Improve Efficiency by Migrating Messaging to Amazon MQ

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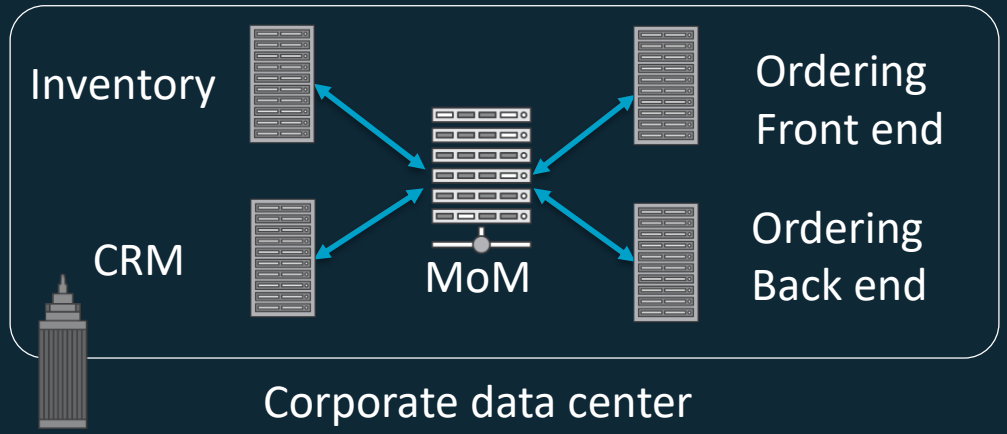
Enterprise Messaging Today



Message-oriented middleware (MoM) or Message Broker

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Enterprise Messaging Challenges

Operational overhead

Reliability

Capacity planning

Cost

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Introducing …

A managed message broker service for Apache ActiveMQ that makes it easy to set up and operate message brokers in the cloud.

Amazon MQ

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Reduce Operational Overhead

Provisioning

Updates

Security

Maintenance

Monitoring

Troubleshooting

Amazon MQ manages broker setup and administration

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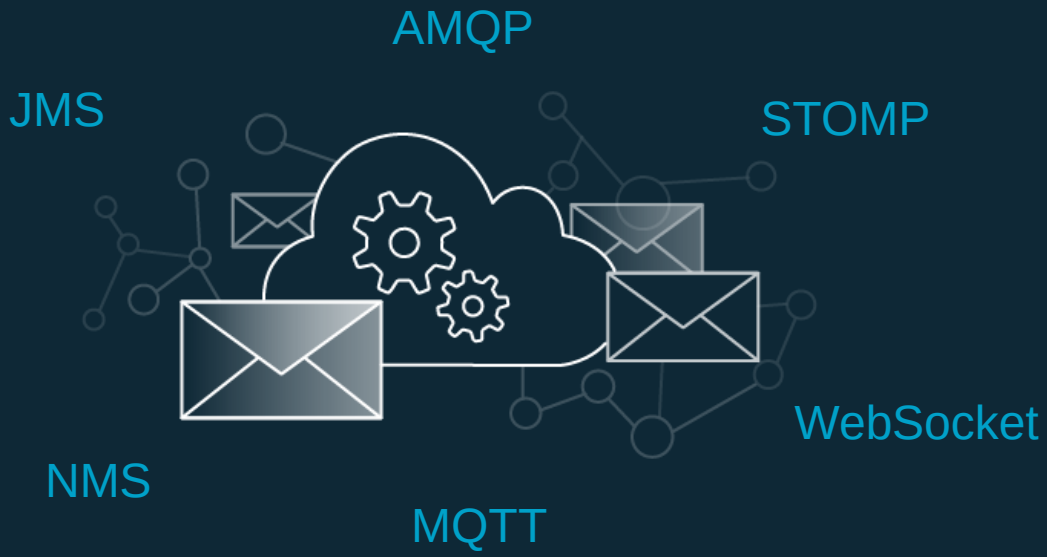
Accelerate Migration



