

AWS
re:Invent

TLC205

Telecom Leadership Session

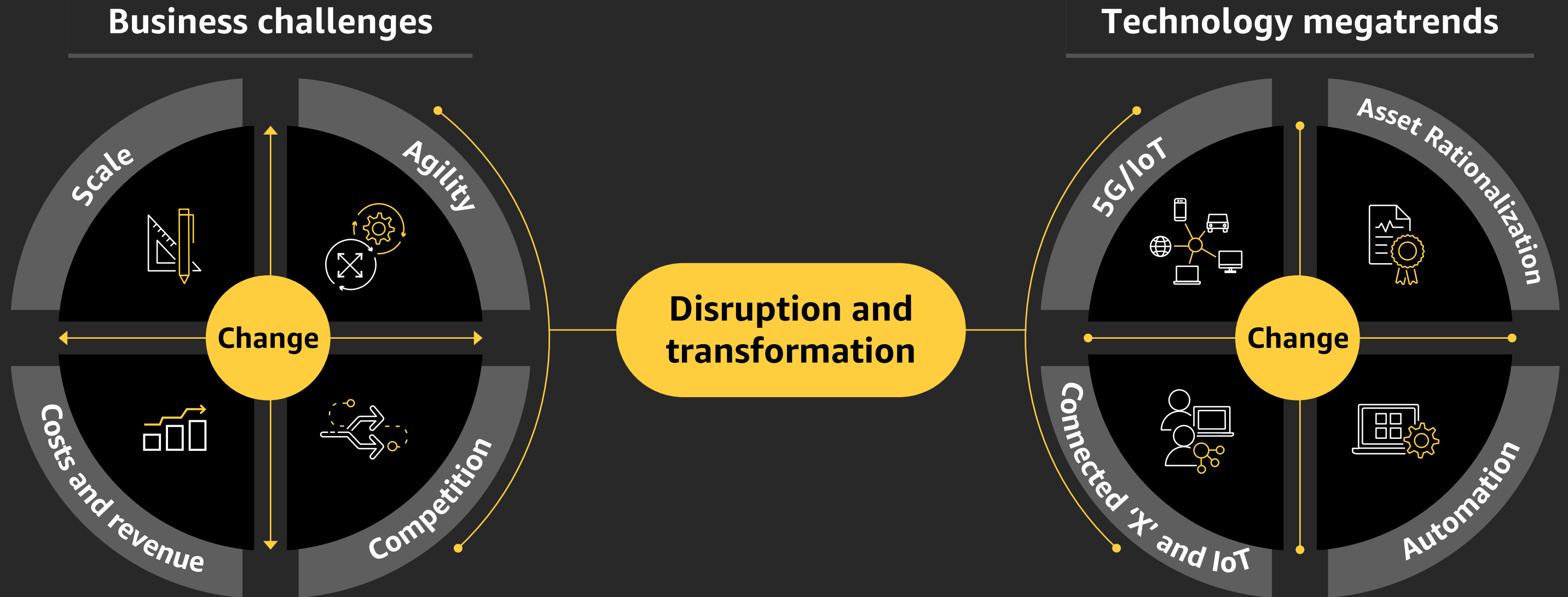
Amir Rao

Head of Telecom Solutions
Portfolio & Tech Alliances
Amazon Web Services

Warren McNeel

Senior Vice President, Technology
T-Mobile

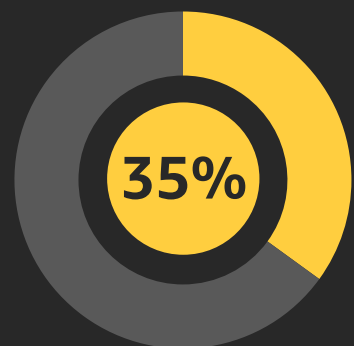
Telecom industry dynamics



Top line (revenue) and bottom line (net income) pressures driving massive transformation initiatives across Telecom

