CoS Report

The Class of Service report is intended to provide an overview of the Quality/Class of Service configuration and utilisation of the selected Juniper devices.

It presents for each selected Node, Interface and Class, the Policy/Interface Speed, the average Utilisation of the class, the 95th percentile of the class Utilisation, the percentage of dropped bytes and the cumulative Class Usage or traffic.

Level Coloring Options

The report offers configurable level coloring for the utilisation, 95th percentile and drop percentage columns (separately):
The named set of coloring rules is selected in the report scheduling GUI in the Layout tab, under "Level Color Scheme".

opReports ships with one rule set called 'default', and you can configure further sets by editing `conf/opCommon.nmis`.

Here is an excerpt of the 'default' rule set:

```
'report_jcos_levels' => {
  'your ruleset name' => {
    'util' => {
            'ok' => { description =>  "<70%", threshold => -1, color => "" },
            'yellow' => { description => ">70%", threshold => 70, color => "#ffff00" },
...
    },
    'util95th' => {
...    },
    'dropped' => {
...    }
  },
},
```

The format is quite straightforward: The section named `util` sets the rules for coloring the Class Utilisation column, similar for `util95th` and `dropped`. Each section consists of a number of named rules and properties:

- The `color` property sets the HTML/CSS background color for the cell.
  Empty means no background color.
- The `description` text is used for the color legend.
- The `threshold` sets the minimum value for the rule to apply.
  The rule with the lowest `threshold` value that is equal to or greater than the measurement is the one that controls the coloring.
- The rule `name` is used only for CSV output, where colors are not possible.
  For CSV outputs, the rule `name` is shown in a separate "Status" column.

Data Source Considerations

The Juniper CoS implementation does not support Class-level speeds; opReports therefore applies the configured interface speed as the Policy Speed. Any misconfigured interface speeds will badly affect the report output.

Class Utilisation is calculated based on the "Queued Bytes" measurement. The Dropped Bytes percentage is computed as the difference between "Queued" and "Transmitted" bytes relative to "Queued" bytes. Class Usage or total cumulative traffic is computed based on "Transmitted" bytes.