCLC 27 JuniperASR27IPv4/IPv6

在一最新维护窗口上，光纤被交换了在端口23和27之间：

show interfaces xe-0/1/2 extensive | grep Error

BPDU Error: None, MAC-REWRITE Error: None, Loopback: None,

Input errors:

Errors: 2898, Drops: 0, Framing errors: 114, Runts: 0, Policed discards: 0,
L3 incompletes: 2784, L2 channel errors: 0, L2 mismatch timeouts: 0,
FIFO errors: 0, Resource errors: 0

27

Mon May 11 05:37:20 2015 Internal trap notification 1204 (LAGGroupDown) card:19,
port:1, partner:(007F,2C-21-72-5E-57-C0,0016) Mon May 11 05:37:20 2015 Internal trap
notification 1205 (LAGGroupUp) card:19,
port:1, partner:(007F,2C-21-72-1A-B7-C0,0016) [local]NWBLWICZPN2 DO-PDSN> show port utilization
table

Monday May 11 05:40:06 UTC 2015

----- Average Port Utilization (in mbps) -----

Port Type Current 5min 15min

Rx Txx Rx Tx Rx Tx

Port	Type	Current	5min	15min
19/1	10G Ethernet	357	386	137 138 45 46
20/1	10G Ethernet	0	0	178 168 314 301
23/1	10G Ethernet	346	349	173 185 57 61
26/1	10G Ethernet	0	0	197 189 324 316
27/1	10G Ethernet	404	1921	147 701 49 233
28/1	10G Ethernet		0	0 207 226 299 318

Mon May 11 05:40:42 2015 Internal trap notification 39 (AAAASvrUnreachable)
server 1 ip address 209.165.200.225 Mon May 11 05:41:05 2015 Internal trap notification 40
(AAAASvrReachable)
server 1 ip address 209.165.200.225 Mon May 11 05:41:42 2015 Internal trap notification 39
(AAAASvrUnreachable)
server 1 ip address 209.165.200.225 Mon May 11 05:42:05 2015 Internal trap notification 40
(AAAASvrReachable)
server 1 ip address 209.165.200.225 Mon May 11 05:49:42 2015 Internal trap notification 39
(AAAASvrUnreachable)
server 1 ip address 209.165.200.225 Mon May 11 05:50:04 2015 Internal trap notification 40
(AAAASvrReachable)
server 1 ip address 209.165.200.225 Mon May 11 05:52:42 2015 Internal trap notification 39
(AAAASvrUnreachable)
server 1 ip address 209.165.200.225 Mon May 11 05:53:05 2015 Internal trap notification 40
(AAAASvrReachable)
server 1 ip address 209.165.200.225 Mon May 11 05:54:29 2015 Internal trap notification 1204
(LAGGroupDown) card:19,

port:1, partner:(007F,2C-21-72-1A-B7-C0,0016) Mon May 11 05:54:29 2015 Internal trap
notification 1205 (LAGGroupUp) card:19,
port:1, partner:(007F,2C-21-72-5E-57-C0,0016)

Mon May 11 05:37:20 2015 Internal trap notification 1204 (LAGGroupDown) card:19,
port:1, partner:(007F,2C-21-72-5E-57-C0,0016) Mon May 11 05:37:20 2015 Internal trap
notification 1205 (LAGGroupUp) card:19,
port:1, partner:(007F,2C-21-72-1A-B7-C0,0016) [local]NWBLWICZPN2 DO-PDSN> show port utilization
table

Monday May 11 05:40:06 UTC 2015

----- Average Port Utilization (in mbps) -----

```

Port Type Current 5min 15min
Rx Txx Rx Tx Rx Tx
-----
19/1 10G Ethernet 357 386 137 138 45 46
20/1 10G Ethernet 0 0 178 168 314 301
23/1 10G Ethernet 346 349 173 185 57 61
26/1 10G Ethernet 0 0 197 189 324 316
27/1 10G Ethernet 404 1921 147 701 49 233
28/1 10G Ethernet 0 0 207 226 299 318

```

```

Mon May 11 05:40:42 2015 Internal trap notification 39 (AAAAuthSvrUnreachable)
server 1 ip address 209.165.200.225 Mon May 11 05:41:05 2015 Internal trap notification 40
(AAAAAuthSvrReachable)
server 1 ip address 209.165.200.225 Mon May 11 05:41:42 2015 Internal trap notification 39
(AAAAAuthSvrUnreachable)
server 1 ip address 209.165.200.225 Mon May 11 05:42:05 2015 Internal trap notification 40
(AAAAAuthSvrReachable)
server 1 ip address 209.165.200.225 Mon May 11 05:49:42 2015 Internal trap notification 39
(AAAAAuthSvrUnreachable)
server 1 ip address 209.165.200.225 Mon May 11 05:50:04 2015 Internal trap notification 40
(AAAAAuthSvrReachable)
server 1 ip address 209.165.200.225 Mon May 11 05:52:42 2015 Internal trap notification 39
(AAAAAuthSvrUnreachable)
server 1 ip address 209.165.200.225 Mon May 11 05:53:05 2015 Internal trap notification 40
(AAAAAuthSvrReachable)
server 1 ip address 209.165.200.225 Mon May 11 05:54:29 2015 Internal trap notification 1204
(LAGGroupDown) card:19,
port:1, partner:(007F,2C-21-72-1A-B7-C0,0016) Mon May 11 05:54:29 2015 Internal trap
notification 1205 (LAGGroupUp) card:19,
port:1, partner:(007F,2C-21-72-5E-57-C0,0016)

```

XCLC 27

```

Mon May 11 05:37:20 2015 Internal trap notification 1204 (LAGGroupDown) card:19,
port:1, partner:(007F,2C-21-72-5E-57-C0,0016) Mon May 11 05:37:20 2015 Internal trap
notification 1205 (LAGGroupUp) card:19,
port:1, partner:(007F,2C-21-72-1A-B7-C0,0016) [local]NWBLWICZPN2 DO-PDSN> show port utilization
table

```

```

Monday May 11 05:40:06 UTC 2015
----- Average Port Utilization (in mbps) -----
Port Type Current 5min 15min
Rx Txx Rx Tx Rx Tx
-----
19/1 10G Ethernet 357 386 137 138 45 46
20/1 10G Ethernet 0 0 178 168 314 301
23/1 10G Ethernet 346 349 173 185 57 61
26/1 10G Ethernet 0 0 197 189 324 316
27/1 10G Ethernet 404 1921 147 701 49 233
28/1 10G Ethernet 0 0 207 226 299 318