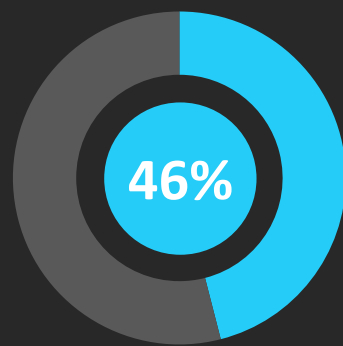
Why digital transformation

Going digital unlocks significant business value



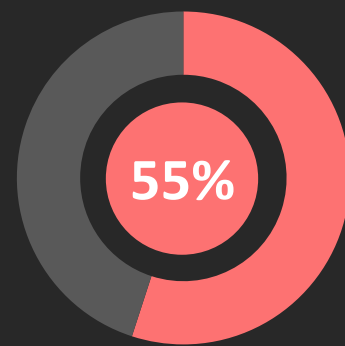
Growth

Enterprises that demonstrate high digital maturity are **experiencing, on average, a ~35% higher revenue growth than competitors**¹



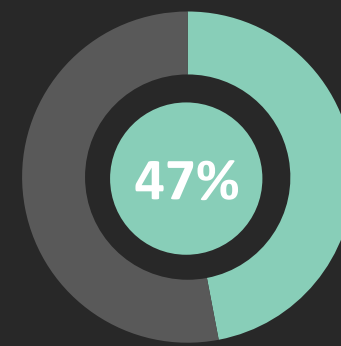
New Revenue Streams

CEOs expect **digital to account for 46% of the value customers see** in their products²



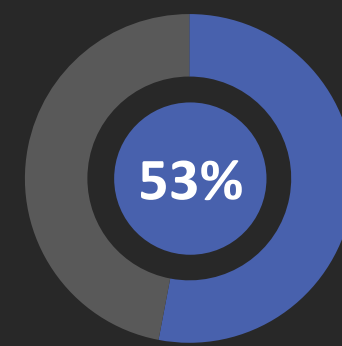
Agility and Speed

In a CIO survey, the number one reason (55%) cited for using cloud services was **business demand for more agility and/or speed**³



Profit

47% of IT executives cited profitability as a top benefit of their digital initiatives⁴



Understand Customers

In a survey of U.S IT leaders, **53% of respondents indicate that a digital platform helps them understand their customers better**⁵

Sources

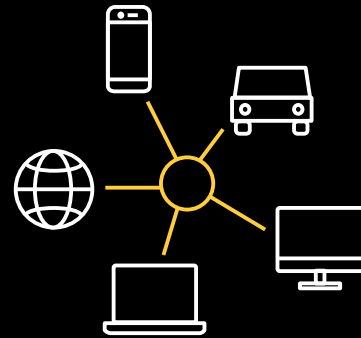
1. HfS Research: Make Digital Your Core Strength, May 2018
2. Smarter with Gartner, 6 Ways to Earn New Digital Revenue, March 2018
3. KPMG: Journey to the Cloud; The Creative CIO Agenda, 2017
4. PwC 2017 Global Digital IQ® Survey
5. IDC: U.S. IT Executives' Report on Digital Transformation, June 2018

Powering the future of telecom

The most advanced technologies to set your business apart



Accelerate digital transformation and data center consolidation



Monetize the path to 5G
Multi-Access Edge Cloud
and IoT



Enhance the customer experience with machine learning and AI



Automate business processes to drive efficiency and scale

Shaking Up Wireless In the Cloud



**Who were we
in 2012?**



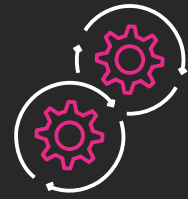
**Disrupting a
stupid,
broken and
arrogant
industry**



IT @ T-Mobile before
Un-carrier...



Reshaping IT into a customer experience obsessed culture



Brought sprint and agile teams together to create DevOps



Reduced reliance on third-parties for software development



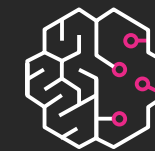
Created Centers of Excellence in Cloud and AI



Shifted from observers to open source innovators



Focused on creating an environment to attract and retain talent



Merged Product & Technology to create autonomous capabilities for product teams

PRODUCT

& TECHNOLOGY

UN-CARRIER MOVES

supported by AWS

**SIMPLE
CHOICE**

**MOBILE
WITHOUT
BORDERS**

JUMP!