Compatible with industry-standard APIs and protocols

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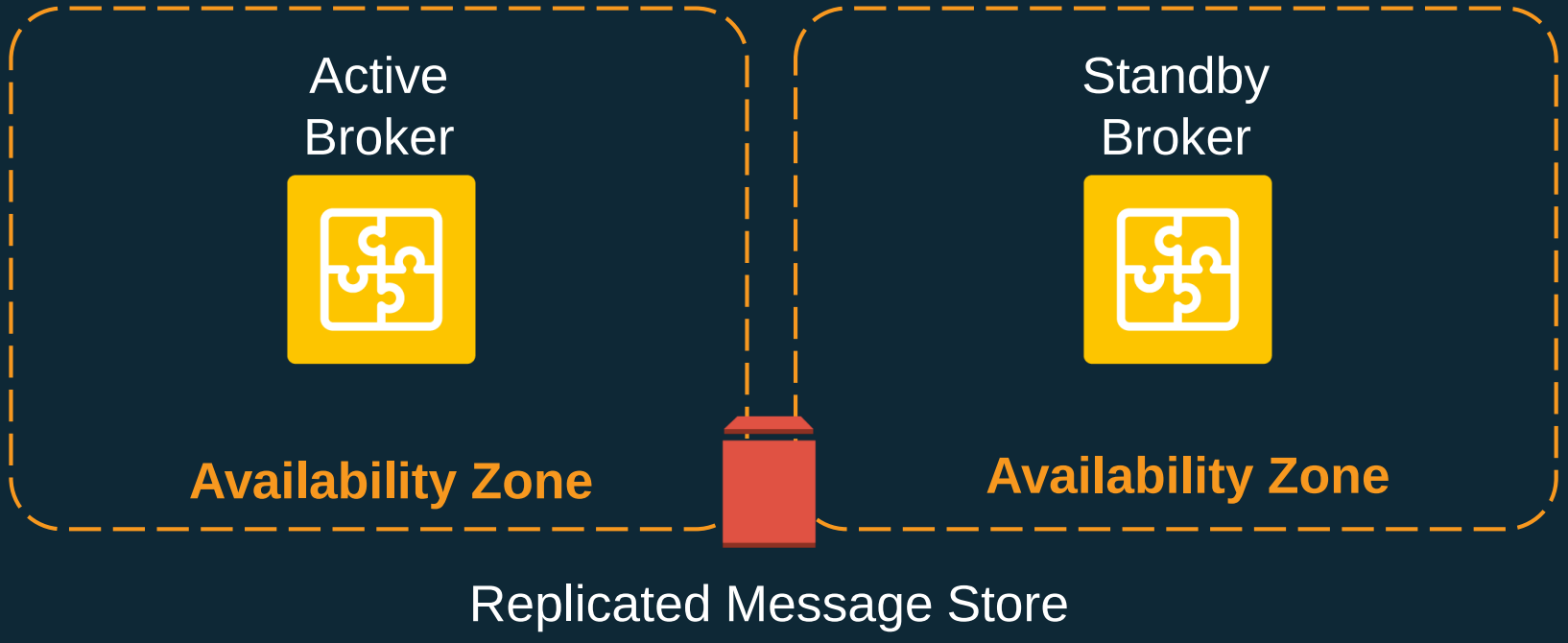
High Availability and Durability



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Secure

Encryption in transit (TLS)

Encryption at rest

VPC endpoints

Security groups

Queue/topic access policies

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Monitor with Amazon CloudWatch

