



# aws SUMMIT

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B M A R C 0 0 4

# Nurturing digital consumerism at a massive scale with Airtel IQ

Rohit Jain (he / him)  
VP & Head of Technology  
Airtel IQ , Airtel Digital Limited

Punyabrota Dasgupta (he / him)  
Principal Solutions Architect  
AWS India



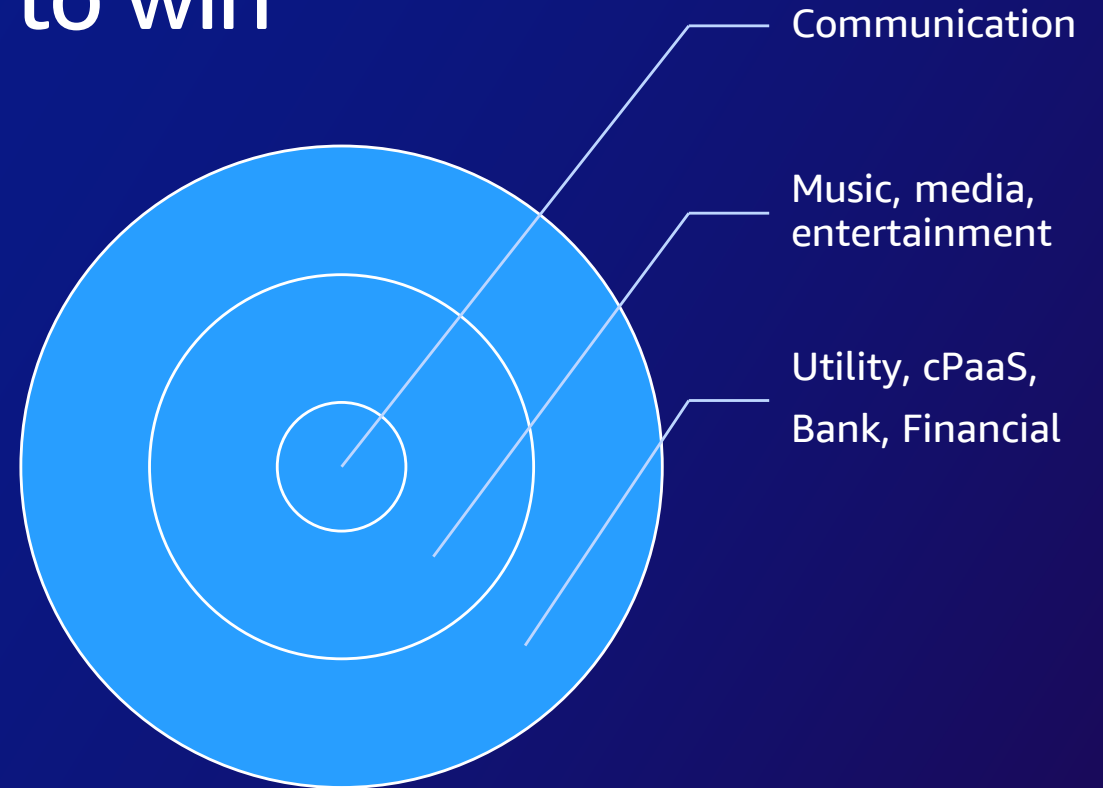
# Agenda

- Airtel's journey from CSP to DSP
- What is cPaaS solution? What problem Airtel IQ solves?
- Technical solution brief
- Why on AWS?
- Roadmap of Airtel IQ
- AWS solution deep dive
- Closing comments

# Journey from CSP to DSP

“Our vision is to enrich the lives of customers. Our obsession is to win customers for life”