**SIMPLE
GLOBAL**

**CARRIER
FREEDOM**

**LIFETIME
COVERAGE
GUARANTEE**

**MUSIC
FREEDOM**

**WI-FI
UN-LEASHED**

**DATA
STASH**

**BUSINESS
UN-LEASHED**

BINGE 

T-Mobile**ONE**

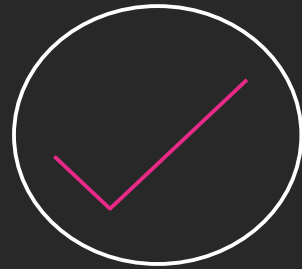
NETFLIX
On Us

T-Mobile
TEAM OF EXPERTS

AWS as cornerstone of technology innovation



Agility



Scale



Cost



TRY IT

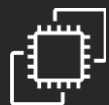


Journey with AWS | TRY IT

Deployed few web workloads in Cloud



1,000 servers



EC2



Auto Scale



Direct Connect

2012

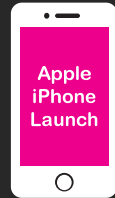
2014

SCALE IT



Journey with AWS | SCALE IT

Moved multiple capabilities to Cloud



Device Data
Depot

CI/CD platforms



8,000 – 75,000
servers/month

75,000 – 300,000
containers



API
Gateway



Amazon S3



Amazon
EMR



Amazon
RDS



AWS
Lambda



Amazon
DynamoDB



AWS IoT
Core



Amazon
Kinesis



Elastic
Cache



2014



2016



2018

T-MOBILE
FOR BUSINESS

**BEST
IN BIZ**

Highest in Business Customer Satisfaction in ALL Wireless Service Categories:

Un-carrier for Business

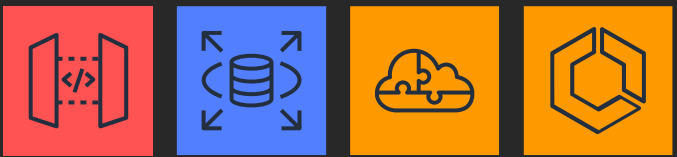


Business customer base
grew 3x
since 2015

>56% growth in
last two years

68% of Fortune 100
as customers

#1 in J.D. Power U.S.
Business Wireless
Customer Satisfaction
(Small, Medium,
and Large Businesses)
(2017-2019)



A conceptual image featuring a hand reaching up towards a white cloud. The cloud is surrounded by a network diagram of pink nodes and lines. The text 'OPTIMIZE IT' is written in pink across the cloud. The background is dark purple with bokeh light effects.

OPTIMIZE IT

Journey with AWS | OPTIMIZE IT

Improved governance and continuous optimization

Social Platforms

Digital
Commerce

AI/ML solutions

Cloud-based
databases



kubernetes



Amazon SageMaker
Ground Truth



Amazon Deep
Learning AMIs



Amazon
Augmented
AI



database
freedom

2019

2020

T-Mobile
TEAM OF EXPERTS

Investing in Experts



Happier customers:

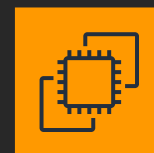
Net promoter score
increased 60%

**AI driving agent
productivity:**

Closed conversations per
hour increased >44%

> 1.5M AI-powered
insights delivered every
day

#1 in J.D. Power U.S.
Wireless Customer Care
Full-Service
(17 quarters)





