Introduction

One way to provide scalability with any off the shelve engine is to have multiple machines and/or processor cores, and to parallelize the load (external scheduler), nodes can still overload. We propose automated control for balancing and scalability over StreamDB workloads. The approach, called AuDy, offers scalability with an integrated mechanism that manages overload (re)scheduling, automated elasticity, shedding, admission control and overload alerts when resources are insufficient. As a result, the approach provides continuous and totally balanced operation and avoids overload-related problems.

Experimental results

AuDy admission control vs no admission control, with heavy queries, Qh-m, Qh-l (heavy and light queries). At each 3 queries added, a Qdb-2 (very heavy query) was also added.

Architecture

Execution of the stream-DB query Qdb-2, shows that the throughput degrades severely over time.