



Driving Agility and Innovation in the Cloud with AWS Serverless and Container Services

Banjot Chanana

Director, Head of AWS Serverless and Containers GTM

Agenda

- Why do customers modernize?
- Strategies for modern applications
- Building your path to modernization
- Q&A

Why do customers modernize?

A decorative graphic on the right side of the slide. It features a series of concentric circles in shades of orange and red, centered around a point. Several curved arrows in the same color palette are overlaid on the circles, pointing in various directions, suggesting a process of evolution or modernization.

Constant pressure from legacy development culture

Why does it take 2 months to provision infrastructure for my dev team?

AppDev

Our customers need these features in 1 month not 6!

Product

Tell me how you're going to cut costs by 30%

CFO

We need to roll out our security patch immediately!

Security

Symptoms of a legacy development culture



Long release cycles
for new products
and features



Operational
inefficiencies resulting
in overhead costs



Inability to support
changing compliance,
security regulations

This impacts the business



Long release cycles
for new products
and features

Lost revenue due to
missed opportunity



Operational
inefficiencies resulting
in overhead costs

Lost productivity or
high opex for
undifferentiated skills



Inability to support
changing compliance,
security regulations

Fines for non-compliance,
reputational impact

App Modernization can support business initiatives with speed, efficiency, and compliance



Long release cycles for new products and features

Faster release cycles through automation



Operational inefficiencies resulting in overhead costs

Remove inefficient overhead with consistent tools



Inability to support changing compliance, security regulations

Security and compliance built into development best practices

Benefits of Modernization accrue to the business and users

Business benefits

Modern app characteristics

Improve customer experience



Scales to millions of users

Increase the efficiency of developers



Global availability

Increase business agility



Responds in milliseconds

Improve ROI and reduce TCO



Handles petabytes of data

Unlocking new applications and new capability



Build Secure, Highly Available Applications

Mobile & web applications
Back-end web services
IoT
Data processing



Leverage Machine Learning

Autonomous vehicle
Recommendation engines
Fraud detection
Chatbots



Modernize Legacy Enterprise Applications

.NET Classic Windows apps
Linux apps
Third-party applications



Use a Shared Services Platform

CI/CD
IaaS
Management, security, & governance
Logging & monitoring

A paradigm shift for Modernization

	LEVEL OF MODERNIZATION			
	ON-PREMISES	VIRTUAL MACHINES (EC2 / VMC)	CONTAINERIZATION (ECS/EKS)	SERVERLESS (Lambda/Fargate)
Application code				
Data source integrations				
Capacity planning and scaling				
Security and network configuration				
OS Software install and maintenance				
Infrastructure provisioning				
Physical server, storage, networking, and facilities				

MANAGED BY



CUSTOMER



AWS

Metrics of success



Less time to provision infrastructure



Faster build times for new products and feature updates



Minimized downtime and security risks



Improved TCO through increased utilization

Results we've seen from our customers



75% to 90% reduction in time for building new apps

Snap, T-Mobile, National Australia Bank



3x faster time to market

Bridestory, Depop



Strengthened resiliency, availability and security

Vanguard, Ancestry, Fender



40-70% cost savings

Samsung, Delivery Hero, Coca-cola

Customers who
modernized realized
409% ROI
over five years

9 Months to payback

89% Faster compute deployment

33% Higher developer productivity

60% Lower five-year cost of operations

Strategies for modern applications

1. Re-platform

Containerize applications
Migrate to the cloud

2. Refactor

Rearchitect for cloud capabilities
Optimize for cost efficiency

3. Build new applications

Build a shared-services platform
Optimize for speed of development

Strategy 1: Replatform

Migrating enterprise workloads



- Lower direct costs
- Reduce operational overhead
- Increase resource-utilization rates
- Increase security
- Increase flexibility

Success stories

The Quora logo is displayed in a white rectangular box. The word "Quora" is written in a bold, orange, serif font.

*“Amazon EKS has **simplified how we operate Kubernetes for our production**, development, and research workloads. Since migrating from kops to Amazon EKS, we've significantly reduced the time it takes to upgrade the Kubernetes control plane, **from weeks to hours.**”*

Harvey Johal – Head of DevOps, Quora

The VIDSY logo is displayed in a red rectangular box. The word "VIDSY" is written in a bold, white, sans-serif font with a red outline.