```

```

Mon May 11 05:40:42 2015 Internal trap notification 39 (AAAAuthSvrUnreachable)
server 1 ip address 209.165.200.225 Mon May 11 05:41:05 2015 Internal trap notification 40
(AAAAAuthSvrReachable)
server 1 ip address 209.165.200.225 Mon May 11 05:41:42 2015 Internal trap notification 39
(AAAAAuthSvrUnreachable)
server 1 ip address 209.165.200.225 Mon May 11 05:42:05 2015 Internal trap notification 40
(AAAAAuthSvrReachable)
server 1 ip address 209.165.200.225 Mon May 11 05:49:42 2015 Internal trap notification 39
(AAAAAuthSvrUnreachable)
server 1 ip address 209.165.200.225 Mon May 11 05:50:04 2015 Internal trap notification 40

```

```
(AAAAuthSvrReachable)
server 1 ip address 209.165.200.225 Mon May 11 05:52:42 2015 Internal trap notification 39
(AAAAAuthSvrUnreachable)
server 1 ip address 209.165.200.225 Mon May 11 05:53:05 2015 Internal trap notification 40
(AAAAAuthSvrReachable)
server 1 ip address 209.165.200.225 Mon May 11 05:54:29 2015 Internal trap notification 1204
(LAGGroupDown) card:19,

port:1, partner:(007F,2C-21-72-1A-B7-C0,0016) Mon May 11 05:54:29 2015 Internal trap
notification 1205 (LAGGroupUp) card:19,
port:1, partner:(007F,2C-21-72-5E-57-C0,0016)
```

```
Mon May 11 05:37:20 2015 Internal trap notification 1204 (LAGGroupDown) card:19,
port:1, partner:(007F,2C-21-72-5E-57-C0,0016) Mon May 11 05:37:20 2015 Internal trap
notification 1205 (LAGGroupUp) card:19,
port:1, partner:(007F,2C-21-72-1A-B7-C0,0016) [local]NWBLWICZPN2 DO-PDSN> show port utilization
table
```

```
Monday May 11 05:40:06 UTC 2015
----- Average Port Utilization (in mbps) -----
Port Type Current 5min 15min
Rx Txx Rx Tx Rx Tx
-----
```

Port	Type	Current	5min	15min
19/1	10G Ethernet	357	386	137 138 45 46
20/1	10G Ethernet	0	0	178 168 314 301
23/1	10G Ethernet	346	349	173 185 57 61
26/1	10G Ethernet	0	0	197 189 324 316
27/1	10G Ethernet	404	1921	147 701 49 233
28/1	10G Ethernet			0 0 207 226 299 318

```
Mon May 11 05:40:42 2015 Internal trap notification 39 (AAAAuthSvrUnreachable)
server 1 ip address 209.165.200.225 Mon May 11 05:41:05 2015 Internal trap notification 40
(AAAAAuthSvrReachable)
server 1 ip address 209.165.200.225 Mon May 11 05:41:42 2015 Internal trap notification 39
(AAAAAuthSvrUnreachable)
server 1 ip address 209.165.200.225 Mon May 11 05:42:05 2015 Internal trap notification 40
(AAAAAuthSvrReachable)
server 1 ip address 209.165.200.225 Mon May 11 05:49:42 2015 Internal trap notification 39
(AAAAAuthSvrUnreachable)
server 1 ip address 209.165.200.225 Mon May 11 05:50:04 2015 Internal trap notification 40
(AAAAAuthSvrReachable)
server 1 ip address 209.165.200.225 Mon May 11 05:52:42 2015 Internal trap notification 39
(AAAAAuthSvrUnreachable)
server 1 ip address 209.165.200.225 Mon May 11 05:53:05 2015 Internal trap notification 40
(AAAAAuthSvrReachable)
server 1 ip address 209.165.200.225 Mon May 11 05:54:29 2015 Internal trap notification 1204
(LAGGroupDown) card:19,

port:1, partner:(007F,2C-21-72-1A-B7-C0,0016) Mon May 11 05:54:29 2015 Internal trap
notification 1205 (LAGGroupUp) card:19,
port:1, partner:(007F,2C-21-72-5E-57-C0,0016)
```

PSC 11PSC(27)16()

```
Mon May 11 05:37:20 2015 Internal trap notification 1204 (LAGGroupDown) card:19,
port:1, partner:(007F,2C-21-72-5E-57-C0,0016) Mon May 11 05:37:20 2015 Internal trap
```

```

notification 1205 (LAGGroupUp) card:19,
port:1, partner:(007F,2C-21-72-1A-B7-C0,0016) [local]NWBLWICZPN2 DO-PDSN> show port utilization
table
Monday May 11 05:40:06 UTC 2015
----- Average Port Utilization (in mbps) -----
Port Type Current 5min 15min
Rx Txx Rx Tx Rx Tx
-----
19/1 10G Ethernet 357 386 137 138 45 46
20/1 10G Ethernet 0 0 178 168 314 301
23/1 10G Ethernet 346 349 173 185 57 61
26/1 10G Ethernet 0 0 197 189 324 316
27/1 10G Ethernet 404 1921 147 701 49 233
28/1 10G Ethernet 0 0 207 226 299 318

Mon May 11 05:40:42 2015 Internal trap notification 39 (AAAASvrUnreachable)
server 1 ip address 209.165.200.225 Mon May 11 05:41:05 2015 Internal trap notification 40
(AAAAAuthSvrReachable)
server 1 ip address 209.165.200.225 Mon May 11 05:41:42 2015 Internal trap notification 39
(AAAAAuthSvrUnreachable)
server 1 ip address 209.165.200.225 Mon May 11 05:42:05 2015 Internal trap notification 40
(AAAAAuthSvrReachable)
server 1 ip address 209.165.200.225 Mon May 11 05:49:42 2015 Internal trap notification 39
(AAAAAuthSvrUnreachable)
server 1 ip address 209.165.200.225 Mon May 11 05:50:04 2015 Internal trap notification 40
(AAAAAuthSvrReachable)
server 1 ip address 209.165.200.225 Mon May 11 05:52:42 2015 Internal trap notification 39
(AAAAAuthSvrUnreachable)
server 1 ip address 209.165.200.225 Mon May 11 05:53:05 2015 Internal trap notification 40
(AAAAAuthSvrReachable)
server 1 ip address 209.165.200.225 Mon May 11 05:54:29 2015 Internal trap notification 1204
(LAGGroupDown) card:19,

port:1, partner:(007F,2C-21-72-1A-B7-C0,0016) Mon May 11 05:54:29 2015 Internal trap
notification 1205 (LAGGroupUp) card:19,
port:1, partner:(007F,2C-21-72-5E-57-C0,0016)

