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fastdpi_stat.log

The file is placed in the directory: `/var/log/dpi/fastdpi_stat.log`

This log contains statistics on traffic processed and blocked by VAS Experts DPI, on memory and processor load (file **stat.log**).

```
1 [STAT ] [2019/11/14-03:20:03:143845] Memory usage : 'Virtual'/'Resident' 8877088768/4023791616
2 [STAT ] [2019/11/14-03:20:03:143883] CPU statistics :
3   cpu_total : 0.1%us 8.2%sy 1.5%ni 90.2%id 0.0%wa
4   cpu0 : 0.0%us 0.7%sy 1.3%ni 98.0%id 0.0%wa
5   cpu1 : 0.1%us 16.8%sy 1.7%ni 81.4%id 0.0%wa
6   cpu2 : 0.0%us 7.5%sy 0.9%ni 91.6%id 0.0%wa
7   cpu3 : 0.1%us 7.4%sy 2.3%ni 90.3%id 0.0%wa
8 [STAT ] [2019/11/14-03:20:03:144193] Interface statistics :
9   Cluster #1 Absolute Stats Rcvd: [6830575 pkts][4908344518 bytes][0+0=0 pkts dropped]
10  Cluster #1 : IF dna0:
11     Absolute Stats Rcvd: [2372621 pkts][381635326 bytes][0 pkts dropped]
12     Send: [4457954 pkts][4526709192 bytes]
13     Esnd: [0 err_pkts][0.00 %]
14     Drop: [0 pkts][0 bytes]
15     Pthr: [0 pkts][0 bytes]
16     Emit: [0 pkts][0 bytes]
17     Eemt: [0 err_pkts][0.00 %]
18     Actual Stats Rcvd: [0 bytes][0.00 Mbit/sec]
19     Send: [0 pkts ][0.00 pkt/sec]
20     Esnd: [1848 bytes][0.00 Mbit/sec]
21     Drop: [22 pkts ][1.47 pkt/sec]
22     Pthr: [0 err_pkts][0.00 %]
23     Emit: [0 bytes][0.00 %]
24     Eemt: [0 bytes][0.00 %]
25     Actual Stats Rcvd: [0 bytes][0.00 Mbit/sec]
26     Send: [0 pkts ][0.00 pkt/sec]
27     Esnd: [0 bytes][0.00 Mbit/sec]
28     Drop: [0 pkts ][0.00 %]
29     Eemt: [0 err_pkts][0.00 %]
30 Cluster #1 : IF dnal:
31     Absolute Stats Rcvd: [4457954 pkts][4526709192 bytes][0 pkts dropped]
32     Send: [2372621 pkts][381635326 bytes]
```

Image 1

Information is presented as follows (see Image 1, Image 2):

- Memory used:
 - 1 - date and time of data accessing,
 - 2 - memory type,
 - 3 - information volume.
- CPU load:
 - 4 - general load,
 - 5 - load by cores.
- Statistics on VAS Experts DPI interfaces:
 - 6 - full statistics on received packets/bytes, blocked packets on all interfaces,
 - 7 - full statistics on received packets/bytes, blocked packets on the dna0 interface, here:
 - Rcvd: [2372621 pkts][381635326 bytes][0 pkts dropped] - received packets/bytes
 - Send: [4457954 pkts][4526709192 bytes] - transmitted packets/bytes
 - Esnd: [0 err_pkts][0.00 %] - errors occurred while sending packets
 - Drop: [0 pkts][0 bytes] - blocked packets/bytes
 - Pthr: [0 pkts][0 bytes] - the number of packets/bytes passing without analysis and processing

- Emit: [0 pkts][0 bytes] – packets formed by VAS Experts DPI
- Eemt: [0 err_pkts][0.00 %] - errors that occurred when sending packets generated by VAS Experts DPI

8 – actual statistics on received packets/bytes, blocked packets on dna0 interface,

9 – full statistics on the number of captured, processed, sent packets/sec (see Image 2), e.g. [Captured 1.47 pkt/sec][Processed 1.47 pkt/sec][Send 0.00 pkt/sec].

