AKAMAS

Performance Tuning

Understanding parameters impact

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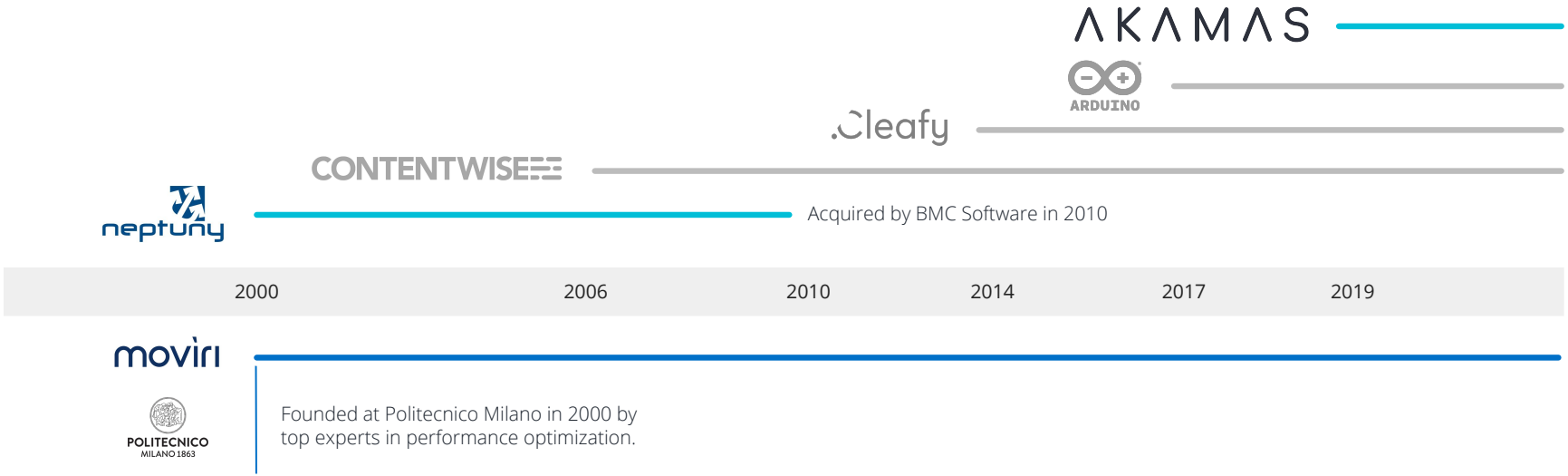
Akamas is a Moviri Company

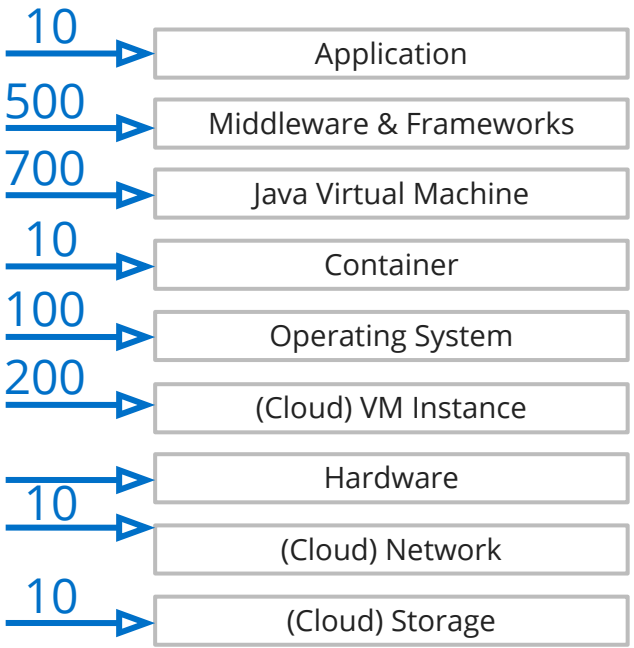


200+
Employees

280+
Enterprise
Customers

30+
Countries

Hyper-configuration Beyond Human Scale



Looking for the optimal settings?

