NSF/IUCRC CAC PROJECT

INTEGRATED VISUALIZING, MONITORING, AND MANAGING HPC SYSTEMS

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SLURM - JOB METRICS

User specifies the time of termination. If the job is still running, the end_time is the specified time, otherwise, it is **updated** to the actual finish time.

"time": 1583792296,

"measurement": "JobsInfo",

"tags":

    "JobId": 1234567

"fields":

    "StartTime": 1583792500

    "SubmitTime": 1583792200

    "FinishTime": 1583794200

    "JobName": "test"

    "User": "abc"

    "TotalNodes": 2

    "CPUCores": 24

    "NodeList":"['101.10.1.1', '101.10.1.2']"

```
"start_time": 1599169822,

"submit_time": 1599169822,

"end_time": 1599169942,

"name": "run_mpi.sh",

"user_id": 1011,
"user_name": "",

"nodes": 2,

"cpus": 24,

"node_index": [
  0,
  1
],
```

?

There is no corresponding description for the "**node_index**" in the OpenAPI specification

JobsInfo data point for UGE metrics

Corresponding Slurm metrics

SLURM - JOB METRICS

```json
    "name": "run_mpi.sh",
    "nodes": 2,
    "nice": null,
    "node_index": [
      0,
      1
    ],
```

Requests 2 nodes

```json
    "name": "run_mpi.sh",
    "nodes": 1,
    "nice": null,
    "node_index": [
      0,
      0
    ],
```

Requests 1 node

```c
if (job->node_inx)
    _dump_job_int32_list(job->node_inx, data_key_set(jd, "node_index"));
else
    data_set_null(data_key_set(jd, "node_index"));
```

```c
int32_t *node_inx; /* list index pairs into node_table for *nodes:
                    * start_range_1, end_range_1,
                    * start_range_2, .., -1  */
```

 This is an array of integers with pairs of start and end index number into the node information records: node_record_table.

node_record_table is built from slurm.conf

QUESTIONS?/COMMENTS?