IPv4_thread_slave=#1 or 0 – flow statistics (0 or 1) – flow number.

```

31 Absolute Stats Rcvd: [4457954 pkts][4526709192 bytes][0 pkts dropped]
32 Send: [2372621 pkts][381635326 bytes]
33 Esnd: [0 err_pkts][0.00 %]
34 Drop: [0 pkts][0 bytes]
35 Pthr: [0 pkts][0 bytes]
36 Emit: [0 pkts][0 bytes]
37 Eemt: [0 err_pkts][0.00 %]
38 Actual Stats Rcvd: [1848 bytes][0.00 Mbit/sec]
39 Send: [22 pkts][1.47 pkt/sec]
40 [0 bytes][0.00 Mbit/sec]
41 [0 pkts][0.00 pkt/sec]
42 Esnd: [0 err_pkts][0.00 %]
43 Drop: [0 bytes][0.00 %]
44 Pthr: [0 pkts][0.00 %]
45 [0 pkts][0.00 %]
46 Emit: [0 bytes][0.00 Mbit/sec]
47 [0 pkts][0.00 pkt/sec]
48 [0 pkts][0.00 pkt/sec]
49 Eemt: [0 err_pkts][0.00 %]
50 Cluster #1 : Aggregated Actual stats: [Captured 1.47 pkt/sec][Processed 1.47 pkt/sec][Send 0.00 pkt/sec]
51 [STAT ][2019/11/14-03:20:03:144266] IPv4_Statistics 'Flow nodes' :
52 IPv4_thread_slave#0 : 0/71689/156905/1763/0 ( 986/0/155919 ) ( 0-0/0-0/0-0/0-0 )
53 0/0/60000/60000 ( 0/0 0/0 0/0/0 )
54 IPv4_thread_slave#1 : 0/72190/64551/1036/0 ( 722/0/63829 ) ( 0-0/0-0/0-0/0-0 )
55 0/0/60000/60000 ( 0/0 0/0 0/0/0 )
56 IPv4_total : allocate=1708/3008000 ( 0/143879/221456/2799/0/7 ) ( 1708/0/219748 ) ( 0-0/0-0/0-0/0-0 )
57 0/0/120000/120000 ( 0/0 0/0 0/0/0 )
58 IPv4_actual: new=0 [0 flw/sec] close=0 [0 flw/sec] rei=0 [0 flw/sec]
59 [STAT ][2019/11/14-03:20:03:144298] IPv4_Statistics 'IP nodes' allocation :
60 total : allocate=5320/6000000
61 [STAT ][2019/11/14-03:20:03:144308] Detailed statistics on HTTP :
62 thread_slave=0 :
63 url/lock=37475/0 ( 1022,154,0 )( 1,155,154 )
64 ssl/lock=15249/0 ( 0,28,0 )( 1,29,28 )
65 cna/lock=6799/0 ( 0,0 )
66 sni/lock=8450/0 ( 0,28 )
67 quic/lock=0/0 ( 0,0,0 )( 0,0,0 )
68 chnprc=0
69 ccheck/ip_check/lock=372832/45263/0 0/0/0
70 thread_slave=1 :
71 url/lock=40654/0 ( 2069,52,0 )( 1,52,51 )
72 ssl/lock=13571/0 ( 0,6,0 )( 1,7,6 )
73 cna/lock=6081/0 ( 0,0 )
74 sni/lock=7490/0 ( 0,6 )
75 quic/lock=0/0 ( 0,0,0 )( 0,0,0 )
76 chnprc=0
77 ccheck/ip_check/lock=638907/55221/0 0/0/0
78 Total :
79 url/lock=78129/0 ( 3091,206,0 )( 2,207,205,80000 )
80 ssl/lock=28820/0 ( 0,34,0 )( 2,36,34,320000 )
81 cna/lock=12880/0 ( 0,0 )
82 sni/lock=15940/0 ( 0,34 )
83 quic/lock=0/0 ( 0,0,0 )( 0,0,0,0 )
84 chnprc=0
85 ccheck/ip_check/lock=1011739/100484/0 0/0/0
86 [STAT ][2019/11/14-03:20:03:144500] FRWL statistics : 0/0/0
87 [STAT ][2019/11/14-03:20:03:144516] Statistics on NFLW_Full : {765/0/1441180}
88 NFLW_Full IPv4{2318051/888480643}/4159619/3978865341/340/1315/1804}
89 [STAT ][2019/11/14-03:20:18:145013] Memory usage : 'virtual'/'resident' 8877088768/4023791616
90 [STAT ][2019/11/14-03:20:18:145054] CPU statistics :
91 cpu_total : 0.0Nus 7.8Ksy 0.1Nn1 92.0Nid 0.0Nwa
92 cpu0 : 0.0Nus 0.3Nsy 0.0Nn1 99.7Nid 0.0Nwa
93 cpu1 : 0.1Nus 16.7Nsy 0.3Nn1 83.0Nid 0.0Nwa
94 cpu2 : 0.0Nus 5.0Nsy 0.0Nn1 95.0Nid 0.0Nwa
95 cpu3 : 0.1Nus 8.7Nsy 0.1Nn1 91.1Nid 0.0Nwa

```

Image 2

• Protocol statistics:

- Statistics by IP:

10 – current flows number, here

IPv4_total : allocate=1708/3008000 – parameter is set in /etc/dpi/fastdpi.conf:

mem_tracking_flow (e.g.=3008000)

3008000 – total / 1708 – taken

- Blocking counters:

url/lock=341/5 (0,0)(1,1,0,98879)

ssl/lock=47/0 (21,457)(0,69,69,196647)

chnprc=0

ccheck/ip_check/lock=2954/503/76

url/lock – URL checked/blocked

- (0,0) :

first 0 - number of URLs that could not be parsed
 second 0 - number of packets with partial URLs (URL in several packets)
 (1,1,0,98879) :
 1 - parsers used
 1 - parsers were used in total
 0 - how many parsers are not involved after use
 98879 -

how many parsers can be created

- ssl/lock - similarly to URL, but for cname
 chnprc=0 - parser change http ↔ https
 ccheck/ip_check/lock - 2954/503/76 statistics on check by IP/port
- 2954 - were to check by IP
 503 - how many times the check was actually performed
 76 - packets blocked
- Firewall statistics - **11**.
- Netflow statistics - **12**,

In version 9.4.1 statistics on packet sizes have been expanded, Jumbo Frames have been added
 [STAT][2020/09/09-13:44:33:322801] Packet size (abs/delta, in %):

		<=64	<=128	<=256	<=512	<=1024
<=2048	<=4096	<=8192	>8192			
subs->inet:		0.0/0.0	0.0/0.0	0.0/0.0	0.0/0.0	0.0/0.0
0.0/0.0	0.0/0.0	0.0/0.0	0.0/0.0			
inet->subs:		0.0/0.0	0.0/0.0	0.0/0.0	0.0/0.0	0.0/0.0
0.0/0.0	0.0/0.0	0.0/0.0	0.0/0.0			