aws

AWS 區域 **2025** 落地台灣，提供數位轉型雲端驅動力

Michael Lin

Sr. Solutions Architect
Amazon Web Services

Agenda

- Digital Transformation and Cloud Computing

- Evaluation of Cloud Service Providers

- Migration and Modernization

- Getting Started on the Cloud Journey

Digital Transformation and Cloud Computing

Cloud Unlocks $3 Trillion in Business Value Beyond Cost Savings

- McKinsey projects $3 trillion in EBITDA potential by 2030 across Fortune 2000 companies

- Innovation value from cloud exceeds IT cost savings by 5x

- Organizations can achieve 20-30% EBITDA uplift across sectors

- Cloud democratizes enterprise capabilities, shifting advantage from scale to skill

https://www.mckinsey.com/capabilities/mckinsey-digital/our-insights/from-legacy-to-cloud-lessons-from-the-trenches;
https://www.mckinsey.com/capabilities/mckinsey-digital/our-insights/in-search-of-cloud-value-can-generative-ai-transform-cloud-roi;
https://www.mckinsey.com/capabilities/mckinsey-digital/our-insights/projecting-the-global-value-of-cloud-3-trillion-is-up-for-grabs-for-companies-that-go-beyond-adoption;
https://www.mckinsey.com/featured-insights/mckinsey-explainers/what-is-cloud-computing

Successful Cloud Transformation Demands Enterprise-Wide Evolution

- Cloud requires reimagining technology development, operations, and management

- Leading organizations align business value cases, build robust foundations, and adopt product-oriented models

- Lincoln Financial's success required shifting from static infrastructure to consumption-based optimization

- 90% of companies have yet to fully capture cloud's potential value

https://www.mckinsey.com/capabilities/mckinsey-digital/our-insights/from-legacy-to-cloud-lessons-from-the-trenches;
https://www.mckinsey.com/capabilities/mckinsey-digital/our-insights/in-search-of-cloud-value-can-generative-ai-transform-cloud-roi;
https://www.mckinsey.com/capabilities/mckinsey-digital/our-insights/projecting-the-global-value-of-cloud-3-trillion-is-up-for-grabs-for-companies-that-go-beyond-adoption;
https://www.mckinsey.com/featured-insights/mckinsey-explainers/what-is-cloud-computing

Generative AI Revolutionizes Cloud Economics and Accelerates Transformation

- Gen AI adds 75-110 percentage points of incremental ROI to cloud initiatives

- Application migration costs and timelines reduced by 40% through Gen AI

- Cloud infrastructure is essential for enterprise-scale Gen AI deployment

- Gen AI-enabled workflows create compelling business cases for legacy system migration

https://www.mckinsey.com/capabilities/mckinsey-digital/our-insights/from-legacy-to-cloud-lessons-from-the-trenches;
https://www.mckinsey.com/capabilities/mckinsey-digital/our-insights/in-search-of-cloud-value-can-generative-ai-transform-cloud-roi;
https://www.mckinsey.com/capabilities/mckinsey-digital/our-insights/projecting-the-global-value-of-cloud-3-trillion-is-up-for-grabs-for-companies-that-go-beyond-adoption;
https://www.mckinsey.com/featured-insights/mckinsey-explainers/what-is-cloud-computing

Evaluation of Cloud Service Providers

Why customers choose AWS

Leadership

Cloud Pioneer and Leader

Most Experience

Enterprise Support

Operational Resiliency

Global Reach & Scale

Better Availability & Higher Reliability

Security & Compliance

Long Term Value

Accurate Cost Modelling

Pricing Consistency

Price Reductions Culture

Culture of Innovation

Customer-Centric Innovation

Rapid Time-To-Market

AWS-Designed Silicon

Breadth & Depth

200+ Services for any Cloud Workload

Right Tool for the Job

Large Community

1M+ Customers

Partner Community

Marketplace

Figure 1: Magic Quadrant for Strategic Cloud Platform Services

AWS named a Leader in
2024 Magic Quadrant for SCPS
by Gartner for
14th consecutive year

