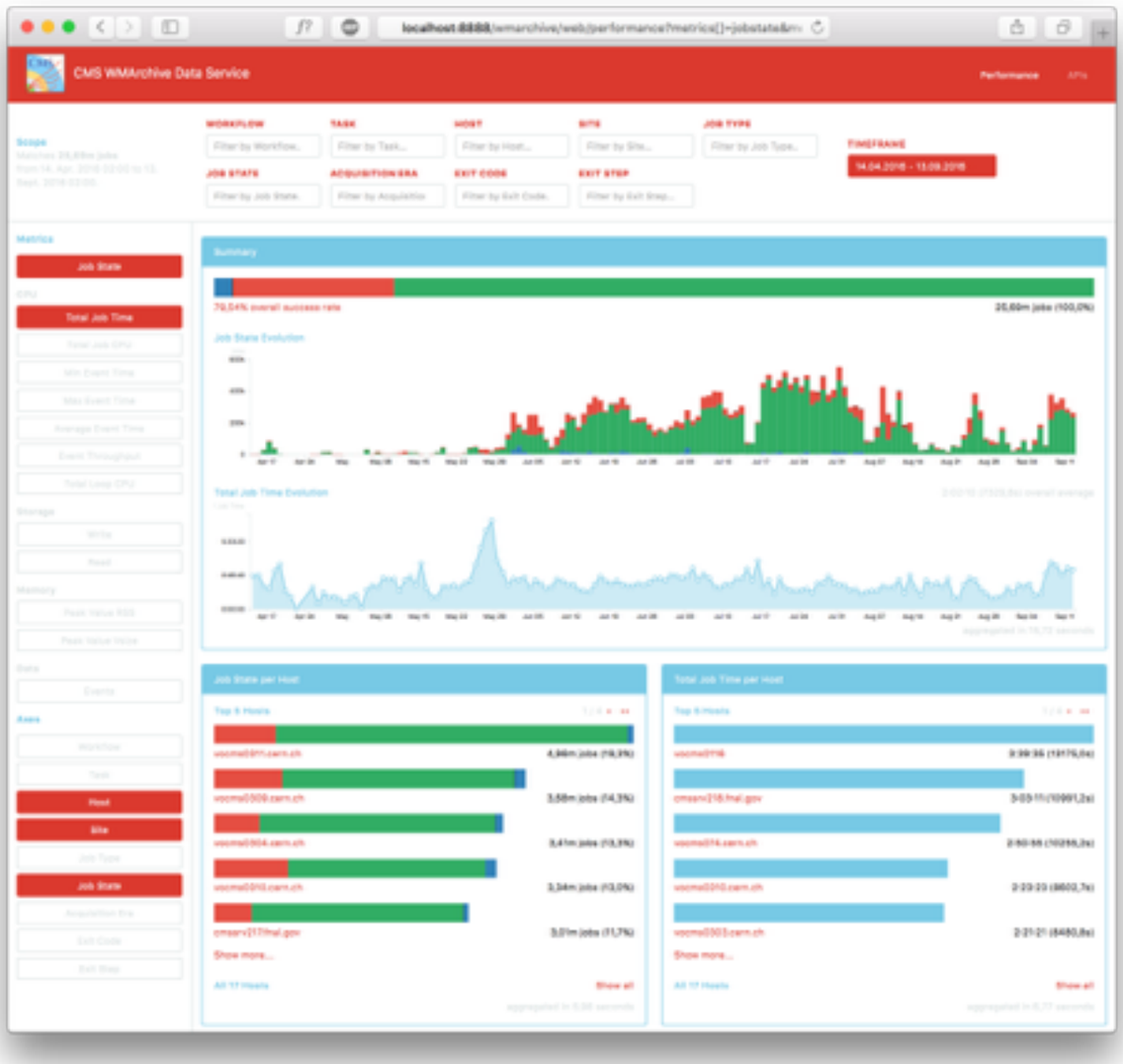
WMArchive

Performance Service



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CERN Summer Student Programme 2016

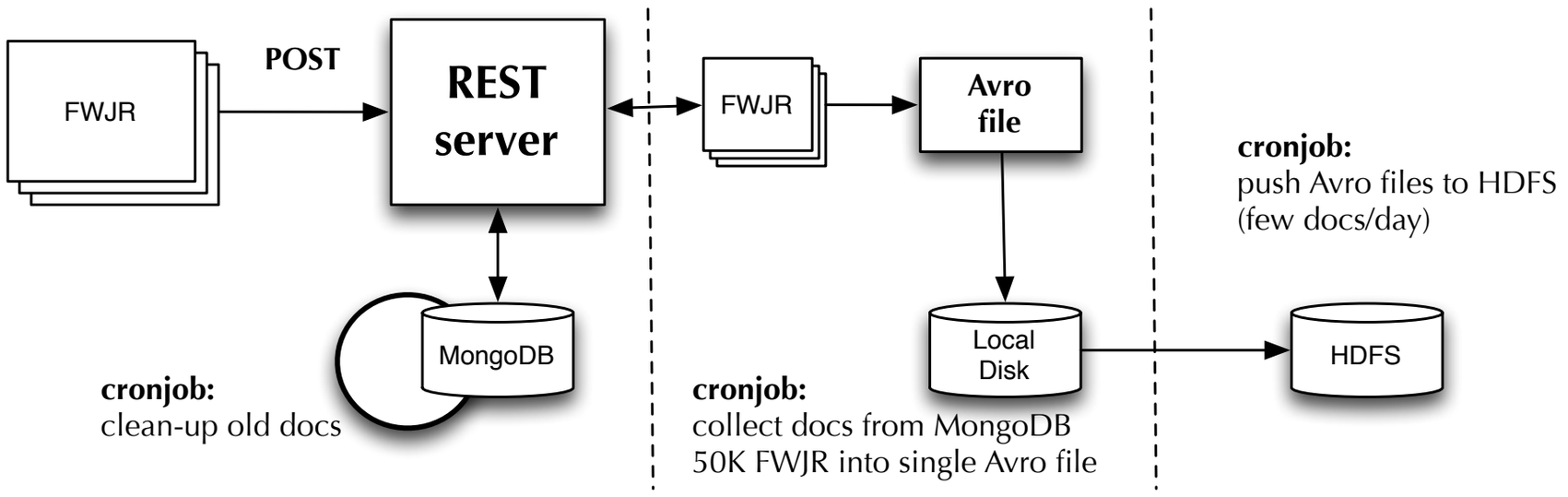
Follow along at:
https://cmsweb-testbed.cern.ch/wmarchive/web/performance

