AWS Builders Online Series

Move Fast & Be Secure on AWS Cloud

Shane Baldacchino
Solutions Architect | AWS TechChat Podcast Host

AWS

aws

Pepper as a Service (the other PaaS)

Why we will be successful

Outsourced dev

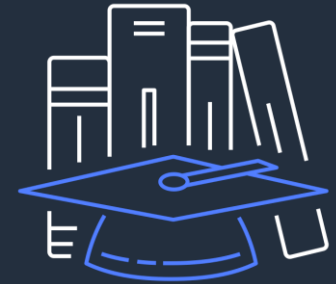**Lean start up**

Low costs

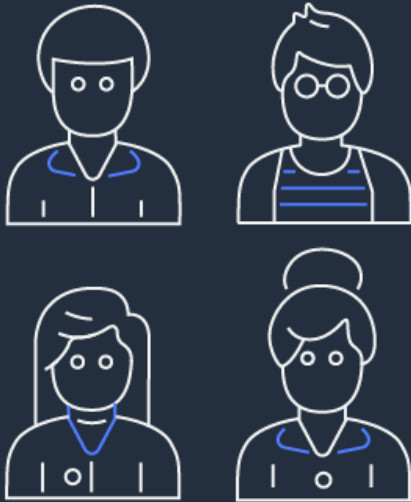# Think about security

For our users
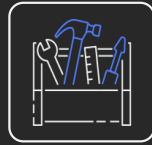
For our providers

For us

Security culture

Security is everyone's job

Secure = Complete

Security considerations

Secure application

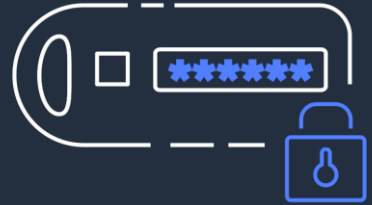**Secure environment**

Separation of duties

Monitoring

Secure environment

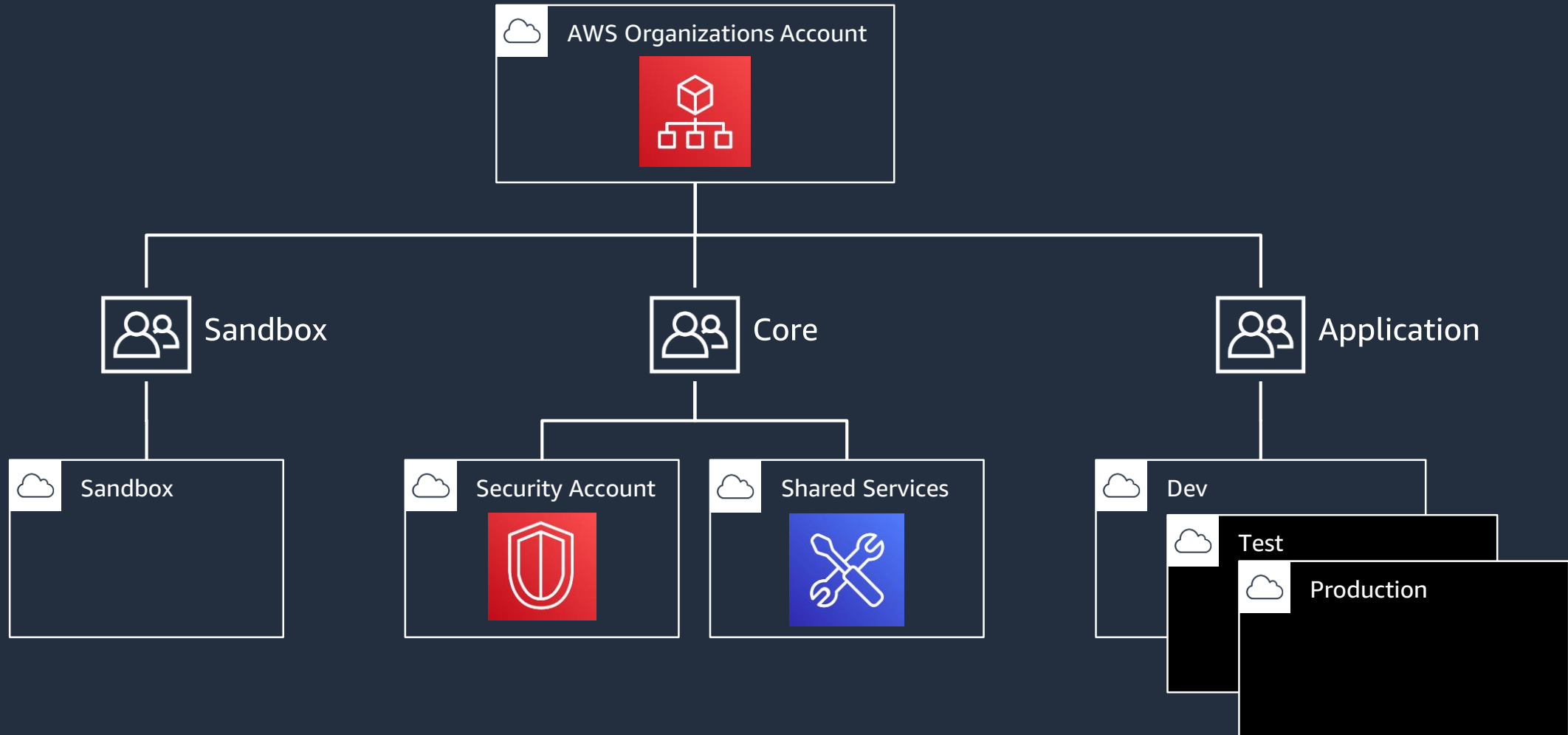Enable MFA

Don't use root

Federate Identity

Least privilege

Disable public buckets

Separation of duty – multi-account strategy

Security considerations

Secure application

Secure environment ✓
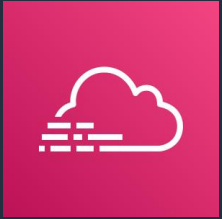
Separation of duties ✓