Open source innovation



**Cloud Security
at T-Mobile**

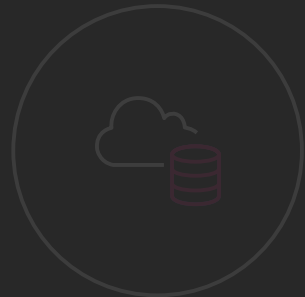


**Serverless for
Enterprises**

Open source innovation



Cloud security at T-Mobile



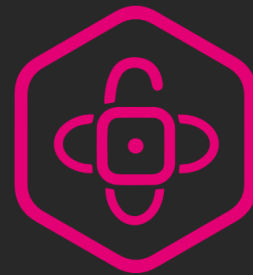
Serverless for Enterprises



PacBot

T-Mobile's open source security compliance tool

<http://pacbot.org>



T-Vault

Built to simplify the process of secrets management

<http://t-vault.org>



AWS Security Hub



AWS Certificate Manager



IAM



Amazon Macie



Amazon GuardDuty



Long-term security credential



AWS Key Management Service



AWS STS



Flow logs



Amazon Inspector



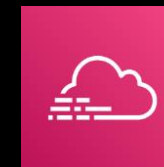
AWS Well-Architected Tool



AWS Trusted Advisor



AWS Config



AWS CloudTrail



Amazon CloudWatch