*“What struck us about Amazon ECS was the ease of migration. We did all the migration work **from Docker Cloud to Amazon ECS in just 10 days.** We did everything internally. It couldn't have gone better.*

Charlie Revett, CTO, Vidsy

Strategy 2: Refactor

Re-architect for cloud capabilities



- Lower risk that the whole application breaks
- Best-in-class AWS security, without the need for configuration
- Reduce total costs with serverless
- Decouple the organization to innovate faster

Success stories

FINRA

Re-architected an Order Audit Trail System (OATs), on-premises Hadoop cluster to AWS serverless in 3 months; **increased cost efficiency by 2x** while handling **half a trillion stock trade validations a day**, improving security and compliance



Re-factored an integrated communication system for vending machines. **Reduced cost by 65%** and reduced maintenance requirements

Strategy 3: Build new applications

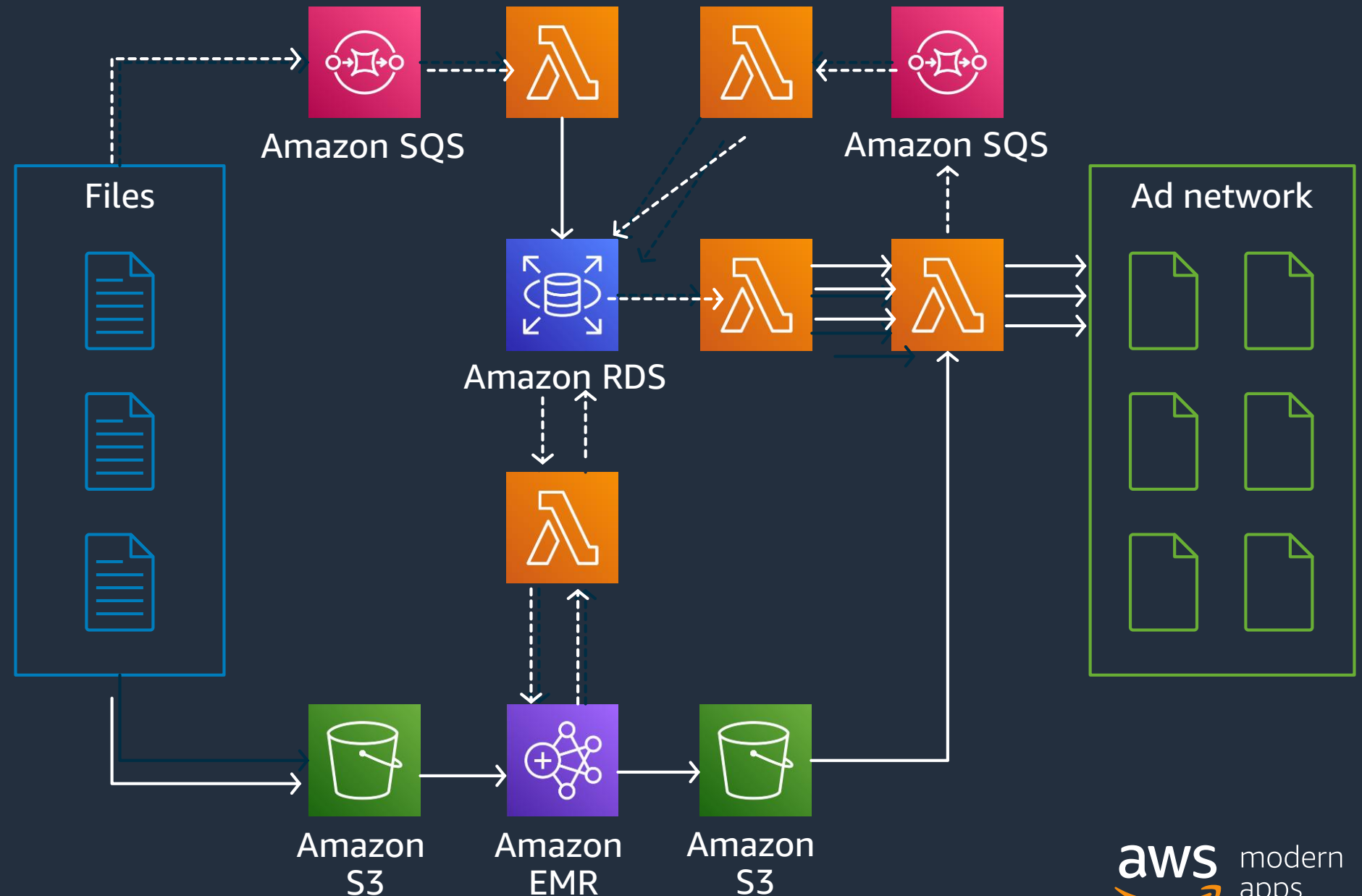
Focus on developing with a shared-services platform



