

Move fast, build things

Julien Simon, Principal Technical Evangelist
Amazon Web Services

@awscloud

@julsimon



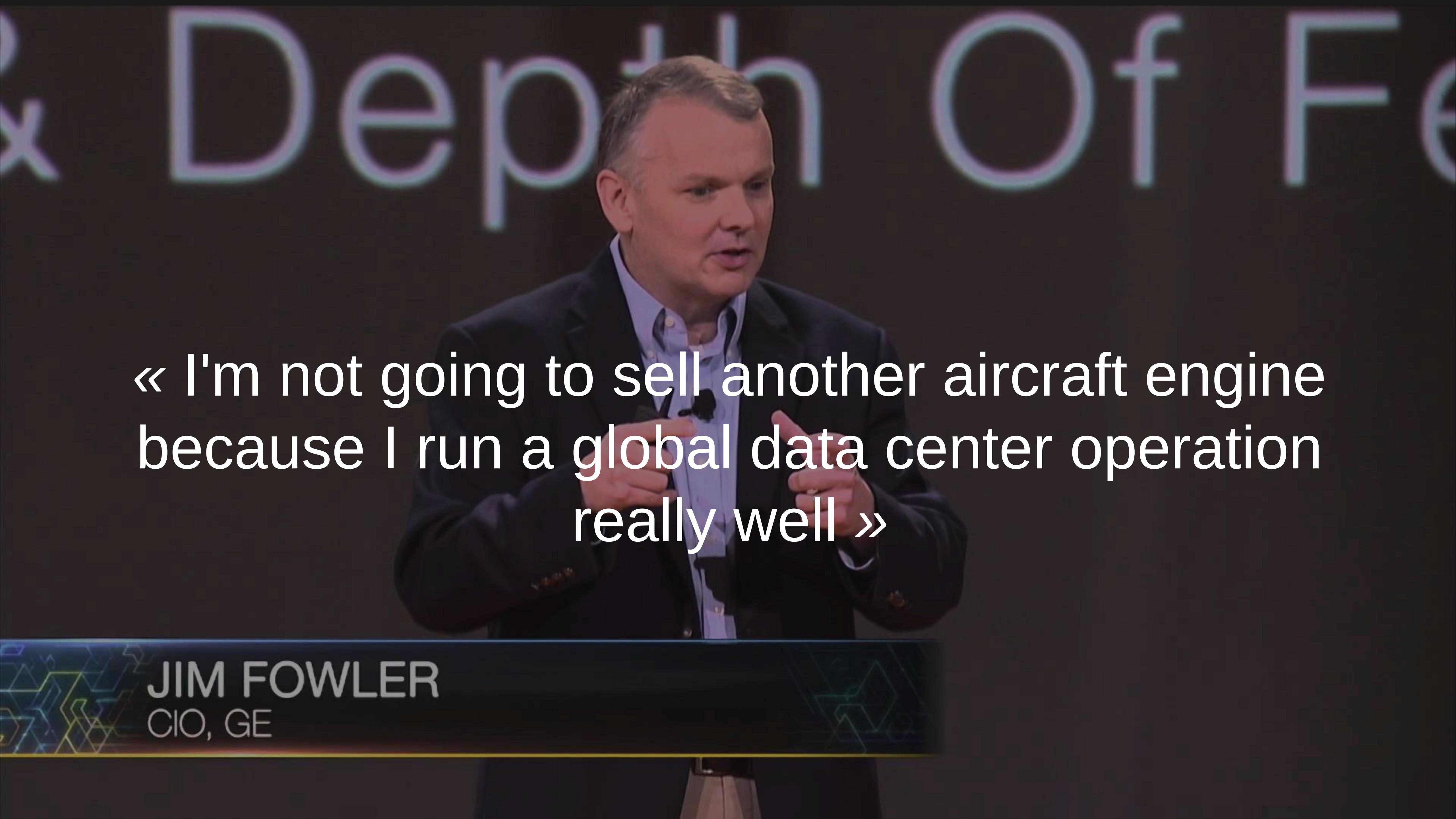




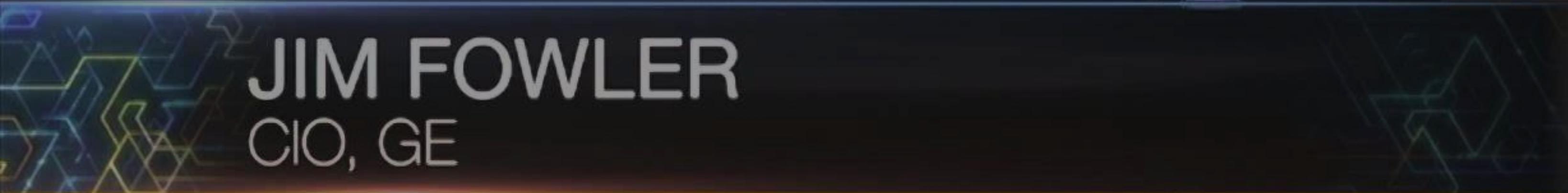






A man with short brown hair, wearing a dark suit jacket, a light blue button-down shirt, and a tie, is standing at a podium and speaking. He is gesturing with his hands as he talks. The background is dark with some glowing blue and green circular patterns.

« I'm not going to sell another aircraft engine
because I run a global data center operation
really well »

A decorative graphic at the bottom left of the slide featuring a grid of small, colorful hexagons in shades of blue, yellow, and green.

JIM FOWLER
CIO, GE

Cloud computing has become the new normal

Deploying new
applications to the
cloud by default



Migrating existing
applications as
quickly as possible

Over a million active customers in 190 countries

2,000 government agencies

5,000 education institutions

17,500 nonprofits

AWS Customers in the Nordics



Why Are Companies Flocking To The Cloud So Quickly?

Why Are Companies Flocking To The Cloud So Quickly?