Update on
WMArchive

- CMS production agents store framework job reports (FWJRs) since June 2016

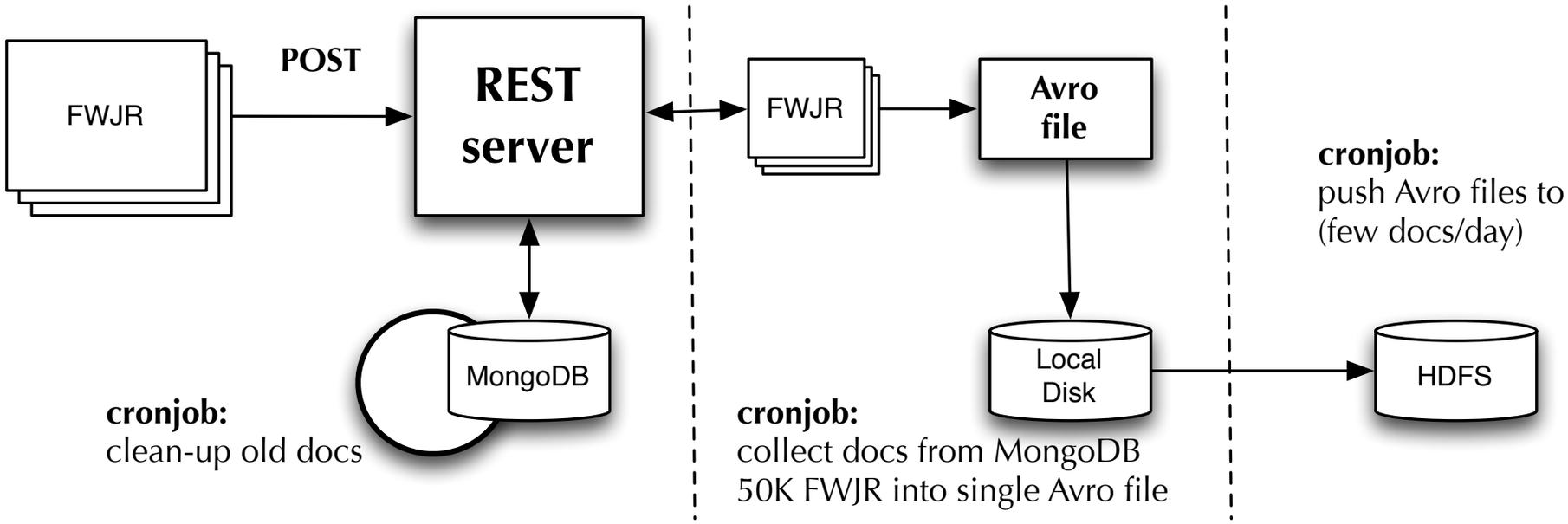
- RESTful interface accessible at https://cmsweb.cern.ch/wmarchive/data

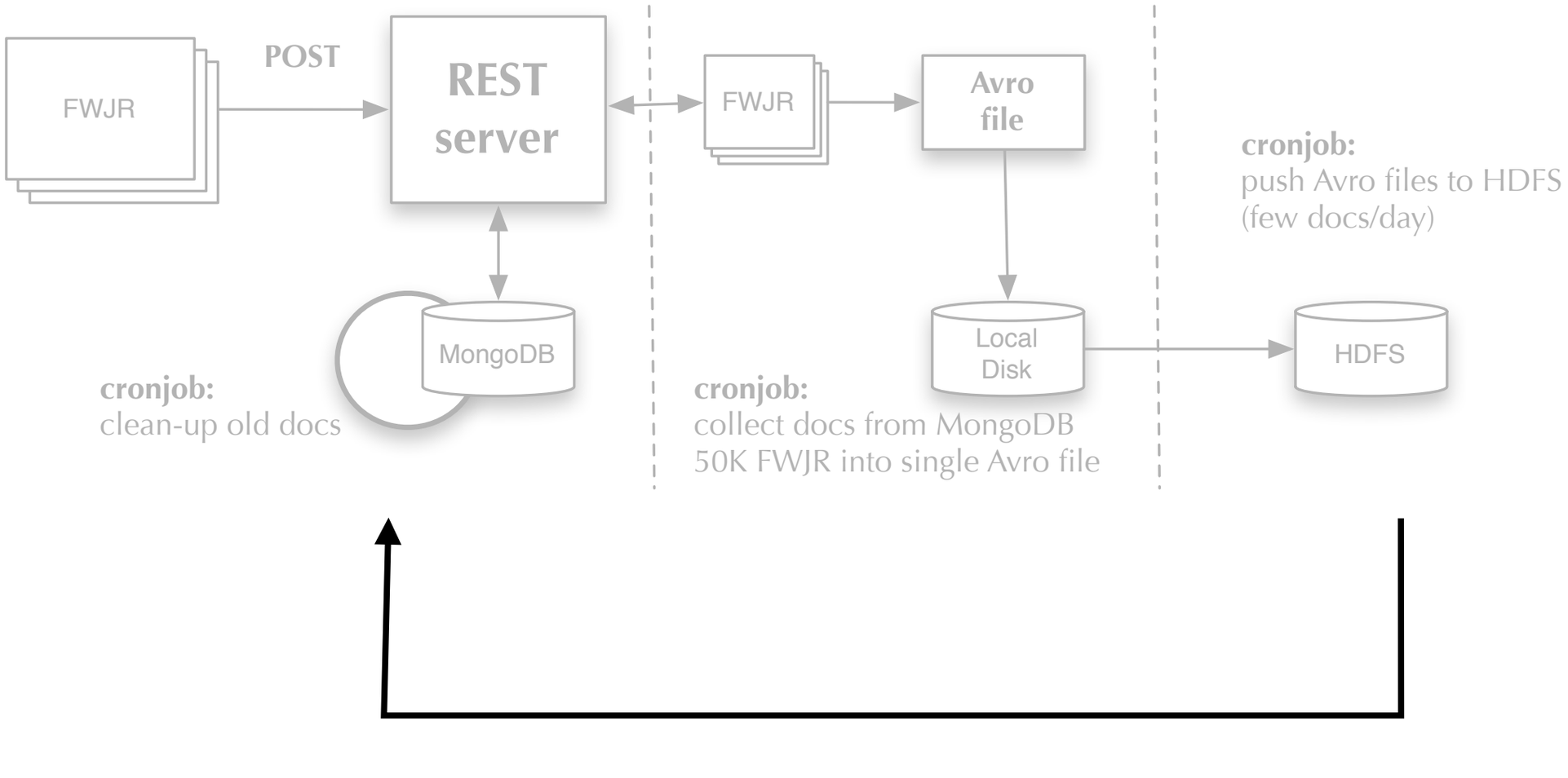
- FWJRs stored in MongoDB buffer first and then migrated to HDFS for long-term storage