Regional Expansion

2006-2011
8 New Regions

N. AMERICA
Northern Virginia
Northern California
Oregon
GovCloud US-West

S. AMERICA
São Paulo

EUROPE
Ireland

ASIA PACIFIC
Singapore
Tokyo

2012-2017
10 New Regions

N. AMERICA
Ohio
Canada Central

EUROPE
Frankfurt
London
Paris

ASIA PACIFIC
Seoul
Mumbai
*Beijing
*Ningxia

AUSTRALIA &
NEW ZEALAND
Sydney

2018-2023
15 New Regions

N. AMERICA
GovCloud US-East
Canada West

EUROPE
Stockholm
Milan
Zurich
Spain

MIDDLE EAST
Bahrain
UAE
Tel Aviv

ASIA PACIFIC
Hong Kong
Osaka
Jakarta
Hyderabad

AFRICA
Cape Town

AUSTRALIA &
NEW ZEALAND
Melbourne

COMING SOON
7 New Regions

N. AMERICA
Mexico

AWS EUROPE SOVERIGN CLOUD
Germany

MIDDLE EAST
Kingdom of Saudi Arabia

ASIA PACIFIC
Thailand
Malaysia
Taipei

AUSTRALIA &
NEW ZEALAND
Auckland

https://aws.amazon.com/tw/about-aws/global-infrastructure/

Taipei Region Coming Soon

Availability zones design for resiliency

REGION

Distance ensures
high availability

Low latency
ensures real-time
data replication

AVAILABILITY
ZONE (AZ)
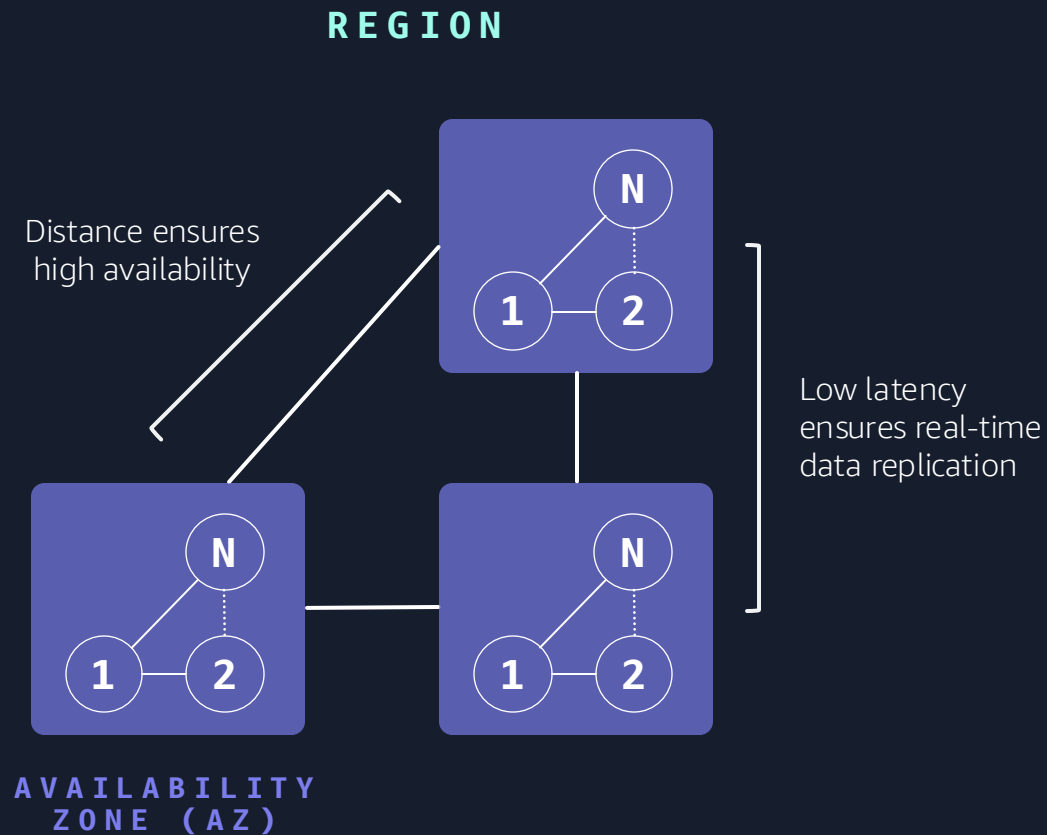
ISOLATED PARTITION

Fully isolated with one or more datacenters

POWER

Highly available, fault tolerant, and scalable

DISTANCE

Physically separated by a meaningful distance –
all within 60 miles (100km) of each other

