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Context - Who is This Guy Up There?

- Software Dev Manager (Seattle) - ABC Digital Media, Data Platform
  - ABC part of Media Networks Business Segment
- Distributed team - Burbank/Seattle
- Technology Architecture
ABC Digital Media Engineering

Streaming of ABC content on variety of platforms

- iOS, Android, Fire TV, Apple TV, Android TV, Roku, Web
- Current and former ABC shows, classics, originals, live stream
- Some content gated
- Shameless Plugs
Topics

- Challenges
- Possible Solutions
- Architecture chosen
- Outputs/Examples
Challenges

- Business wants real time analytics around user behavior during interaction with ABC streaming apps
- Operations needs real time analytics regarding performance of app, infra, etc
- Business needs more timely and more detailed reporting over a variety of dimensions
- Avoid proliferation of data and having to transform/shuffle/etc data to many systems
- Omniture data just not sufficient
- “Every Event is Sacred”
Demo

Because - Why Not!?
Solutions Considerations - Producers

- Latency
- Bandwidth
- Local Buffering/Retry
- Size of Messages
Solutions Considerations - Streaming System

- Cloud Agnostic
- Serverless
- On-Prem
Solutions Considerations - Consumers

What’s Your Use Case?
Architecture So Far...

KPL  Kinesis  KCL  ???
Solutions Considerations - Data Store

Use Case Really Drives Decision Making!!!

- Batch Analytics/BI
- Real Time Analytics and Metrics
- Compatibility with Common Tools
- Scale
DATG Choice

- “Real Time Data Warehouse”
- Ability to insert data at extremely high rate
- Column Store - Excellent compression of data
- In Memory Store - Primary keys, geospatial indexes
- Tool compatibility
Putting It All Together
Examples
Outage Indicator

Expect to *spike* in case of outage.

Number of Events

Event Time (UTC)

2017-12-29, 2018-01-05, 2018-01-12, 2018-01-19, Today

Outage Indicator (initiate)

Expect to *drop* in case of outage.

Number of Events

100

Outage Indicator (playback_progress_live)
Enhanced User Experience
User Segmentations
Dedupe Process Monitoring
Recap

- Understand your use case!!!
- Keep architecture as simple as possible
- Leverage your strengths, but don’t hesitate to ask for help
- Be ready and open to pivots
Questions?