

The background features a vibrant blue gradient with subtle, wavy horizontal lines. In the bottom right corner, there are abstract, flowing shapes in shades of purple, pink, and orange, creating a dynamic and modern aesthetic.

aws SUMMIT

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ANA007

How Gupshup built their multi-tenant messaging analytics platform on Amazon Redshift

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Gupshup



Agenda

- Amazon Redshift powering Analytics for Gupshup
- What's new on Amazon Redshift
- Gupshup's migration journey
- Architecture supporting multi-tenant conversational AI platform

Conversational platforms



“Through Gupshup, companies have made communication an integral part of successful customer interactions.”

Analyze all your data

WITH AWS SERVICES INTEGRATION



Listening to our customers for the last 10 years

INVENTING AND REINVENTING CLOUD DATA WAREHOUSING WITH AMAZON REDSHIFT

2012

Terabytes to petabytes to exabytes

2022

Customer Needs



a cost-effective way to run fast analytic queries on large volumes of data

- Data lake analytics and query of open data formats
- Scale storage independently of compute
- Elastic scaling
- Query operational data
- Query without data movement, data sharing and collaboration
- Data science needs beyond highly skilled data scientists
- Simplified query interface
- Minimal user involvement in performance acceleration, concurrent scaling
- Third-party data analytics
- More data users, needing to abstract complexity
- Real-time analytics in the warehouse
- Granular governance and security controls
- No code data pipelines, ingestion
- Apache Spark

Amazon Redshift



Amazon Redshift launched as the first MPP cloud data warehouse at a price performance unattainable in on-premises MPP DWs



Price-performance at any scale

Concurrency Scaling
Materialized Views
Workload Management
Short Query Acceleration
Vectorized Scans



Analyze all your data

Data Sharing
ADX Integration
Federated Query
Data Lake Query / Spectrum
Streaming Ingestion
Redshift ML
SUPER Data Type
Geospatial Analysis



Easy, secure, and reliable

Serverless
Query Editor V2
RBAC
Column-level Security
Row-level Security



Amazon Redshift innovates to meet your needs



Easy analytics for everyone



Serverless



Query
editor v2



Automated DW
management



Automatic
materialized
views



Data API



Amazon
Redshift
Advisor



AWS
CloudFormation
templates



Grafana
Plugin



Analyze all your data



Data sharing



AWS Data
Exchange
integration



Amazon
Redshift ML



Federated
query



Geospatial
enhancements



SUPER data
type with
JSON



Best price performance at any scale



RA3
nodes &
managed
storage



AQUA



Concurrency
scaling for
writes



SQL
enhancements
& migration
support



Security,
governance
& compliance



Workload
management
enhancements

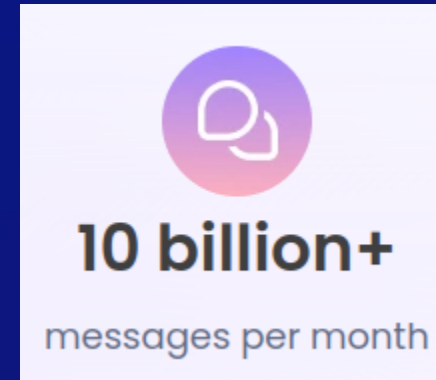
What's new on Amazon Redshift



- **Apache Spark Integration**
- **Streaming Ingestion Support**
- **Dynamic Data Masking**
- **Auto-Copy From Amazon S3**
- **Multi-AZ deployment (preview)**

Background & Context

- 10 billion+ messages per month
- More than 10 life cycle events per message
- Constantly evolving eco-system
- Need for near-real-time incremental analytics