Increased
agility



Remove undifferentiated
heavy lifting



Go global in
minutes



Move from capital expense to
variable expense



Lower variable expense than they
could achieve on their own

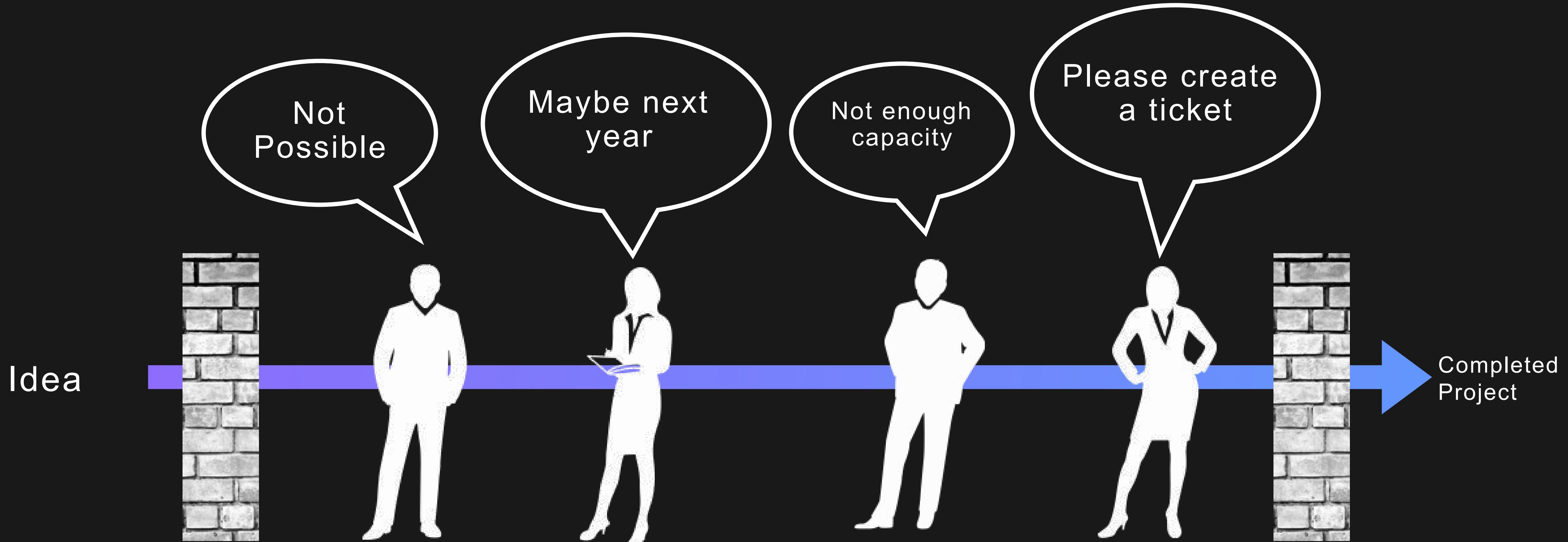


Stop guessing
capacity



Why Are People So Passionate
About The Cloud?

What's Demoralizing Builders?



**Freedom
And Control Over Your Own Destiny**



Seven Basic Freedoms

1

Freedom to
Build, Unrestrained

Key Components Of Agility



+



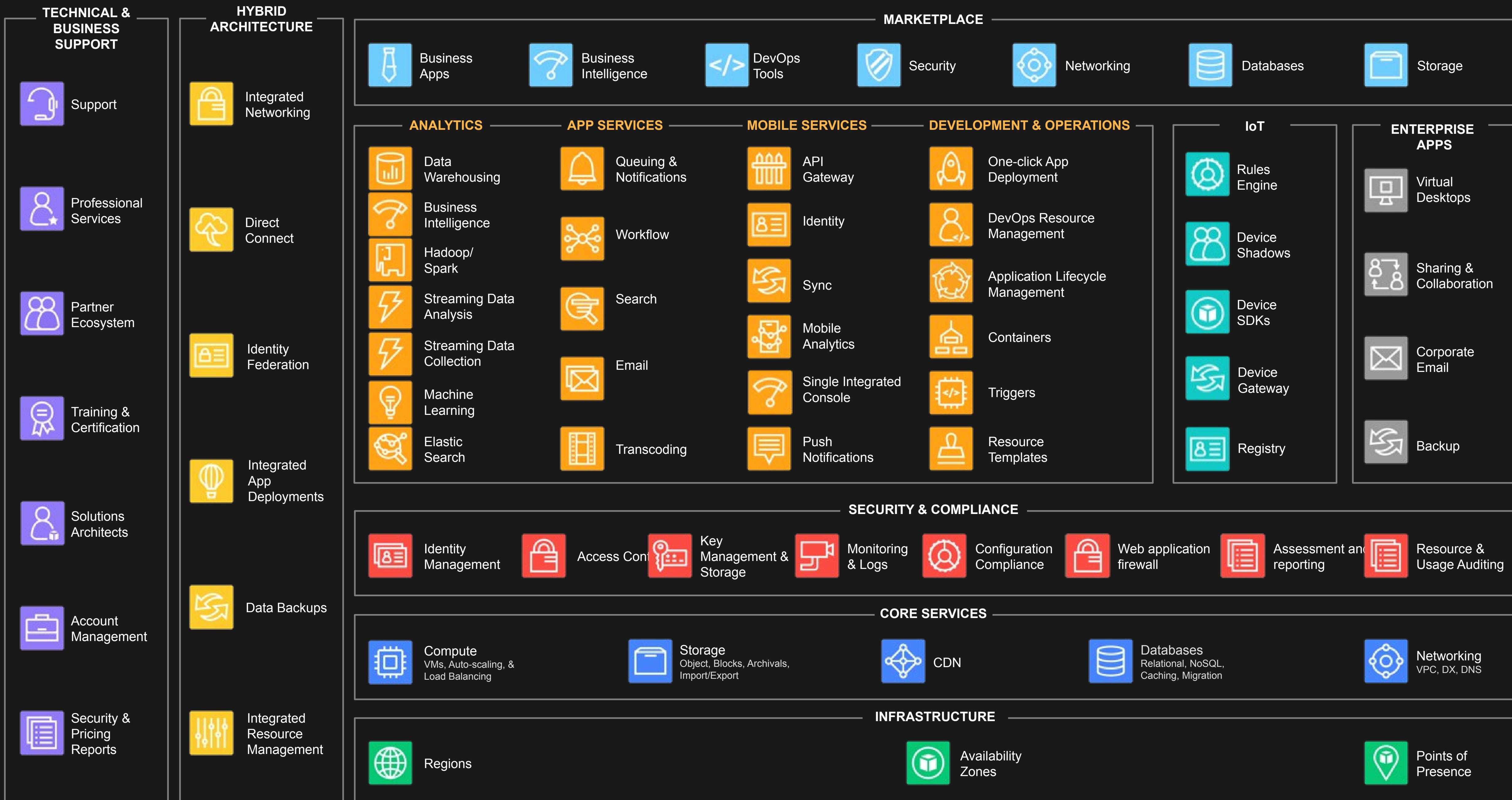
=



Vast infrastructure
technology platform

Quick
provisioning

Agility



Mile-wide... and mile-deep too

Compute

General Purpose (M4)
Compute Optimized (C4)
Memory Optimized (R3)
High Memory (X1)
GPU Optimized (G2)
Storage Optimized (D2)
IO Optimized (I2)
Low Cost, Burst-able Performance (T2)
Dedicated Instances

Databases

RDS For MySQL
RDS For SQL Server
RDS For Oracle
RDS For PostgreSQL
RDS For MariaDB
RDS For Amazon Aurora
Multi-AZ Synchronous Replication
Read Replica Support