WMArchive

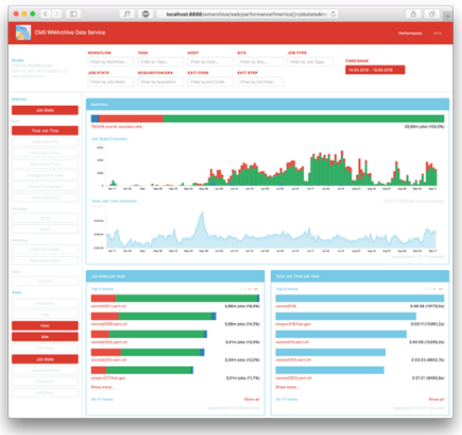
Performance Service



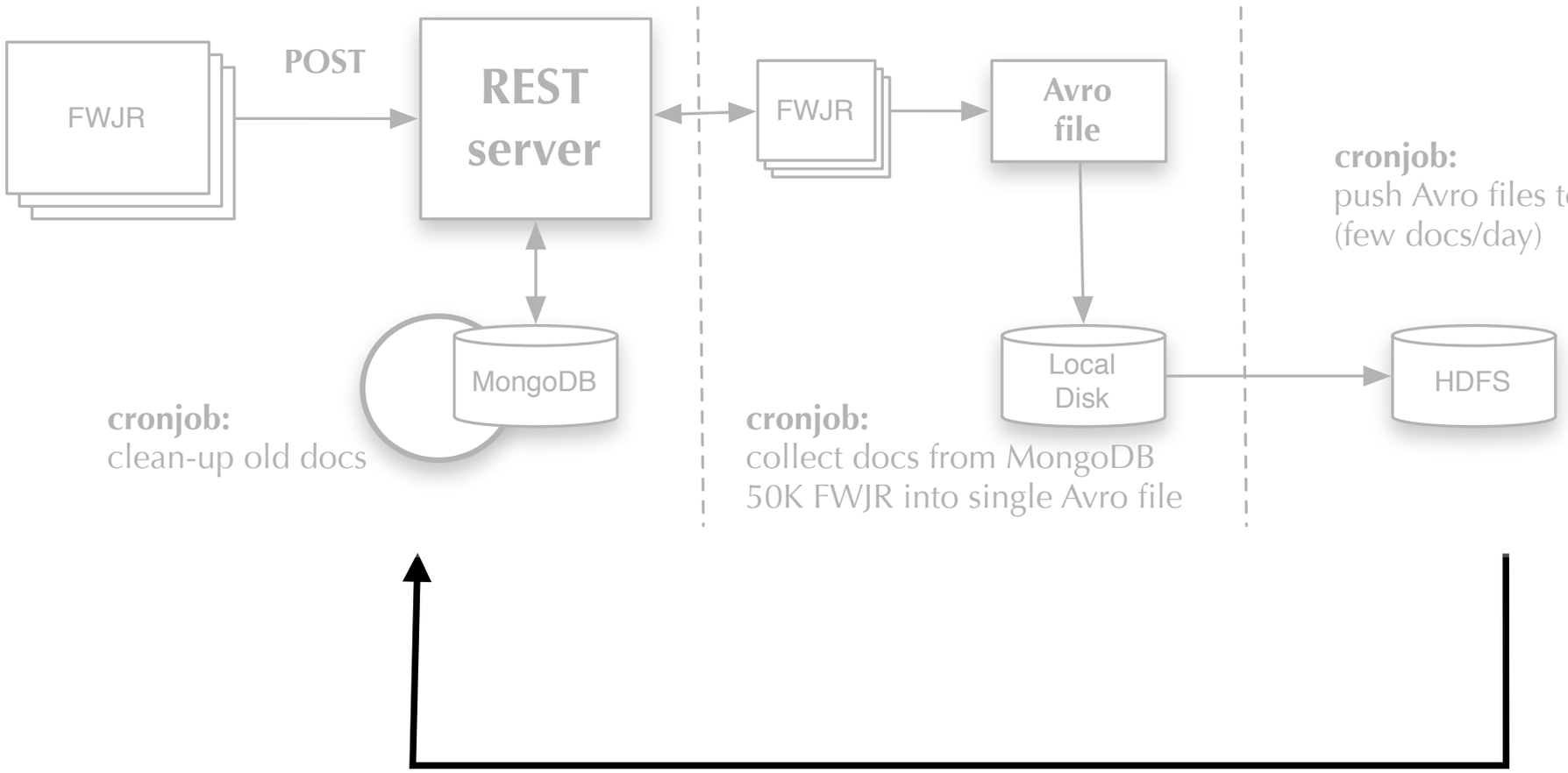


Aggregation
of performance metrics

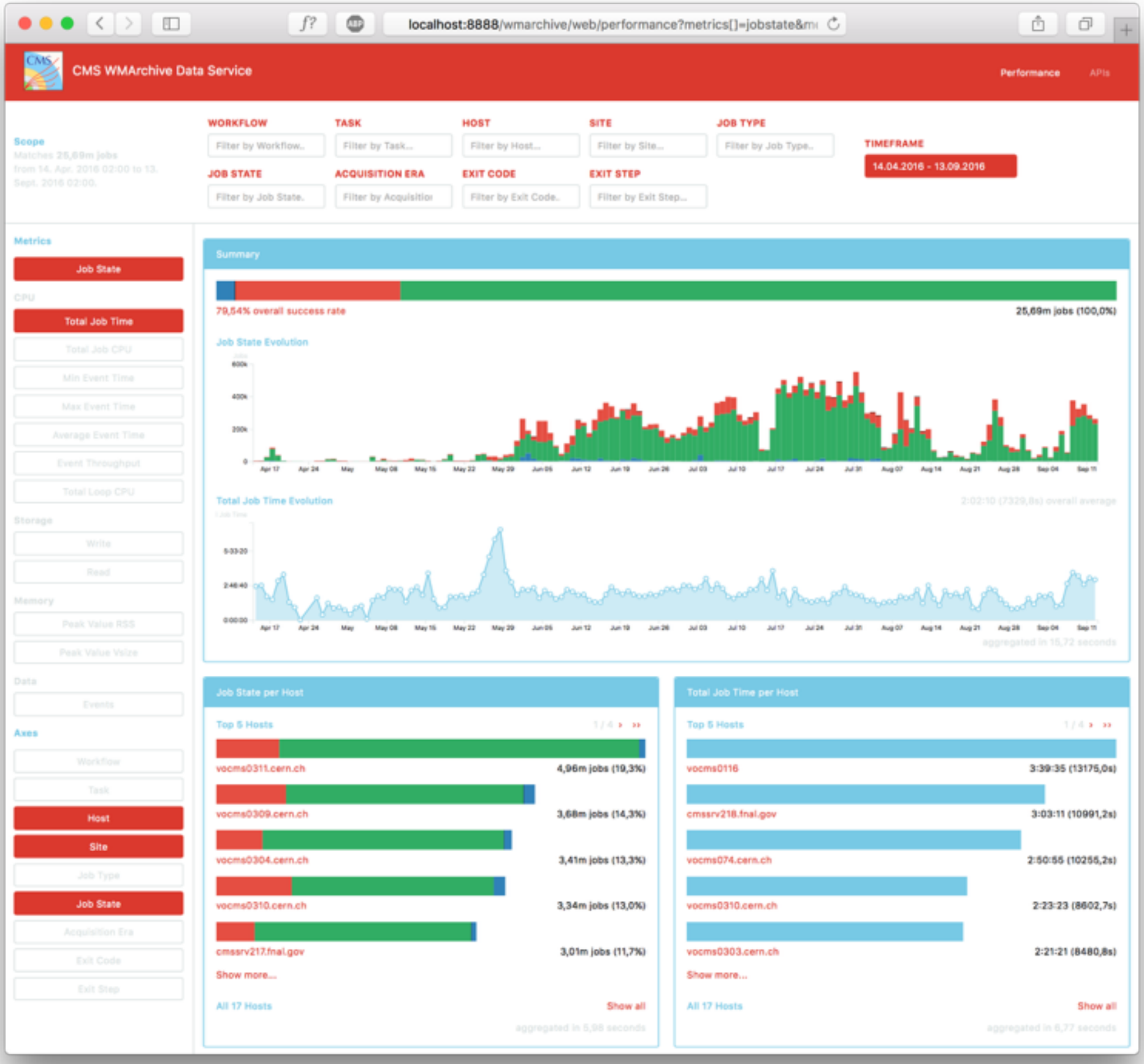
- daily spark scripts
- cache of aggregated performance data
- accessible by REST server