Broker utilization

Queue and topic metrics

Alarms

Auto Scaling consumers based on metrics

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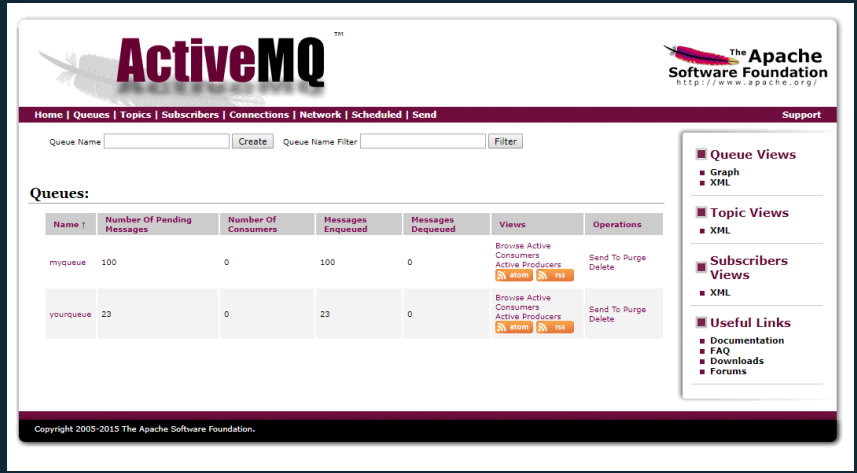
Rich Messaging Features

- Transient & persistent messaging
- Local & distributed transactions (XA)
- Queues & topics (with FIFO)
- Composite & virtual destinations
- Message filtering
- Request/reply
- Scheduled messages
- No limits on message size
- No limits on message retention



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Reduce Costs

Get started for free.
750 hrs/month (mq.t2.micro)
and 1 GB storage for the first year

$0.30 per instance-hour
(mq.m4.large, single instance, US pricing)

$0.30 per GB-month
(US pricing)

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Demo

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Amazon MQ vs Amazon SQS and Amazon SNS

Amazon SQS

Amazon SNS

- For born-in-the-cloud apps
- Simple APIs
- Unlimited throughput
- Pay per-request

Amazon MQ

- For application migration
- API-compatible
- Feature-rich
- Pay per-hour and per-GB

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Region Availability

Generally available now in:

US East (Virginia)
US East (Ohio)
US West (Oregon)
EU (Ireland)
EU (Frankfurt)
Asia Pacific (Sydney)

+ more regions in 2018

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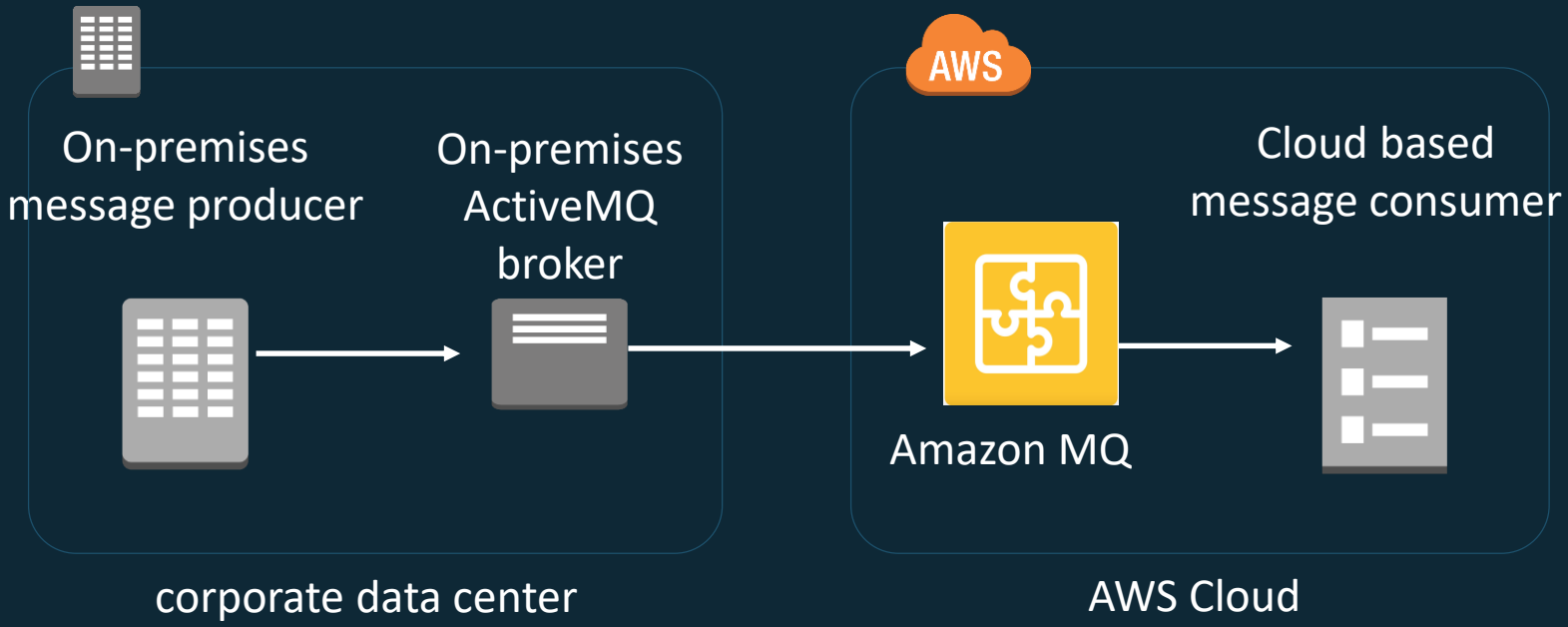
Hybrid Architecture