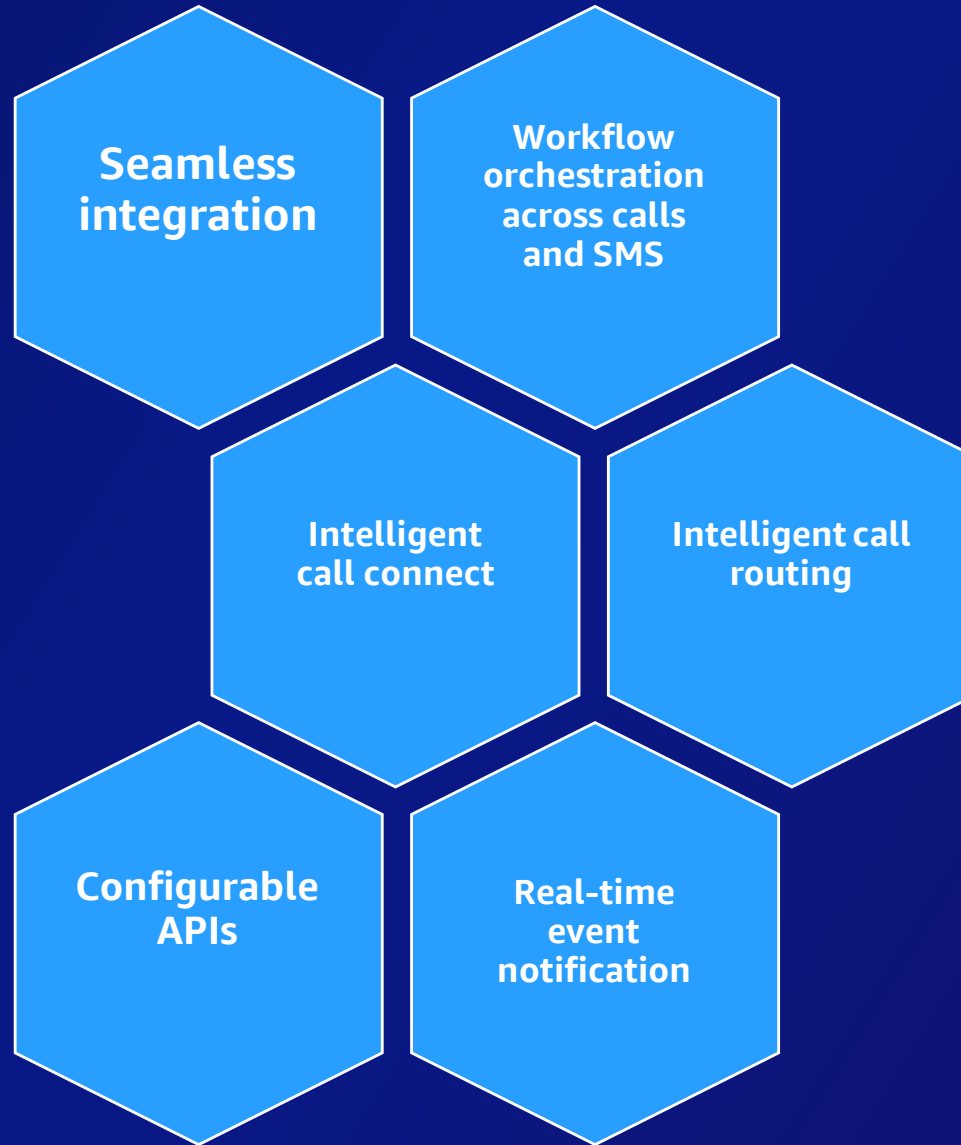
**Airtel's Vision**



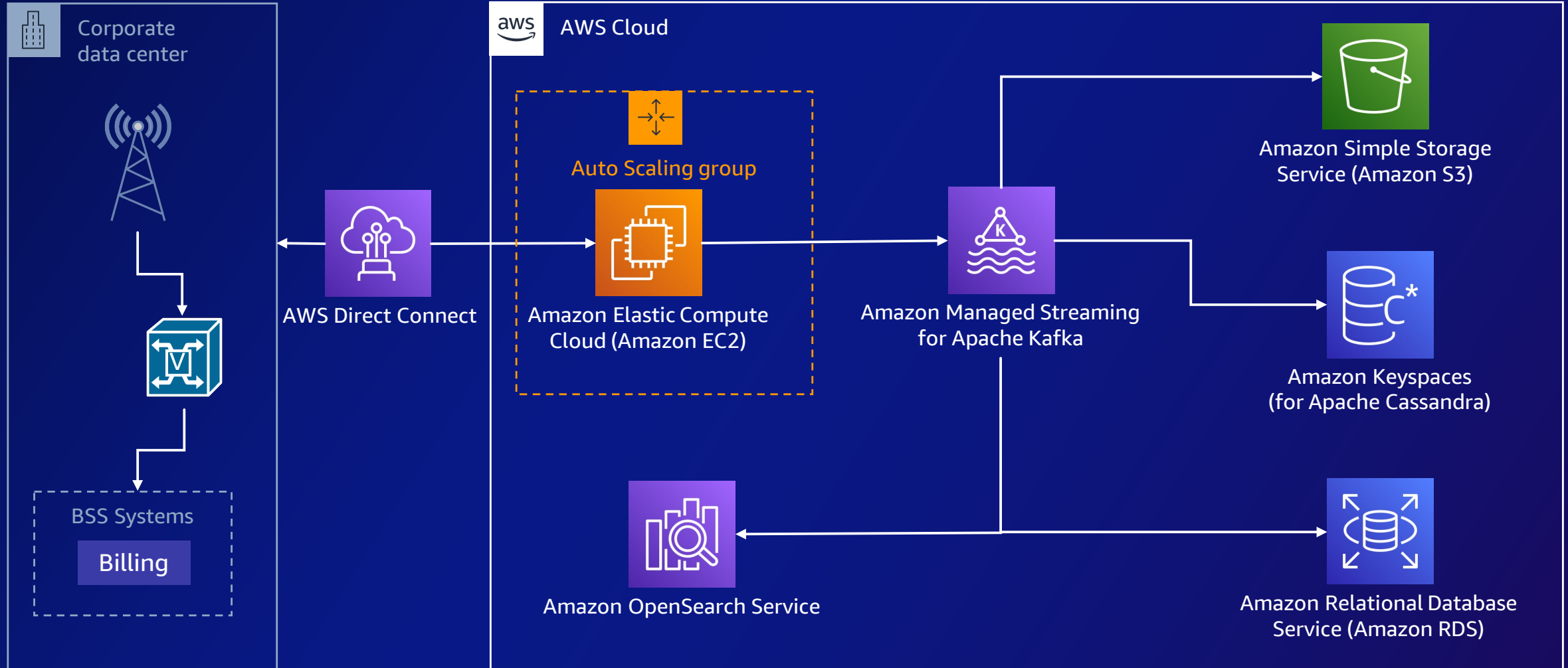
# Airtel IQ at a glance



# Airtel IQ Tech building blocks



# Airtel IQ architecture cross section





# Airtel IQ architecture cross section

AWS Services	Airtel IQ Usage
Amazon MSK	Raw and processed CDR in topics
Amazon Keyspaces	Source of truth , CDR byte array handling
Amazon OpenSearch	Operational (CDR search and indexing) for Cx portals and Regulatory reports
Amazon Relational Database Service (RDS)	Master data for templates of promotional contents for Enterprise customers
Amazon Simple Storage Service (S3)	CDR storage
Amazon Elastic Compute Cloud (EC2)	Compute layer for processing CDR records



# Roadmap of Airtel IQ

- ✓ Expand CPaaS and CCaaS offering to Indian enterprise customers
- ✓ Build Contact Centre intelligence with the power of communication service via Airtel IQ for small, medium and large enterprise customers
- ✓ Building a marketplace for ISVs

