

ASR 5000:可忽略基于LAG的XGLC的单点故障警报

目录

[简介](#)

[受影响的产品](#)

[症状](#)

[解决方案](#)

[根本原因分析](#)

简介

本文档介绍在端口退回后，ASR 5000上与链路聚合(LAG)端口的单点故障(SPOF)警报相关的问题。当实际上没有问题时，虚假警报可能会导致不必要的票证打开。

受影响的产品

任何ASR 5000 (包括LAG端口) 都会受到影响。

症状

在ASR 5000平台上，存在与基于LAG的10 GB线卡(XGLC)的单点故障(SPOF)警报的不必要触发相关的问题。每当LAG端口关闭(陷阱PortDown)时，CardSPOFClear陷阱就会触发，而当端口打开(陷阱PortUp)时，CardSPOFAlarm陷阱就会触发。端口退回可能出于多种原因，包括PSC迁移、npumgr重新启动、硬件故障、机箱重新加载或外部引起的链路问题。此代码段显示端口19/1退回的各个SPOF陷阱，同时，LAG切换通常会导致进程中可能退回的所有端口的陷阱。

```
Tue Jan 21 07:35:55 2014 Internal trap notification 1024 (PortDown) card 19 port 1 port type 10G Ethernet
```

```
Tue Jan 21 07:35:55 2014 Internal trap notification 1503 (EntStateOperDisabled) Port(19/1) Admin state:"Locked", Alarm severity:"Major"
```

```
Tue Jan 21 07:35:55 2014 Internal trap notification 93 (CardStandby) card 19 type 10 Gig Ethernet Line Card
```

```
Tue Jan 21 07:35:55 2014 Internal trap notification 140 (CardSPOFClear) card 19 type 10 Gig Ethernet Line Card
```

```
Tue Jan 21 07:40:36 2014 Internal trap notification 1025 (PortUp) card 19 port 1 port type 10G Ethernet
```

```
Tue Jan 21 07:40:51 2014 Internal trap notification 139 (CardSPOFAlarm) card 19 type 10 Gig Ethernet Line Card
```

从2015年1月部署的v15.0开始，除了SNMP陷阱，警报机制也开始收到通知。以下是示例中的匹配警报：

```
***** show alarm outstanding verbose *****
```

Severity	Object	Timestamp	Alarm ID
----------	--------	-----------	----------

Alarm Details

```
Minor Card 19 Tuesday January 21 07:40:51 5769809167128920064
```

插槽19中的10千兆以太网线卡是单点故障。插槽20中需要10千兆以太网线卡。

解决方案

根据根本原因分析中所述的原因，应简单忽略并清除LAG配置卡的SPOF警报。clear alarm命令可用于清除所有未处理的警报（如果需要，包括非SPOF警报），或通过指定show alarm outstanding [verbose]报告的警报ID，仅清除特定SPOF。对于上述示例：

```
clear alarm id 5769809167128920064
```

或

```
clear alarm all
```

注意：除非发生另一端口退回，否则警报将无限期地保留，在这种情况下，新警报（如时间戳所示）将取代现有警报。

根本原因分析

由于LAG的设计，卡冗余由LAG完成，而不是在卡级别完成，因此所有LAG配置的卡始终处于活动运行状态 — 它们均不处于备用状态。因此，LAG配置卡的配置不指定任何冗余。

```
show port info
```

```
...
```

Card 23:	card 26:
Card Type: 10 Gig Ethernet Line Card	Card Type: 10 Gig Ethernet Line Card
Operational State : Active	Operational State : Active
Redundant With : None	Redundant With : None

```
***** show card table all *****
```

Slot	Card Type	Oper State	SPOF Attach
------	-----------	------------	-------------

19: LC	10 Gig Ethernet Line Card	Active	Yes	3
20: LC	10 Gig Ethernet Line Card	Active	Yes	4
21: LC	1000 Ethernet Line Card	Active	No	5
22: LC	1000 Ethernet Line Card	Active	No	6
23: LC	10 Gig Ethernet Line Card	Active	Yes	7
24: SPIO	Switch Processor I/O Card	Active	No	8
25: SPIO	Switch Processor I/O Card	Active	No	8
26: LC	10 Gig Ethernet Line Card	Active	Yes	10
27: LC	10 Gig Ethernet Line Card	Active	Yes	11
28: LC	10 Gig Ethernet Line Card	Active	Yes	12
29: LC	10 Gig Ethernet Line Card	Active	Yes	13
30: LC	10 Gig Ethernet Line Card	Active	Yes	14

同时，非LAG卡的配置会指定冗余。例如，以下是没有任何LAG端口的配置，在这种情况下，SPOF警报具有重要性，应进行调查。这是显示各对主用/备用XGLC的卡表。

```
card 19
```

```
    redundant with 20
```

```
#exit
```

```
card 23
```

```
    redundant with 26
```

```
#exit
```

```
card 27
```

```
    redundant with 28
```

```
#exit
```

```
card 29
```

```
    redundant with 30
```

```
#exit
```

```
[local]ASR5000> show card table all
```

Slot	Card Type	Oper State	SPOF Attach
-----	-----	-----	-----
...			
19: LC	10 Gig Ethernet Line Card	Active	No 3

20: LC	10 Gig Ethernet Line Card	Standby	-	4
21: LC	1000 Ethernet Line Card	Active	No	5
22: LC	1000 Ethernet Line Card	Active	No	6
23: LC	10 Gig Ethernet Line Card	Active	No	7
24: SPIO	Switch Processor I/O Card	Active	No	8
25: SPIO	Switch Processor I/O Card	Active	No	8
26: LC	10 Gig Ethernet Line Card	Standby	-	10
27: LC	10 Gig Ethernet Line Card	Active	No	11
28: LC	10 Gig Ethernet Line Card	Standby	-	12
29: LC	10 Gig Ethernet Line Card	Active	No	13
30: LC	10 Gig Ethernet Line Card	Standby	-	14