Encryption

Server-side Object Encryption
Customer Controlled Keys
Dedicated HSMs
Integrated Key Management
Key Usage Auditing

Access Control

Identity Policies
Location Policies
Time-based Policies
Individual API Calls
Key Rotation
Temporary Credentials
Policy Simulator

**722 new features in
2015**

« IT organizations cannot treat cloud IaaS providers like commodities »

Lydia Leong

Gartner

2

Freedom to Extract
Full Value From Your Data

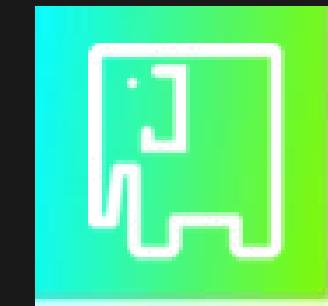
Core Components for Big Data Workloads



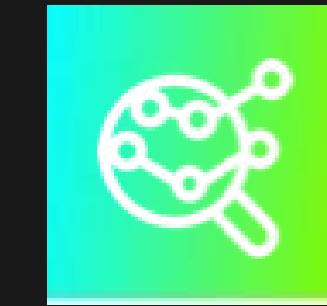
Data store of
record
S3



High Performance
Databases
RDS
DynamoDB



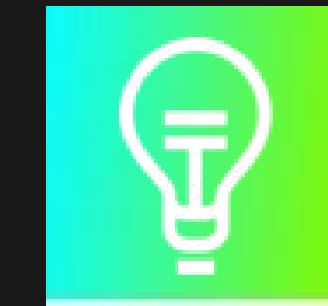
Analytics Clusters
Hadoop on EMR
Spark on EMR



Elasticsearch
Elasticsearch
Service



Streaming
Data
Kinesis



Predictive
Analytics
Machine Learning



Data
Warehouse
Redshift

Big Data & Analytics



Telecommunications



Advertising



Education



Risk Simulation



Healthcare



Financial Claims



Healthcare



LABORATORY



Risk Analysis



Media & Entertainment



Non-Profit



Genomics



Food



Oil & Gas



Telecom



Genomics



Media & Entertainment



Media & Entertainment

Why is most of the company left in the dark?



Old World Experience From Old Guard Vendors

Share of Voice by Hotword (Bar) Cancel Done

Font: 8 pt 1 pt

Page layers: Drop members here to create page layers

Context filters: Drop members here to create a context filter (show)

	New Game Availability	Difficulty	Cheats	Lost Interest	Completed
Positive	1015.00	434.00	24.00	20.00	252.00
Negative	324.00	326.00	11.00	37.00	114.00
Neutral	782.00	196.00	0.00	0.00	318.00

SHARE OF VOICE BY HOTWORD

Compare Hotword distribution within types & concepts

Number of Snippets

Select a chart object

Default measure (x-axis): <Value 1>

Series (primary axis): <New Cube 2 Dimension E>

Source

- ▼ New Cube 1.Dimension C
 - ▶ Positive
 - ▶ Negative
 - ▶ Neutral
 - ▶ Ambivalent
- ▼ New Cube 1.Dimension D
 - ▶ New Game Availability
 - ▶ Difficulty
 - ▶ Cheats
 - ▶ Lost Interest
 - ▶ Completed

Source Toolbox

Properties - Combination Chart

No data contents: Advanced

Chart Orientation:
 Vertical Horizontal

Depth: 0

Tooltips:

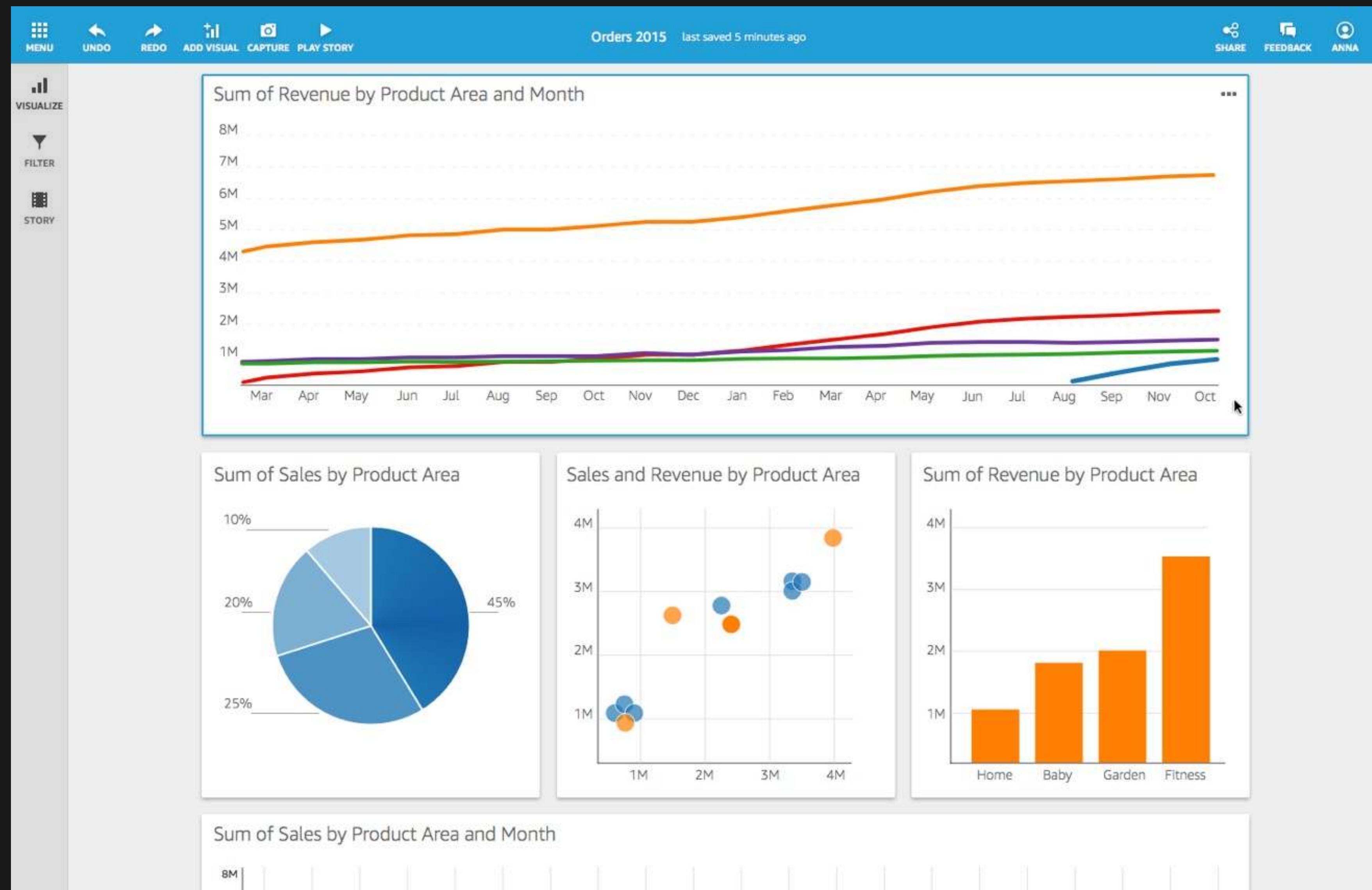
Old World Pricing From Old Guard Vendors