# Sneak peak into the AWS backstage



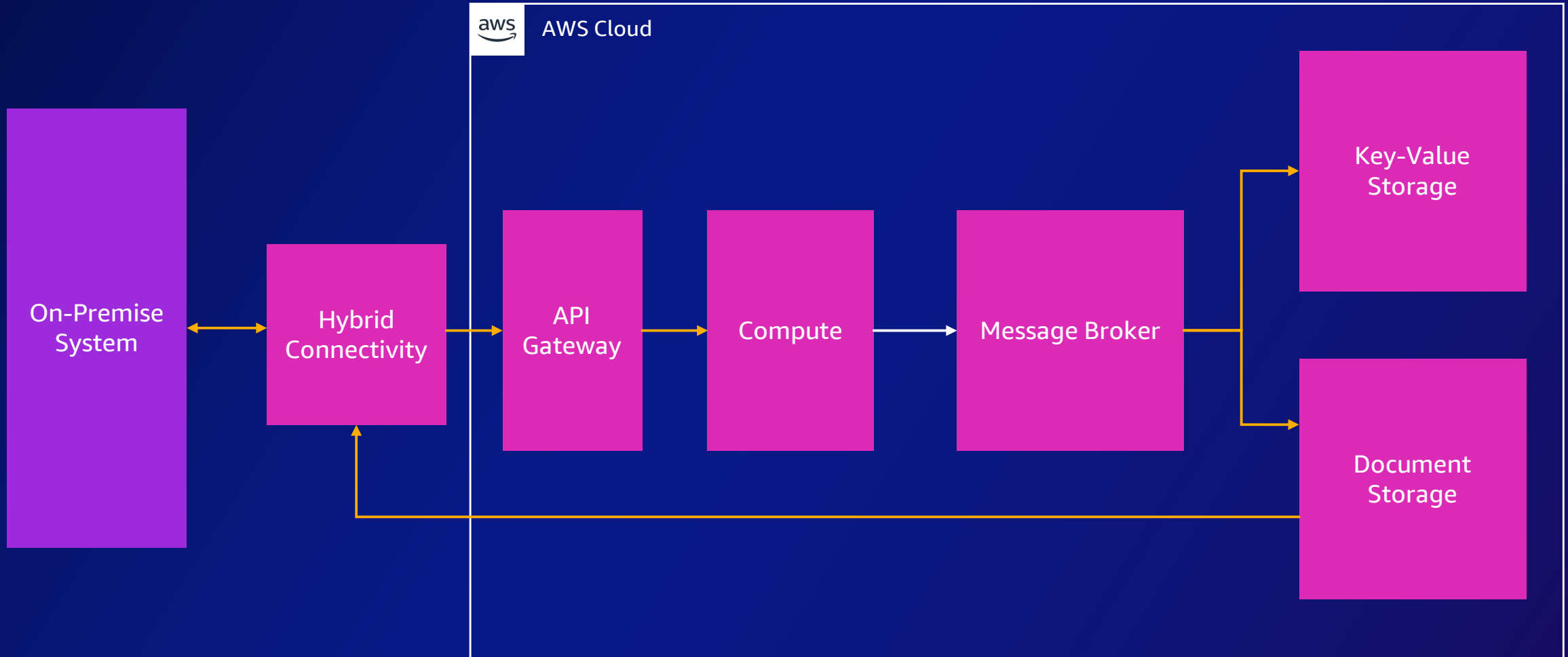
# What the customer business wanted

- ✓ Lowered time to launch
- ✓ Seamless end customer experience
- ✓ Hybrid deployment architecture
- ✓ Streamlined change management

# Key technology considerations

- ✓ Perpetually hybrid workload to protect business compliance rules
- ✓ Ease of integration with on-premise systems
- ✓ Developer comfort, with manageable learning curve
- ✓ Balance between scale, availability, security, and cost