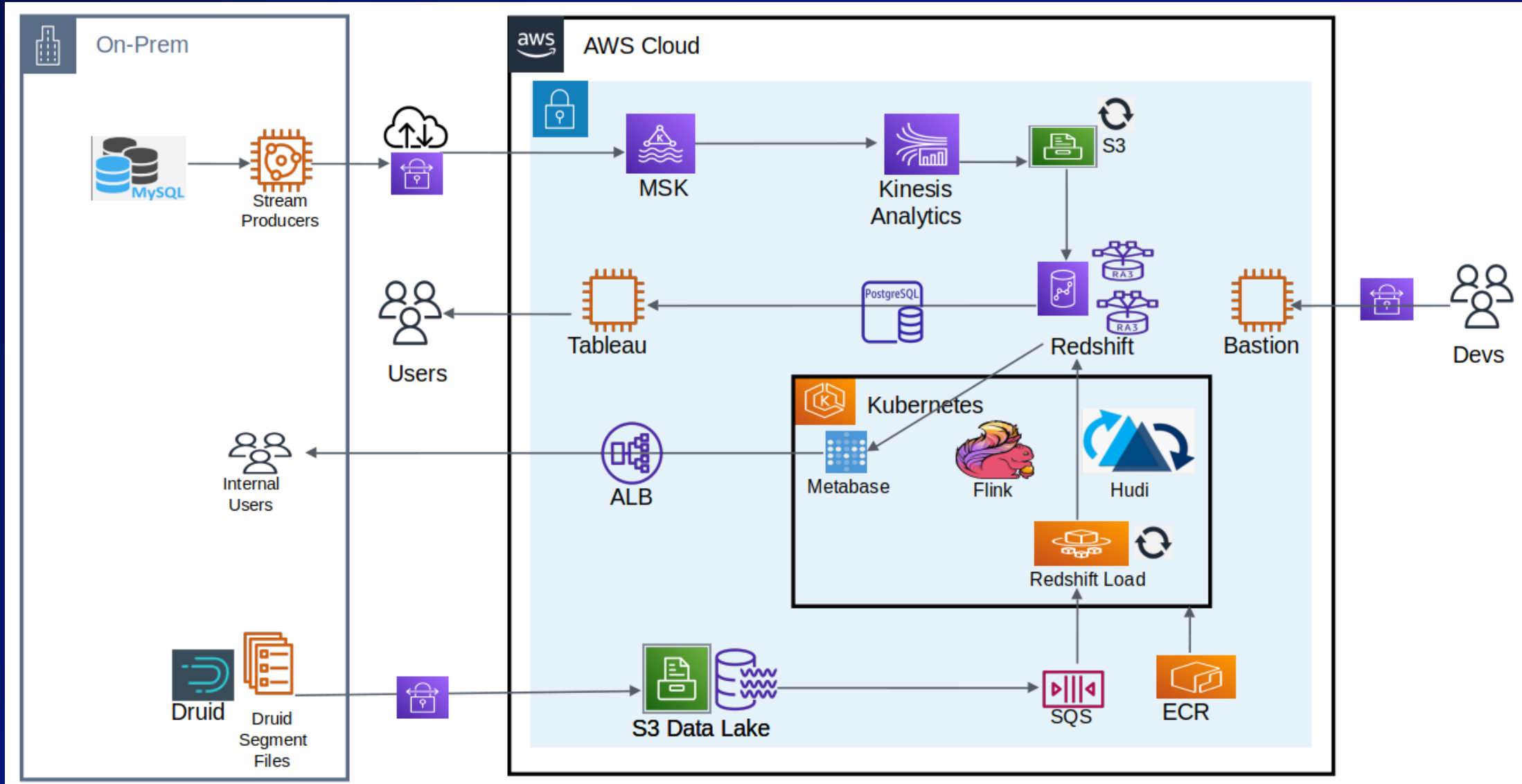


Live Migration – Stranger pattern

- Large legacy data warehouse on Apache Druid
- Live migration to cloud & Amazon Redshift
- Parallel run and gradual legacy sunset
- Live prototyping and roll-outs of new analytics
- Incremental analytics



