Overview

This work started in the context of NSLS2 project at Brookhaven National Laboratory. The NSLS2 control system foresees a very high number of PV variables and has strict requirements in terms of archiving/retrieving rate; our goal was to store 10K PV/sec and retrieve 4K PV/sec for a group of 4 signals. The HyperArchiver is an EPICS Archiver implementation engine by Hypertable, an open source database whose internal architecture is derived from Google’s Big Table.

THE GOAL

- Store: 10000 channels per second
- Retrieve: 1000 samples for up to 4 channels in less than 1 second

THE RESULT

- Store: 10000 channels in 190msec
- Retrieve: 1000 samples for up to 4 channels in 77msec