	Named User Plus	Software Update License & Support	Processor License	Software Update License & Support
Business Intelligence Technology Products				
Business Intelligence				
Standard Edition One	1,200	264.00	-	-
Suite Enterprise Edition Plus	2,000	440.00	221,250	48,675.00
Suite Enterprise Edition Plus Upgrade Only	230	50.60	34,500	7,590.00
Server Enterprise Edition	350	77.00	51,800	11,396.00
Business Intelligence Publisher	460	101.20	46,000	10,120.00
Business Intelligence Foundation Suite	3,675	808.50	300,000	66,000.00
Disconnected Analytics	580	127.60	-	-
Server Administrator	5,800	1,276.00	-	-
Scorecard and Strategy Management	995	218.90	89,550	19,701.00
Business Intelligence Mobile	360	79.20	-	-
Business Intelligence Server Enterprise Edition Options:				
Interactive Dashboard	580	127.60	86,500	19,030.00
Delivers	350	77.00	51,800	11,396.00
Answers	580	127.60	86,500	19,030.00
Office Plug-in	230	50.60	34,500	7,590.00
Reporting and Publishing	460	101.20	70,000	15,400.00
Business Intelligence Suite Enterprise Edition Plus Options:				
Business Intelligence Management Pack	230	50.60	11,500	2,530.00
Business Intelligence Data Integration Technology				
Data Integrator for Oracle Business Intelligence	690	151.80	23,000	5,060.00
Informatica PowerCenter and PowerConnect Adapters	690	151.80	25,300	5,566.00
Metadata Management for Oracle Business Intelligence	2,400	528.00	80,000	17,600.00

Old World Pricing From Old Guard Vendors

	Named User Plus	Software Update License & Support	Processor License	Software Update License & Support
Business Intelligence Technology Products				
Business Intelligence				
Standard Edition One	1,200	264.00	-	-
Suite Enterprise Edition Plus	2,000	440.00	221,250	48,675.00
Suite Enterprise Edition Plus Upgrade Only	230	50.60	34,500	7,590.00
Server Enterprise Edition	690	151.80	900	11,396.00
Business Intelligence Publisher	460	101.20	4600	10,120.00
Business Intelligence Foundation Suite	3,675	808.50	3000	66,000.00
Disconnected Analytics	580	127.60	-	-
Server Administrator	5,800	1,276.00	-	-
Scorecard and Strategy Management	995	218.90	890	19,701.00
Business Intelligence Mobile	990	179.00	-	-
\$150 - \$250 / USER / MONTH				
Business Intelligence Server Enterprise Edition Options:				
Interactive Dashboard	580	127.60	860	19,030.00
Delivers	350	77.00	510	11,396.00
Answers	580	127.60	860	19,030.00
Office Plug-in	230	50.60	340	7,590.00
Reporting and Publishing	460	101.20	700	15,400.00
Business Intelligence Suite Enterprise Edition Plus Options:				
Business Intelligence Management Pack	230	50.60	11,500	2,530.00
Business Intelligence Data Integration Technology				
Data Integrator for Oracle Business Intelligence	690	151.80	23,000	5,060.00
Informatica PowerCenter and PowerConnect Adapters	690	151.80	25,300	5,566.00
Metadata Management for Oracle Business Intelligence	2,400	528.00	80,000	17,600.00

Amazon QuickSight



Amazon QuickSight

Fast, easy to use, cloud powered business intelligence for everybody

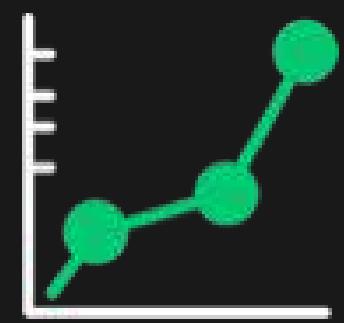


First analysis in
less than 60 seconds



Blazing fast queries
with a new in-memory
query engine

(Spice)



