

## Project-based Data Collection

The parameters of data collection currently can be configured only centrally, which means that the settings are applicable for all projects with no exceptions.

Cloud services can be offered to several consumers, who use them in different ways for different purposes. The data, gathered by Ceilometer, can also be used for different purposes from billing to monitoring. The multiple areas of processing the collected data and the several projects, which use the cloud services, introduce the need for configuring the data collection mechanism in a project specific way. It means that for instance, if the cpu utilization data is needed in every 10 seconds for one of the projects and is enough in every 2 minutes for another project, it is not needed to collect the samples in every 10 seconds for both projects. The project specific measurement parameters would also decrease the load on Ceilometer, by making it possible to store only as much information for a project, as necessary.

The data collection and processing is made by a mechanism called pipeline. The pipeline related configuration is now stored in the pipeline.yaml configuration file. To make the settings of a pipeline project specific, the pipeline definition should be extended with an additional section, called projects. This section should contain a list of project\_ids, for which the pipeline definition is applicable. If the list of projects is empty, it means that the configuration of that pipeline is applicable for all projects.

Sample pipeline configuration:

```
---
-
  name: cpu_pipeline_for_project_1
  interval: 10
  meters:
    - "cpu"
  projects:
    - "project_id1"
  resources:
  transformers:
  publishers:
    - rpc://
    - udp://
-
  name: cpu_pipeline_for_project_2
  interval: 120
  meters:
    - "cpu"
  projects:
    - "project_id2"
  resources:
  transformers:
  publishers:
    - rpc://
```

-

```
name: network_and_disk_pipeline
interval: 300
meters:
  - "network.incoming.bytes"
  - "network.incoming.packets"
  - "network.outgoing.bytes"
  - "network.outgoing.packets"
  - "disk.read.bytes"
  - "disk.read.requests"
  - "disk.write.bytes"
  - "disk.write.requests"
projects:
  - "project_id1"
  - "project_id2"
resources:
transformers:
publishers:
  - rpc://
```

By making a change only in this configuration file, the cloud administrator is still the only authorized user, who can set these project specific settings.