```

PSC 11()

```

Mon May 11 05:37:20 2015 Internal trap notification 1204 (LAGGroupDown) card:19,
port:1, partner:(007F,2C-21-72-5E-57-C0,0016) Mon May 11 05:37:20 2015 Internal trap
notification 1205 (LAGGroupUp) card:19,
port:1, partner:(007F,2C-21-72-1A-B7-C0,0016) [local]NWBLWICZPN2 DO-PDSN> show port utilization
table
Monday May 11 05:40:06 UTC 2015
----- Average Port Utilization (in mbps) -----
Port Type Current 5min 15min
Rx Txx Rx Tx Rx Tx
-----
19/1 10G Ethernet 357 386 137 138 45 46
20/1 10G Ethernet 0 0 178 168 314 301
23/1 10G Ethernet 346 349 173 185 57 61
26/1 10G Ethernet 0 0 197 189 324 316
27/1 10G Ethernet 404 1921 147 701 49 233
28/1 10G Ethernet 0 0 207 226 299 318

Mon May 11 05:40:42 2015 Internal trap notification 39 (AAAASvrUnreachable)
server 1 ip address 209.165.200.225 Mon May 11 05:41:05 2015 Internal trap notification 40
(AAAAAuthSvrReachable)
server 1 ip address 209.165.200.225 Mon May 11 05:41:42 2015 Internal trap notification 39
(AAAAAuthSvrUnreachable)

```

```

server 1 ip address 209.165.200.225 Mon May 11 05:42:05 2015 Internal trap notification 40
(AAAAuthSvrReachable)
server 1 ip address 209.165.200.225 Mon May 11 05:49:42 2015 Internal trap notification 39
(AAAAuthSvrUnreachable)
server 1 ip address 209.165.200.225 Mon May 11 05:50:04 2015 Internal trap notification 40
(AAAAuthSvrReachable)
server 1 ip address 209.165.200.225 Mon May 11 05:52:42 2015 Internal trap notification 39
(AAAAuthSvrUnreachable)
server 1 ip address 209.165.200.225 Mon May 11 05:53:05 2015 Internal trap notification 40
(AAAAuthSvrReachable)
server 1 ip address 209.165.200.225 Mon May 11 05:54:29 2015 Internal trap notification 1204
(LAGGroupDown) card:19,

port:1, partner:(007F,2C-21-72-1A-B7-C0,0016) Mon May 11 05:54:29 2015 Internal trap
notification 1205 (LAGGroupUp) card:19,
port:1, partner:(007F,2C-21-72-5E-57-C0,0016)

```

PSC 11PSC 11XGLC 27

```

Mon May 11 05:37:20 2015 Internal trap notification 1204 (LAGGroupDown) card:19,
port:1, partner:(007F,2C-21-72-5E-57-C0,0016) Mon May 11 05:37:20 2015 Internal trap
notification 1205 (LAGGroupUp) card:19,
port:1, partner:(007F,2C-21-72-1A-B7-C0,0016) [local]NWBLWICZPN2 DO-PDSN> show port utilization
table

```

```

Monday May 11 05:40:06 UTC 2015
----- Average Port Utilization (in mbps) -----
Port Type Current 5min 15min
Rx Txx Rx Tx Rx Tx
-----
19/1 10G Ethernet 357 386 137 138 45 46
20/1 10G Ethernet 0 0 178 168 314 301
23/1 10G Ethernet 346 349 173 185 57 61
26/1 10G Ethernet 0 0 197 189 324 316
27/1 10G Ethernet 404 1921 147 701 49 233
28/1 10G Ethernet 0 0 207 226 299 318

```

```

Mon May 11 05:40:42 2015 Internal trap notification 39 (AAAuthSvrUnreachable)
server 1 ip address 209.165.200.225 Mon May 11 05:41:05 2015 Internal trap notification 40
(AAAAuthSvrReachable)
server 1 ip address 209.165.200.225 Mon May 11 05:41:42 2015 Internal trap notification 39
(AAAAuthSvrUnreachable)
server 1 ip address 209.165.200.225 Mon May 11 05:42:05 2015 Internal trap notification 40
(AAAAuthSvrReachable)
server 1 ip address 209.165.200.225 Mon May 11 05:49:42 2015 Internal trap notification 39
(AAAAuthSvrUnreachable)
server 1 ip address 209.165.200.225 Mon May 11 05:50:04 2015 Internal trap notification 40
(AAAAuthSvrReachable)
server 1 ip address 209.165.200.225 Mon May 11 05:52:42 2015 Internal trap notification 39
(AAAAuthSvrUnreachable)
server 1 ip address 209.165.200.225 Mon May 11 05:53:05 2015 Internal trap notification 40
(AAAAuthSvrReachable)
server 1 ip address 209.165.200.225 Mon May 11 05:54:29 2015 Internal trap notification 1204
(LAGGroupDown) card:19,

port:1, partner:(007F,2C-21-72-1A-B7-C0,0016) Mon May 11 05:54:29 2015 Internal trap
notification 1205 (LAGGroupUp) card:19,
port:1, partner:(007F,2C-21-72-5E-57-C0,0016)

```

PSC 16RMA

```

Mon May 11 06:56:07 2015 Internal trap notification 1256 (MigrateStart) from
card 11 to card 16 Mon May 11 06:56:43 2015 Internal trap notification 1024 (PortDown) card 27
port
1 port type 10G Ethernet Mon May 11 06:56:43 2015 Internal trap notification 55 (CardActive)
card 27 type
10 Gig Ethernet Line Card Mon May 11 06:56:44 2015 Internal trap notification 55 (CardActive)
card 16 type
Packet Services Card 3 Mon May 11 06:56:44 2015 Internal trap notification 55 (CardActive) card
40 type
Redundancy Crossbar Card Mon May 11 06:56:44 2015 Internal trap notification 55 (CardActive)
card 41 type
Redundancy Crossbar Card Mon May 11 06:56:44 2015 Internal trap notification 60 (CardDown) card
11 type
Packet Services Card 3 Mon May 11 06:56:44 2015 Internal trap notification 1257
(MigrateComplete) from
card 11 to card 16 Mon May 11 06:56:44 2015 Internal trap notification 1025 (PortUp) card 27
port 1
port type 10G Ethernet Mon May 11 06:57:58 2015 Internal trap notification 5 (CardUp) card 11
type
Packet Services Card 3 [local]PDSN> show rct stats Monday May 11 07:08:26 UTC 2015 RCT stats
Details (Last 4 Actions) Action Type From To Start Time Duration -----
-----
Migration Planned 11 16 2015-May-11+06:26:04.373 36.453 sec Shutdown N/A 11 0 2015-May-
11+06:39:48.153 0.223 sec Migration Planned 16 11 2015-May-11+06:51:55.785 41.630 sec Migration
Planned 11 16 2015-May-11+06:56:08.452 35.037 sec RCT stats Summary ----- Migrations
= 3, Average time = 37.707 sec Switchovers = 0 [local]PDSN> show card mappings Monday May 11
07:10:22 UTC 2015 Slot Mapping Slot -----
-----
17 None - 18 None - 19 10 Gig Ethernet Line Card <-- direct --> 3 Packet
Services Card 3 20 10 Gig Ethernet Line Card <-- direct --> 4 Packet Services Card 3 21 1000
Ethernet Line Card <-- direct --> 5 Packet Services Card 3 22 None - 23 10 Gig Ethernet Line
Card <-- direct --> 7 Packet Services Card 3 24 Switch Processor I/O Card <-----> 8
System Management Card 25 Switch Processor I/O Card <-----> 8 System Management Card 26
10 Gig Ethernet Line Card <-- direct --> 10 Packet Services Card 3 27 10 Gig Ethernet Line Card
<--- RCCs ---> 16 Packet Services Card 3
28 10 Gig Ethernet Line Card <-- direct --> 12 Packet Services Card 3