Dynamic, beautiful
data visualizations



Share live and
snapshot analyses
with everyone



Integrate with data
sources on AWS

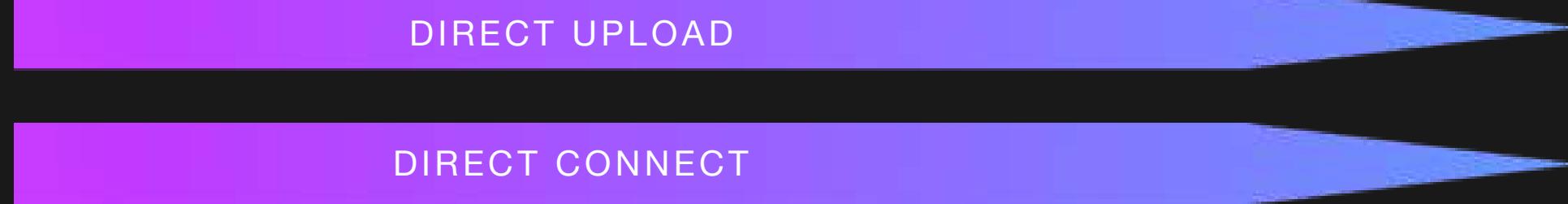


1/10th the cost of Old-
guard BI tools

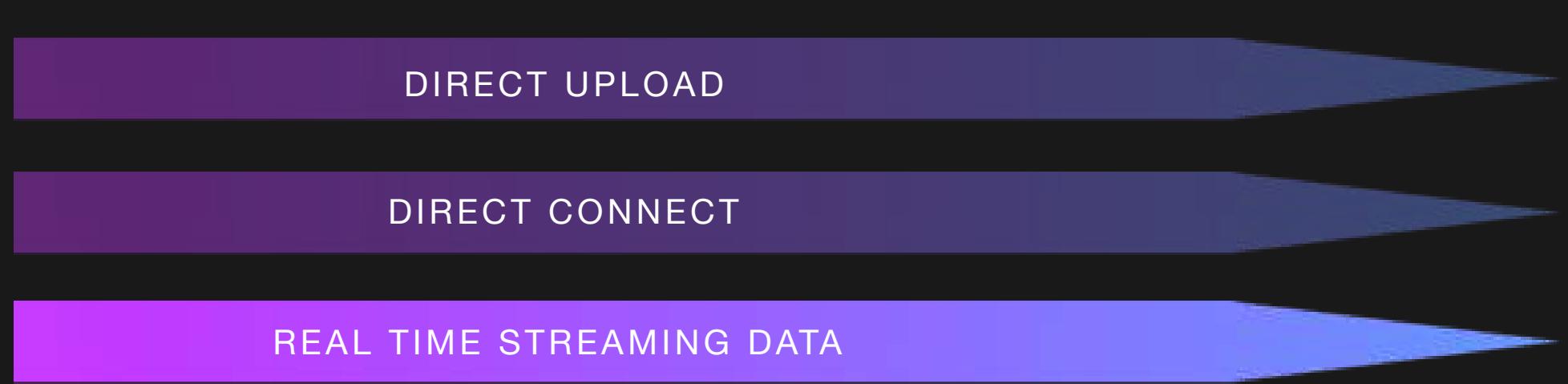
3

Freedom to Get Your Data into
(or out of) the Cloud Easily

How do we move data to the cloud today?



How do we move data to the cloud today?



How do we move data to the cloud today?

- DIRECT UPLOAD
- DIRECT CONNECT
- REAL TIME STREAMING DATA
- VIA CONNECTED DEVICES





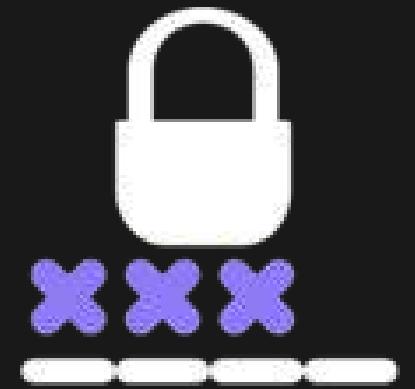
Migrating Large Volumes of Data

Never
underestimate
the bandwidth
of a delivery
truck !

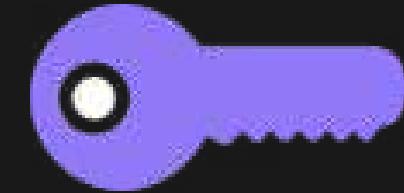


AWS Snowball

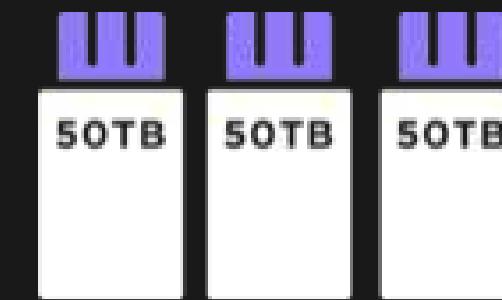
Simplified, Secure Data Transfer in Large Scale



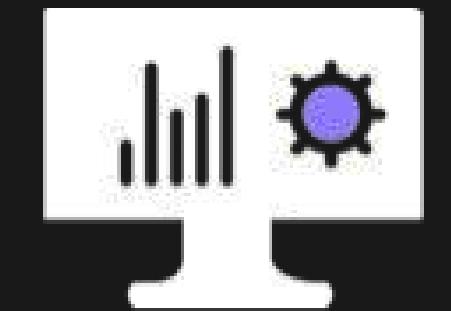
Secure Enclosure



Strong Encryption,
End-to-End



50TB, Shipped
in Parallel

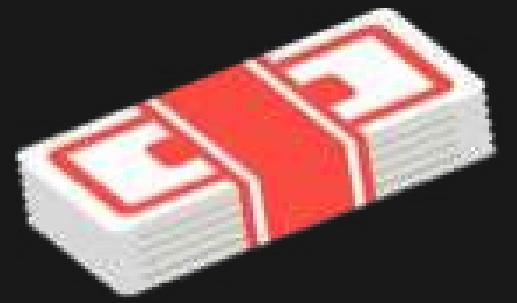


Simplified
Logistics

4

Freedom from Bad
(Database) Relationships

Old-world Databases



Very Expensive



Proprietary

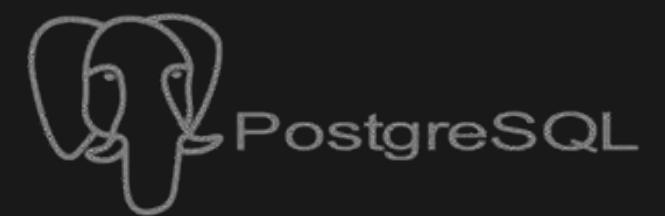


Lock-In



Punitive Licensing with
Limited Flexibility

It's why customers have been moving
to more open, customer friendly, less expensive
database engines



... But it's hard to get performance
equivalent to proprietary databases

Amazon Aurora

Enterprise-grade
performance with
open-source
pricing



MySQL
compatible



Up To 5x
performance of
high-end MySQL



Highly
available and
durable



1/10th the cost of
enterprise
databases



Fastest growing
AWS service

Amazon Aurora Adoption

A few examples...



GE
Oil & Gas



United
Nations

NBCUniversal



**Customers asked us for
additional paths to Freedom**

Help us migrate databases to (or out of) the Cloud

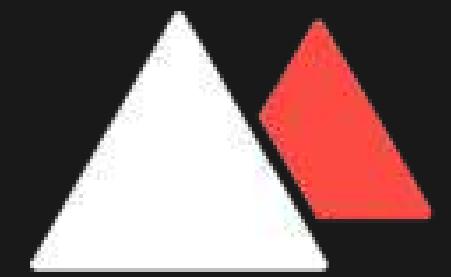
Help us migrate away from proprietary databases