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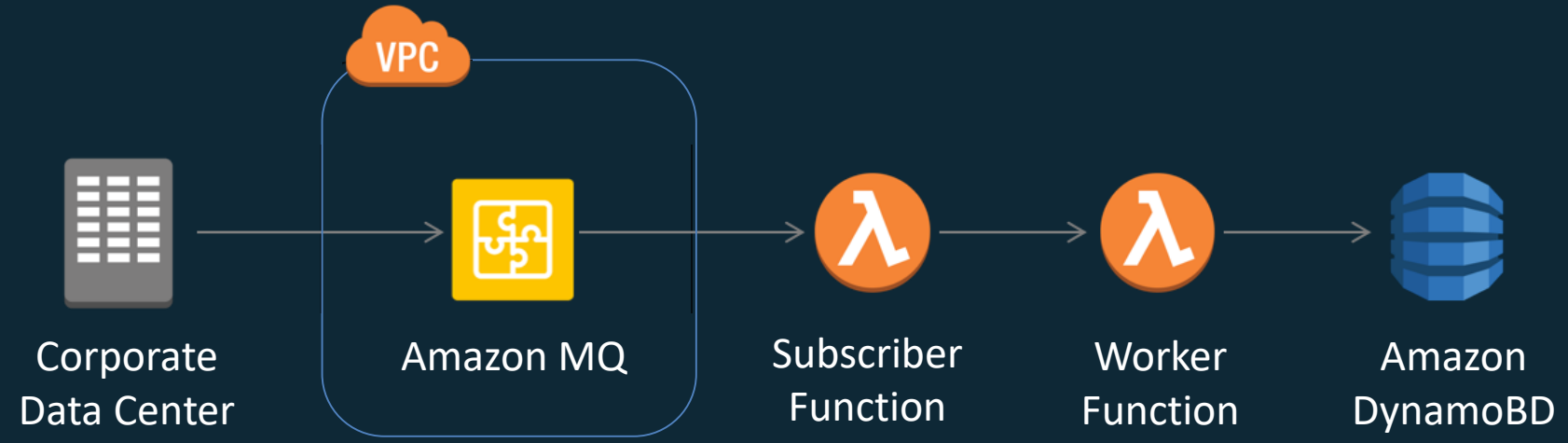
Application Modernization

Connect your existing applications into the AWS ecosystem through messaging to leverage advanced services

Example:



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Future direction

- CloudFormation support
- Higher performance
- Additional regions
- Regulatory compliance
- And more…

