

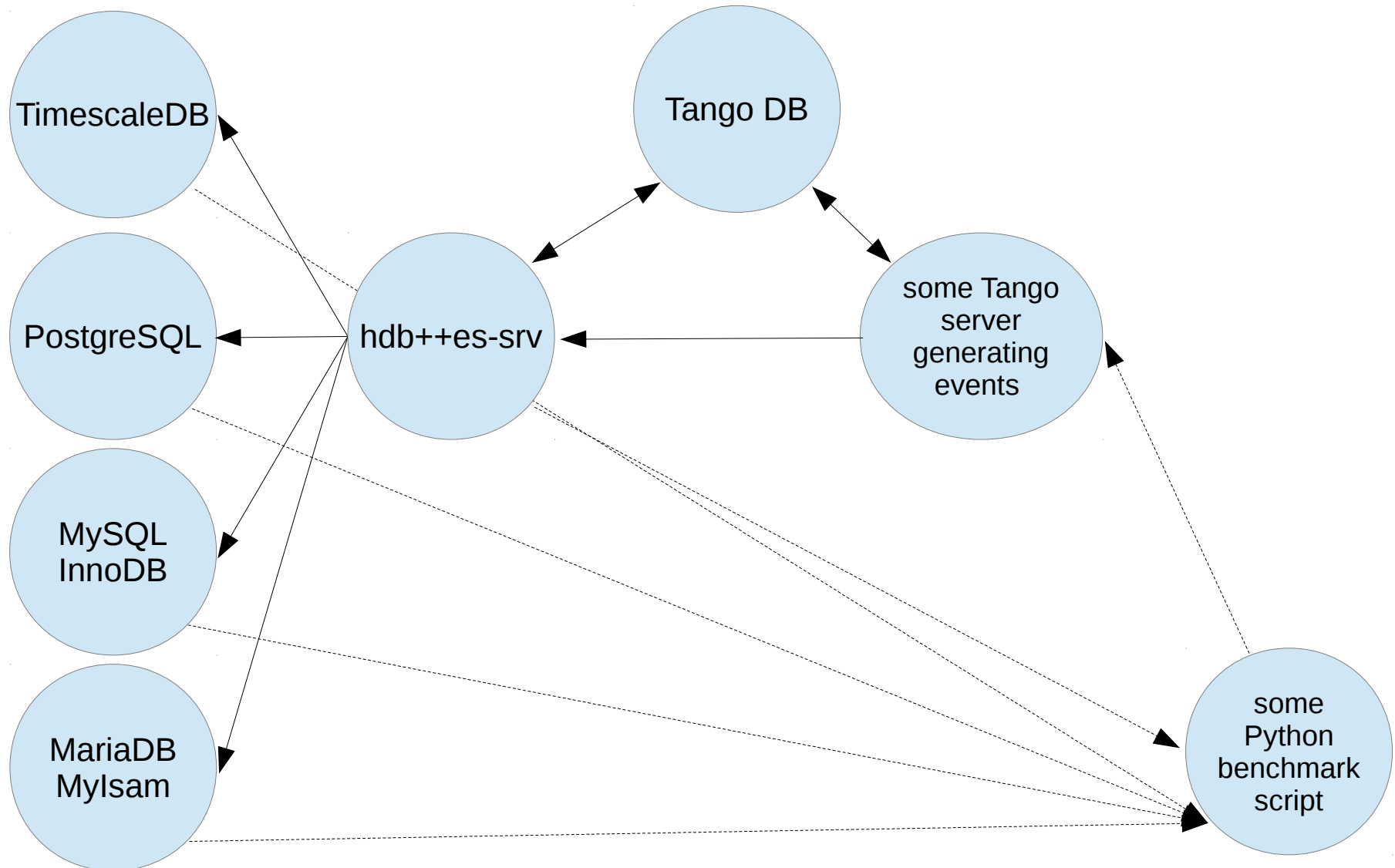
HDB++ Benchmarks

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Benchmark goals and metrics

Goal	Question	Metrics
Measure insertion throughput	What is the max number of events inserted? Comparison SSD vs HDD? Evolution of pending queue in hdbpp-es?	Nb of rows inserted per second per subscriber, latency
Measure extraction throughput	Behaviour when extracting devDouble scalar data, devDouble arrays? Comparison SSD vs HDD?	Time in seconds to retrieve the data
Measure the disk usage for each supported Tango Data Type	What is the disk usage for a given data set?	Disk usage (before and after insertion)

Dockers



Dockers

- ska-docker:
 - mariadb_hdbpp
 - tango-archiver
 - tango-databases
 - ...
- tangocs:
 - tango-db
 - tango-libtango
 - tango-cs
 - tango-databases
 - ...

New Hardware for tests

- AMD based rackmount server:
 - CPU: 2 x AMD EPYC 7281 16-Core (32 thread) (64 CPU total)
 - RAM: 16 x 32 GB DDR4 ECC (512 GB total)
 - 2 x 10Gb SFP+ ethernet
 - SSD: 2 x 960 GB SSD 12 Gb/s
 - HDD: 10 x 1.8 TB SAS 12 Gb/s
- Software:
 - Ubuntu 18.04 LTS

Questions / Any suggestion?