AWS Database Migration Service

Easily migrate production databases to AWS
with minimal downtime



Replicate data
continuously



Migrate databases of any
size



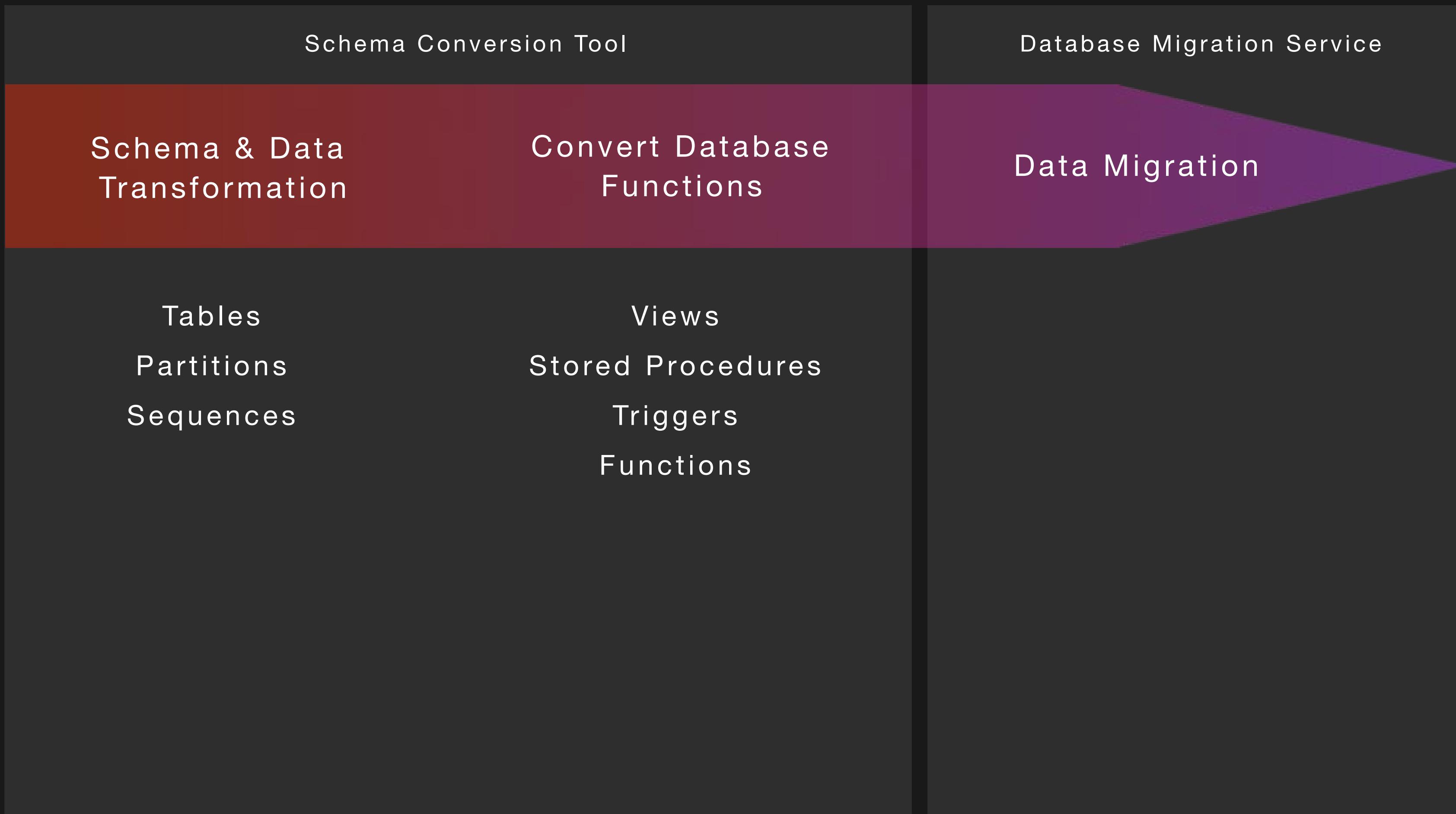
Real-time
monitoring

AWS Schema Conversion Tool

Migrate between database engines reliably and easily



ENGINE A



ENGINE B

5

Freedom to Migrate

Many Enterprises Follow a Similar Path to the Cloud

- 1 Individual Projects
- 2 Extend Existing Data Centers into the Cloud
- 3 Scale Up and Optimize Operations
- 4 Data Center Migration



Transitioning to AWS with Hybrid Architectures



Integrated networking



Integrated DevOps Management



Hybrid app deployment



Integrated DevOps Management



Integrated security



Integrated networking



Integrated DevOps Management



Integrated networking



Integrated resource management



Data integration



Integrated networking



Automated and integrated back-ups



Realtime data integration



Hybrid app deployment



Integrated networking



Integrated networking



Data integration



Hybrid app deployments



Integrated Networking

The Destination for Many Enterprises: All-in

NETFLIX

CLARK
CONSTRUCTION

intuit.

Time Inc.

**UNIVERSITY OF
NOTRE DAME**

TALEN
ENERGY

Aol.

Hertz
Equipment Rental

FINRA

metglobal

**SUNCORP
GROUP**

magazineluiza

McKINNEY
Unique by nature.