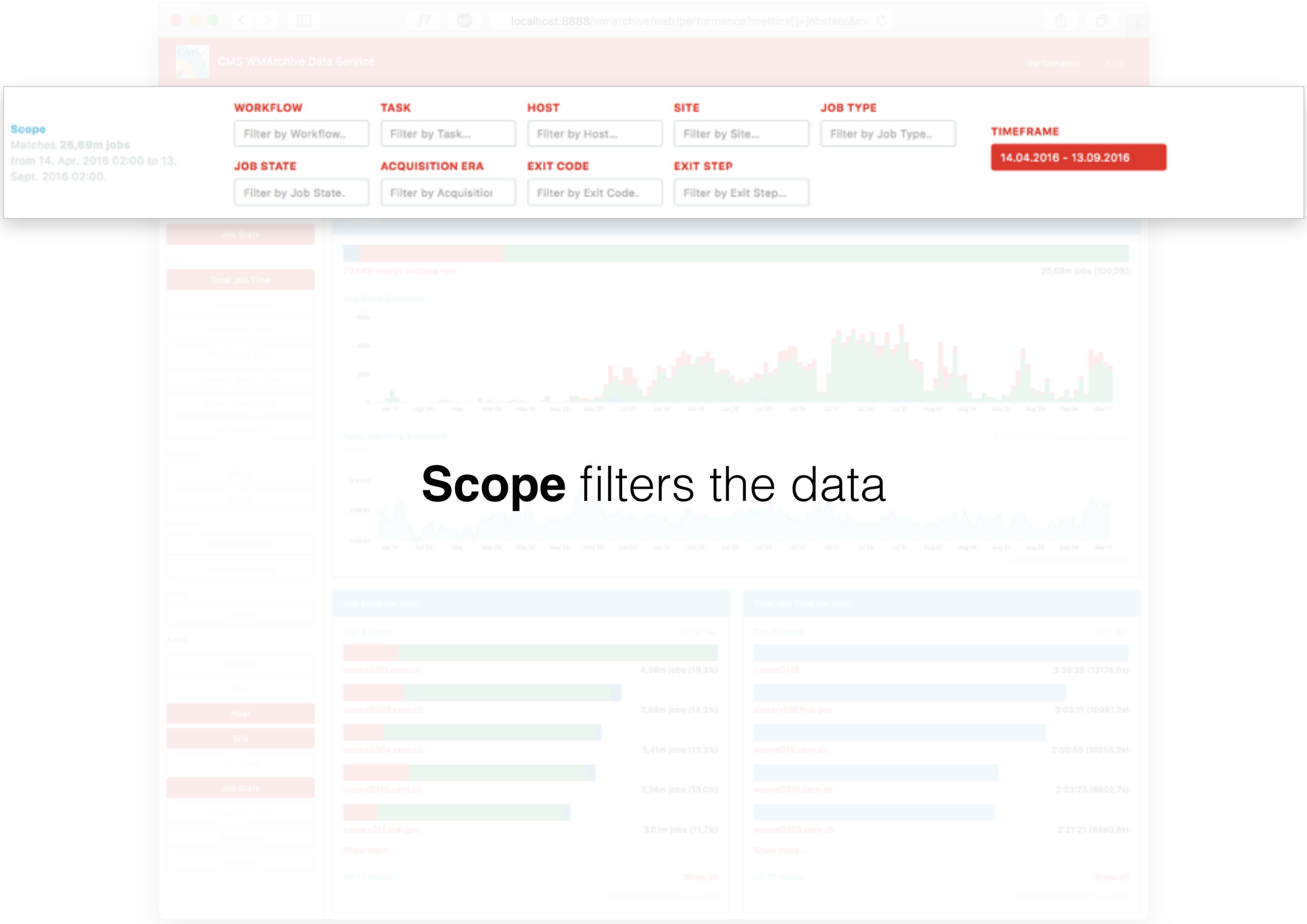
Visualization
in Web UI



Aggregation
of performance metrics


localhost:8888/wmarchive/web/performance?metrics[]=jobstate&m
CMS WMArchive Data Service
Performance
APIs
Scope
Matches 25,69m jobs
from 14. Apr. 2016 02:00 to 13. Sept. 2016 02:00.
WORKFLOW
Filter by Workflow..
TASK
Filter by Task...
HOST
Filter by Host...
SITE
Filter by Site...
JOB TYPE
Filter by Job Type..
JOB STATE
Filter by Job State..
ACQUISITION ERA
Filter by Acquisitio
EXIT CODE
Filter by Exit Code..
EXIT STEP
Filter by Exit Step...
TIMEFRAME
14.04.2016 - 13.09.2016
Metrics
Job State
CPU
Total Job Time
Total Job CPU
Min Event Time
Max Event Time
Average Event Time
Event Throughput
Total Loop CPU
Storage
Write
Read
Peak Value RSS
Peak Value Vsize
Data
Events
Axes
Workflow
Task
Host
Site
Job Type
Job State
Acquisition Era
Exit Code
Exit Step
Summary
79,54% overall success rate
25,69m jobs (100,0%)
Job State Evolution
Total Job Time Evolution
2:02:10 (7329,8s) overall average
aggregated in 15,72 seconds
Job State per Host
Top 5 Hosts
vocms0311.cern.ch
4,96m jobs (19,3%)
vocms0309.cern.ch
3,68m jobs (14,3%)
vocms0304.cern.ch
3,41m jobs (13,3%)
vocms0310.cern.ch
3,34m jobs (13,0%)
cmssrv217.fnal.gov
3,01m jobs (11,7%)
Show more...
All 17 Hosts
Show all
aggregated in 5,98 seconds
Total Job Time per Host
Top 5 Hosts
vocms0116
3:39:35 (13175,0s)
cmssrv218.fnal.gov
3:03:11 (10991,2s)
vocms074.cern.ch
2:50:55 (10255,2s)
vocms0310.cern.ch
2:23:23 (8602,7s)
vocms0303.cern.ch
2:21:21 (8480,8s)
Show more...
All 17 Hosts
Show all
aggregated in 6,77 seconds