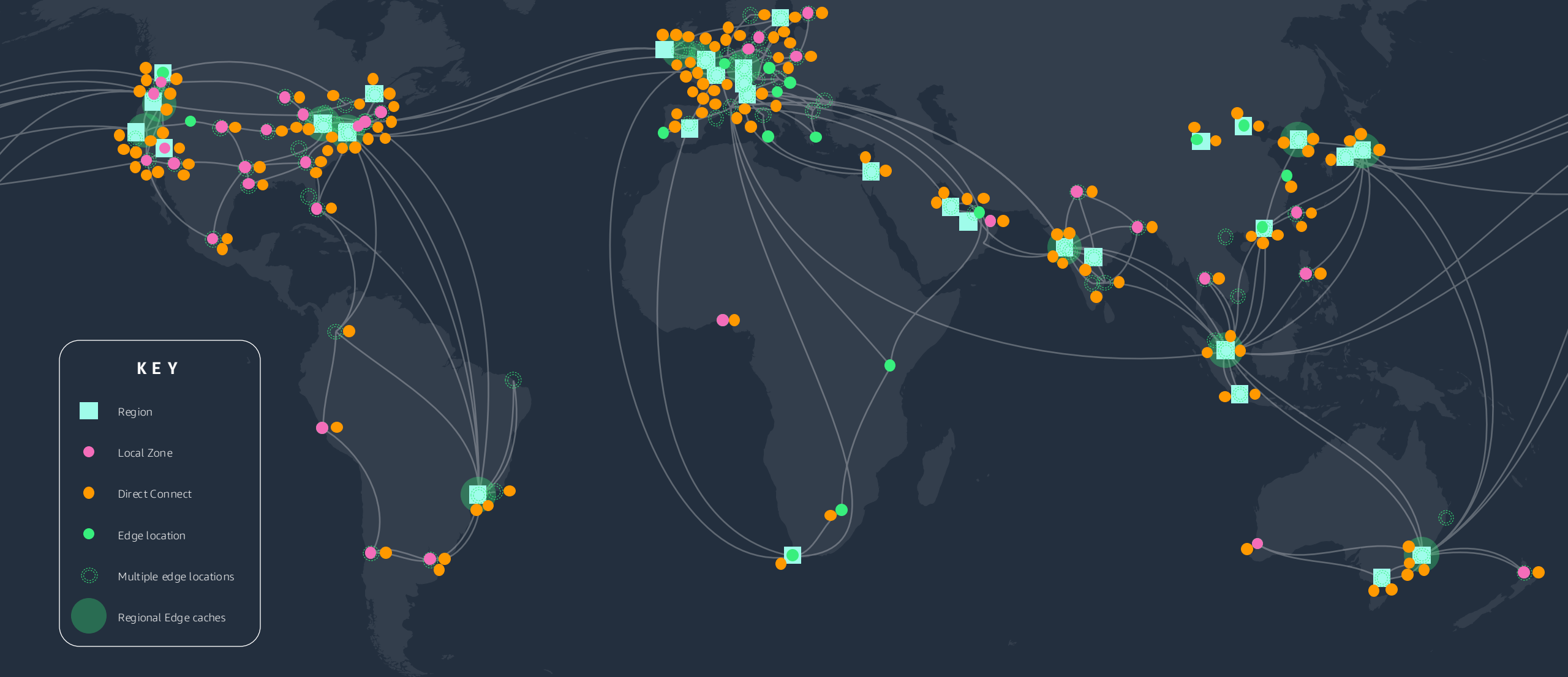**INTERCONNECTION**

Datacenters connected via fully redundant and
isolated metro fiber

AWS Global Infrastructure

KEY

- ■ Region
- ● Local Zone
- ● Direct Connect
- ● Edge location
- ◌ Multiple edge locations
- ● Regional Edge caches

AWS Cloud Infrastructure Designed to Scale with Highest Availability

Total Incident Hours (Public) by Provider in 2022-2024

Incident hours published = Incident hours published * Regions Impacted * Services Impacted

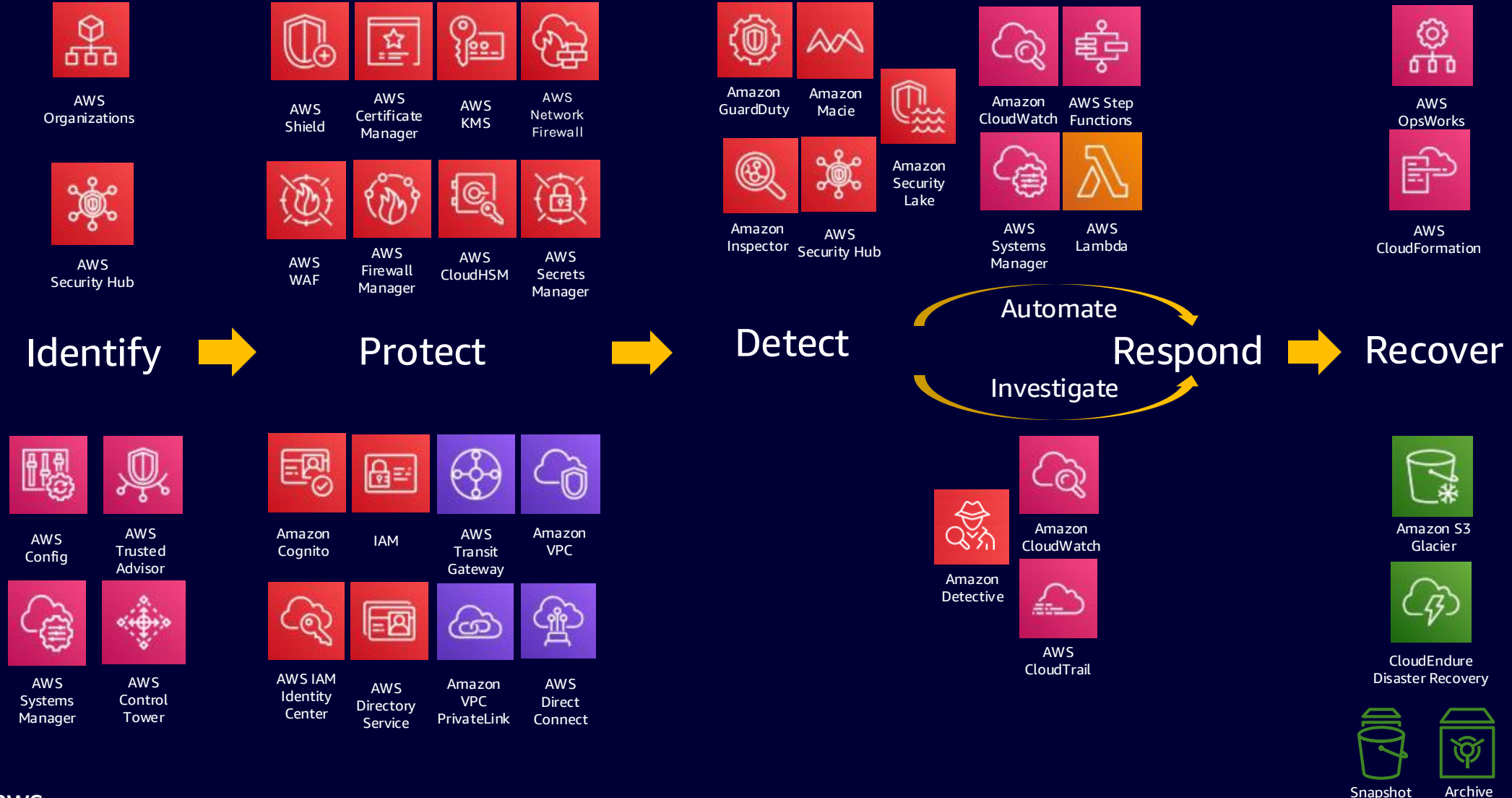Legend: ■ AWS ■ Next provider ■ Next provider ■ Next provider
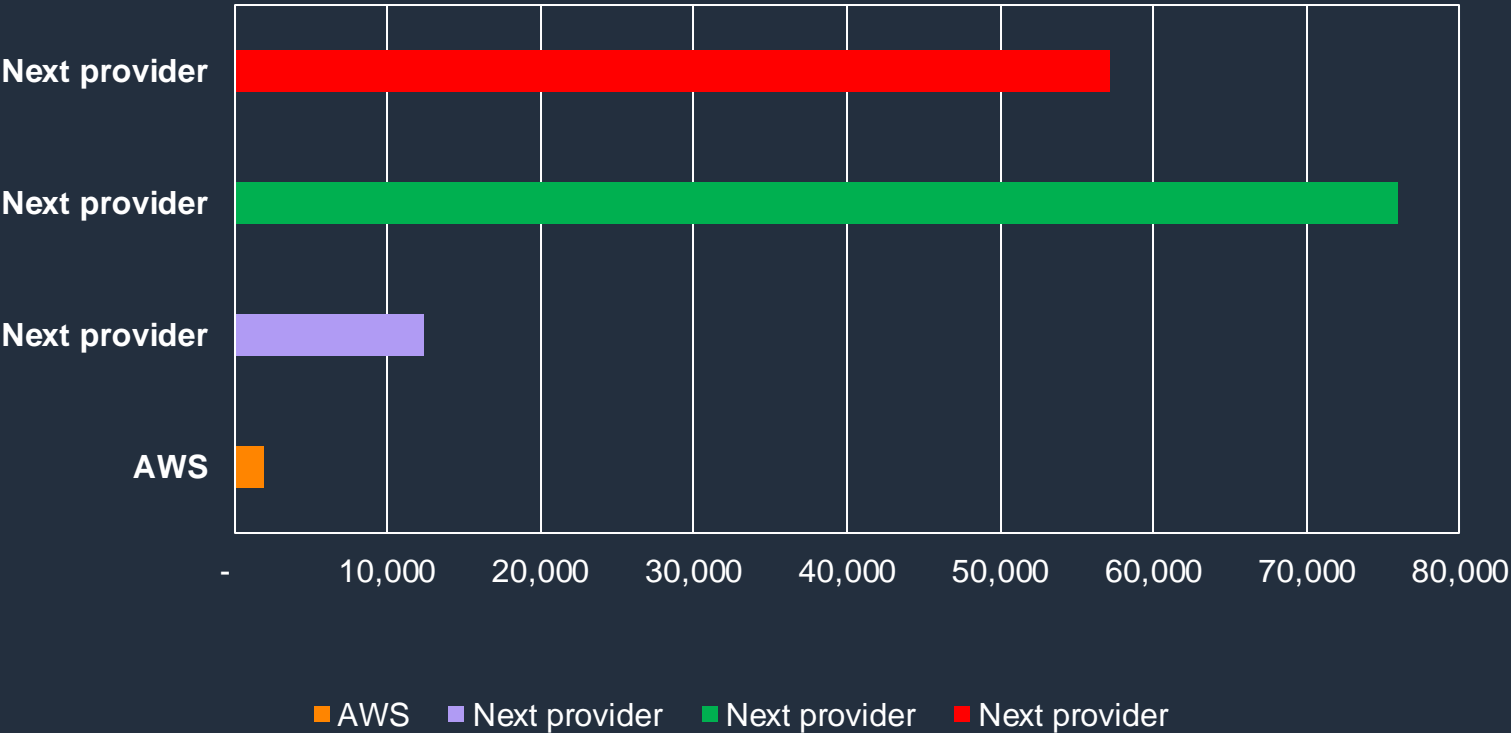
* Sources: Public Status Pages for Cloud Providers. Incidents Types include = Incidents, Degradation, Disruption, and Outages of Services

