

#### Financial Services Industry in AWS

Ilja Summala Group CTO, Nordcloud

#### About Nordcloud and Me



#### Premier

#### Consulting Partner

DevOps Competency

MSP Partner

APN Training Partner

Channel Partner

Public Sector Partner

#### **Nordcloud in Nutshell**

100% Public Cloud

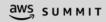
300+ employees - one of the fastest growing tech companies in Europe



Helsinki | Stockholm | Malmö | Copenhagen | Oslo | London | Munich | Amsterdam |



Worked with cloud strategy and projects several large and small financial institutions over last 6 years. 30% of OMX40 Public Cloud Strategy.



#### What we do



Cloud Strategy & Advisory







Managed Services

**Cloud Capacity & Optimization** 





**Cloud Training** 







### CHALLENGES IN FINANCIAL SERVICES INDUSTRY



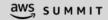
#### DIGITAL TRANSFORMATION

"By 2030, 80% of heritage financial firms will go out of business, become commoditized or exist only formally."

Gartner

#### DIGITAL CHALLENGE

- Legacy FSI systems and business models cost more to run than cloud based FinTech
- Regulators becoming more consumer centric to promote innovation & new entrants (PSD2, open banking APIs)
- Slow time to market for new features in digital channel
- Digital moves financial services to open international market with software economies of scale





## IF YOU COMPETE WITH SOFTWARE YOU NEED TO BE GREAT WRITING IT



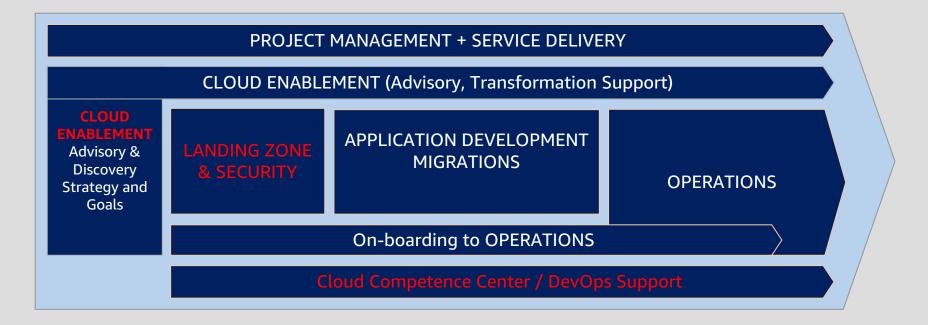
## AWS is the fastest way to improvement development productivity in FSI

(..and in other industries)

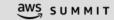


### LESSONS LEARNED IN FSI DEVOPS JOURNEYS

#### Lessons Learned Cloud Journey Context



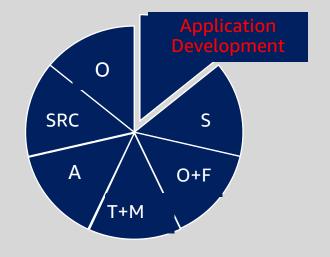
How to combine developer productivity with security and compliance?