Monitoring

Monitoring

AWS CloudTrail → **Amazon GuardDuty**

AWS Guard Duty

Generate findings through VPC Log Stream

Queries to questionable domains

AWS CloudTrail history of AWS calls and user activity

Automating Remediation

| Detection | → | Report | → | Act |

Amazon GuardDuty

Amazon CloudWatch

CloudWatch Event

AWS Platform

Amazon SNS

Amazon SQS

AWS Step Functions

AWS Lambda

Monitoring

AWS CloudTrail

Amazon GuardDuty
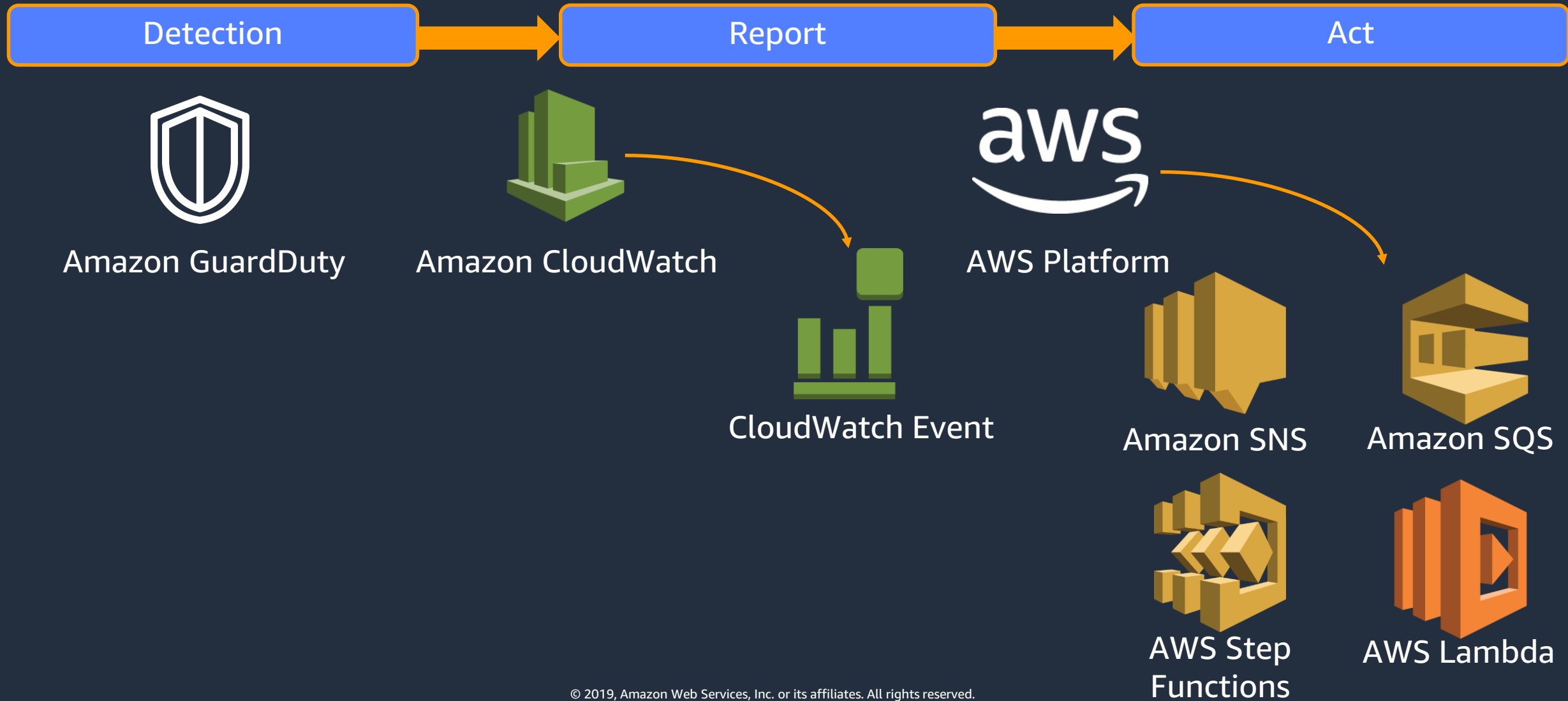