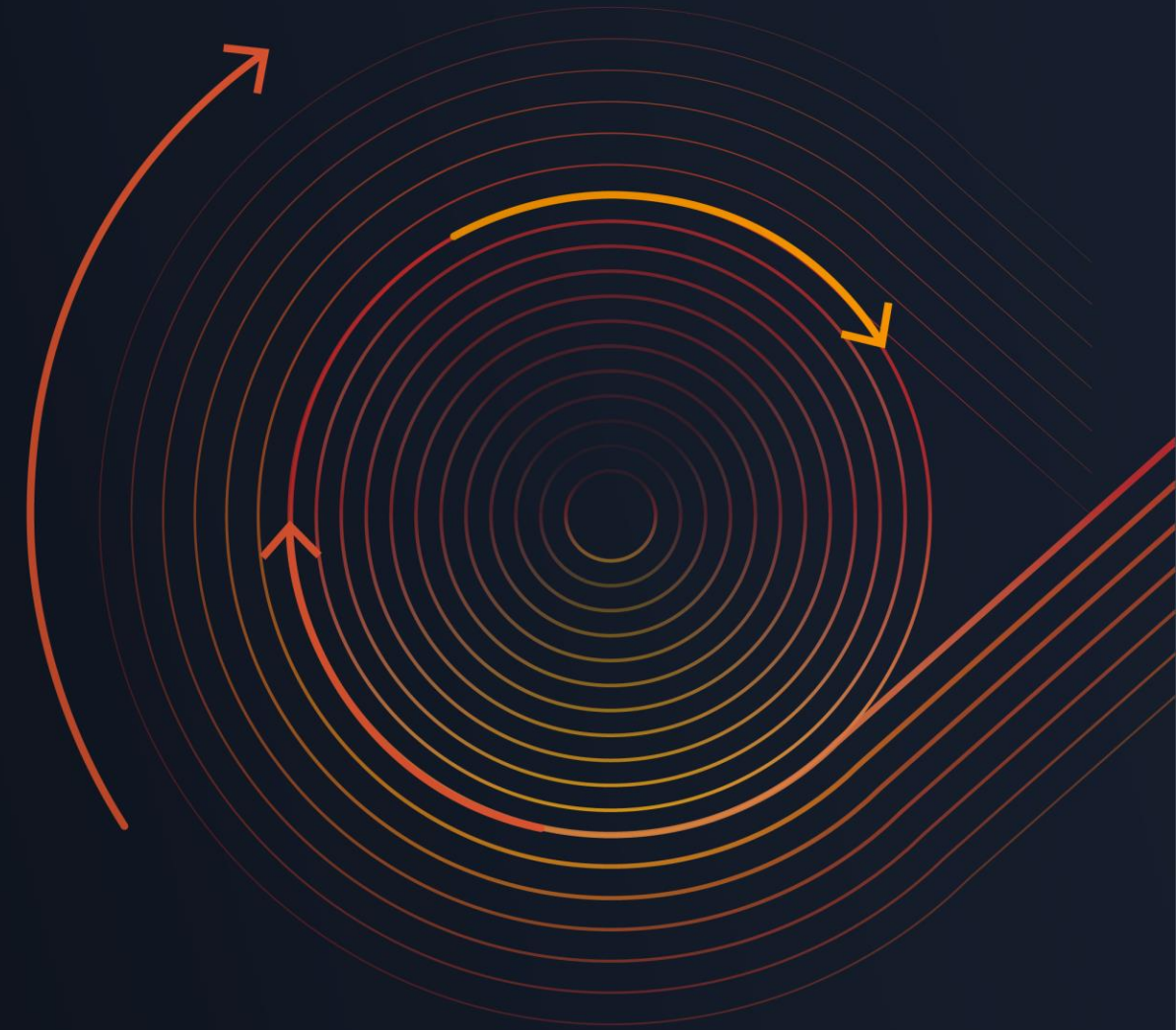
- Reduce time to market with rapid iteration and experimentation
- Increase productivity and agility
- Focus on logic, not infrastructure

Nielsen Marketing Cloud – high scale, low operations

- › Processes up to **55 TB of data per day**
- › 250 billion events per day
- › Up to 3,000 concurrent Lambda functions
- › Consistent performance at any scale



What is your path to modernization?



Path to Modernization

Strategy

- Re-platform
- Refactor
- Build New

Pilot

- Move to manage
- Build new with serverless

Define

- Development practices
- Operational expertise
- Deployment best practices
- Cost management & governance

Optimize

- Decrease build & deployment time
- Increase TCO
- Increase time to market

Scale

- Organization wide
- Critical workloads
- Global reach

Path to Modernization

Strategy

- Re-platform
- Refactor
- Build New

Pilot

- Move to manage
- Build new with serverless

Define

Optimize

Scale

Accelerate organizational change:

- Cloud Center of Excellence for Native Apps
- Shared Service Platform

Actions we recommend

1

Join the sessions this week

2

Launch a small project to learn and see results

3

Leverage experts from AWS and our Partners

4

Build your modernization plan

THE Beginning