```

RMA

```

Mon May 11 06:56:07 2015 Internal trap notification 1256 (MigrateStart) from
card 11 to card 16 Mon May 11 06:56:43 2015 Internal trap notification 1024 (PortDown) card 27
port
1 port type 10G Ethernet Mon May 11 06:56:43 2015 Internal trap notification 55 (CardActive)
card 27 type
10 Gig Ethernet Line Card Mon May 11 06:56:44 2015 Internal trap notification 55 (CardActive)
card 16 type
Packet Services Card 3 Mon May 11 06:56:44 2015 Internal trap notification 55 (CardActive) card
40 type
Redundancy Crossbar Card Mon May 11 06:56:44 2015 Internal trap notification 55 (CardActive)
card 41 type
Redundancy Crossbar Card Mon May 11 06:56:44 2015 Internal trap notification 60 (CardDown) card
11 type
Packet Services Card 3 Mon May 11 06:56:44 2015 Internal trap notification 1257
(MigrateComplete) from
card 11 to card 16 Mon May 11 06:56:44 2015 Internal trap notification 1025 (PortUp) card 27
port 1
port type 10G Ethernet Mon May 11 06:57:58 2015 Internal trap notification 5 (CardUp) card 11
type
Packet Services Card 3 [local]PDSN> show rct stats Monday May 11 07:08:26 UTC 2015 RCT stats

```



```

Details (Last 4 Actions) Action Type From To Start Time Duration -----
-----
Migration Planned 11 16 2015-May-11+06:26:04.373 36.453 sec Shutdown N/A 11 0 2015-May-
11+06:39:48.153 0.223 sec Migration Planned 16 11 2015-May-11+06:51:55.785 41.630 sec Migration
Planned 11 16 2015-May-11+06:56:08.452 35.037 sec RCT stats Summary ----- Migrations
= 3, Average time = 37.707 sec Switchovers = 0 [local]PDSN> show card mappings Monday May 11
07:10:22 UTC 2015 Slot Mapping Slot -----
----- 17 None - 18 None - 19 10 Gig Ethernet Line Card <-- direct --> 3 Packet
Services Card 3 20 10 Gig Ethernet Line Card <-- direct --> 4 Packet Services Card 3 21 1000
Ethernet Line Card <-- direct --> 5 Packet Services Card 3 22 None - 23 10 Gig Ethernet Line
Card <-- direct --> 7 Packet Services Card 3 24 Switch Processor I/O Card <-----> 8
System Management Card 25 Switch Processor I/O Card <-----> 8 System Management Card 26
10 Gig Ethernet Line Card <-- direct --> 10 Packet Services Card 3 27 10 Gig Ethernet Line Card
<--- RCCs ---> 16 Packet Services Card 3
28 10 Gig Ethernet Line Card <-- direct --> 12 Packet Services Card 3

```

它RMA

滞后切换失败停留由于失败XGLC

多一个滞后的切换对均等端口(19, 23, 27 => 20, 26, 28)在一分钟内不会拿着和交换上一步。那能暗示与一个或很多的一问题滞后的端口能维护连接。注释在端口使用率的降低, 但是数据集被限制由于均等端口将坚持活动的短时间:

```

[XGWout]XGW# show port util table
Thursday April 26 07:17:31 UTC 2012

```

Port	Type	Average Port Utilization (in mbps)					
		Current		5min		15min	
		Rx	Tx	Rx	Tx	Rx	Tx
19/1	10G Ethernet	895	907	906	931	939	983
20/1	10G Ethernet	0	0	20	14	6	4
21/1	1000 Ethernet	0	0	0	3	0	3
22/1	1000 Ethernet	3	46	3	46	3	47
23/1	10G Ethernet	948	946	883	917	918	956
26/1	10G Ethernet	0	0	16	11	5	3
27/1	10G Ethernet	949	950	989	934	1029	955
28/1	10G Ethernet	0	0	4	14	1	4

```

[XGWout]XGW# link-aggregation port switch to 20/1
Thursday April 26 07:20:20 UTC 2012
Are you sure? [Yes|No]: yes
Thursday April 26 07:20:22 UTC 2012

```

```

2012-Apr-26+07:20:22.826 [lagmgr 179050 warning] [1/0/2337 <lagmgr:0>
lagmgr_state.c:1163] [software internal system critical-info syslog] LAG group
50 (global) with master port 19/1 has changed partner from (007F,00-26-88-8E-
4F-F0,0034) to (007F,00-26-88-A7-FF-F0,0034)

```

```

Apr 26 07:21:28 kslxmsce2.msc.vzwnet.com evlogd: [local-60sec28.393]
[lagmgr 179050 warning] [1/0/2337 <lagmgr:0> lagmgr_state.c:1163]
[software internal system critical-info syslog] LAG group 50 (global)
with master port 19/1 has changed partner from
(007F,00-26-88-A7-FF-F0,0034) to (007F,00-26-88-8E-4F-F0,0034) [XGWout]XGW# show port util table
Thursday April 26 07:20:46 UTC 2012 ----- Average Port Utilization (in mbps) ----- Port Type
Current 5min 15min Rx Tx Rx Tx Rx Tx -----
----- 19/1 10G Ethernet 0 0 896 917 927 965 20/1 10G Ethernet 678 526 45 33 15 11
21/1 1000 Ethernet 0 0 0 3 0 3 22/1 1000 Ethernet 3 45 3 46 3 46 23/1 10G Ethernet 0 0 881 898
903 943 26/1 10G Ethernet 627 442 16 11 5 3 27/1 10G Ethernet 0 0 874 850 980 914 28/1 10G
Ethernet 138 436 15 47 5 15 [XGWout]XGW# show port util table Thursday April 26 07:24:58 UTC