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GE Digital

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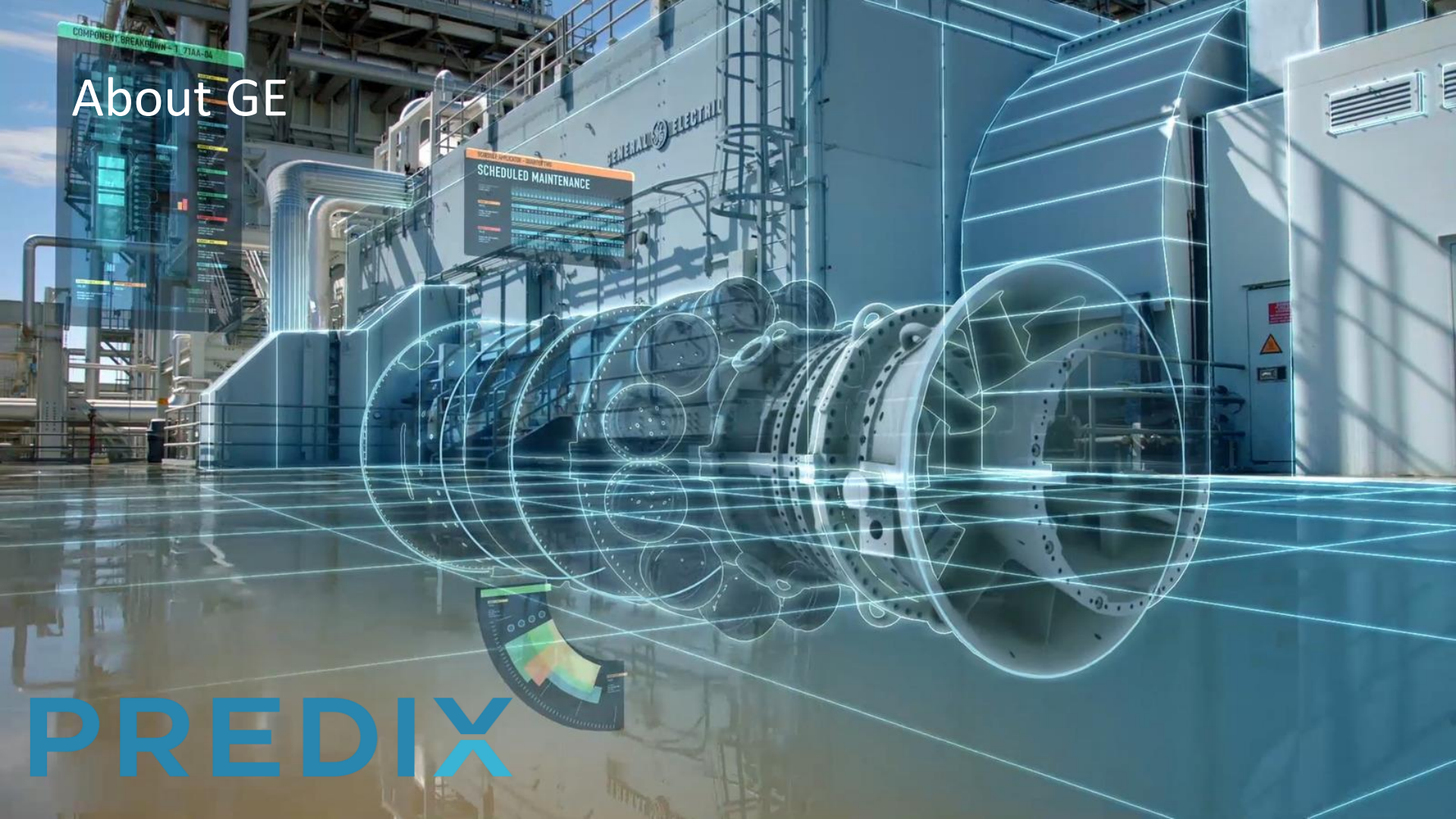
COMPONENT BREAKDOWN - T_71AA-04
SCHEDULED MAINTENANCE
GENERAL ELECTRIC
PREDIX