Inherit global security and compliance controls
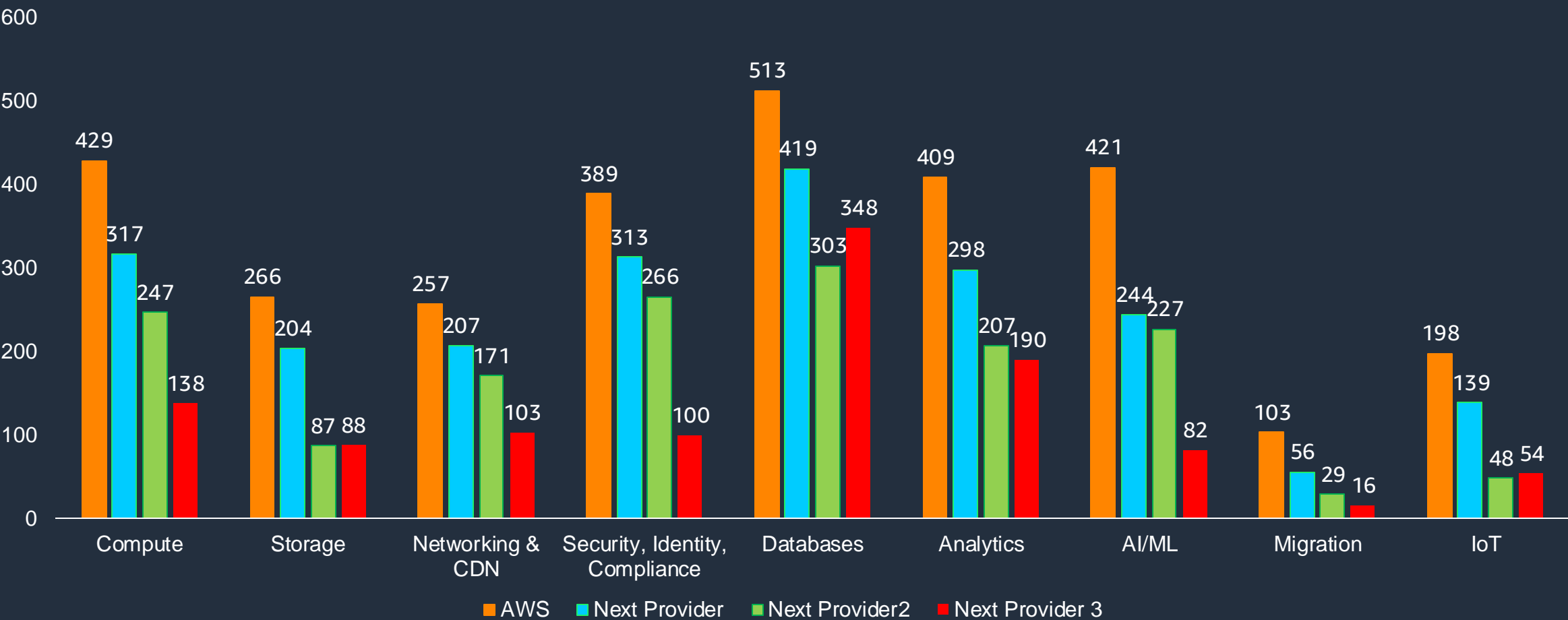
Aligning to the NIST Cybersecurity Framework