Scope filters the data



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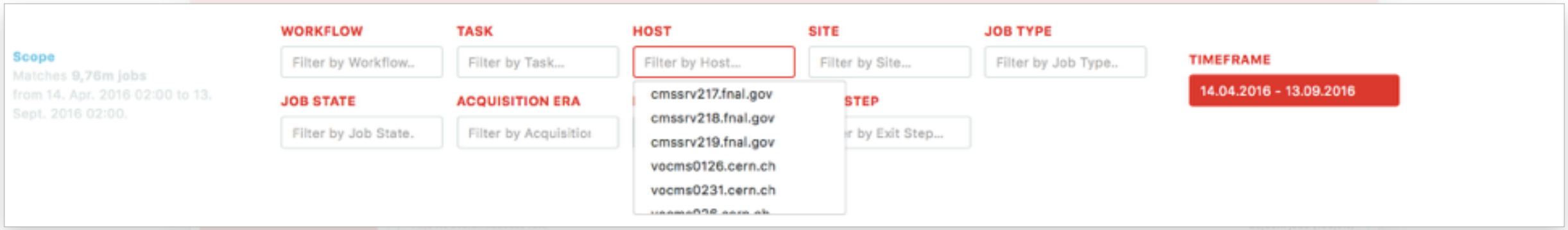
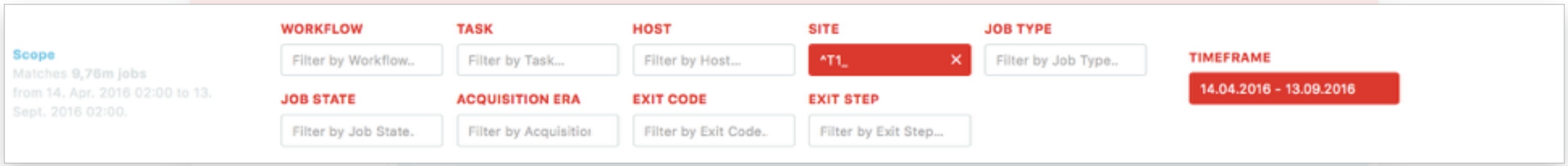


