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NSCONMSG COMMANDS

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	MaxAllowd	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> | View stats for specific LB Vserver (case sensitive) |
| -s ConLb=X | Set value to debug/view LB details X = 1, 2, or 3—depending on level of details |

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

```
#nsconmsg -K newnslog -j exchageVIP -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: (MaxClt: 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