AWS Organizations

AWS Security Hub

AWS Shield

AWS Certificate Manager

AWS KMS

AWS Network Firewall

AWS WAF

AWS Firewall Manager

AWS CloudHSM

AWS Secrets Manager

Amazon GuardDuty

Amazon Macie

Amazon Security Lake

Amazon Inspector

AWS Security Hub

Amazon CloudWatch

AWS Step Functions

AWS Systems Manager

AWS Lambda

AWS OpsWorks

AWS CloudFormation

Identify ➜ Protect ➜ Detect

Automate

Respond ➜ Recover

Investigate

AWS Config

AWS Trusted Advisor

AWS Systems Manager

AWS Control Tower

Amazon Cognito

IAM

AWS Transit Gateway

Amazon VPC

AWS IAM Identity Center

AWS Directory Service

Amazon VPC PrivateLink

AWS Direct Connect

Amazon Detective

Amazon CloudWatch

AWS CloudTrail

Amazon S3 Glacier

CloudEndure Disaster Recovery

Snapshot

Archive

Breadth and Depth of Cloud Services
Source: AWS Functionality Matrix (as of Dec 1st, 2024)

Number of Total Cloud Features by Cloud Provider

Legend: ■ AWS   ■ Next Provider   ■ Next Provider2   ■ Next Provider 3

Category	AWS	Next Provider	Next Provider2	Next Provider 3
Compute	429	317	247	138
Storage	266	204	87	88
Networking & CDN	257	207	171	103
Security, Identity, Compliance	389	313	266	100
Databases	513	419	303	348
Analytics	409	298	207	190
AI/ML	421	244	227	82
Migration	103	56	29	16
IoT	198	139	48	54

Migration and Modernization

Drivers for cloud migration & modernization

Sustainability

Agility and
staff productivity

Data driven organization,
Faster insights

Improved security and
operational resilience

Cost
reduction

Data center exit/
consolidation

Going global quickly,
outsourcing, M&A

Digital transformation &
Enterprise Modernization

Next Gen tech
(e.g. AI/ML)
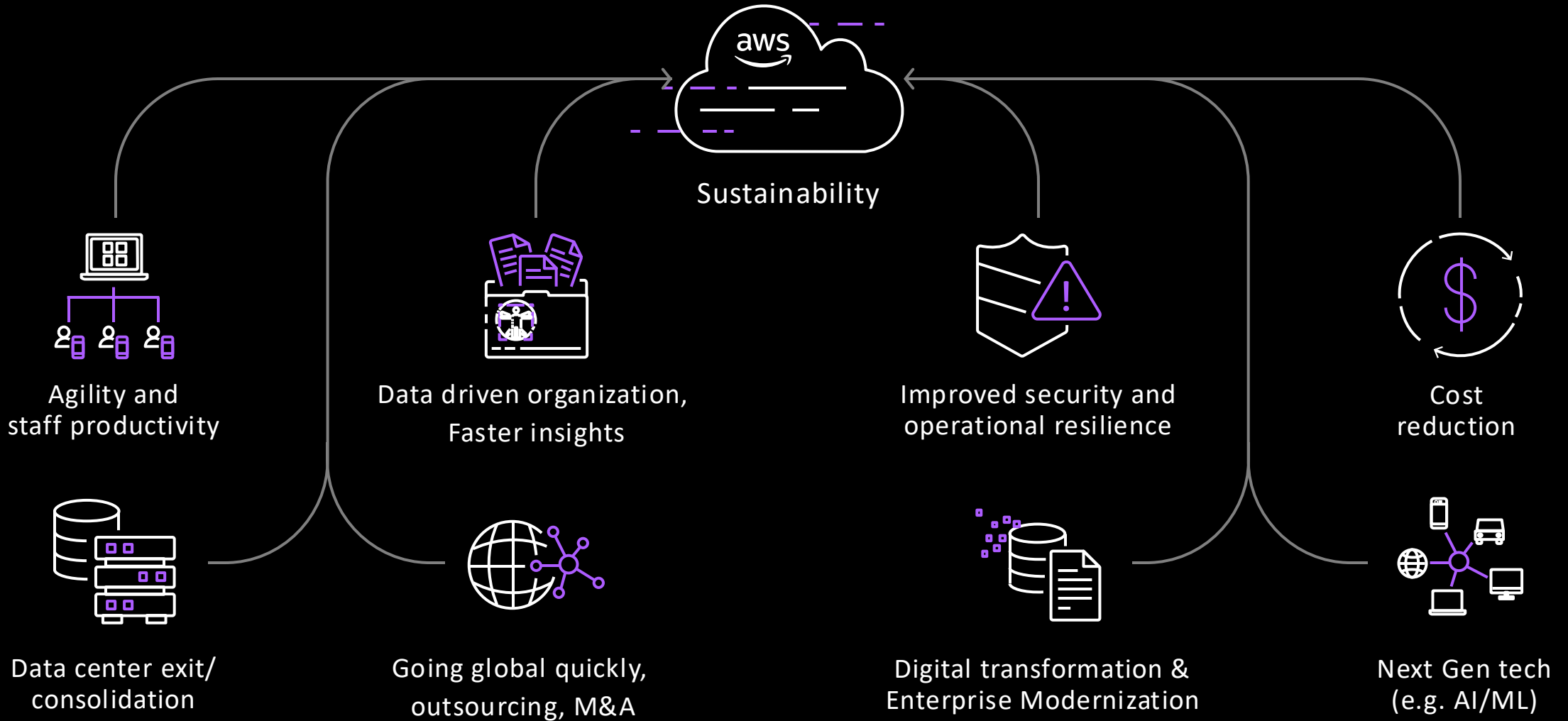
Migration three-step approach

