

opCharts Node Dependency Management (Root Cause Analysis)

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Overview

The opCharts 3.3.5 and 4.2.2 release included a feature to automate the management of node dependencies in NMIS. This feature is very powerful for reducing the overall noise generated by a large network outage.

Currently the feature works by identifying all the routers in your network and all the subnets connected to those routers. It then uses the opCharts topology information to find all nodes on a given subnet, this would include servers and switches, and then making them dependant on the routers connected to that subnet.

The result for example is that when a remote office has a problem with power, you would get many Node Down events in NMIS, but all these nodes are now dependant on the main router, so NMIS will ONLY escalate the routers Node Down events and the other events will be suppressed.

Events will still be logged, but not escalated, do get the benefit of this feature you need to be using the NMIS escalation system. To change opEvents to use the NMIS Escalation system you can follow the instructions at [Leveraging NMIS Dependency in opEvents](#)

Using the Feature

You should first of all make a backup of your NMIS Nodes.nmis file, if your setup is a regular setup, there will be automatic configuration backups run every 24 hours.

Clear Existing Dependencies

Optionally, clear all the existing dependency setup. You should do this if you have "N/A" as dependencies but if you have been manually setting this you can just let the system add dependencies by skipping this step.

```
/usr/local/omk/bin/opcharts-cli.pl act=clear-all-node-depend
```

Auto Discovery of Subnet Dependencies

```
/usr/local/omk/bin/opcharts-cli.pl act=update-subnet-dependancy
```

That's it. You can see the what is happening by adding "debug=true" to the end of the command.

Configuration Options - WIP

It would not be an Opmantek solution if it did not include configuration options. Currently there are three fairly straight forward options which are configured in omk/conf/opCommon.nmis

Configuration Option	Default Value	Description
opcharts_subnet_skip	qr/(^127\.\0\ ^169.254\ ^192.168\.)	Do not include these subnets for dependancy analysis, this might include your core network for example.
opcharts_router_names	qr/^RTR/	These devices are DEFINITELY routers and will be considered as such.
opcharts_router_skip	qr/-router1\$/	These devices might be routers but you do not want to do process anything from them.