NMIS Threshold Configuration

NMIS includes a powerful thresholding feature, for comparing the collected performance data against the configured thresholds.

For details on configuring thresholds please refer to Basic and Advanced Thresholds in NMIS8

Standard List of Thresholds in NMIS

This is a summary of the thresholds and the associated vendors.

Threshold Name	Event	Vendor
available	Proactive Interface Availability	Common for all Vendors
calls_util	Proactive Calls Utilisation	Cisco
ccpu	Proactive CPU	Cisco
cpu	Proactive CPU	Cisco (the most common for Cisco devices)
cpuUtil	Proactive CPU	Alcatel, Zyxel
cpu_cpm	Proactive CPU	Cisco
env_temp	Proactive Temp	Cisco, Zyxel
hrsmpcpu	Proactive CPU	Microsoft
jnx_buffer	Proactive Buffer Utilisation	Juniper
jnx_cpu	Proactive CPU	Juniper
jnx_heap	Proactive Heap Utilisation	Juniper
jnx_temp	Proactive Temp	Juniper
mem-proc	Proactive Memory Free	Cisco
memUtil	Proactive Memory Utilisation	Alcatel, Zyxel
modem_dead	Proactive Dead Modem	Cisco
modem_unav	Proactive Modem Utilisation	Cisco
pkt_discards_in	Proactive Interface Discards Input Packets	Common for all Vendors
pkt_discards_out	Proactive Interface Discards Output Packets	Common for all Vendors
pkt_errors_in	Proactive Interface Error Input Packets	Common for all Vendors
pkt_errors_out	Proactive Interface Error Output Packets	Common for all Vendors
reachable	Proactive Reachability	Common for all Vendors
response	Proactive Response Time	Common for all Vendors
ssCpuRawIdle	Proactive CPU IO Idle	net-snmp (Linux, Solaris, etc)
ssCpuRawSystem	Proactive CPU IO System	net-snmp (Linux, Solaris, etc)
ssCpuRawUser	Proactive CPU IO User	net-snmp (Linux, Solaris, etc)
ssCpuRawWait	Proactive CPU IO Wait	net-snmp (Linux, Solaris, etc)
util_in	Proactive Interface Input Utilisation	Common for all Vendors
util_out	Proactive Interface Output Utilisation	Common for all Vendors

Tracking Which Threshold to Change

If you are receiving events for a threshold and you are wanting to tune/modify those thresholds, the best way to do this is to first get the name of the node and the event. Using the table above will help you to determine if this event is a vendor specific event or if it is common for all vendors.

In the case of an event which is common for all vendors, you can follow the documentation Basic and Advanced Thresholds in NMIS8 to modify the levels accordingly.

If the thresholds are vendor specific you will need to identify which "threshold name" to modify, the hardest one to find is the threshold for CPU, to determine which one, access the model for the node in question, and look in the model for how CPU is managed, for Cisco Routers it is in the system -> nodehealth section, this will include the names of the thresholds, e.g. the Section=nodehealth includes the relevant threshold variables at the bottom.

system		Section=nodehealth					add delete
system			graphtype	buffer,cpu,mem-io,mem-proc,mem-router,routenumber			edit
system			Protocol=snmp				add
system				DS=MemoryFreeIO			add delete
system					SNMP oid	ciscoMemoryPoolFree.2	edit
system				DS=MemoryFreePROC			add delete
system					SNMP oid	ciscoMemoryPoolFree.1	edit
system				DS=MemoryUsedIO			add delete
system					SNMP oid	ciscoMemoryPoolUsed.2	edit
system				DS=MemoryUsedPROC			add delete
system					SNMP oid	ciscoMemoryPoolUsed.1	edit
system				DS=RouteNumber			add delete
system					SNMP oid	ipCidrRouteNumber	edit
system				DS=avgBusy1			add delete
system					SNMP oid	avgBusy1	edit
system				DS=avgBusy5			add delete
system					SNMP oid	avgBusy5	edit
system				DS=bufferElFree			add delete
system					SNMP oid	bufferElFree	edit
system				DS=bufferElHit			add delete
system					SNMP oid	bufferElHit	edit
system					RRD option	counter,U:U	edit delete
system				DS=bufferFail			add delete
system					SNMP oid	bufferFail	edit
system					RRD option	counter,U:U	edit delete
system			threshold	cpu,mem-proc			edit delete

In this example the threshold name to modify is just "cpu" and the process is described in Basic and Advanced Thresholds in NMIS8.