BIRTE 2018 Panel

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August 2018
Revisiting - Panel Topics

What are the major challenges in building stream systems?
- Which pillar matters when?
- Can we build a system that provides all the properties?
- What are the tradeoffs?
  - Does consistency matter for streams?
  - Do the traditional solutions from DBMS carryover?
  - Is lambda architecture the right paradigm to address this?
Some History

- OLTP – DW - ETL, Transportable Tablespaces, Incremental
- OLTP – Near Real Term DW (Replication)

Gaps - GoldenGate was built 15 years ago (Pre-Kafka, Post CEP)
- Single Node Limitation
- No Visualization
- No Query Engine
- Limited Sources Support (only transactional sources)
- Hard to Manage
- No Validation Capability
- No AI/ML Capability
Expanding the Perimeter of Stream Processing systems

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March 2018
Are we focused on the right problems?

What is the Perimeter of streaming Platforms?

Developers focus on application logic

Done – When this is achieved
Expanding the Parameter – Rationale

What is needed?

- Streaming Needs to address Data collection
- Streaming Needs to support Transactional Systems (NoSQL?)
- Streaming Needs to address clustered, scalable data processing
- Streaming Needs to address Joins with multiple data structures (slow and fast tiers)
- Streaming Needs to support Multiple Data Formats/Transformations
- Streaming Needs to support Data Visualization
My Conclusions - 2018

• Panel Identified Pillars are very important, and belong in Streaming

• Enterprises look at Streaming slightly differently than community
  – OLTP to Analytics with messaging as queue = Streaming – Popular
  – CEP Style Streaming Analytics - Experimental

• Real Time Data Integration should become part of Streaming
  – Tons of Database *ish* work needed (Look at Replication)

• SQL like expressiveness for querying and transformations will help, identify correct end user – *Lesson from RDBMS*

• Only then will it solve mainstream, and not niche problems
Integrated Streaming Platform – Possible?

Design Flows

Analyze

Deploy

Visualize

Monitor

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