解釋ASR 5000和ASR 5500上LAG的show port CLI的輸出

目錄

(LAG)show port npu countersshow port utilization tableportLAGLAGNPULAGStarOS v18

由於設計/架構限制，埠npu計數器的報告僅限於將LAG組中的所有埠合併在一起，而不是在單個埠級別。這不適用於繼續按預期報告的埠資料鏈路計數器。

由於LAG的實施要求LAG中的所有埠都處於活動狀態，因此「show port utilization table」報告所有LAG埠的利用率，無論它們是ASR 5000/5500的分佈埠（活動埠）還是約定埠（備用埠）。符號：通常協定埠不顯示流量，但存在協定埠的Rx和/或Tx方向也承載流量的情況（不是本文的主題，只是指出它）。

同時，對於非LAG埠，ASR 5000與ASR 5500的報告值之間存在差異。ASR 5000不報告備用埠的利用率，而ASR 5500報告備用埠的利用率（即使這些埠在操作上已關閉）

與前面提到的情況一致，LAG的「show port table」報告所有埠處於運行狀態，而非LAG報告僅埠對的活動埠處於運行狀態。

對於「show port npu counters」，列出所有LAG埠，但以下情況為真：

- ASR 5000:
  — 主（已配置）埠下的計數器是所有當前活動埠的總計數
  — 所有其他連線埠（包括主要連線埠對）的計數器不相關，不應使用
- ASR 5500:
  — 主埠及其備用埠下的計數器是所有當前活動埠的總計數（它們報告的值相似，但略有不同 — 使用任一）
  — 所有其它埠的計數均為0

對於非LAG埠，僅報告活動埠的計數器。備用埠甚至未列在NPU級別的輸出中（從未列過）。

輸出範例

此處的輸出支援先前的解釋。它基於如下硬體配置：

ASR 5000:LAG埠19/20、23/26、27/28和非LAG埠21/37

ASR 5500:LAG埠5/10、11、15、16;6/10、11、15、16和非LAG埠5/28和6/28、5/29和6/29

提醒：本文的重點是LAG埠的計數器。

ASR 5000

```
 ******** show port utilization *******
Wednesday May 28 12:28:04 UTC 2014
                                ------ Average Port Utilization (in mbps) ------
Port   Type                       Current            5min             15min
                                  Rx       Tx       Rx        Tx       Rx     Tx
----- ------------------------  -------- --------  -------- --------  ------- -------
19/1  10G Ethernet              514      572       503      534       490     517
20/1  10G Ethernet              0        0         0        0         0       0


21/1  1000 Ethernet             0        0         0        0         0       0


23/1  10G Ethernet              460      529       448      516       431     510
26/1  10G Ethernet              0        0         0        0         0       0
27/1  10G Ethernet              674      532       634      519       619     499
28/1  10G Ethernet              0        0         0        0         0       0


 ******** show port table all *******
Wednesday May 28 12:28:03 UTC 2014
Port  Role Type                      Admin    Oper Link State    Pair  Redundant
----- ---- ------------------------  -------- ---- ---- -------  ----- ---------
19/1  Srvc 10G Ethernet              Enabled  -    Up   -        None  LA+ 19/1
           Untagged                  Enabled  Up   -    Active   -     -
           Tagged VLAN  2423         Enabled  Up   -    Active   -     -
           Tagged VLAN  2424         Enabled  Up   -    Active   -     -
           Tagged VLAN  2401         Enabled  Up   -    Active   -     -
           Tagged VLAN  2009         Enabled  Up   -    Active   -     -
           Tagged VLAN  2010         Enabled  Up   -    Active   -     -
           Tagged VLAN  2007         Enabled  Up   -    Active   -     -
           Tagged VLAN  2498         Enabled  Up   -    Active   -     -
           Tagged VLAN  2499         Enabled  Up   -    Active   -     -
20/1  Srvc 10G Ethernet              Enabled  Up   Up   Active   None  LA~ 19/1

21/1  Srvc 1000 Ethernet             Enabled  -    Up   -        37/1  L2 Link
           Untagged                  Enabled  Down -    Active   -     -
           Tagged VLAN    30         Enabled  Up   -    Active   -     -

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

37/1  Srvc 1000 Ethernet             Enabled  -    Up   -        21/1  L2 Link
           Untagged                  Enabled  Down -    Standby  -     -
           Tagged VLAN    30         Enabled  Down -    Standby  -     -
```

```
 ******** show port npu counters *******

Counters for port 19/1
Counter                  Rx Frames       Rx Bytes      Tx Frames        Tx Bytes
-------------------- ------------ --------------- ------------ ---------------
Unicast              74783944546254086740066587874 691514288000237832151787123 78

Counters for port 20/1
Counter                  Rx Frames       Rx Bytes      Tx Frames        Tx Bytes

Counters for port 23/1
Counter                  Rx Frames       Rx Bytes      Tx Frames        Tx Bytes

Counters for port 26/1
Counter                  Rx Frames       Rx Bytes      Tx Frames        Tx Bytes

Counters for port 27/1
Counter                  Rx Frames       Rx Bytes      Tx Frames        Tx Bytes

Counters for port 28/1
Counter                  Rx Frames       Rx Bytes      Tx Frames        Tx Bytes
```

NON-LAG:

```
Counters for port 21/1
Counter                  Rx Frames       Rx Bytes      Tx Frames        Tx Bytes
```