Kempinski
HOTELS & RESORTS

FAST RETAILING

日本通運
NIPPON EXPRESS

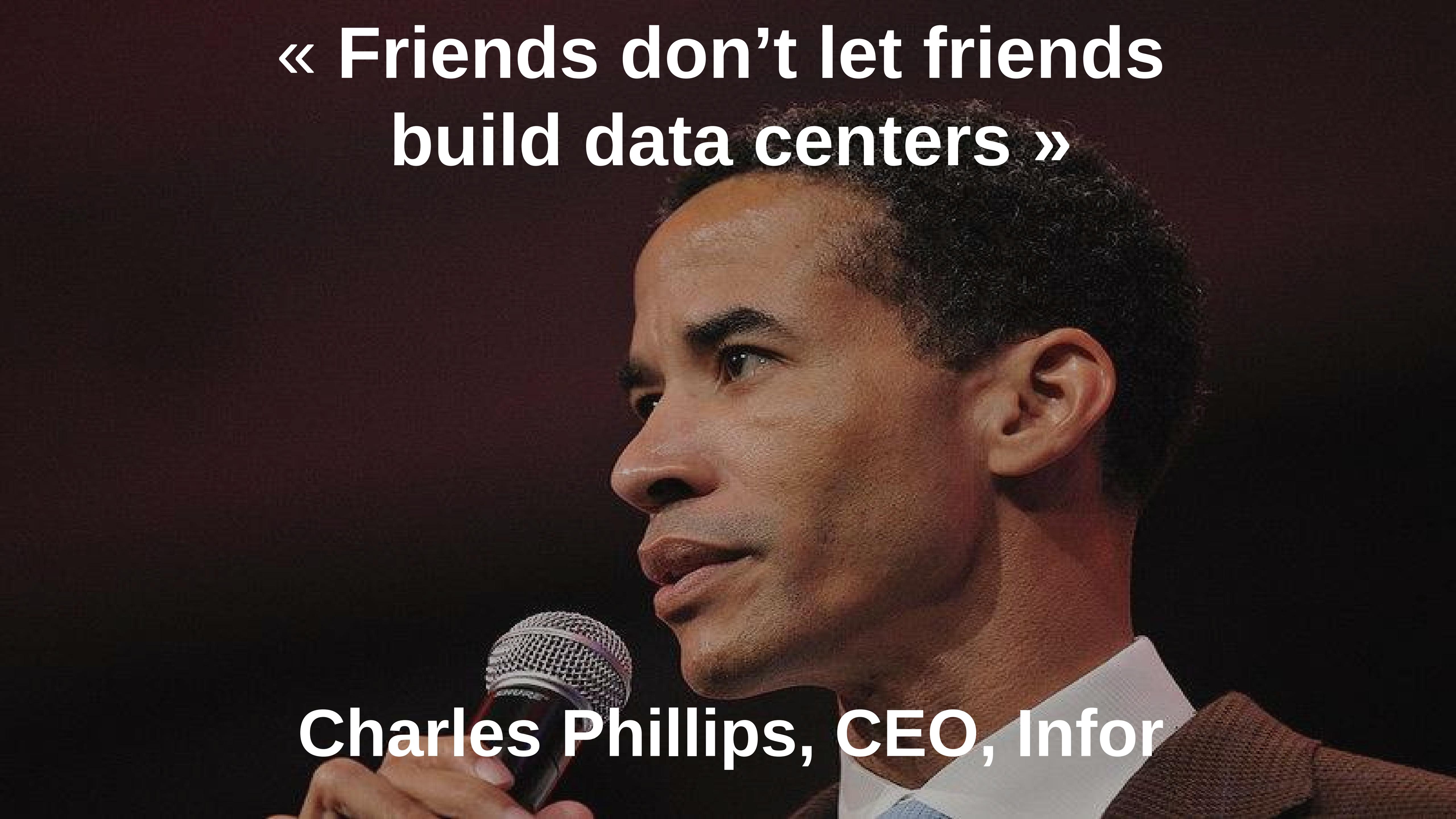
**JUNIPER
NETWORKS**

the guardian

Smiles

NDI

**« Friends don't let friends
build data centers »**



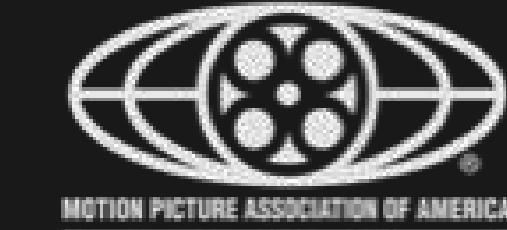
Charles Phillips, CEO, Infor



6

Freedom to Secure Your Cake and Eat It Too

Broad Accreditations & Certifications



Glacier Vault Lock
& SEC Rule 17a-4(f)



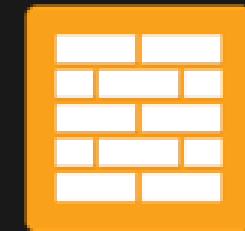
27018

A Broad Set of Services to Secure your Applications

Networking



Virtual Private
Cloud

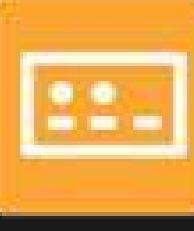


Web
Application
Firewall

Encryption



Key
Management
Service



CloudHSM



Server-side
Encryption

Identity



IAM



Active
Directory
Integration



SAML
Federation

Compliance



Service
Catalog



CloudTrail



Config



Inspector

Move Fast

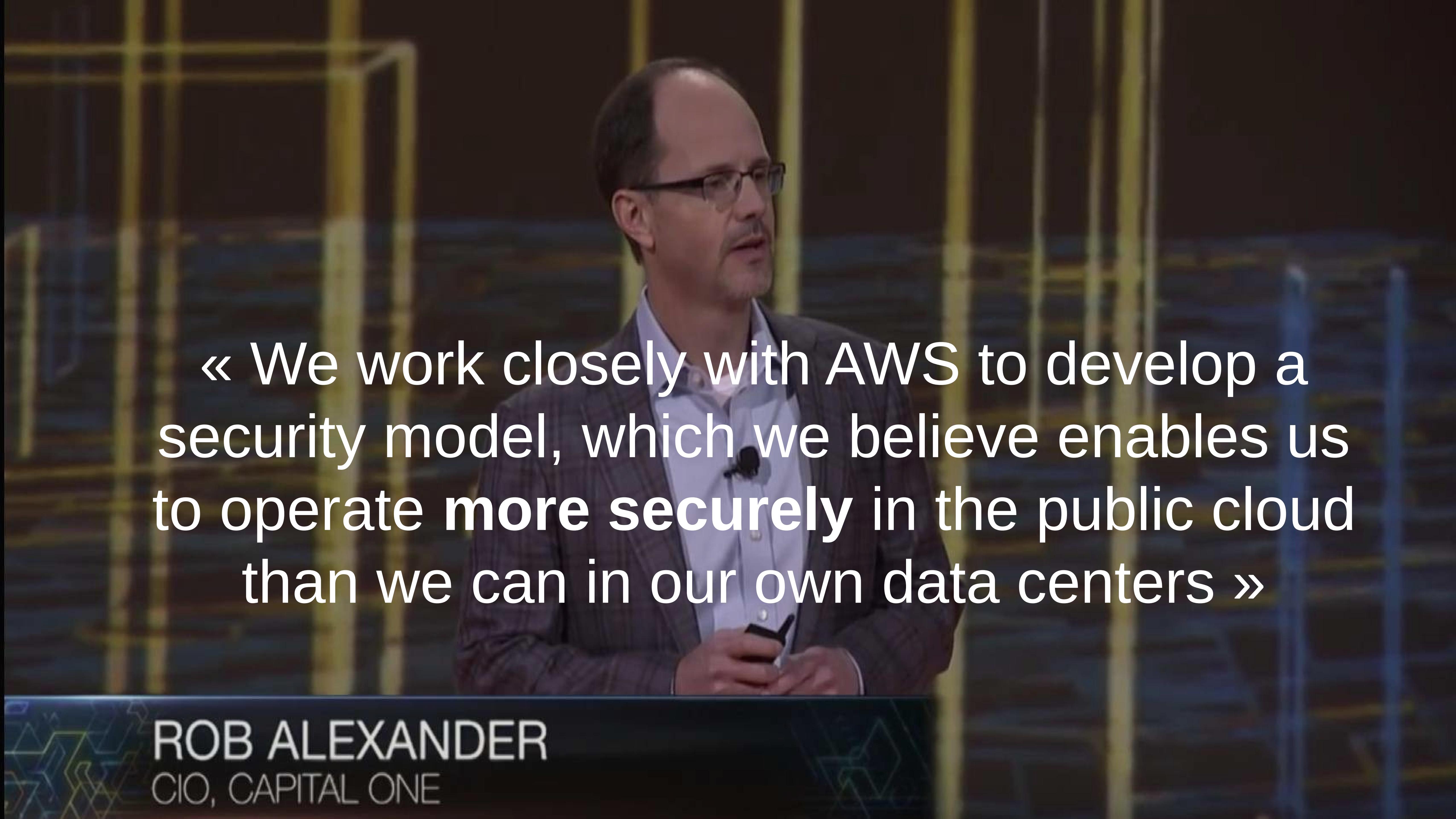
OR

Stay Secure

Move Fast

AN
D

Stay Secure

A medium shot of a man with glasses and a mustache, wearing a dark suit and light blue shirt, speaking into a microphone at a podium. He is looking slightly to his left. The background is blurred, showing what appears to be a large screen or a wall of windows.