The search space is HUGE and evaluating a configuration is both expensive and time-consuming!

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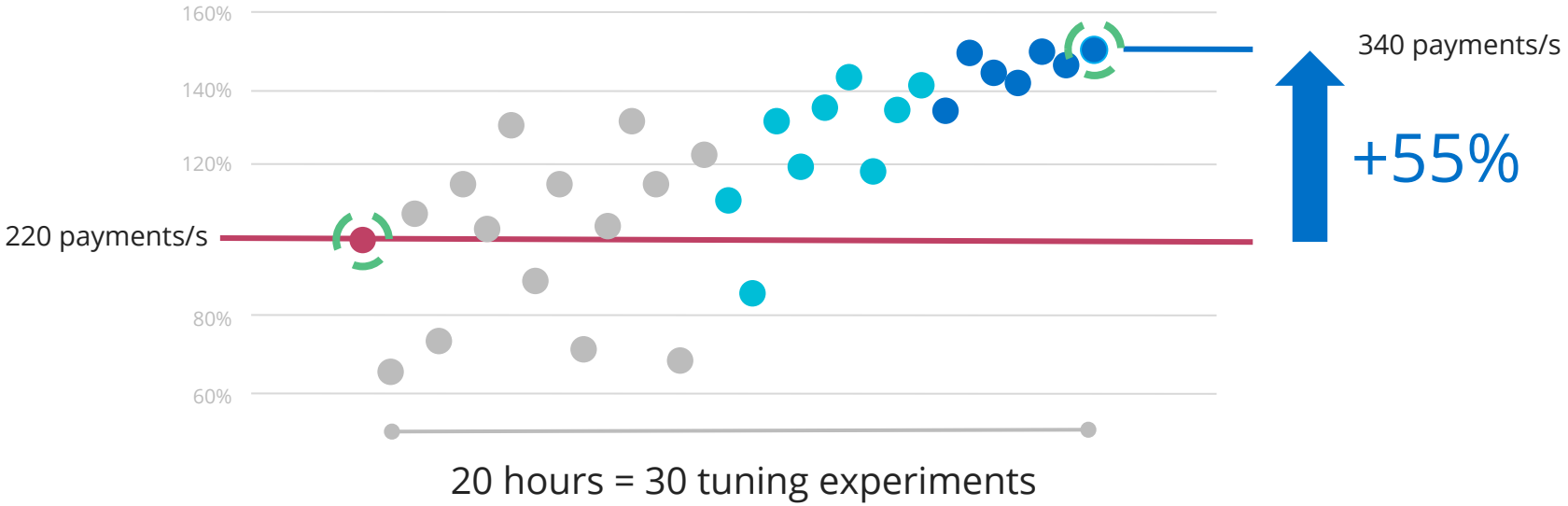
Why Should we Bother?

Goal: maximise payments per second by tuning application, middleware and OS configurations



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Today's Problem

- Search space is huge!
- Random sampling is surprisingly efficient.
- We cannot provide as output: "change the following 1000 parameters".

We need to find the smallest subset of parameters that gives the maximum performance improvement.

Dataset

- Find the dataset here: https://github.com/stefanocereda/polimi_ingioco
- CSV file: 91 rows, 38 columns , tuning MongoDB and Linux
- Each line represents an experiment
- First column is the experiment_id
- Second column is the target performance metric (thtoughput, to be maximized)
- Other 36 columns contain the applied parameters (some are categoricals)
- First line is the baseline, throughput is 2247 ops/sec
- Max throughput is 9991 ops/sec (4.4x speedup)

Now it’s you time

- Find the dataset here: https://github.com/stefanocereda/polimi_ingioco
- An example solution is available
- You can send you solution with a pull-request (even in the next days)
- I will upload a (possible) solution
- stefano.cereda@akamas.io