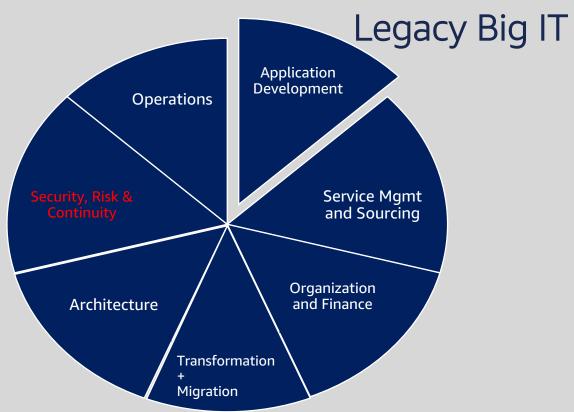


## Lesson 1 Use Accelerator IT pattern to ensure speed and agility

#### Cloud Transformation Strategy - Optimise

Accelerator IT



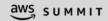


## Use AWS Cloud Adoption Framework or experienced partner to design goals and cloud adoption path

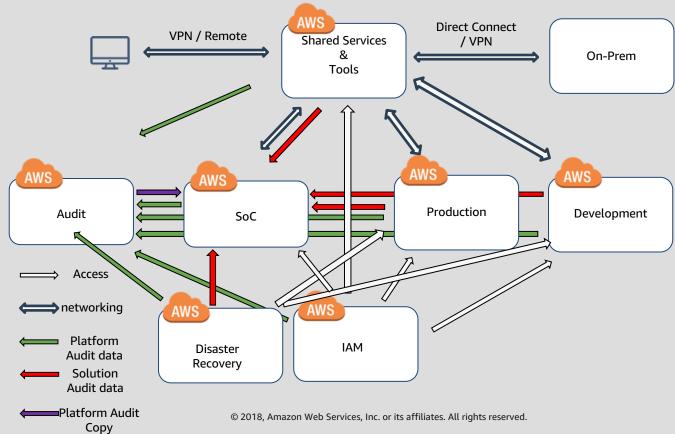
## Lesson 2 Define Solid AWS Account Structure from Day 1

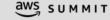
#### Important because....

- It prepares for task automation of security and compliance assurance
- It enables clear separation of concerns between developer teams and security teams
- Helps to integrate with multiple FSI stakeholders



#### **AWS Account Structure**





# Lesson 3 Build Cloud Competence Center to develop platform and support app teams

#### No:1 mistake currently in cloud adoption

- No team with clear organisational charter, budget and deliverables
- Results in higher cost and lower velocity as app teams try to deal with compliance without reuse

#### Cloud Competence Centre

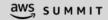
**Cloud Architecture Library Project and Platform Services Cloud Platform Development** Project Cloud On-Boarding Cloud Architecture + Components Support IAM / Accounts / Networking



### 4 Invest in Security around Container Platforms

#### Developers like containers because...

- Boilerplate from DockerHub et al (!)
- Excellent development workflow
- Part of systems management becomes "invisible" as the
   OS is no longer a concern
- ECS / Kubernetes simplify deployments



#### Example: Provide OS security as a service for devs

- Containers rely on underlying OS but do not manage it
- Build service that assures hardened operating systems (e.g. image factory / AWS Config rule version alerts)
- Remove access to EC2 instance metadata with IP tables
- Install Cloudwatch and metrics scripts

CIS standard change



Trigger Secure AMI Build



**NEW CIS** hardened AMI



Publish in all AWS accounts



Amazon ECS Launch new EC2 with new AMI



Customise EC2



Run applications in containers



Monitor EC2 image age with Config



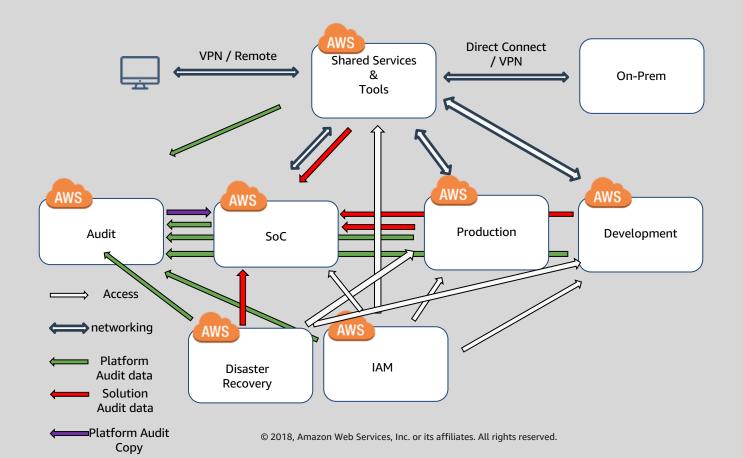
Triager update via autoscaling

### Lesson 5 Be ready for AWS Account Explosion

#### Trend towards more and more AWS accounts

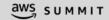
- AWS accounts per use case provide easier political and cost separation
- Tools like AWS organizations reduce the cost of running many accounts
- Implementing all security and compliance features via code is a must with scale

#### Automate this!



#### Account workflow

- Define the role for the new account
- Create Account via AWS Organizations programmatically
- Define external integrations (e.g IPAM for VPC CIDRs)
- Define set of 'blueprints' (ordered Cloudformation) to run on the account and supporting accounts
  - Audit / DR accounts
  - IAM
  - VPC creation and peering
  - Remote access and Security Groups
  - GuardDuty + Config rules
- Execute





High velocity FSI product development is possible with AWS, but it requires right strategy



Q&A



### Please complete the session survey in the summit mobile app.



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