AWS Config

Monitoring – the easy way

Amazon GuardDuty

Amazon Macie

Amazon Inspector

AWS Security Hub

Compliance checks
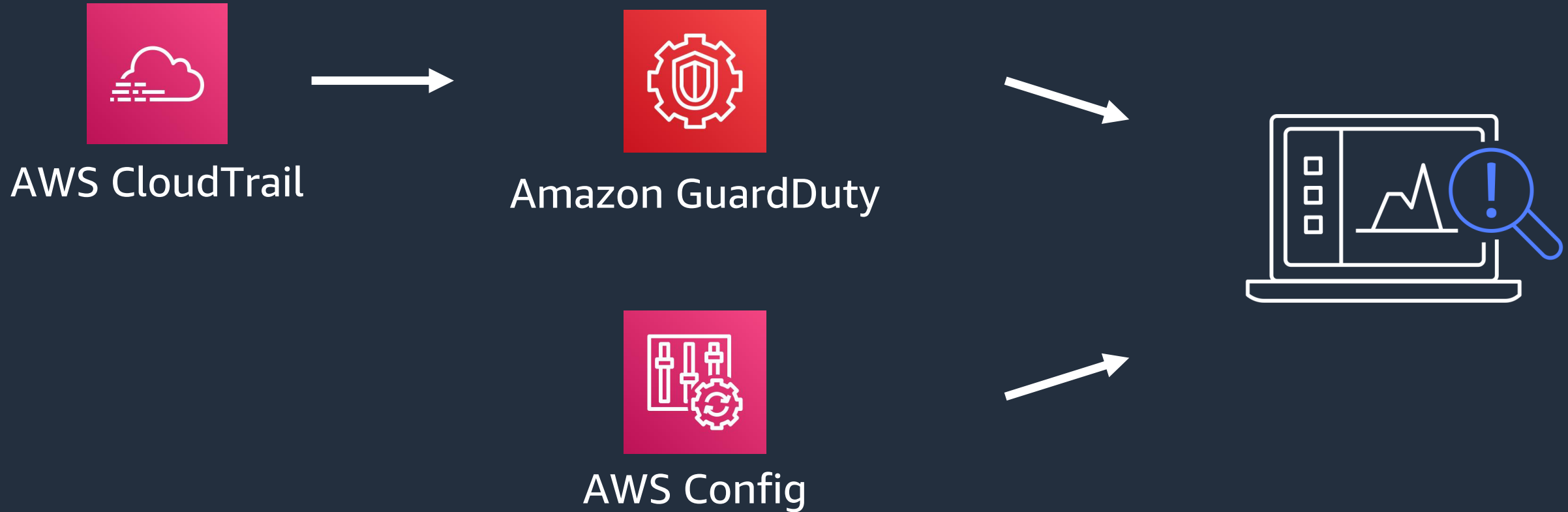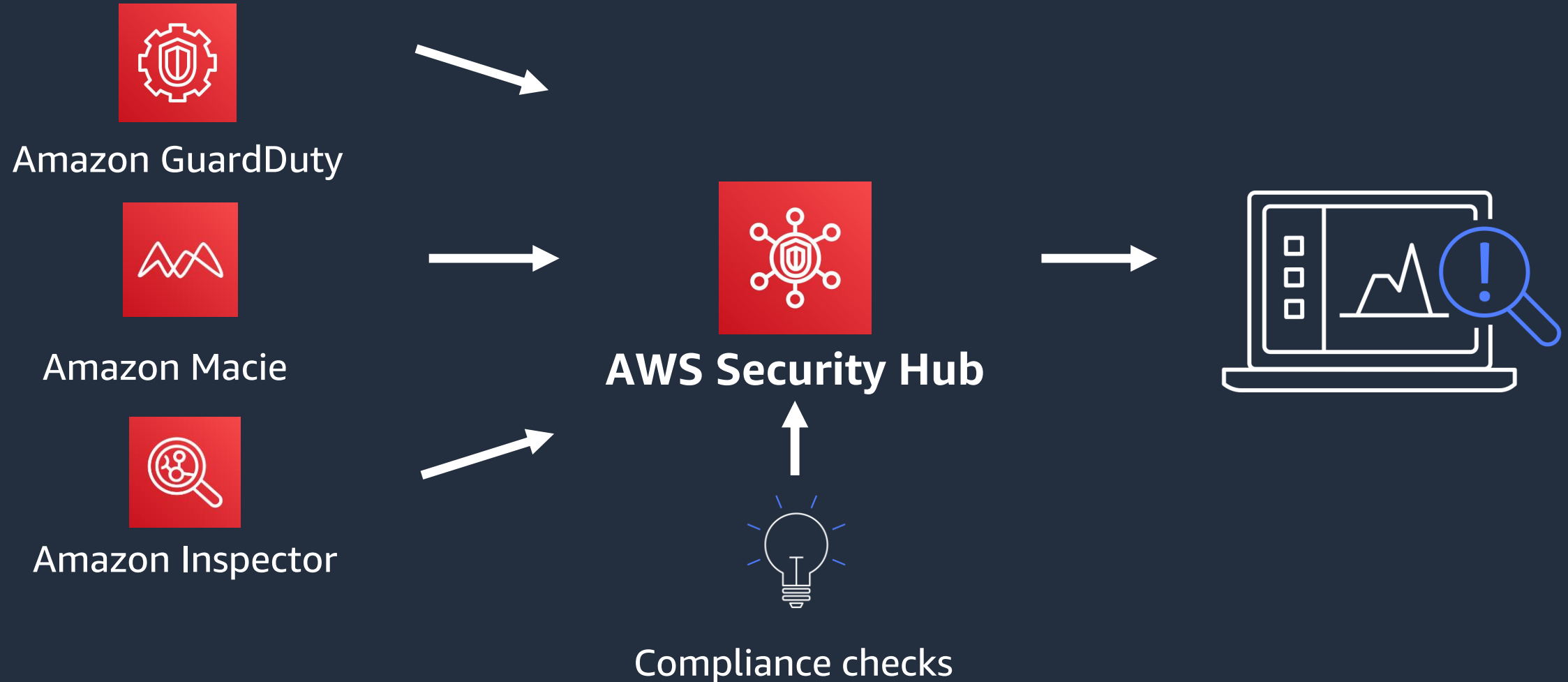
Monitoring - evolution

