Monitoring issues during the first week of beam

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High rate monitoring for CTB

- With a 10s opmon_interval we could not resolve the beam spill
  - Being able to see this was requested from operations
  - Beam spill ~ 4s

- We experimented a bit during the beam time
  - since Monday we are running with opmon_interval = 1s for the DAQ applications
    - That is the granularity we can have at the moment
  - No impact on performance
    - Kafka, influx and grafana didn't show any change in behaviour
    - Only difference visible in the opmon_microservice where the CPU consumption increased
      - Increase in CPU usage less than expected from a 10 times increase in the rate

Plots - not affected: kafka, grafana
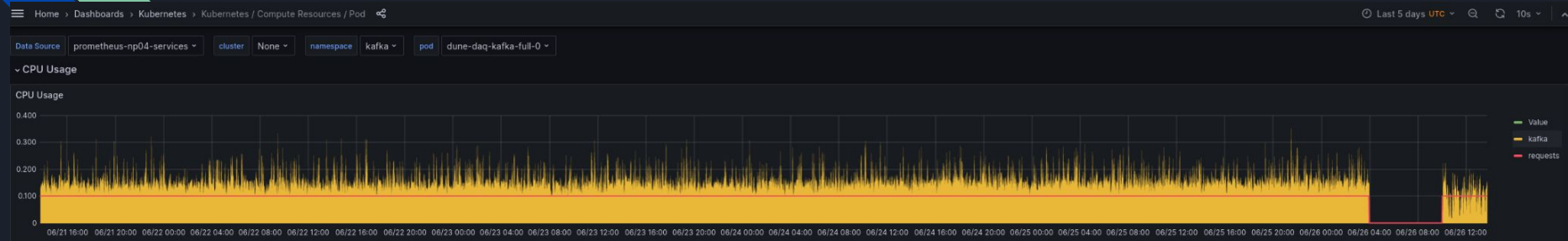
Plots - Affected: mostly telegraf, a bit influx
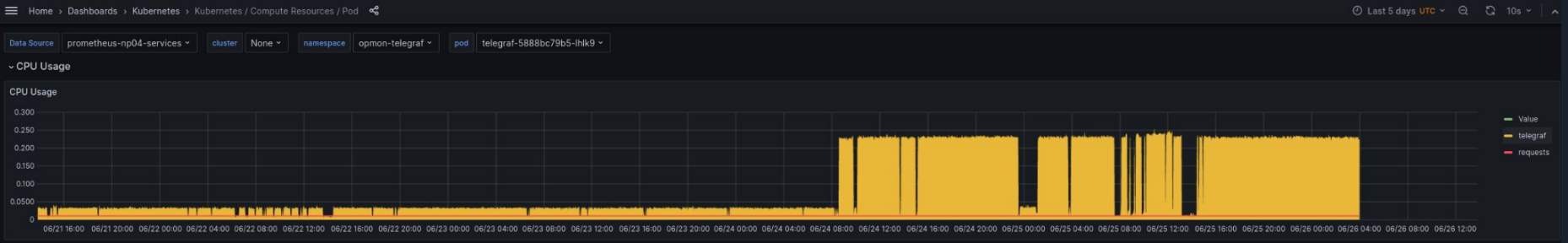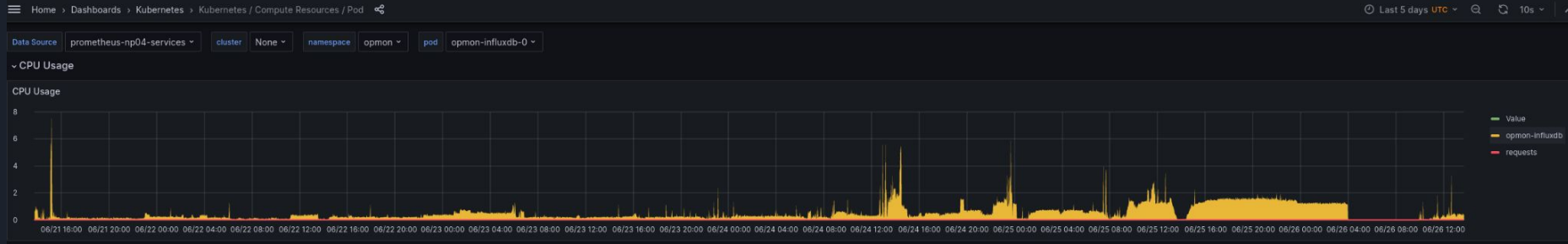
daqconf changes

- I made a PR on daqconf to expose the control of the opmon_interval
  - PR approved and merged

- We plan to run with opmon_interval = 1s on all the DAQ applications for the whole beam
  - DAQ applications excludes controller applications like wibs, daphne, etc

- We will need to change the np04-configs

Implication for opmon_level

- Targeting monitoring opened a quick discussion with Alessandro
  - Summary being: we don't have a clear plan on the opmon_level

- This is true for the current system
  - But also true for the new system where we will have more publishing possibilities

- Discussion is not for now but this is a reminder that we don't have a clear idea
  - This issue of the high rate monitoring is a possible usage case
  - Do we have any others?

opmonlib API status

- Eric approved the first draft of the API

- I haven't merged yet, first I'll discuss with Roland

- Once that is done and merged
    - I will tag opmon - a tag unrelated to the release but necessary to start creating docker images
    - The new image will contain the opmon schema
    - Then I'll move on to a draft of the microservice for the new stream
        - Initial draft will be a python microservice
        - But we will probably explore the telegraf option too