Assess

- Initial Discovery
- Strategy Analysis (7Rs)
- Migration Readiness Assessment
- Initial Business Case
- Briefings & workshops
- Immersion day
- Accelerators

Mobilize

Portfolio
- Detailed Discovery
- Planning & Governance
- Detailed Business case

People
- Skills, Culture, Leadership & Change Mgmt

Platform
- Landing Zone
- Operating model
- Security & compliance

Migrate
- Migration & modernization experience

Migrate & Modernize

- Migrate
- Operate & optimize
- Modernize

AWS Countdown Premium provides proactive, context-aware guidance

Create a case for change

Build readiness through experiences

Accelerate transformation at scale

Industry leaders migrate to AWS
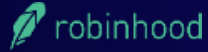
Nationwide · Pinterest · airbnb · slack · robinhood · Goldman Sachs · Siemens · HALLIBURTON · Disney · NOVARTIS

HOYA · UBISOFT · DOW JONES · Newsweek · Nintendo · Expedia · Unilever · 4 · bp · FOX · Singapore Airlines · SAMSUNG

MISAWA · HEARST · Kellogg's · Adobe · News Corp · SUNCORP GROUP · bankinter. · vodafone · Commonwealth Bank

NET docomo · THOMSON REUTERS · Netflix · htc · LAMBORGHINI · The Weather Company · TATA MOTORS · JPX · The New York Times · NIPPON EXPRESS

Intuit · Pfizer · HESS · COMCAST · salesforce · AUTODESK · NOKIA · Schneider Electric · PACIFIC LIFE · IMS Health

me Bank BANK FAIRER. · NASDAQ OMX · NIPPON TV · TOSHIBA · TCL · EA · NQ mobile · 小米 · HBO · McCormick · Turner

QANTAS · mlbam · CapitalOne · SHARP · FT FINANCIAL TIMES · Johnson & Johnson · Merck · Nordstrom · ST. JAMES'S PLACE FOUNDATION · The Coca-Cola Company

LAFARGE · Bristol-Myers Squibb · talanx · BMW · havenpower · Conde Nast · GE Healthcare · Time Inc. · ThermoFisher SCIENTIFIC · PHILIPS

RYANAIR · KOREAN AIR · Hilton · Shell · Alcatel-Lucent · Dole · Discovery · LIONSGATE · The Washington Post

aws

Streamline with Modernization Pathways

Modernization pathways provide a proven and structured approach to modernization

Move to Cloud Native

Move to Containers

Move to Managed Databases

Move to AI

Move to Open Source

Move to Managed Analytics

Move to Modern DevOps

2024

VORTEX BY VIVOTEK
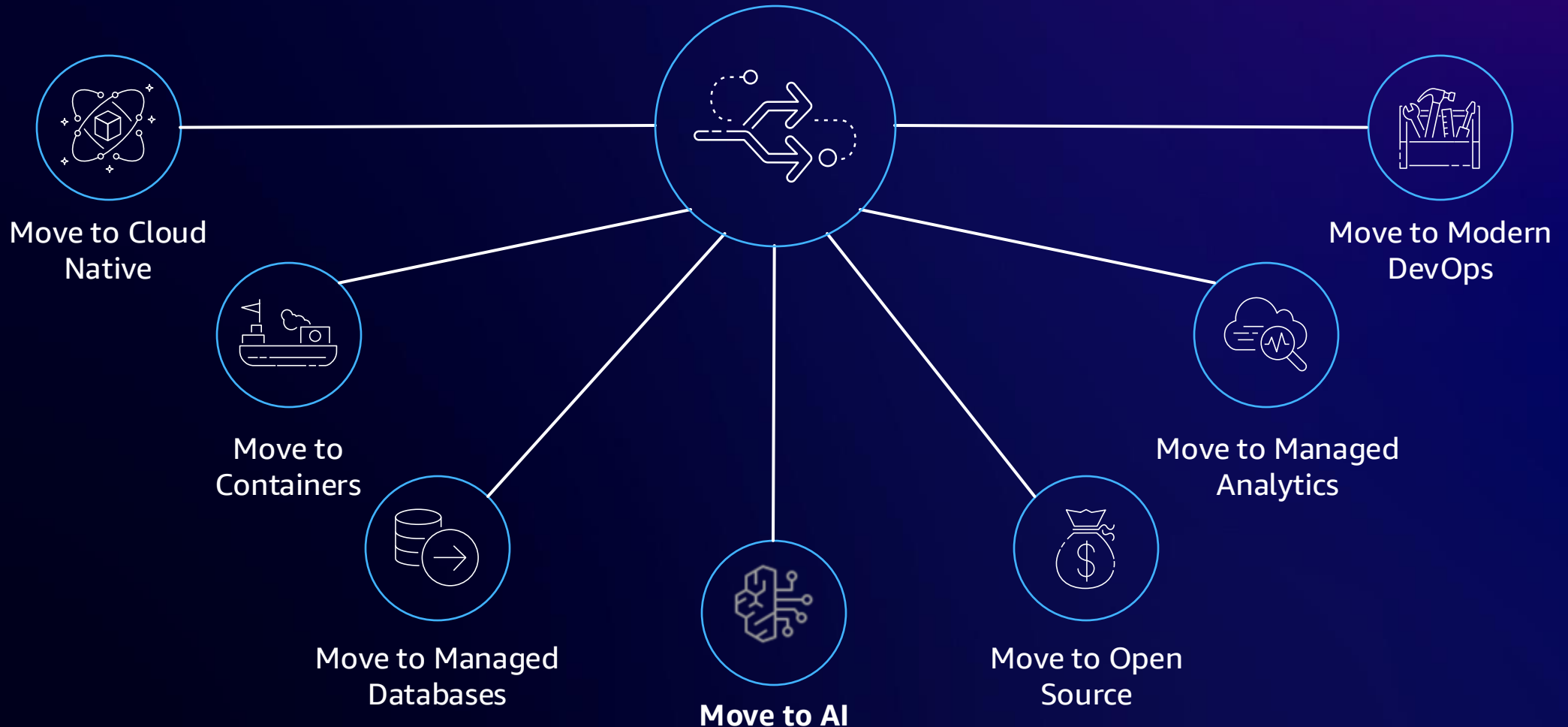
VIVOTEK Accelerates Launch of VORTEX, Its Cloud Surveillance Platform, by 12 Months with AWS IoT Core