Pick from available values

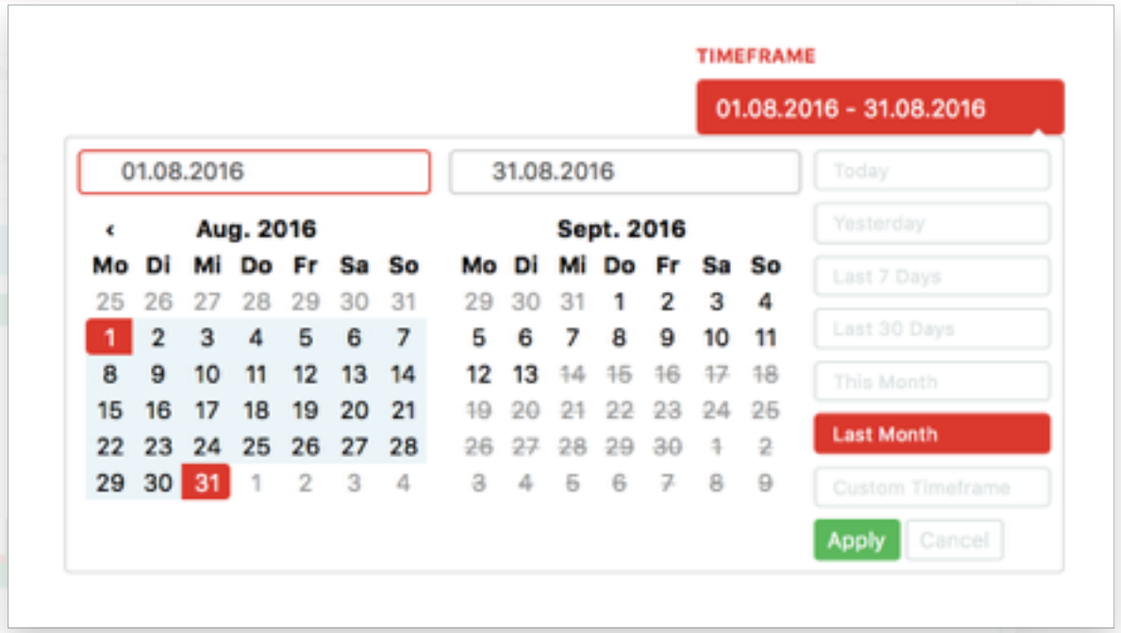
Scope filters the dataset

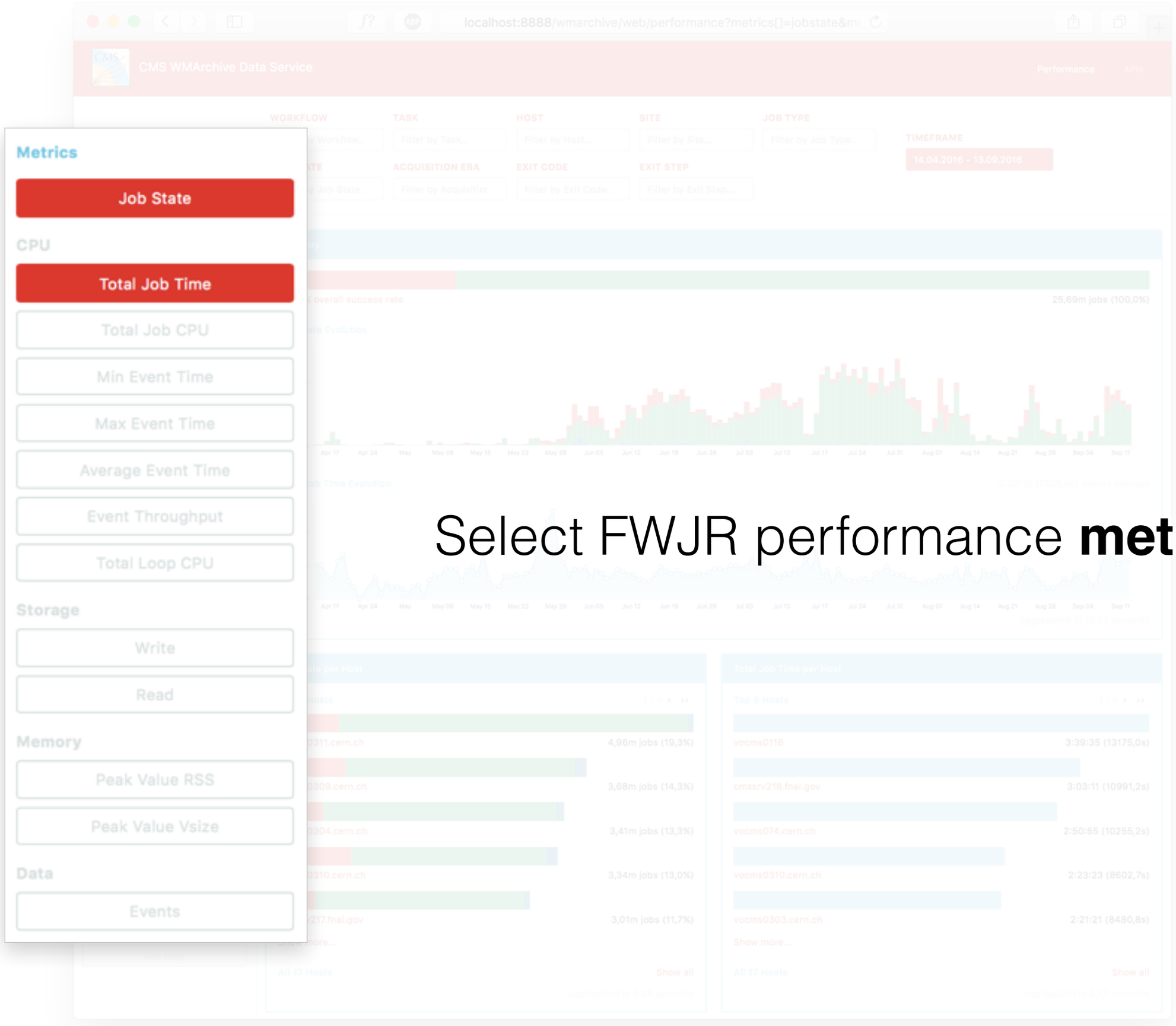


… or enter regular expressions

Scope filters the dataset