Architecture - Conversational Analytics



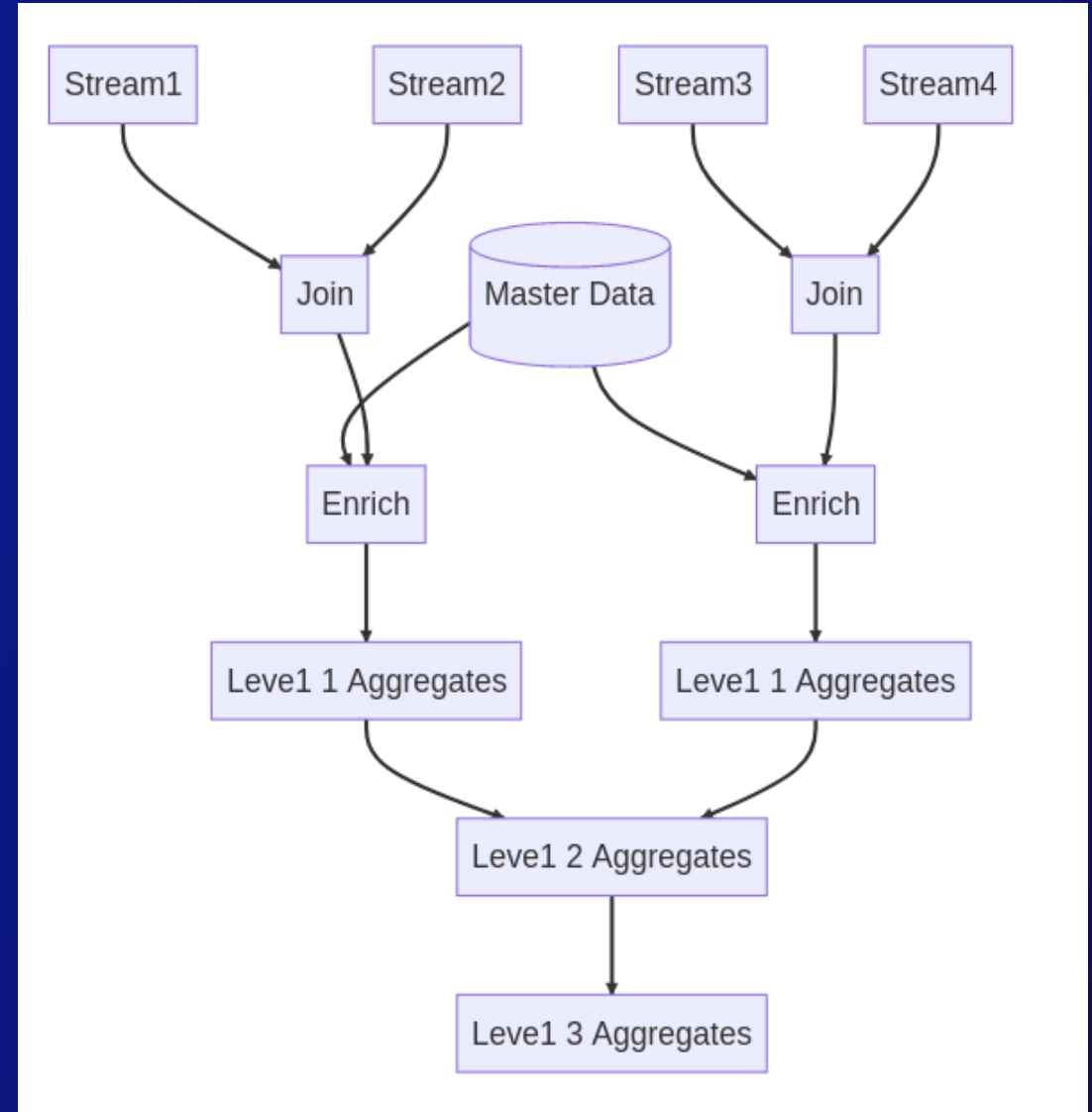
Incremental and Operational Analytics

Operational

- On-Demand Scaling
- Snapshot and Restore
- Blue-Green Deployments
- Workload Management
- On-Demand Re-processing of historical data
- Concurrency Scaling

Incremental

- Streaming data
- Enrichment using master data
- Hierarchy of Aggregates
- Live prototyping
- Incremental Processing using Materialized Views
- ~30 minutes of freshness



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Thank you!

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Gupshup



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