# Solution building blocks at a glance

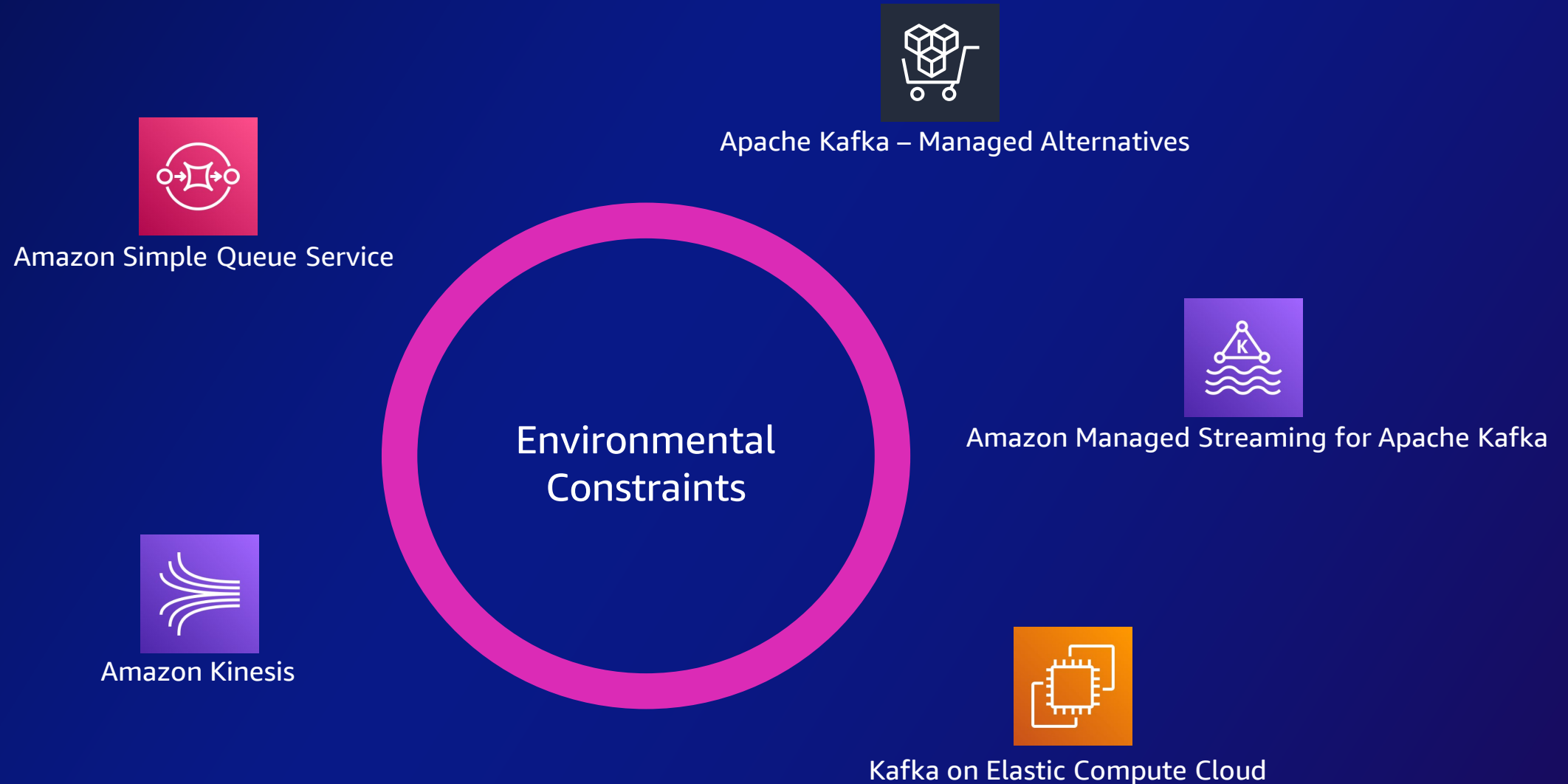




# Multiple ways to solve a problem on AWS



# Message broker options on AWS





# Challenges operating Apache Kafka



Difficult to set up



Hard to achieve high availability



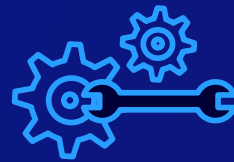
Error prone and complex to manage



Tricky to scale

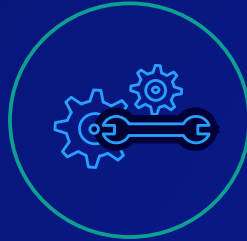


Integration requires development



Expensive to maintain

# Amazon managed streaming for Apache Kafka



## Automate provisioning, configuring, and tuning

Eliminate operational overhead – including the provisioning, configuration, and maintenance of Apache Kafka and Kafka Connect clusters



## Fully compatible with open-source Apache Kafka

Use applications and tools built for Apache Kafka out of the box, with no application code changes required



## Highly secure

Easily deploy secure, production-ready applications using native integrations to an Amazon Virtual Private Cloud (VPC) for authentication and authorization



## Lower cost

Keep costs low with fully managed Apache Kafka, offered at as low as 1/13th the cost of other providers

# Amazon managed streaming for Apache Kafka



Makes Apache Kafka more accessible to your organization



Drives best practices through design, defaults, and automation

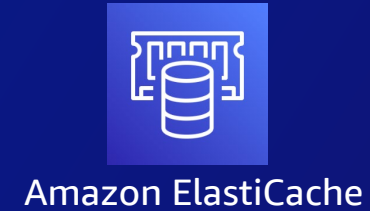
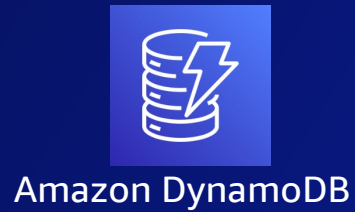


Allows developers to focus more on application development and less on infrastructure management



Amazon MSK is committed to improving open-source Apache Kafka

# Key value data store options on AWS



# Challenges for managing Cassandra

- Specialized expertise required to deploy, configure, and manage software
- Complexity of scaling down clusters to optimize resources
- Difficult version upgrades because of clunky rollback features
- Restoring data is error prone
- No built-in encryption support to protect data
- Patching, updating, and maintaining cluster infrastructure

# Amazon Keyspaces – Fully compatible Cassandra service



Compatible with Apache Cassandra



No servers to manage



Performance at scale



Highly available and secure



# Key takeaways

- ✓ Business & enterprise constraints often seem to be stringent, prohibiting easy cloud adoption
- ✓ It is imperative to tradeoff and balance between architectural principals, environment and business constraints
- ✓ For every architectural building block, AWS provides a wide range of fit-for-purpose services to fast forward your cloud journey



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# Thank you!

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