VIVOTEK launches its next-generation video-surveillance-as-a-service (VSaaS) solution, VORTEX, on AWS IoT Core—saving time and R&D resources to focus on innovation and scalability.

"More than 80 percent of our resources can go towards driving innovation because managing our infrastructure on AWS is so simple."

ShengFu Cheng
Vice President of the Strategy Business Division at VIVOTEK

AWS IoT Core
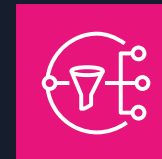
Amazon Simple Notification Service (Amazon SNS)

AWS WAF

https://aws.amazon.com/solutions/case-studies/optoma-case-study/

Optoma Facilitates Virtual Collaboration with Hybrid Learning Platform on AWS

2022

"Using AWS as a platform as a service has helped us provide a more reliable, stable, and secure service offering compared to managing these aspects on our own."

Tarcy Y.M. Tsuei
Chief Digital Officer, Optoma
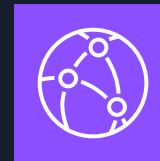
Amazon CloudFront

Amazon Simple Storage Service (Amazon S3)

Amazon ElastiCache

https://aws.amazon.com/solutions/case-studies/optoma-case-study/

Other Compute Scenarios

HPC is all around us

Build designs faster with computational fluid dynamics (CFD) simulations

Fast-track drug discovery and structure-based drug design

Advance genomics insights using predictive, real-time, or retrospective data applications

Run geoscientific simulations and seismic processing and iterate models faster

Conduct grid-computing simulations and identify portfolio risks and hedging opportunities

Process complex workloads and analyze massive data pipelines to further research

聯發科首顆5G晶片的關鍵IT技術力大公開，靠混合雲架構調度千臺運算主機，讓5G晶片設計交付再早一步

一顆先進7奈米5G晶片，需要多少臺運算主機才夠用? 聯發科近日透露，單是執行一個7奈米5G專案，IT人員就需要面對部署數千臺高效能運算主機的挑戰，有時，甚至得一周內增加破千臺，才能滿足複雜的設計運算需求。

從這次AWS使用量來看，聯發科每次開啟千臺的高效能EC2運算實例，執行了超過1,200萬 core-hour 用於大量模擬驗證的運算時間，並累積高達8,000TB的資料量，還要橫跨臺灣總部與美國AWS雲端兩地來進行管理。「這樣的運算規模，對於任何企業的傳統IT基礎架構來說，都是極大挑戰」

聯發科技資訊工程本部基礎系統設計處經理 黃博揚

https://www.ithome.com.tw/news/135289

Applications that need to remain on premises
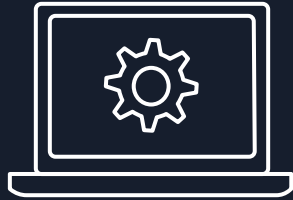
Latency sensitive

Equipment and processes
sensitive to compute latency

Interactive workloads such as
AR/VR, design, and visualization

Complex workloads that
span a variety of host and
storage systems
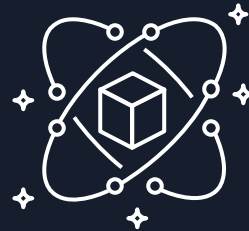
Local data processing

In hybrid workflows,
transcoding, filtering, caching,
and alerting applied at the edge

Bringing AWS compute to
large datasets that can't be
easily moved

Residency

Where regulations dictate
that data and infrastructure
reside in specific countries

Where contracts specify where
applications are deployed

Where enterprises are not
ready to move to AWS Regions
for Infosec or other reasons

AWS Outposts family

Outposts server (2U)
3½ inches tall

Outposts server (1U)
1¾ inches tall
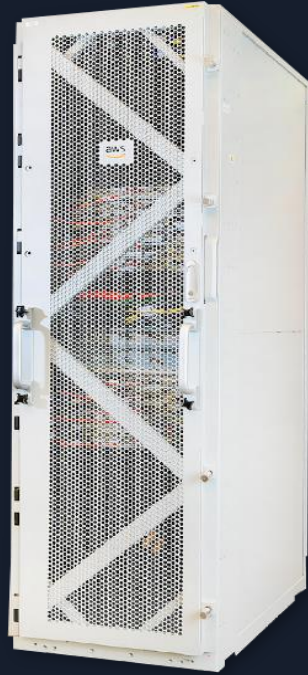
Outposts rack (42U)
80 inches tall

Bring the same AWS infrastructure, AWS services, APIs, and tools to on-premises data centers or co-location facilities

Run Outposts in locations with limited space or smaller capacity requirements

Outposts as a Connected Factory Solution

https://www.facebook.com/amazonwebservices.tw/videos/271589325821145/

"Everything fails, all the time."

