

INTRODUCTION / OVERVIEW

- nsconmsg is the tool which operates on newnslog and most widely used tool for troubleshooting
- Reads newnslog formatted log files and displays the data
- newnslog files are located in the /var/nslog/ directory
- Common items viewed from a newnslog are counter statistics, console messages, events, commands, feature specific output and system stats
- Run the following command, in shell, to view all nsconmsg usage operations: # nsconmsg -h

GENERIC SYNTAX Use option -K (uppercase) for reading newnslog and not -k (lowercase) overwrites the newnslog

```
# nsconmsg -K /var/nslog/<newnslogFILE><operations>
# nsconmsg -K /var/nslog/newnslog -g <counter name> -s <operation> -d <operation>
```

HIGH MEMORY

```
# nsconmsg -K newnslog -d memstats
```

-d memstats Display current memory statistics

```
# nsconmsg -K newnslog -s ConMEM=x -d oldconmsg | more
```

-s ConMEM=X Set value to debug/view memory details. Used to view more specific details or view historical data vs. memstats. X = 1, 2, or 3—depending on level of details.

```
# nsconmsg -K newnslog -g mem_err -d statswt0
```

-g mem_err Searching for any mem_err (memory error) counters without a value of 0—incrementing memory error counters.

Showing Memory Failures using -g mem_err_alloc_failed counter

```
8 | 0 | 82 | 82 | 11 | mem_err_alloc_failed | MEM_CONN | Wed Jan 28 19:20:36 2015 (Aggr)
5 | 0 | 82 | 82 | 11 | mem_err_alloc_failed | MEM_CONN | Wed Jan 28 19:20:36 2015 (PE-2)
```

Example: High Memory Usage with Allocation Failures in MEM_CONN pool

```
# nsconmsg -K newnslog -s ConMEM=2 -d oldconmsg | more
TotalMEM: (7679745280/8589934592) Allocated: 7553587008(87.94%) ActualInUse: 7373698149(85.84%)
Free: 1036347584
```

MEMPOOL	MaxAllowed	CurAlloc	Bytes(Own%)	Overall%	ErrLmtFailed	ErrAllocFailed	ErrFreeFailed
MEM_CONN	8589934590	7077902336	(82.40%)	82.40%	0	52	0

RATE LIMITS | Mbit

NetScaler will drop packets if the model reaches its system limits

nic_err_rl_pps_pkt_drops Packets dropped due to packets/sec (PPS) rate limit

nic_err_rl_rate_pkt_drops Packets dropped due to throughput rate limit

Example: NS experiencing System Limits - nic_err_rl counter is incrementing

```
nsconmsg -K newnslog -g nic_err_rl -d current -s disptime=1 | more
```

Index	rtime	Totalcount-val	delta	rate/sec	symbol-name&device-no&time
1	0	16979356	1006	143	nic_err_rl_pkt_drops interface(0/1) Tue Aug 23 16:17 2016
2	0	16979356	1006	143	nic_err_rl_rate_pkt_drops interface(0/1) Tue Aug 23 16:17 2016

NetScaler mbit is calculated in the rate column

nic_tot_rx_mbits Rate value for mbits received

nic_tot_tx_mbits Rate value for mbits transmitted

COMMONLY USED OPERATIONS

-d <operation> — display performance data

setime Display the start and end time of data file

stats Display current statistic counters

statswt0 Display non-zero statistic counters

current Display current performance data

event Display event details

consmsg Display console messages

-s <operation> — set debug parameter

ConMEM=x Set value to debug/view memory details

ConLb=x Set value to debug/view load balancing stats

disptime=1 Display time information

time=ddmmyyyy Set operation start time

-g <counter> — display only these counters with pattern match (grep)

Example: nsconmsg -K newnslog -g nic_err -g ssl_err -s disptime=1 -d current

LOAD BALANCING

```
# nsconmsg -K newnslog -j <LBvipNAME> -T 7 -s ConLb=2 -d oldconmsg
```

-j <LBvipNAME>

-s ConLb=X

Example: Showing LB VIP's high response times and Surge Queue build up

```
# nsconmsg -K newnslog -j exchangeVIP -s ConLb=3 -d oldconmsg | more
```

S(192.168.1.10:80:UP) Hits(41993, 15/sec, P[41993, 15/sec]) ATr(3159:2975) Mbps(12.31) BWlmt (0 kbits) RspTime(2013.65 ms) Load(0) LConn_idx: (C:825; V:2975, I:1, B:0, X:2975, SI:0)

Other: Pkt(1490/sec, 954 bytes) Wt(1) Wt(Reverse Polarity)(10000)

Conn: CSvr(2744, 6/sec) MCSvr(2576) OE(2596) E(2596) RP(0) SQ(563)

slimit_maxClient: (MaxClit: 0 [Ex: 0] Consumed: [Ex: 0 Borrowed: 0 TotActiveConn: 2596] Available: 0) newlyUP_mode: NO, Pending: 0, update: 0x0, incr_time: 0x0, incr_count: 0

HIGH CPU

```
# nsconmsg -K newnslog -g cpu_use -d current
```

-g cpu_use Search for pattern string (grep) cpu_use

-g cc_cpu_use Search for Packet engine (PE) CPUs

-g mgmt_cpu_use Search for Management CPU

Note: Look for the totalcount-val column

<100 Below 10%

500 50%

1000 100%

Example: PE CPU1 & PE CPU2 are above 90% CPU utilization

```
# nsconmsg -K newnslog -g cc_cpu_use -s disptime=1 -d current | more
```

Index	rtime	totalcount-val	Delta	rate/sec	symbol-name&device-no&time
0	7000	939	734	104	cc_cpu_use cpu(1) Wed Aug 17 04:11 2016
1	0	901	677	96	cc_cpu_use cpu(2) Wed Aug 17 04:11 2016