Manual → **Alerting** → **Automated**

Security considerations

Secure application

Secure environment ✓

Separation of duties ✓

Monitoring ✓

Secure application = use service features

AWS Certificate Manager

Amazon CloudFront

Load Balancer

Amazon EC2

Amazon RDS

Amazon Simple Storage Service (S3)

Amazon Elastic Block Store (EBS)

AWS Key Management Service
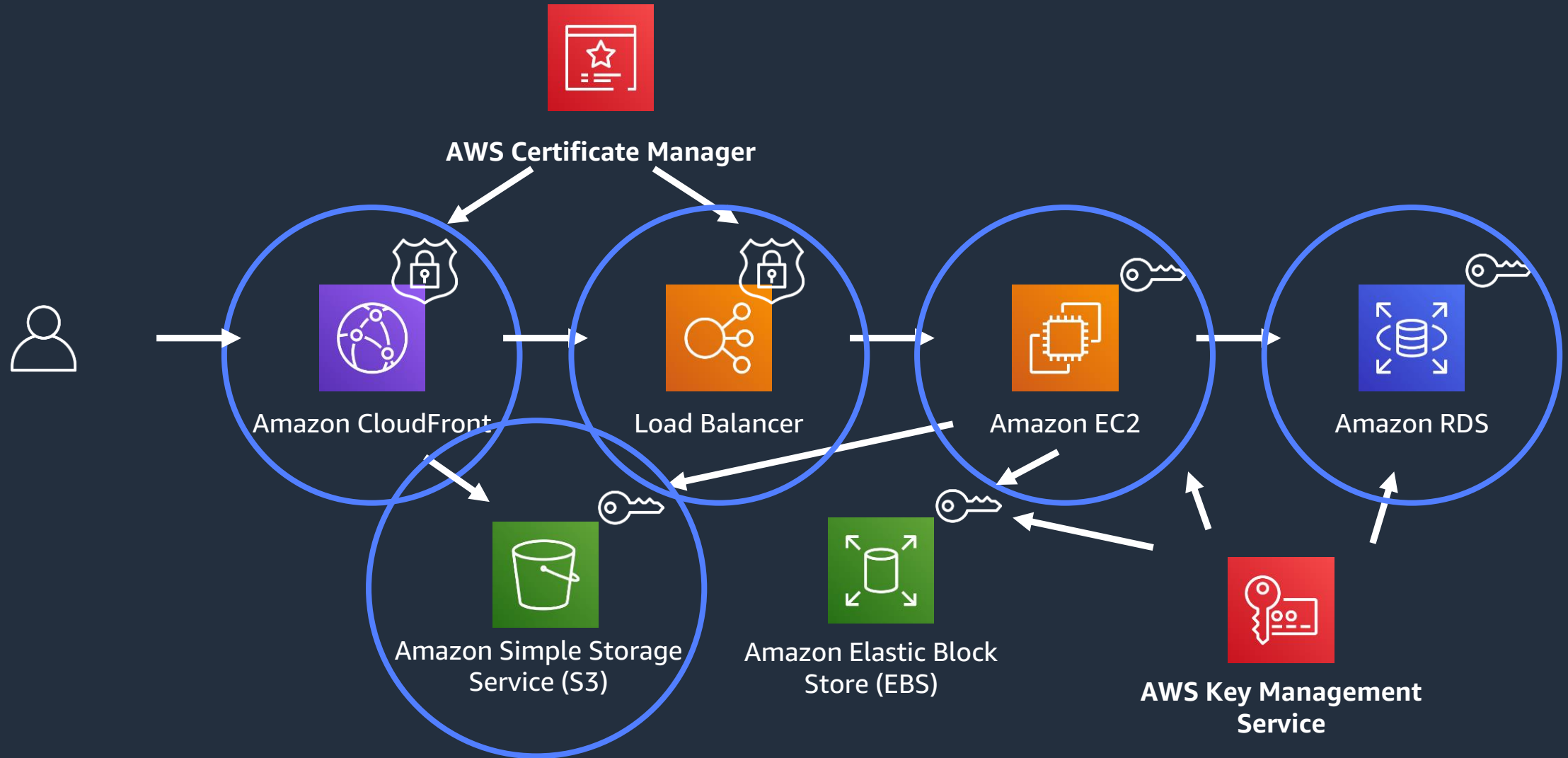
Every step an opportunity for compliance
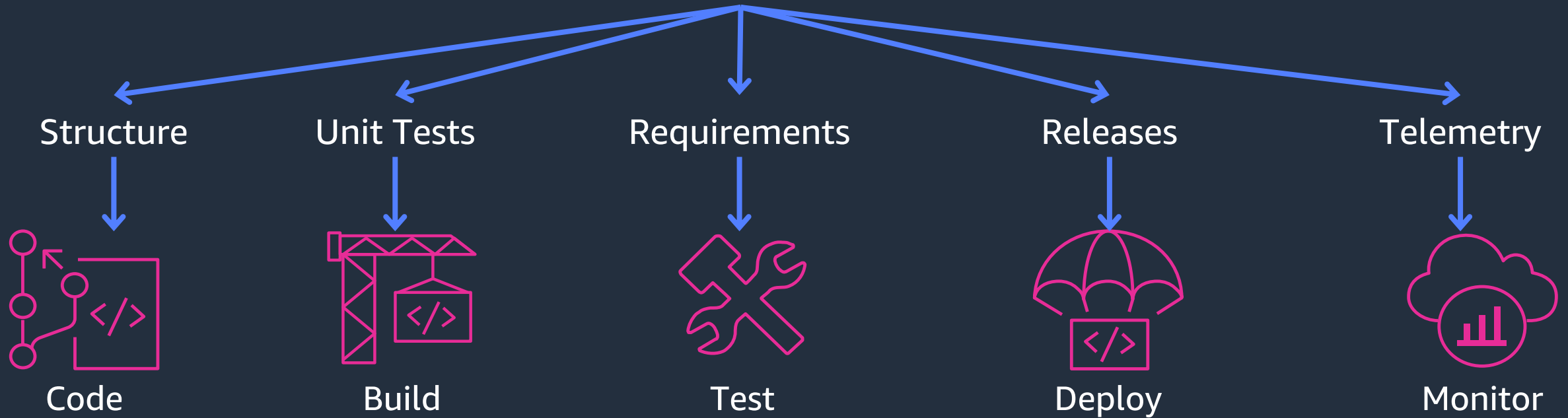
Structure → **Code**