```

```

2012 ----- Average Port Utilization (in mbps) ----- Port Type Current 5min 15min Rx Tx Rx Tx
Rx Tx -----
Ethernet 847 911 742 719 860 874 20/1 10G Ethernet 0 0 137 104 52 39 21/1 1000 Ethernet 0 0 0 4
0 4 22/1 1000 Ethernet 3 48 3 47 3 47 23/1 10G Ethernet 840 804 710 718 837 862 26/1 10G
Ethernet 0 0 133 95 50 35 27/1 10G Ethernet 833 814 671 697 883 856 28/1 10G Ethernet 0 0 33 92
12 35

```

为了排除故障进一步，其中一个滞后端口(27/1)禁用，强加滞后切换依然是到位和没有交换机上一步(系统切换，除非比当前活跃的端口将交换的端口有高容量)。如下所示，端口使用率在均等端口极大断开。当端口27/1被重新激活，回到多的个端口的滞后交换机没有干预由于均等有端口更多产能。

```

[XGWout]XGW# show port util table
Thursday April 26 07:17:31 UTC 2012

```

```

----- Average Port Utilization (in mbps) -----
Port   Type
-----
Current          5min          15min
Rx      Tx      Rx      Tx      Rx      Tx
-----
19/1  10G Ethernet      895      907      906      931      939      983
20/1  10G Ethernet         0         0         20         14         6         4
21/1  1000 Ethernet         0         0         0         3         0         3
22/1  1000 Ethernet         3         46         3         46         3         47
23/1  10G Ethernet      948      946      883      917      918      956
26/1  10G Ethernet         0         0         16         11         5         3
27/1  10G Ethernet      949      950      989      934      1029      955
28/1  10G Ethernet         0         0         4         14         1         4

```

```

[XGWout]XGW# link-aggregation port switch to 20/1
Thursday April 26 07:20:20 UTC 2012
Are you sure? [Yes|No]: yes
Thursday April 26 07:20:22 UTC 2012

```

```

2012-Apr-26+07:20:22.826 [lagmgr 179050 warning] [1/0/2337 <lagmgr:0>
lagmgr_state.c:1163] [software internal system critical-info syslog] LAG group
50 (global) with master port 19/1 has changed partner from (007F,00-26-88-8E-
4F-F0,0034) to (007F,00-26-88-A7-FF-F0,0034)

```

```

Apr 26 07:21:28 kslxmsce2.msc.vzwnet.com evlogd: [local-60sec28.393]
[lagmgr 179050 warning] [1/0/2337 <lagmgr:0> lagmgr_state.c:1163]
[software internal system critical-info syslog] LAG group 50 (global)
with master port 19/1 has changed partner from
(007F,00-26-88-A7-FF-F0,0034) to (007F,00-26-88-8E-4F-F0,0034) [XGWout]XGW# show port util table
Thursday April 26 07:20:46 UTC 2012 ----- Average Port Utilization (in mbps) ----- Port Type
Current 5min 15min Rx Tx Rx Tx Rx Tx -----
----- 19/1 10G Ethernet 0 0 896 917 927 965 20/1 10G Ethernet 678 526 45 33 15 11
21/1 1000 Ethernet 0 0 0 3 0 3 22/1 1000 Ethernet 3 45 3 46 3 46 23/1 10G Ethernet 0 0 881 898
903 943 26/1 10G Ethernet 627 442 16 11 5 3 27/1 10G Ethernet 0 0 874 850 980 914 28/1 10G
Ethernet 138 436 15 47 5 15 [XGWout]XGW# show port util table Thursday April 26 07:24:58 UTC
2012 ----- Average Port Utilization (in mbps) ----- Port Type Current 5min 15min Rx Tx Rx Tx
Rx Tx -----
----- 19/1 10G
Ethernet 847 911 742 719 860 874 20/1 10G Ethernet 0 0 137 104 52 39 21/1 1000 Ethernet 0 0 0 4
0 4 22/1 1000 Ethernet 3 48 3 47 3 47 23/1 10G Ethernet 840 804 710 718 837 862 26/1 10G
Ethernet 0 0 133 95 50 35 27/1 10G Ethernet 833 814 671 697 883 856 28/1 10G Ethernet 0 0 33 92
12 35

```

它在哪个端口不是显然的问题存在，并且Tx利用率不是参差不齐的那。

“show port npu计数器”清楚显示一问题用错误计数器“以高速率增加Bad的IPv4报头”(和它不应该发生)，但是由于此是滞后实施，根据当前实施，所有计数器为所有滞后端口是cumulative在滞后组中，和，因此不可能确定哪个端口有问题-可能是任何一个。(联合的所有端口的stats被找到在主端口下，在这种情况下19/1 -在滞后组的所有各自的滞后端口的stats没有含义，并且应该忽略)。

但是，技术支持命令“请显示npu stats调试all_pacs”根据PSC基本类型的捕获NPU stats，并且下列显示问题“清楚地关联与” PSC 12和其(默认)已连接XGLC 28：

```
***** show npu stats debug all_pacs *****
Thursday April 26 09:01:41 UTC 2012
  Line 524176:  debug-pkt-drop-invalid-iphdr          3601919
  Line 524245:  debug-pkt-drop-invalid-iphdr                   265
  Line 524303:  debug-pkt-drop-invalid-iphdr                   141
  Line 524407:  debug-pkt-drop-invalid-iphdr          3468928
  Line 524471:  debug-pkt-drop-invalid-iphdr                   216
  Line 524529:  debug-pkt-drop-invalid-iphdr          3701708
  Line 524595:  debug-pkt-drop-invalid-iphdr          6501414 <= NPU debug
stats for slot 12 ***** show port npu counters ***** Thursday April 26 09:01:40 UTC 2012
Counters for port 19/1 Counter Rx Frames Rx Bytes Tx Frames Tx Bytes -----
----- Bad IPv4 header 6493067 2820637429
n/a                n/a
```

```
***** show npu stats debug all_pacs *****
Thursday April 26 09:03:36 UTC 2012
  Line 985303:  debug-pkt-drop-invalid-iphdr          3601919
  Line 985372:  debug-pkt-drop-invalid-iphdr                   292
  Line 985430:  debug-pkt-drop-invalid-iphdr                   141
  Line 985534:  debug-pkt-drop-invalid-iphdr          3468928
  Line 985598:  debug-pkt-drop-invalid-iphdr                   226
  Line 985656:  debug-pkt-drop-invalid-iphdr          3701708
  Line 985722:  debug-pkt-drop-invalid-iphdr          7190387 <= NPU debug
stats for slot 12 (INCREASING) ***** show port npu counters ***** Thursday April 26
09:03:35 UTC 2012 Counters for port 19/1 Counter Rx Frames Rx Bytes Tx Frames Tx Bytes -----
----- Bad IPv4 header 7182088
3089244876                n/a                n/a
```

