

Orchestration of Complex Distributed Streaming Workflows with Continuous Integration

LD2613 FY26 Q1 Quarterly Report

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Milestone Progress

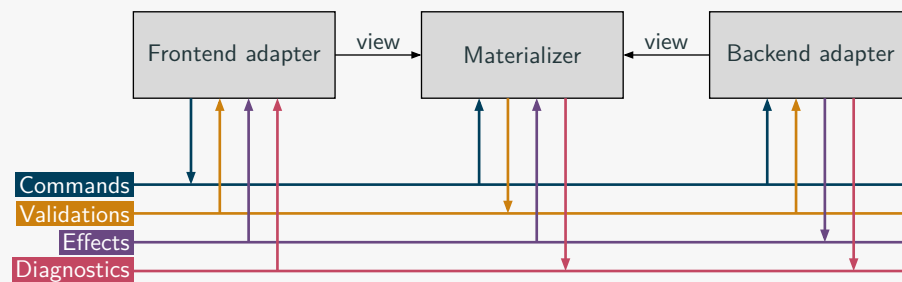
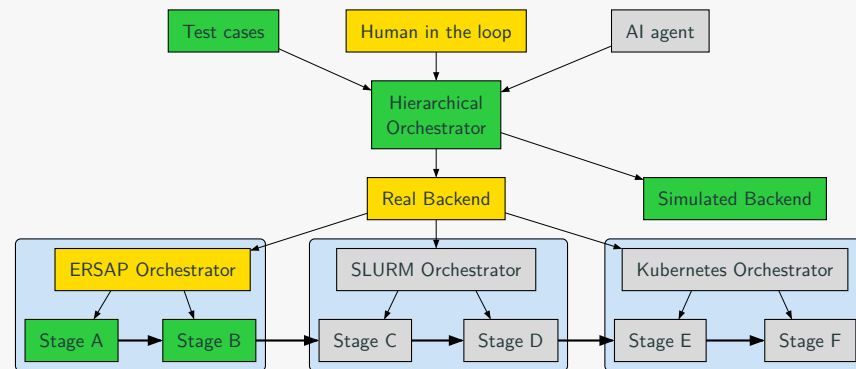
Milestones

Q1.A	Design basic orchestrator interface and domain model	✓
Q1.B	Create mock workflow using ERSAP	✓
Q1.C	Create mock orchestrator backend that simulates deploying different tasks on different clusters and supports the rescaling benchmarks	✓
Q2.A	Integrate hierarchical orchestrator with a locally-running ERSAP	
Q2.B	CI runs the mock workflow on testbed as integration tests	
Q2.C	Extend mock orchestrator backend so that it supports the recovery benchmarks	✓

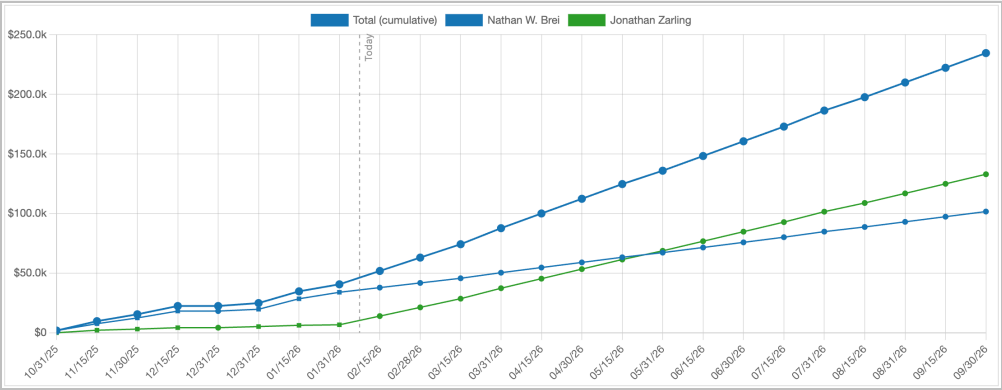
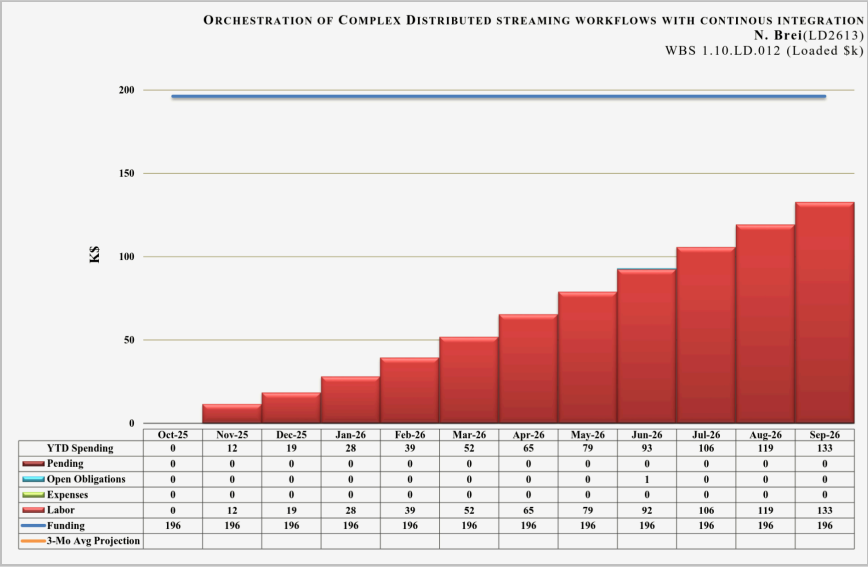
Challenges

- Most of the Q1 work was preparatory, i.e. low technical risk but essential for proceeding
- The main Q2 challenge is figuring out the boundary between the existing ERSAP control plane and the new one – Does the latter extend the former, or do the two remain orthogonal?
 - The plan is to get the orthogonal version working first, and then explore a tighter integration.

Project architecture



LD2613 burn rate



Summary

- 28k\$ spent as of 2026-01-29
- At our current rate, we will spend 133/196.3k\$ by end of FY26

Explanation

- Project started late
- Jon Zarling will be contributing more in the upcoming quarters now that the groundwork is laid

Thank you!