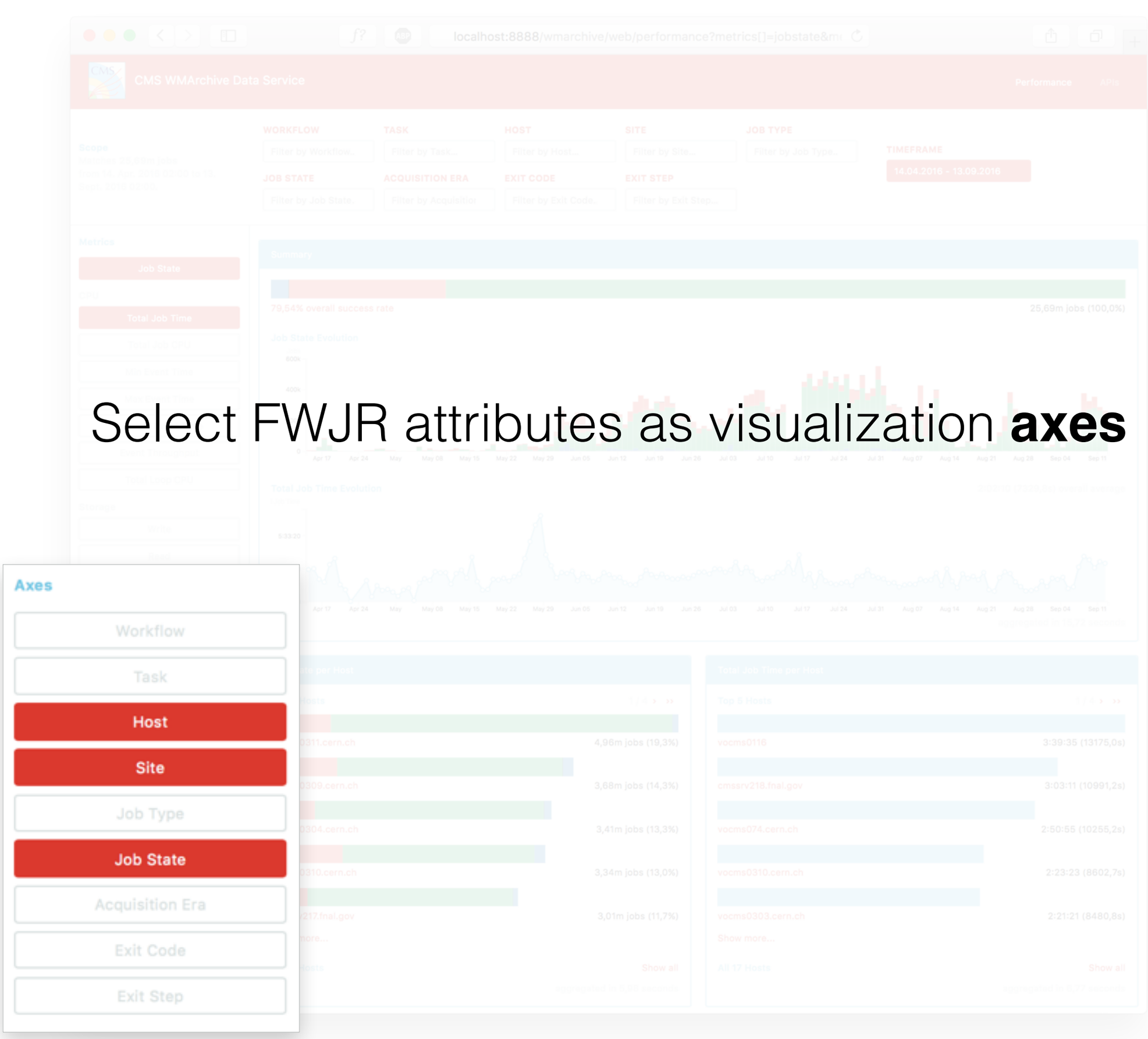
pick a timeframe

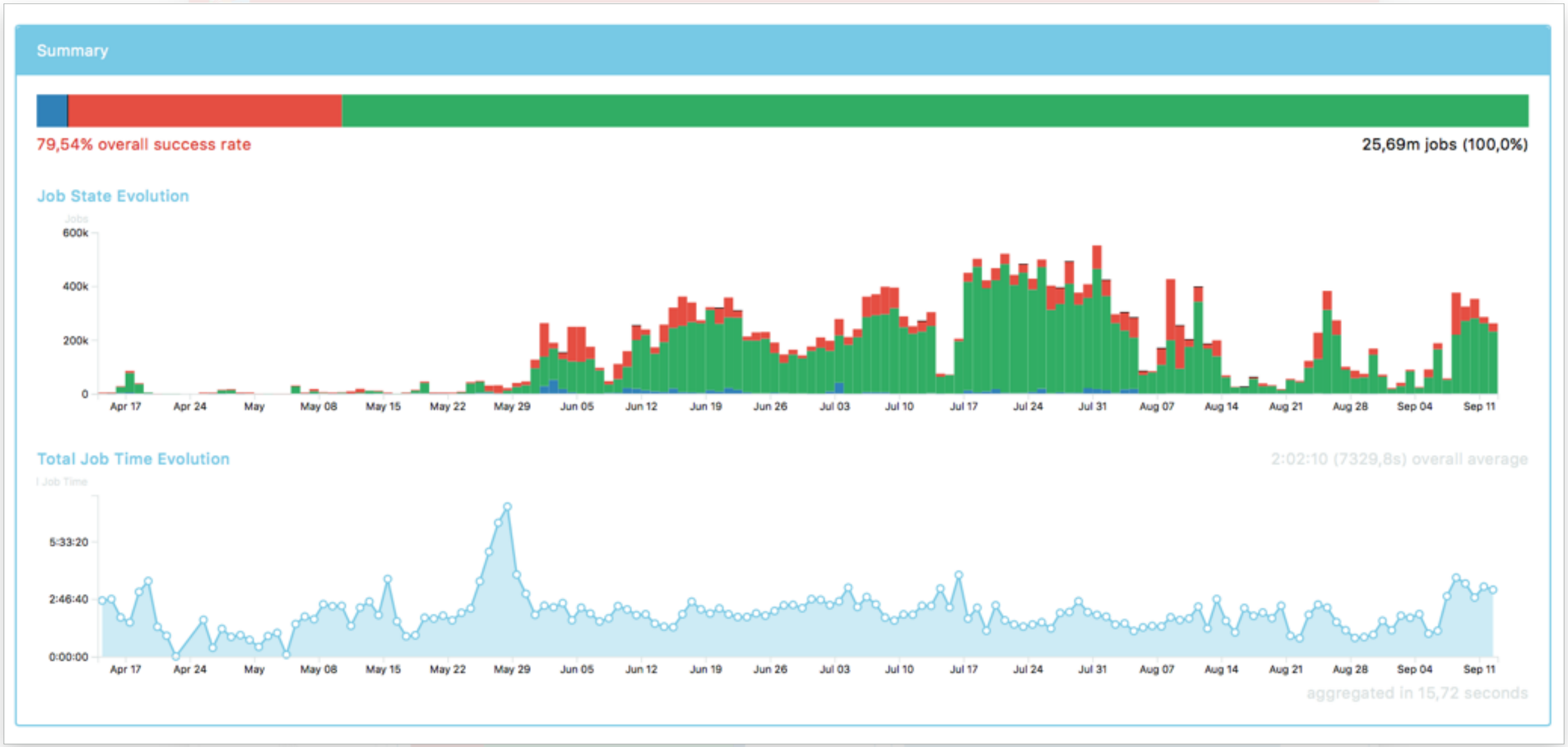




Select FWJR performance **metrics**

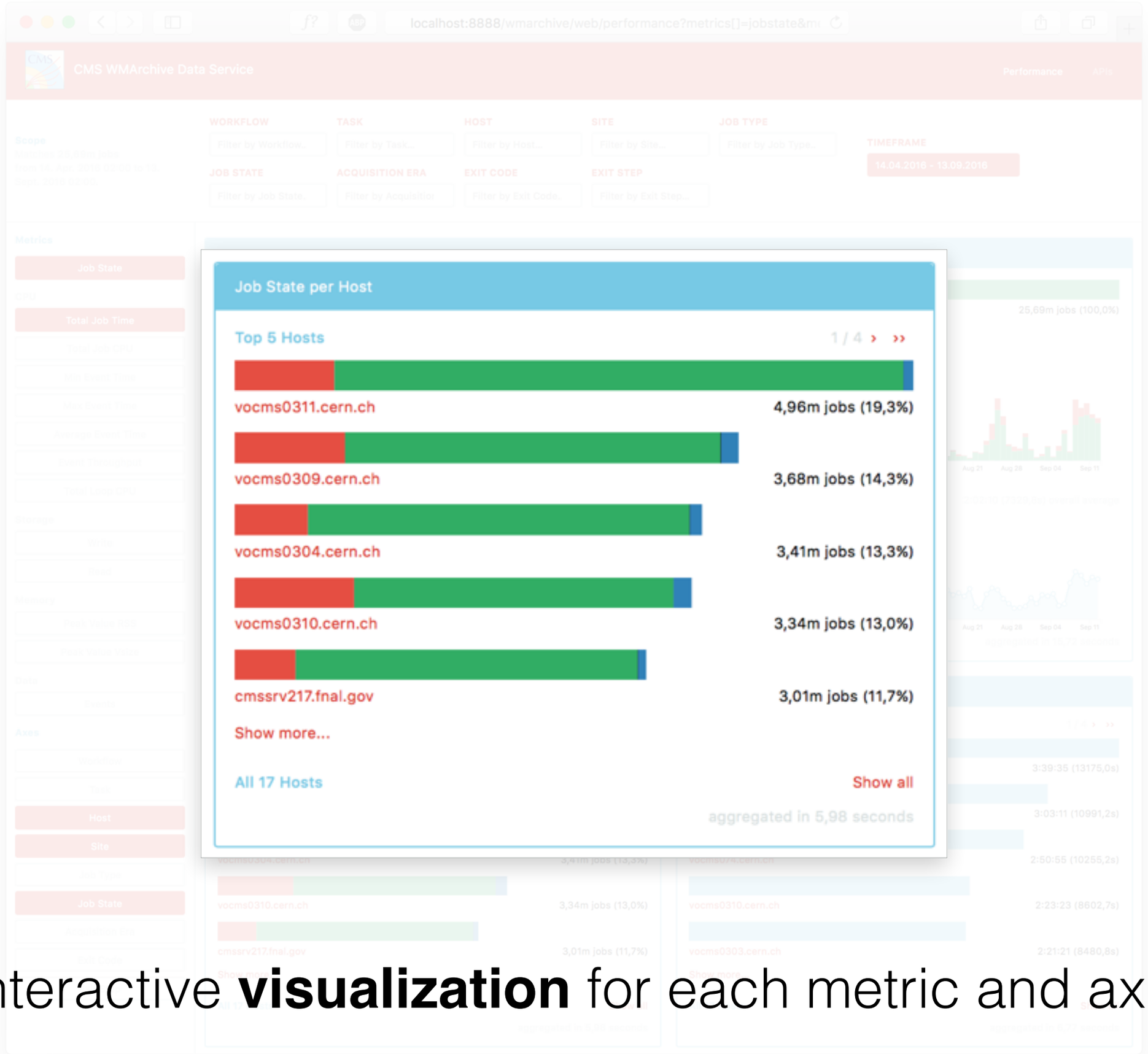
Select FWJR attributes as visualization **axes**





