

Load Balancing for ALICE

Software for Science, CERN

June 6, 2018



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Balancing for
ALICE

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Software For Science



ALICE

Load
Balancing for
ALICE

- CERN
- LHC
- ALICE



ALICE

1

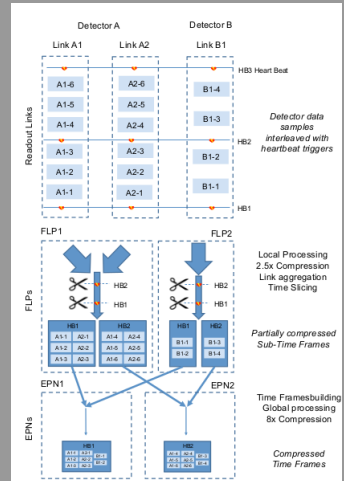
¹<http://alice-collaboration.web.cern.ch/>



Load Balancing

Load Balancing for ALICE

- Setup
- Blacklist Algorithm

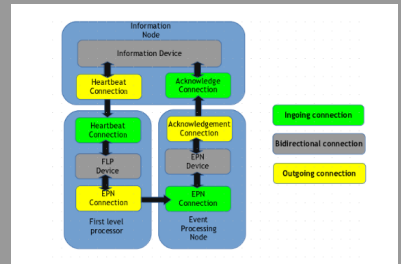


Experiments

Load
Balancing for
ALICE

- Ratio
- Compare
- Expand

3

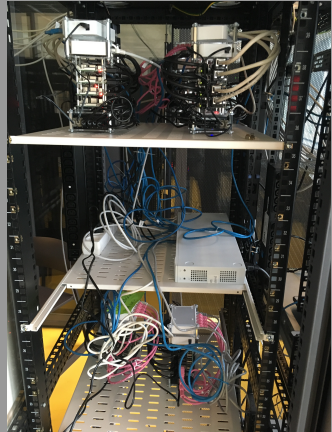


³Block diagram of the cluster connections (van der Heijden, 2018, p. 22)

Cluster

Load
Balancing for
ALICE

- Raspberry Pi



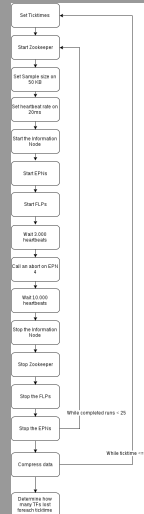
Experiments

Experiment 1

Load
Balancing for
ALICE

■ Definition

Ticktime influence on the
Blacklist algorithm with one
fail-over



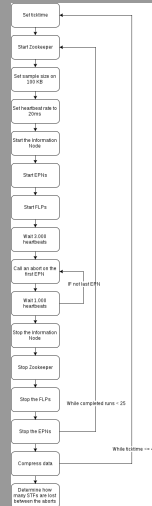
Experiments

Experiment 2

Load
Balancing for
ALICE

■ Definition

Ticktime influence on the
Blacklist algorithm with all but
one fail-over



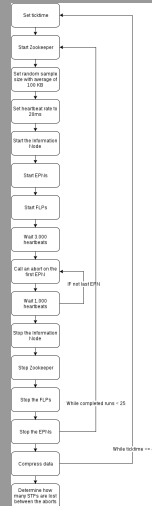
Experiments

Experiment 3

Load
Balancing for
ALICE

■ Definition

Ticktime influence on the
Blacklist algorithm with all but
one fail-over using a random
sample size



Experiments

Experiment 4

Load
Balancing for
ALICE

■ Definition

Ticktime influence on the
Blacklist algorithm with all but
one fail-over at once



The end

Load
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ALICE

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