Werner Vogels
CTO, Amazon.com

自然災害應變力全面升級，嘉義縣府採AWS雲端復原強化官網韌性

嘉義縣政府攜手哈瑪星科技，引入AWS的災難復原系統（Disaster Recovery），實現30分鐘系統恢復與強化資安防護。AWS按需付費模式助嘉義縣府省下高額本地端硬體成本，達成節能、減碳、韌性服務的目標

「AWS方案有效節省基礎設施開支，讓資源配置更具彈性，提升整體成本效益，讓嘉義縣政府的災難恢復效率大幅提升。」

嘉義縣綜合規劃處處長 陳皇成

https://www.ithome.com.tw/pr/166147

2024/09/12 | 國泰金控

金融業首家 國泰金控獲金管會核准啟動數據上雲

搭建雲端湖倉平台 強化集團風險聯防、提升金融科技營運與數據管理

「面對AI時代來臨，資料型態與大數據應用多樣化發展下，我們需要更快速有效的方式應對數據分析的需求，強化即時處理數據的效率，進行多種類型的數據整合，同時確保金融應用場景接軌國際趨勢，進而體現數據資產的價值。」
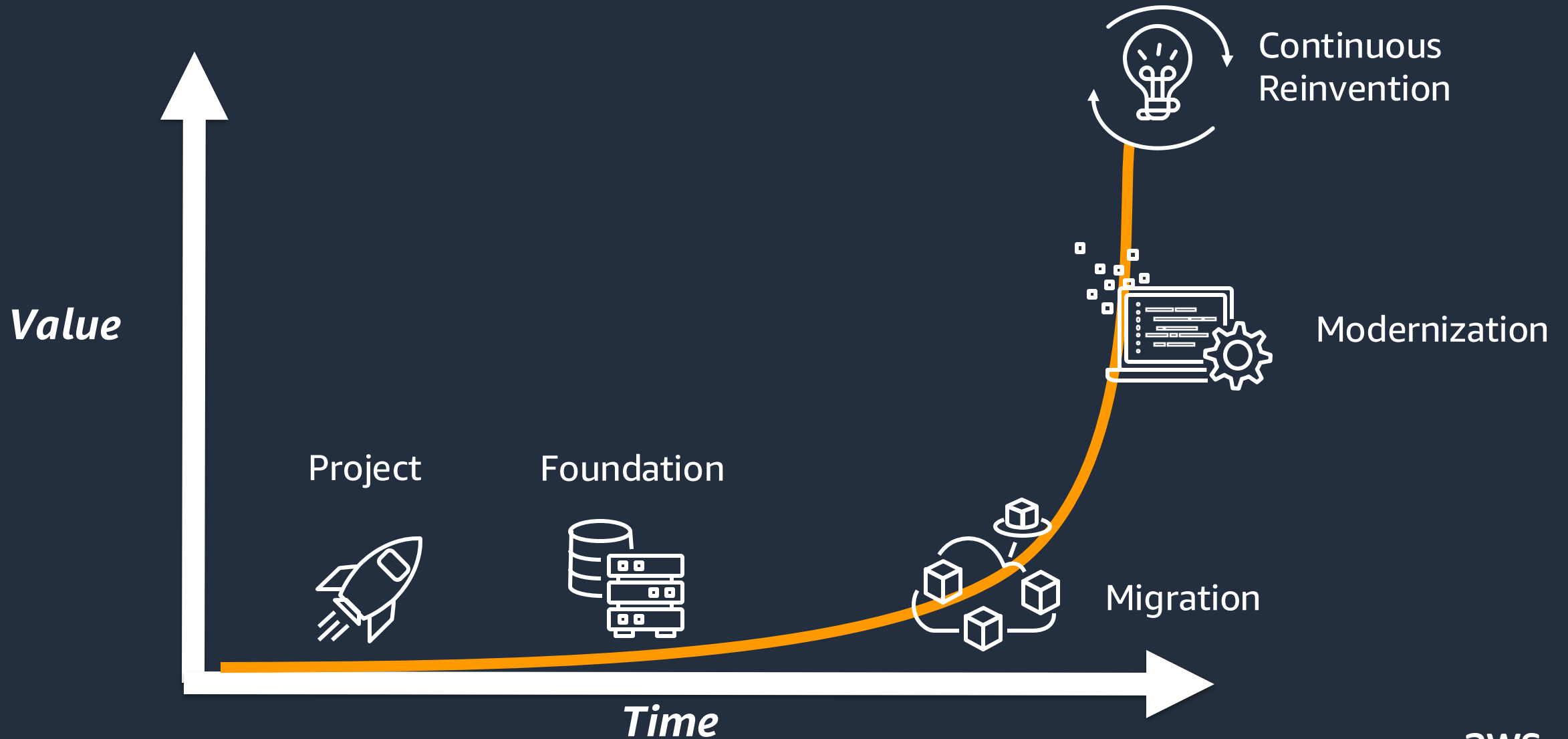
國泰金控資深副總經理 姚旭杰

Next Step

Getting started with your **cloud journey**

Value

Project

Foundation

Migration

Modernization

Continuous
Reinvention

Time

aws

Thank you!

Michael Lin

linmicht@amazon.com