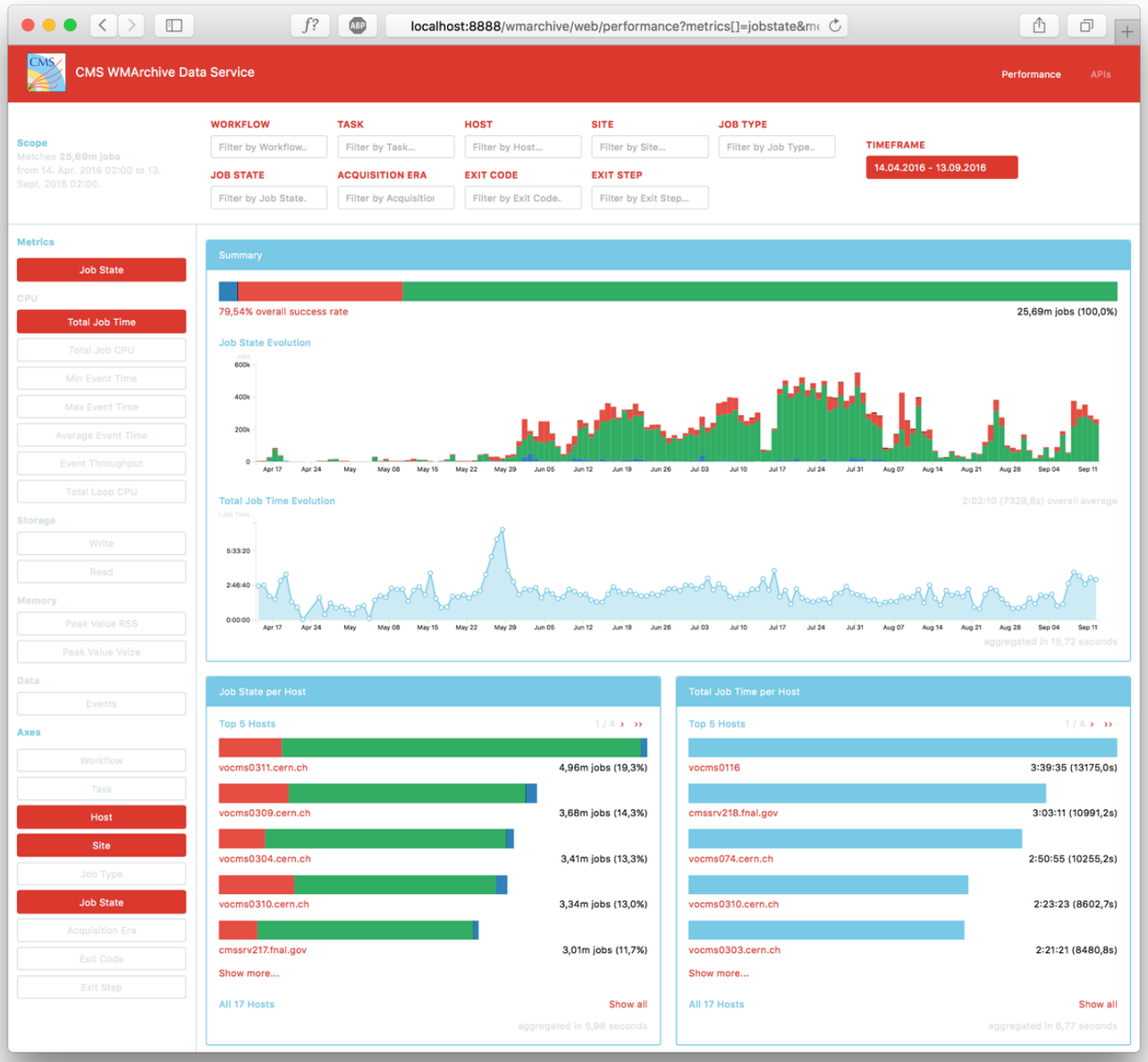
Summary shows time evolution and overall average

successful



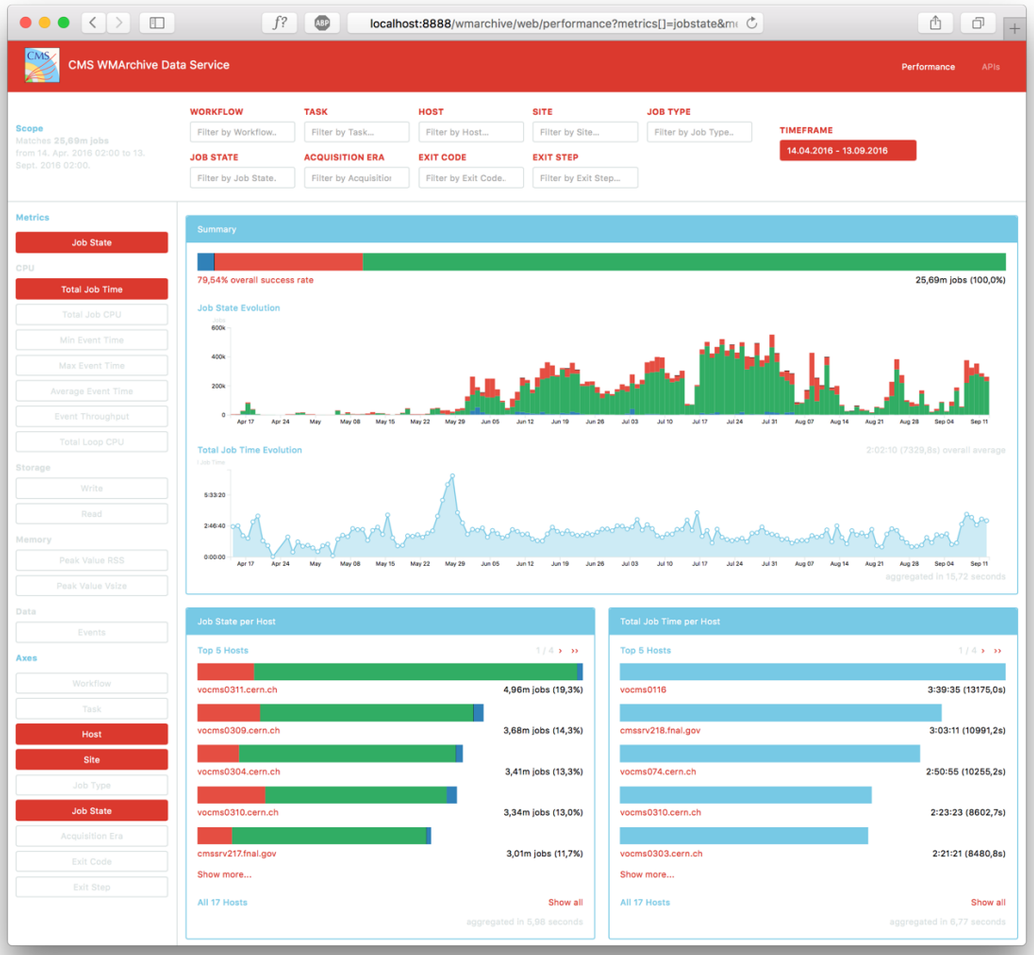
Interactive **visualization** for each metric and axis

Demo



https://cmsweb-testbed.cern.ch/wmarchive/web/performance

Outlook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Filter by Job State.
ACQUISITION ERA
Filter by Acquisitio
EXIT CODE
Filter by Exit Code.
EXIT STEP
Filter by Exit Step...
Metrics
Job State
CPU
Total Job Time
Total Job CPU
Min Event Time
Max Event Time
Average Event Time
Event Throughput
Total Loop CPU
Storage
Write
Read
Memory
Peak Value RSS
Peak Value Vsize
Data
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