Unit Tests → **Build**

Requirements → **Test**

Releases → **Deploy**

Telemetry → **Monitor**

Security considerations

Secure application ✓

Secure environment ✓

Separation of duties ✓

Monitoring ✓

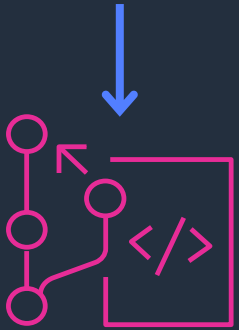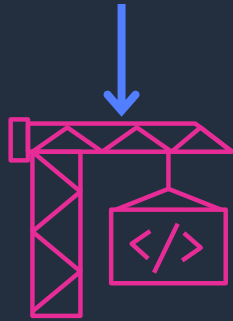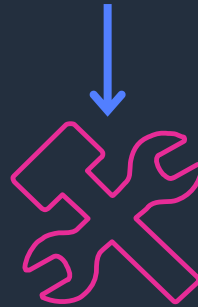# Security mechanisms = complete

Code analysis	Dependencies	Vulnerability scan	Hash verification	Automated
Code	Build	Test	Deploy	Monitor
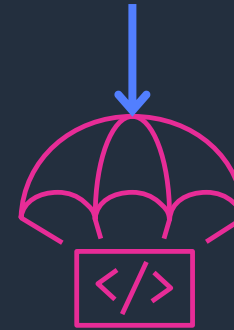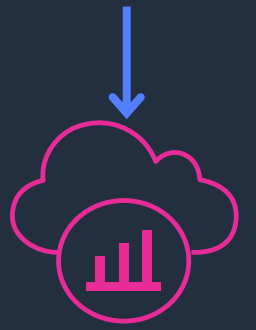
"What if we weren't here tomorrow?"

Total cost and effort?

	Cost per month	Effort to Implement
Federate Identity - Free	$0	1 hour
Use multiple accounts – Free	$0	1 hour
AWS CloudTrail Logs – S3 storage	$3 (typical)	30 minutes
AWS Config – per rule + $0.003/configuration item	$10 - 5 rules in prod $3 – 1000 items in prod account	1 hour
Amazon Guard Duty – Typically 1%	$0.16	15 minutes
	$16.16 / month	**3 hours 45 minutes**

$16.16/month and less than a day for…

Protected root

Basic monitoring

User lifecycle

Basic guardrails

Info for incidents

…from Day 1

Resources

AWS Security Best Practices

August 2016

We welcome your feedback. Please share your thoughts at this link.

AWS Well-Architected Framework
November 2018

aws

https://aws.amazon.com/whitepapers/

https://aws.amazon.com/architecture/well-architected/

Keep Your Finger on the Pulse
Tune in to **AWS** TechChat

AWS TechChat - a podcast series offering cloud enthusiasts, IT practitioners and developers the latest thinking and insights from AWS subject matter experts.

Keep informed of the latest tips, best practices and insights from AWS subject matter experts to build on the cloud .

Tune in now:

https://aws.amazon.com/podcasts/aws-techchat/

Scan me

AWS Digital Training

Featured Courses

- **AWS Cloud Practitioner Essentials (Second Edition)**
  Learn the fundamentals of the AWS Cloud and prepare for the AWS Certified Cloud Practitioner exam.

- **Amazon DynamoDB for Serverless Architectures**
  An introduction to Amazon DynamoDB and how it's leveraged in building a serverless architecture

- **AWS Security Fundamentals**
  Learn fundamental cloud computing and AWS security concepts, including AWS access control and management, governance, logging, and encryption methods.

- **Getting Started with Amazon Simple Storage Service (Amazon S3)**
  Learn the knowledge to determine when to use Amazon S3 by reviewing typical use cases and understanding how the service provides object storage for your applications

Learn at Your Own Pace
AWS Digital Training offers free on-demand digital courses that help you learn new cloud skills and services when and where it's convenient for you.

aws.training

Thank you for attending AWS Builders Online Series

We hope you found it interesting! A kind reminder to **complete the survey.**
Let us know what you thought of today's event and how we can improve the event experience for you in the future.

aws-apac-marketing@amazon.com

twitter.com/AWSCloud

facebook.com/AmazonWebServices

youtube.com/user/AmazonWebServices

slideshare.net/AmazonWebServices

twitch.tv/aws

aws