« We work closely with AWS to develop a security model, which we believe enables us to operate **more securely** in the public cloud than we can in our own data centers »

ROB ALEXANDER
CIO, CAPITAL ONE

7

Freedom to Say “Yes”

Start-Ups Scale from Day 1 with AWS



Pinterest



stripe

Instacart

tinder

The Cloud As a Driver for Digital Transformation

DOW JONES

Digital

mlbam 

Statcast

intuit

Personal Finances

NOKIA

App Platform



Web



Healthcare

Singapore
POST

E-commerce



Digital Content



Web



Media Web Sites



CRM



Education



Digital Services

H E A R S T

Digital Media

JustGiving

Analytics

What it boils down to

“These folks who have put their blood, sweat and tears into making our consumer experience grow... it’s incrediblility liberating for them, and they feel empowered, and they feel like it’s their site.

For the first time I heard one of the engineers say ‘this is my website’, and it’s so amazing what happens when they actually feel empowered like it’s their own.”

Jody Mulkey, CTO

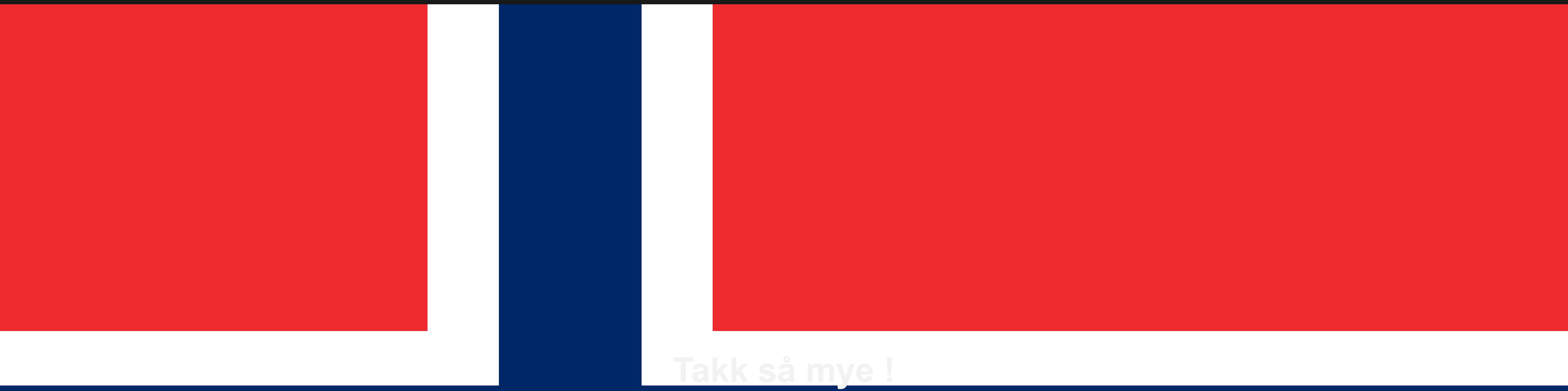
ticketmaster®

**Freedom to Control
Your Own Destiny**

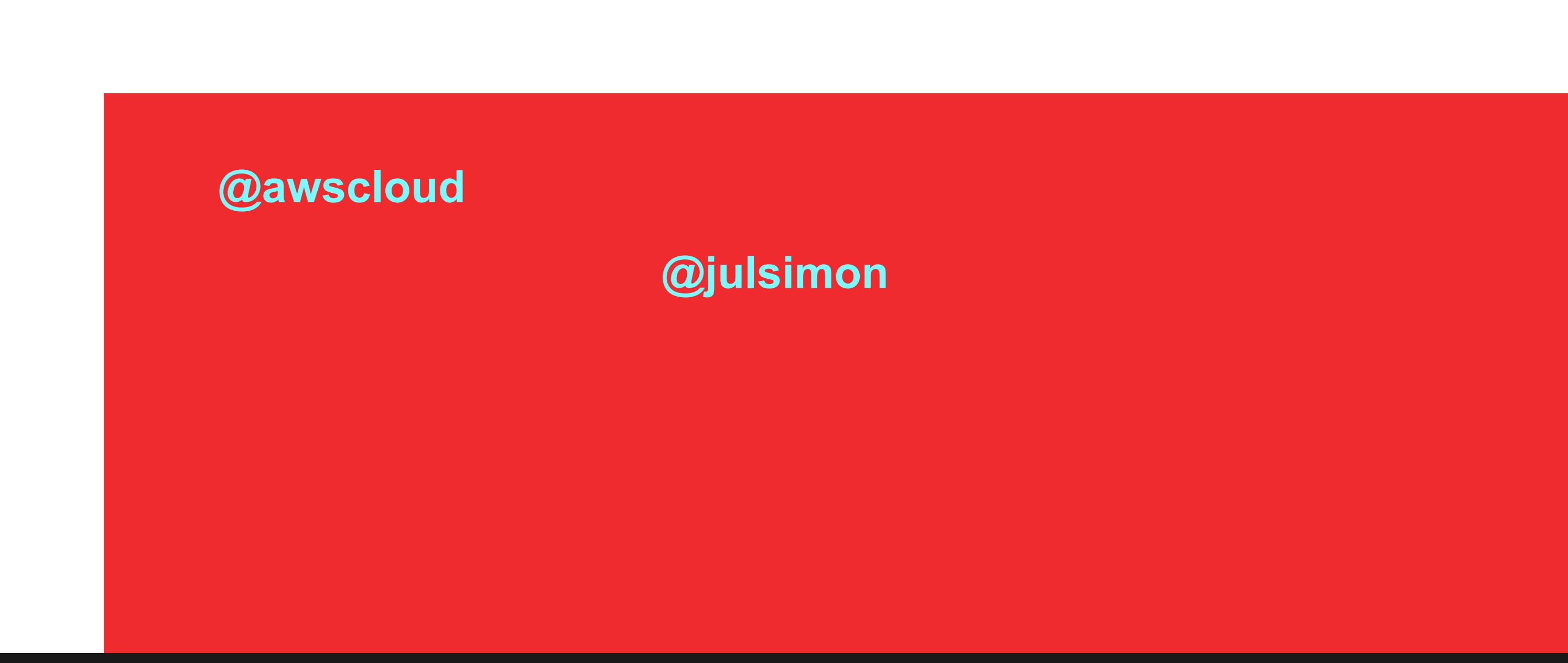








Takk så mye !



@awscloud

@julsimon