问题仍然变为什么卡实际上导致此问题，12连接的PSC对XGLC 28或者XGLC 28本身？

典型地NPU问题用PSC将解决12的PSC迁移连接对XGLC 28，暗示与PSC的一个问题。当这在一最新维护窗口尝试了，失败解决问题，象卡重置以及npumgr重置。

在这里npumgr重置输出丢弃故障排除，28重置的XGLC和PSC迁移12到16，后者导致连接对XGLC 28的PSC 16和，因此排除是的PSC 12问题。检查调试Pkt丢弃无效iphdr增加在其中每一个步骤之间执行确认问题不是解决的。关闭其中一个滞后端口(27/1)完成强制滞后swtichover依然是交换式数据收集目的和no shut允许为了滞后能交换回到，当完成测试。

```
[local]XGW# show port util table
Saturday April 28 05:03:49 UTC 2012
----- Average Port Utilization (in mbps) -----
Port   Type
-----
Rx      Tx      Rx      Tx      Rx      Tx
-----
19/1   10G Ethernet  2311   2395   2384   2415   2384   2402
20/1   10G Ethernet  0       0       0       0       0       0
21/1   1000 Ethernet  0       9       0       9       0       9
22/1   1000 Ethernet  4       70      4       77      4       73
23/1   10G Ethernet  2230   2224   2222   2293   2202   2268
26/1   10G Ethernet  0       0       0       0       0       0
27/1   10G Ethernet  2496   2433   2505   2427   2440   2381
28/1   10G Ethernet  0       0       0       0       0       0
```

```
[local]XGW(config)# port ether 27/1
Saturday April 28 05:04:44 UTC 2012
[local]XGW(config-port-27/1)# shutdown
```

Saturday April 28 05:04:50 UTC 2012

```

Sat Apr 28 05:04:50 2012 Internal trap notification 35 (PortLinkDown) card 27
port 1 ifindex 453050368 Sat Apr 28 05:04:50 2012 Internal trap notification 1024 (PortDown)
card 27 port
1 ifindex 453050368port type 10G Ethernet Sat Apr 28 05:04:50 2012 Internal trap notification 93
(CardStandby) card 27 [local]XGW# show port table all Saturday April 28 05:04:59 UTC 2012 Port
Type Admin Oper Link State Redundant -----
----- 19/1 10G Ethernet Enabled - Up - None ~19/1 Untagged Enabled Up - Active -
20/1 10G Ethernet Enabled Up Up Active None +19/1 [local]XGW# show port util table Saturday
April 28 05:05:42 UTC 2012 ----- Average Port Utilization (in mbps) ----- Port Type Current
5min 15min Rx Tx Rx Tx Rx Tx -----
--- ----- 19/1 10G Ethernet 0 0 2150 2182 2311 2333 20/1 10G Ethernet 1488 1064 0 0 0 0 21/1
1000 Ethernet 0 0 0 9 0 10 22/1 1000 Ethernet 4 70 4 72 4 73 23/1 10G Ethernet 0 0 2163 2225
2182 2251 26/1 10G Ethernet 1353 989 94 68 31 22 28/1 10G Ethernet 372 1042 14 41 4 13
[local]XGW# show npu stats debug all-pacs Saturday April 28 05:07:28 UTC 2012 NPU debug stats
for slot 12 debug-pkt-drop-invalid-iphdr 10786357 [local]XGW# show npu stats debug all-pacs
Saturday April 28 05:07:47 UTC 2012 NPU debug stats for slot 12 debug-pkt-drop-invalid-iphdr
10966718 [local]XGW# task kill facility npumgr instance 12 Saturday April 28 05:33:18 UTC 2012
Sat Apr 28 05:33:18 2012 Internal trap notification 73 (ManagerFailure) facility
npumgr instance 12 card 12 cpu 1 Sat Apr 28 05:33:18 2012 Internal trap notification 150
(TaskFailed) facility
npumgr instance 12 on card 12 cpu 1 Sat Apr 28 05:33:26 2012 Internal trap notification 35
(PortLinkDown) card 28
port 1 ifindex 469827585 Sat Apr 28 05:33:26 2012 Internal trap notification 1024 (PortDown)
card 28 port
1 ifindex 469827585port type 10G Ethernet Sat Apr 28 05:33:26 2012 Internal trap notification 36
(PortLinkUp) card 28 port
1 ifindex 469827585 Sat Apr 28 05:33:26 2012 Internal trap notification 1025 (PortUp) card 28
port 1
ifindex 469827585port type 10G Ethernet [local]XGW# show port util table Saturday April 28
05:34:24 UTC 2012 ----- Average Port Utilization (in mbps) ----- Port Type Current 5min 15min
Rx Tx Rx Tx Rx Tx -----
19/1 10G Ethernet 0 0 0 0 0 0 20/1 10G Ethernet 894 723 837 661 935 728 21/1 1000 Ethernet 0 36
0 7 0 7 22/1 1000 Ethernet 4 127 4 78 4 79 23/1 10G Ethernet 0 0 0 0 0 0 26/1 10G Ethernet 906
647 780 571 865 644 28/1 10G Ethernet 356 649 0 0 0 0 [local]XGW# show npu stats debug slot 12
Saturday April 28 05:35:16 UTC 2012 NPU debug stats for slot 12 debug-pkt-drop-invalid-iphdr
540273 [local]XGW# show npu stats debug slot 12 Saturday April 28 05:35:38 UTC 2012 NPU debug
stats for slot 12 debug-pkt-drop-invalid-iphdr 692665 Sat Apr 28 05:38:49 2012 Internal trap
notification 35 (PortLinkDown) card 28
port 1 ifindex 469827584 Sat Apr 28 05:38:49 2012 Internal trap notification 1024 (PortDown)
card 28 port
1 ifindex 469827584port type 10G Ethernet Sat Apr 28 05:38:49 2012 Internal trap notification 35
(PortLinkDown) card 28
port 1 ifindex 469827585 Sat Apr 28 05:38:49 2012 Internal trap notification 60 (CardDown) card
28 Sat Apr 28 05:38:51 2012 Internal trap notification 5 (CardUp) card 28 Sat Apr 28 05:38:51
2012 Internal trap notification 4 (CardRebootRequest) card 28 Sat Apr 28 05:38:51 2012 Internal
trap notification 84 (ServiceLossLC) Slots 28
and 44 has configured for card type 10 Gig Ethernet Line Card, but neither active Sat Apr 28
05:38:53 2012 Internal trap notification 55 (CardActive) card 28 Sat Apr 28 05:38:53 2012
Internal trap notification 1111 (ServiceLossLCClear)
Slots 28 and 44 has configured for card type 10 Gig Et hernet Line Card, one of them is active
now Sat Apr 28 05:38:53 2012 Internal trap notification 93 (CardStandby) card 28 Sat Apr 28
05:38:55 2012 Internal trap notification 36 (PortLinkUp) card 28 port
1 ifindex 469827584 Sat Apr 28 05:38:55 2012 Internal trap notification 1025 (PortUp) card 28
port 1
ifindex 469827584port type 10G Ethernet Sat Apr 28 05:38:55 2012 Internal trap notification 55
(CardActive) card 28 Sat Apr 28 05:38:55 2012 Internal trap notification 36 (PortLinkUp) card 28
port
1 ifindex 469827585 Sat Apr 28 05:38:55 2012 Internal trap notification 1025 (PortUp) card 28
port 1
ifindex 469827585port type 10G Ethernet [local]XGW# show port util table Saturday April 28
05:39:47 UTC 2012 ----- Average Port Utilization (in mbps) ----- Port Type Current 5min 15min
Rx Tx Rx Tx Rx Tx -----