ASR 5500

```
[local]PGW> show port utilization table
Sunday June 01 03:57:59 UTC 2014
                                ------ Average Port Utilization (in mbps) ------
Port   Type                       Current            5min             15min
                                  Rx       Tx       Rx       Tx       Rx      Tx
----- ------------------------  -------  -------  -------  -------  -------  -------

 5/10 10G Ethernet              1919     1973     1982     2066     2025     2094
 5/11 10G Ethernet              1911     1751     1976     1828     2023     1883
 5/15 10G Ethernet              1910     2064     1975     2064     2004     2130
 5/16 10G Ethernet              1933     1943     1987     2012     2014     2019

 5/28 10G Ethernet              9        69       9        70       9        71
 5/29 10G Ethernet              0        0        0        0        0        0

 6/10 10G Ethernet              0        0        0        0        0        0
 6/11 10G Ethernet              0        0        0        0        0        0
 6/15 10G Ethernet              0        0        0        0        0        0
 6/16 10G Ethernet              0        0        0        0        0        0

 6/28 10G Ethernet              0        0        0        0        0        0
 6/29 10G Ethernet              1        0        1        10       1        11


[local]PGW> show port table all
Sunday June 01 03:58:48 UTC 2014
Port  Role Type                      Admin    Oper Link State    Pair  Redundant
----- ---- ------------------------  -------- ---- ---- -------  ----- ---------
 5/10 Srvc 10G Ethernet              Enabled  -    Up   -         6/10 LA+  5/10
```

```
          Untagged                Enabled  Up   -    Active   -     -
          Tagged VLAN  2011       Enabled  Up   -    Active   -     -
          Tagged VLAN  2405       Enabled  Up   -    Active   -     -
          Tagged VLAN  2015       Enabled  Up   -    Active   -     -
          Tagged VLAN  2427       Enabled  Up   -    Active   -     -
          Tagged VLAN  2407       Enabled  Up   -    Active   -     -
          Tagged VLAN  2455       Enabled  Up   -    Active   -     -
 5/11 Srvc 10G Ethernet           Enabled  Up   Up   Active    6/11 LA+  5/10
 5/15 Srvc 10G Ethernet           Enabled  Up   Up   Active    6/15 LA+  5/10
 5/16 Srvc 10G Ethernet           Enabled  Up   Up   Active    6/16 LA+  5/10

 5/28 Srvc 10G Ethernet           Enabled  -    Up   -         6/28 L2 Link
          Untagged                Enabled  Up   -    Active   -     -
          Tagged VLAN  2400       Enabled  Up   -    Active   -     -
 5/29 Srvc 10G Ethernet           Enabled  -    Up   -         6/29 L2 Link
          Untagged                Enabled  Down -    Standby  -     -
          Tagged VLAN    31       Enabled  Down -    Standby  -     -


 6/10 Srvc 10G Ethernet           Enabled  -    Up   -         5/10 LA~  5/10
          Untagged                Enabled  Up   -    Active   -     -
          Tagged VLAN  2011       Enabled  Up   -    Active   -     -
          Tagged VLAN  2405       Enabled  Up   -    Active   -     -
          Tagged VLAN  2015       Enabled  Up   -    Active   -     -
          Tagged VLAN  2427       Enabled  Up   -    Active   -     -
          Tagged VLAN  2407       Enabled  Up   -    Active   -     -
          Tagged VLAN  2455       Enabled  Up   -    Active   -     -
 6/11 Srvc 10G Ethernet           Enabled  Up   Up   Active    5/11 LA~  5/10
 6/15 Srvc 10G Ethernet           Enabled  Up   Up   Active    5/15 LA~  5/10
 6/16 Srvc 10G Ethernet           Enabled  Up   Up   Active    5/16 LA~  5/10

 6/28 Srvc 10G Ethernet           Enabled  -    Up   -         5/28 L2 Link
          Untagged                Enabled  Down -    Standby  -     -
          Tagged VLAN  2400       Enabled  Down -    Standby  -     -
 6/29 Srvc 10G Ethernet           Enabled  -    Up   -         5/29 L2 Link
          Untagged                Enabled  Up   -    Active   -     -
          Tagged VLAN    31       Enabled  Up   -    Active   -     -


[local]PGW> show port npu counters
Counters for port 5/10
Counter                  Rx Frames       Rx Bytes      Tx Frames        Tx Bytes
-------------------- ------------- --------------- ------------- ---------------
Unicast               936150697918 636869996072149  936928268252105523098790 5964

Counters for port 5/11
Counter                  Rx Frames       Rx Bytes      Tx Frames        Tx Bytes

-------------------- ------------- --------------- ------------- ---------------
Unicast                          0               0             0               0

Counters for port 5/15
Counter                  Rx Frames       Rx Bytes      Tx Frames        Tx Bytes

Counters for port 5/16
Counter                  Rx Frames       Rx Bytes      Tx Frames        Tx Bytes


Counters for port 6/10
Counter                  Rx Frames       Rx Bytes      Tx Frames        Tx Bytes
-------------------- ------------- --------------- ------------- ---------------
Unicast               936156167721 636873912574349  936933671626105523710273704 6

Counters for port 6/11
```

```
Counter                  Rx Frames       Rx Bytes      Tx Frames        Tx Bytes

Counters for port 6/15
Counter                  Rx Frames       Rx Bytes      Tx Frames        Tx Bytes

Counters for port 6/16
Counter                  Rx Frames       Rx Bytes      Tx Frames        Tx Bytes
```

同樣地，此命令僅列出活動埠：

```
Counters for port 5/28
Counter                  Rx Frames       Rx Bytes      Tx Frames        Tx Bytes

Counters for port 6/29
Counter                  Rx Frames       Rx Bytes      Tx Frames        Tx Bytes
```