

Baseline Deviations

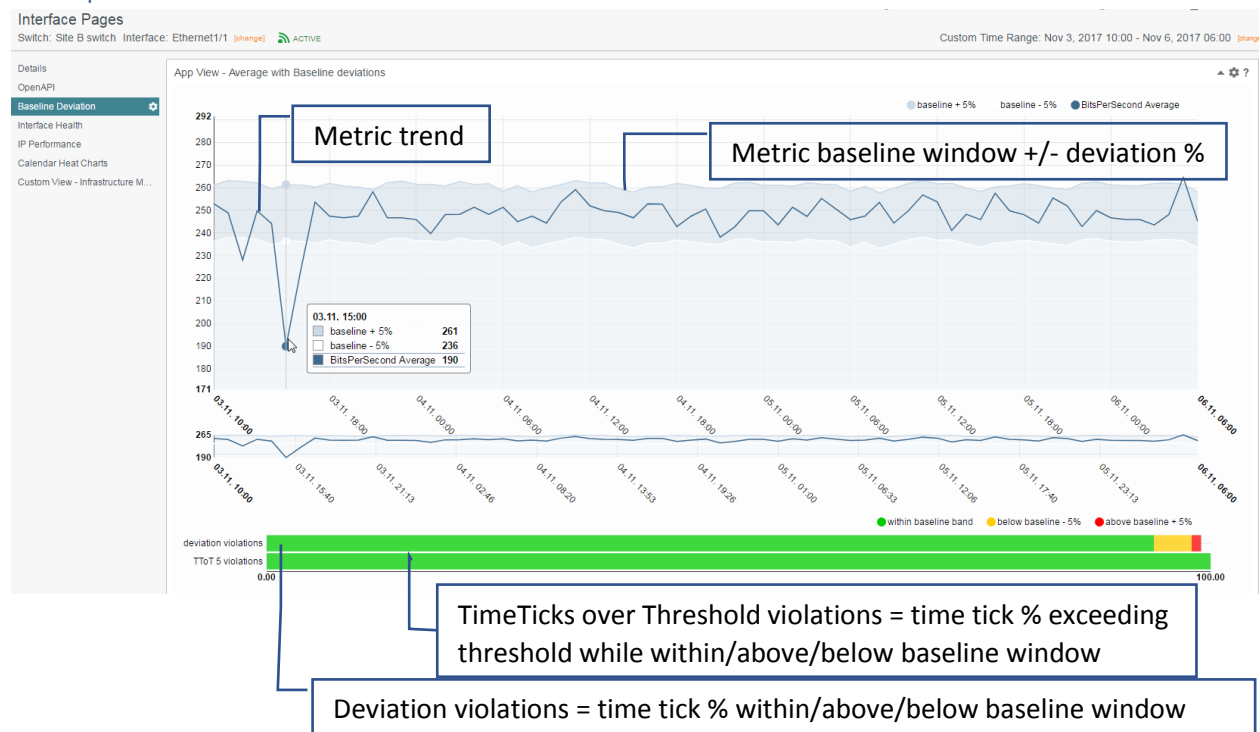
Custom CA PC app which displays an interface metric average trend line along with the associated window defined by the metric baseline mean plus/minus a deviation percentage. In bottom area, it displays in horizontal bar chart

- the percentage of upper and lower baseline window violations
- the percentage of time ticks that violate the "Time Ticks over Threshold" threshold

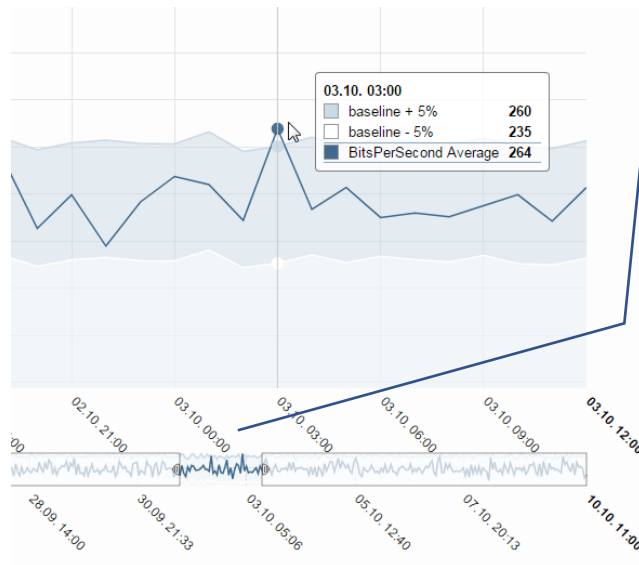
Use Case

Interfaces should be monitored for "deviations from normal".

Example



With larger time ranges, the overview panel can be used to select a focus area to review spikes etc:



Move and change width of the slider to change the view area in the primary view

Approach

CA PC app with following characteristics

- uses DA RIB webservice to query metric trend and baseline mean
- Uses nvd3 graphics library
- lives on interface context page
- uses hourly resolution, with recommended time ranges of 1 day or above

Installation

The app is packed in a ZIP archive and can be installed through CA PM 3.2+ App Deployment function.

1. Store baselineDeviation.zip on your workstation
2. Under CA PC Administration -> App Deployment, select the zip archive and install it.
3. Navigate to an interface context page.
4. Add a context tab, name it e.g. Baseline Deviation
5. In page editor, select single column layout and create an App View (under External Links) and select "Baseline deviations" in the app drop down.

App view parameters:

URL=/pc/apps/user/baselineDeviation/baselineDeviations.html?id={ItemIdDA}&startTime={TimeStartUTC}&endTime={TimeEndUTC}&deviation=5&TToTT=5&metricName=BitsPerSecond

(default settings) which consists of

- id={ItemIdDA} page context (interface item ID DA)
- startTime={TimeStartUTC} page context (start time)
- endTime={TimeEndUTC} page context (end time)
- deviation=5 upper/lower bound around baseline mean
- TToTT=5 Time Ticks over Threshold Threshold: threshold for the number of continuous upper or lower bound violations
- metricName=BitsPerSecondIn metric to report on: this is the **internal** attribute name as defined in the interface MF (see below). The metric needs to have baseline support.
- Height: 700

NOTES

- The app is provided as an example and no warranties are provided or made
- Techniques used are d3 xml, d3 queue, RIB parsing, nvd3 lineWithFocusChart, nvd3 multiBarHorizontalChart

Interface internal metric names with baseline support

BitsIn

BitsOut

BitsPerSecond

BitsPerSecondIn

BitsPerSecondOut

Discards

DiscardsIn

DiscardsOut

ErrorsIn

ErrorsOut

FramesIn

FramesOut

Nonunicast

NonunicastIn

NonunicastOut

PctDiscards

PctDiscardsIn

PctDiscardsOut

PctErrors

PctErrorsIn

PctErrorsOut

Utilization

UtilizationIn

UtilizationOut