```

```

19/1 10G Ethernet 0 0 0 0 0 0 20/1 10G Ethernet 236 174 688 544 816 637 21/1 1000 Ethernet 0 17
0 7 0 7 22/1 1000 Ethernet 3 29 3 69 4 75 23/1 10G Ethernet 0 0 0 0 0 0 26/1 10G Ethernet 201
156 779 568 810 597 28/1 10G Ethernet 114 181 0 0 0 0 [local]XGW# show npu stats debug slot 12
Saturday April 28 05:40:04 UTC 2012 NPU debug stats for slot 12 debug-pkt-drop-invalid-iphdr
2219078 [local]XGW# show npu stats debug slot 12 Saturday April 28 05:40:15 UTC 2012 NPU debug
stats for slot 12 debug-pkt-drop-invalid-iphdr 2289375 [local]XGW# show port util table Saturday
April 28 05:41:08 UTC 2012 ----- Average Port Utilization (in mbps) ----- Port Type Current
5min 15min Rx Tx Rx Tx Rx Tx -----
--- ----- 19/1 10G Ethernet 0 0 0 0 0 0 20/1 10G Ethernet 769 545 682 528 804 625 21/1 1000
Ethernet 0 0 0 6 0 6 22/1 1000 Ethernet 3 70 3 63 4 73 23/1 10G Ethernet 0 0 0 0 0 0 26/1 10G
Ethernet 723 560 634 480 760 561 28/1 10G Ethernet 317 585 81 141 27 47 [local]XGW# show npu
stat debug slot 12 clear Saturday April 28 05:41:59 UTC 2012 NPU debug stats for slot 12 debug-
pkt-drop-invalid-iphdr 2980554 [local]XGW# show npu stat debug slot 12 clear Saturday April 28
05:42:10 UTC 2012 debug-pkt-drop-invalid-iphdr 60103 Sat Apr 28 05:42:43 2012 Internal trap
notification 16 (PACMigrateStart) from
card 12 to card 16 Sat Apr 28 05:43:55 2012 Internal trap notification 17 (PACMigrateComplete)
from
card 12 to card 16 Sat Apr 28 05:44:45 2012 Internal trap notification 5 (CardUp) card 12 Sat
Apr 28 05:44:45 2012 Internal trap notification 93 (CardStandby) card 12 [local]XGW# show npu
stat debug slot 16 clear Saturday April 28 05:44:35 UTC 2012 NPU debug stats for slot 16 debug-
pkt-drop-invalid-iphdr 14650 [local]XGW# show npu stat debug slot 16 clear Saturday April 28
05:45:48 UTC 2012 NPU debug stats for slot 16 debug-pkt-drop-invalid-iphdr 70940 Sat Apr 28
05:45:20 2012 Internal trap notification 126 (SRPSwitchoverInitiated) vpn SRP ipaddr
10.209.74.164 Sat Apr 28 05:45:21 2012 Internal trap notification 121 (SRPStandby) vpn SRP
ipaddr 10.209.74.164 rtmod 2 [local]XGW(config)# port ether 27/1 Saturday April 28 05:52:27 UTC
2012 [local]XGW(config-port-27/1)# no shut Saturday April 28 05:52:35 UTC 2012 Sat Apr 28
05:52:35 2012 Internal trap notification 36 (PortLinkUp) card 27 port
1 ifindex 453050368 Sat Apr 28 05:52:35 2012 Internal trap notification 1025 (PortUp) card 27
port 1
ifindex 453050368port type 10G Ethernet Sat Apr 28 05:52:35 2012 Internal trap notification 55
(CardActive) card 27 Sat Apr 28 05:52:35 2012 Internal trap notification 36 (PortLinkUp) card 27
port
1 ifindex 453050369 Sat Apr 28 05:52:35 2012 Internal trap notification 1025 (PortUp) card 27
port 1
ifindex 453050369port type 10G Ethernet [local]XGW# link-aggregation port switch to 19/1
Saturday April 28 05:56:39 UTC 2012 Are you sure? [Yes|No]: yes Saturday April 28 05:56:42 UTC
2012

Sat Apr 28 07:09:46 2012 Internal trap notification 120 (SRPActive) vpn SRP
ipaddr 10.209.74.164 rtmod 2

```

```

[local]XGW# show card table
Saturday April 28 06:06:09 UTC 2012

```

Slot	Card Type	Oper State	SPOF	Attach
1: PSC	Packet Services Card 2	Active	No	- -
2: PSC	Packet Services Card 2	Active	No	- -
3: PSC	Packet Services Card 2	Active	No	19 -
4: PSC	Packet Services Card 2	Active	No	20 -
5: PSC	Packet Services Card 2	Active	No	21 37
6: PSC	Packet Services Card 2	Active	No	22 38
7: PSC	Packet Services Card 2	Active	No	23 -
8: SMC	System Management Card	Active	No	24 25
9: SMC	System Management Card	Standby	-	- -
10: PSC	Packet Services Card 2	Active	No	26 -
11: PSC	Packet Services Card 2	Active	No	27 -
12: PSC	Packet Services Card 2	Standby	-	- -
13: PSC	Packet Services Card 2	Active	No	- -
14: PSC	Packet Services Card 2	Active	No	- -
15: PSC	Packet Services Card 2	Active	No	- -
16: PSC	Packet Services Card 2	Active	No	28 -