About GE

Messaging on our platform

"Predix-Message-Queue"
RabbitMQ

AMQP
MQTT
HTTPS

> 3000… message brokers

"Use Cases"

Microservices
Edge to Cloud

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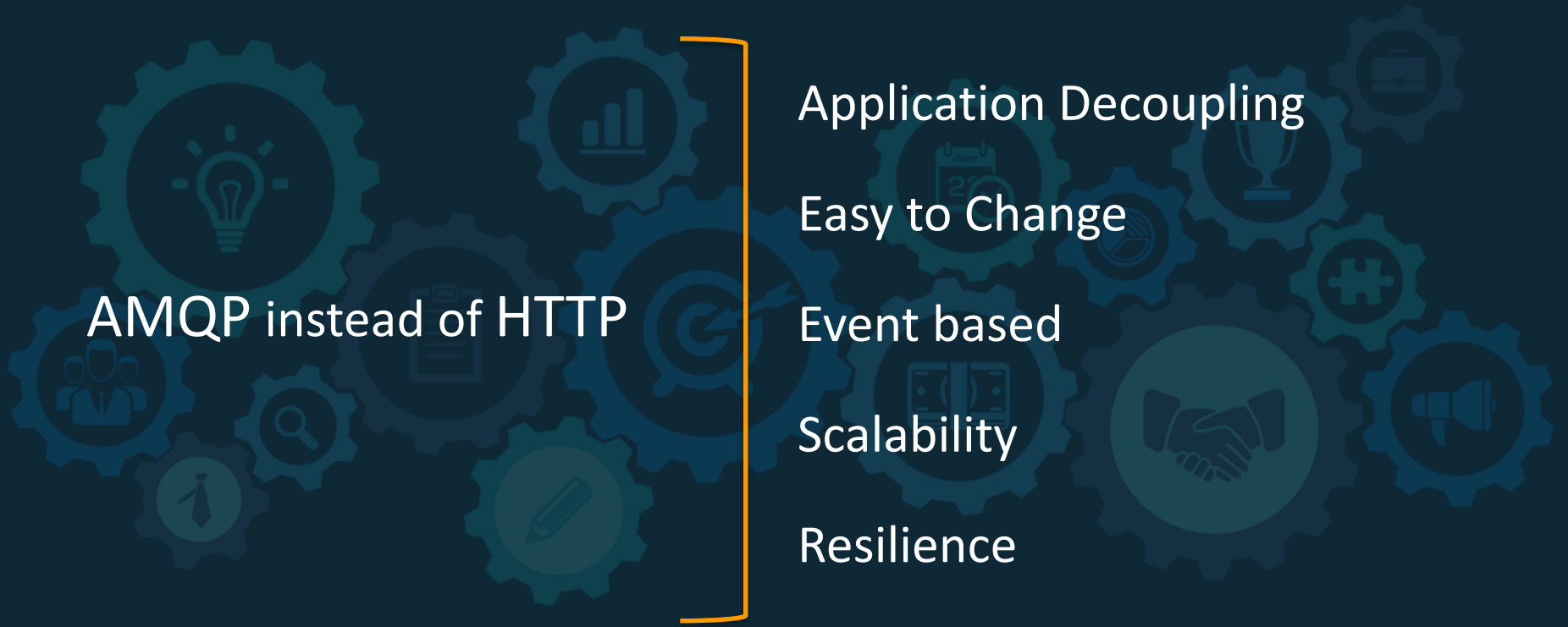
Microservices with AMQP



AMQP instead of HTTP

- Application Decoupling
- Easy to Change
- Event based
- Scalability
- Resilience

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DIY vs Managed

Installation

Availability

Features/Configuration

Back Ups

Integrations

Security

Maintenance

$$$/Talent/Commitment

How to decide?

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Get Started in Minutes

Amazon MQ

aws.amazon.com/amazon-mq

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