Open source innovation



Cloud security
at T-Mobile



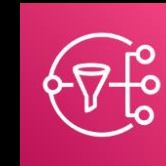
Serverless for
Enterprises



Jazz

T-Mobile's open source serverless
development platform

<http://jazz-serverless.com>



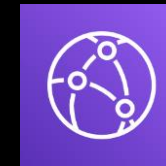
Amazon Simple
Notification
Service



Amazon Simple
Queue Service



Amazon Simple
Storage Service



Amazon
CloudFront



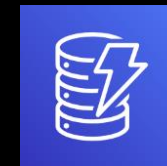
Amazon API
Gateway



AWS
Lambda

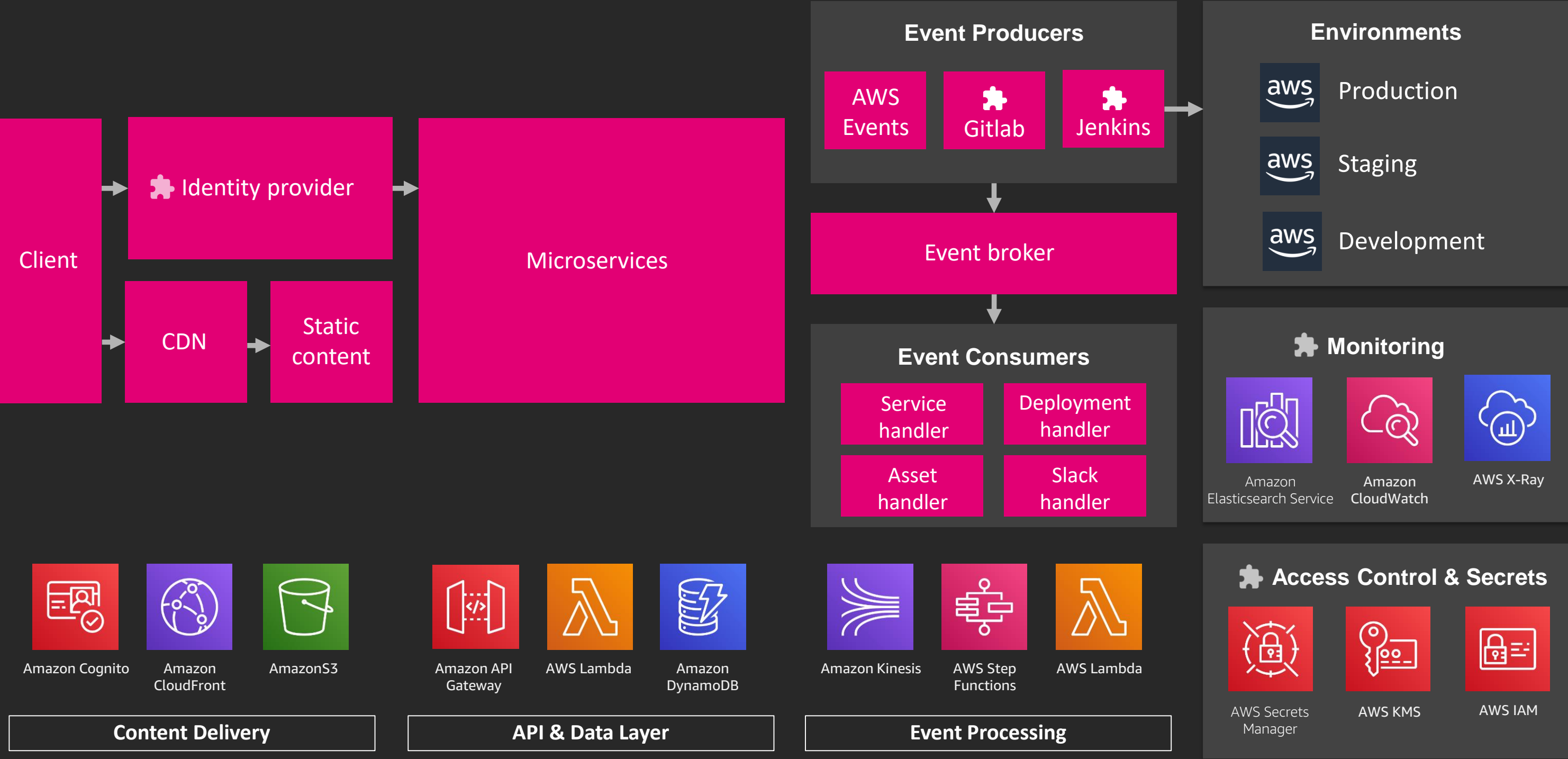


Amazon
Aurora

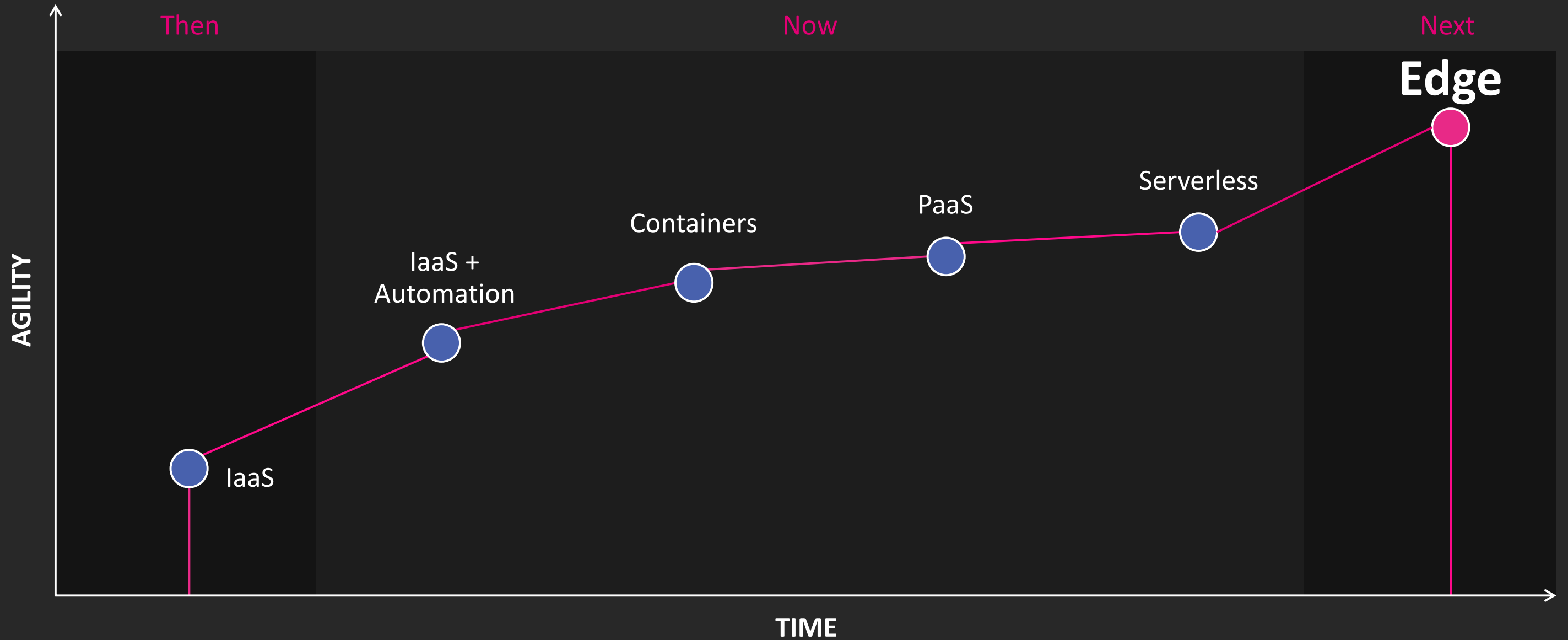


Amazon
DynamoDB

Jazz architecture



The road ahead



Thank you!

Please join me
for a meet and greet!

Telecom Lounge

MGM | Level 3 | Pre-Function Foyer





Please complete the session survey in the mobile app.