不太可能结论结束了是一有缺陷的线卡，当替换，被解决问题。

注意：当XGLC 28替换，系统再依附更换XGLC对Demux PSC 1而不是以前附加的PSC 16。卡德SLOT波尔特任务(CSP)有权利附加希望对的XGLC到所有自由PSC，在这种情况下PSC 1而不是PSC 16。结果，测试XGLC 28 PSC 1而不是PSC 16或PSC 12，到目前为止，但是这时基于执行的所有测试(即问题是否发生连接在PSC 12或PSC 16)，推断失败归结于XGLC 28和没有任何PSC。

```
Sun Apr 29 05:17:25 2012 Internal trap notification 60 (CardDown) card 28
Sun Apr 29 05:17:25 2012 Internal trap notification 7 (CardRemoved) card 28
```

```
Sun Apr 29 05:19:56 2012 Internal trap notification 8 (CardInserted) card 28
Sun Apr 29 05:19:58 2012 Internal trap notification 5 (CardUp) card 28
Sun Apr 29 05:20:00 2012 Internal trap notification 55 (CardActive) card 28
```

```
[local]XGW# show port util table
Sunday April 29 05:23:53 UTC 2012
```

Port	Type	Average Port Utilization (in mbps)					
		Current		5min		15min	
		Rx	Tx	Rx	Tx	Rx	Tx
19/1	10G Ethernet	1817	1770	1852	1868	1899	1929
20/1	10G Ethernet	0	0	0	0	0	0
21/1	1000 Ethernet	0	0	0	7	0	7
22/1	1000 Ethernet	3	55	3	58	3	59
23/1	10G Ethernet	1685	1867	1718	1858	1782	1868
26/1	10G Ethernet	0	0	0	0	0	0
27/1	10G Ethernet	1982	1866	1982	1846	2022	1927
28/1	10G Ethernet	0	0	0	0	0	0

```
[local]XGW# link-aggregation port switch to 20/1
Sunday April 29 05:33:18 UTC 2012
Are you sure? [Yes|No]: yes
Sunday April 29 05:33:21 UTC 2012
```

```
2012-Apr-29+05:33:21.124 [lagmgr 179050 warning] [1/0/2337 <lagmgr:0>
lagmgr_state.c:1163] [software internal system critical-info syslog] LAG group
50 (global) with master port 19/1 has changed partner from (007F,00-26-88-8E-
4F-F0,0034) to (007F,00-26-88-A7-FF-F0,0034) [local]LENYKSCJPNR XGW# show port util table Sunday
April 29 05:34:05 UTC 2012 ----- Average Port Utilization (in mbps) ----- Port Type Current
5min 15min Rx Tx Rx Tx Rx Tx -----
--- ----- 19/1 10G Ethernet 0 0 1724 1688 1795 1783 20/1 10G Ethernet 1785 1737 112 108 37 36
21/1 1000 Ethernet 0 29 0 8 0 7 22/1 1000 Ethernet 3 55 3 56 3 57 23/1 10G Ethernet 0 0 1430
1522 1609 1720 26/1 10G Ethernet 1632 1790 89 95 29 31 27/1 10G Ethernet 0 0 1719 1669 1865 1780
28/1 10G Ethernet 1840 1738 0 0 0 0
```

```
[local]XGW# show npu stats debug slot 1
Sunday April 29 05:34:18 UTC 2012
NPU debug stats for slot 1
debug-pkt-drop-invalid-iphdr 9
```

```
[local]XGW# show card table
Sunday April 29 05:34:27 UTC 2012
```

Slot	Card Type	Oper State	SPOF	Attach
1: PSC	Packet Services Card 2	Active	No	28 -
2: PSC	Packet Services Card 2	Active	No	- -
3: PSC	Packet Services Card 2	Active	No	19 -
4: PSC	Packet Services Card 2	Active	No	20 -
5: PSC	Packet Services Card 2	Active	No	21 37
6: PSC	Packet Services Card 2	Active	No	22 38
7: PSC	Packet Services Card 2	Active	No	23 -

```

8: SMC      System Management Card      Active      No      24 25
9: SMC      System Management Card      Standby     -      -  -
10: PSC     Packet Services Card 2      Active      No      26  -
11: PSC     Packet Services Card 2      Active      No      27  -
12: PSC     Packet Services Card 2      Standby     -      -  -
13: PSC     Packet Services Card 2      Active      No      -  -
14: PSC     Packet Services Card 2      Active      No      -  -
15: PSC     Packet Services Card 2      Active      No      -  -
16: PSC     Packet Services Card 2      Active      No      -  -

```

[local]LENYKSCJPNR XGW# show port npu count 28/1

Sunday April 29 05:35:39 UTC 2012

Counters for port 28/1

Counter	Rx Frames	Rx Bytes	Tx Frames	Tx Bytes
-----	-----	-----	-----	-----
Bad IPv4 header 0	0	n/a	n/a	

[local]XGW# show npu stats debug all-pac

Sunday April 29 05:36:05 UTC 2012

NPU debug stats for slot 1

```

debug-pkt-drop-invalid-iphdr      32

```

[local]XGW# show npu stats debug all-pac | grep debug-pkt-drop-invalid-iphdr

Sunday April 29 05:36:47 UTC 2012

```

debug-pkt-drop-invalid-iphdr 41 <== PSC 1
debug-pkt-drop-invalid-iphdr      3722008
debug-pkt-drop-invalid-iphdr      920
debug-pkt-drop-invalid-iphdr      141
debug-pkt-drop-invalid-iphdr      3579872
debug-pkt-drop-invalid-iphdr      47
debug-pkt-drop-invalid-iphdr      3817343

```

[local]XGW# show port util table

Sunday April 29 05:37:52 UTC 2012

Port	Type	----- Average Port Utilization (in mbps) -----					
		Current		5min		15min	
		Rx	Tx	Rx	Tx	Rx	Tx
-----	-----	-----	-----	-----	-----	-----	-----
19/1	10G Ethernet	0	0	301	297	1300	1280
20/1	10G Ethernet	1686	1603	1490	1454	496	484
21/1	1000 Ethernet	0	0	0	6	0	7
22/1	1000 Ethernet	3	53	3	55	3	55
23/1	10G Ethernet	0	0	448	475	1265	1349
26/1	10G Ethernet	1539	1692	1383	1460	461	486
27/1	10G Ethernet	0	0	252	246	1334	1288
28/1	10G Ethernet	1758	1705	1413	1390	471	463