



# AWS Builders Online Series

**Move Fast & Be Secure on AWS Cloud**

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AWS



# Pepper as a Service (the other PaaS)



# Why we will be successful



Outsourced dev



Lean start up



Low costs

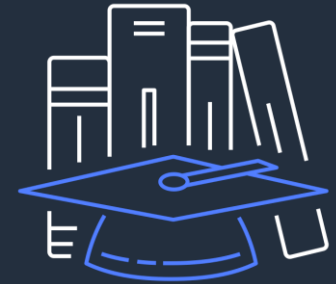
# Think about security



For our users

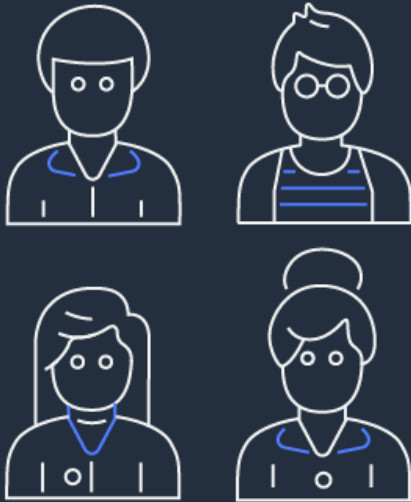


For our providers



For us

# Security culture

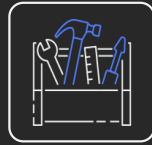


Security is everyone's job



Secure = Complete

# Security considerations



Secure  
application



Secure  
environment

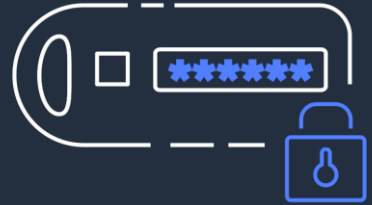


Separation  
of duties



Monitoring

# Secure environment



Enable MFA



Don't use root



Federate Identity

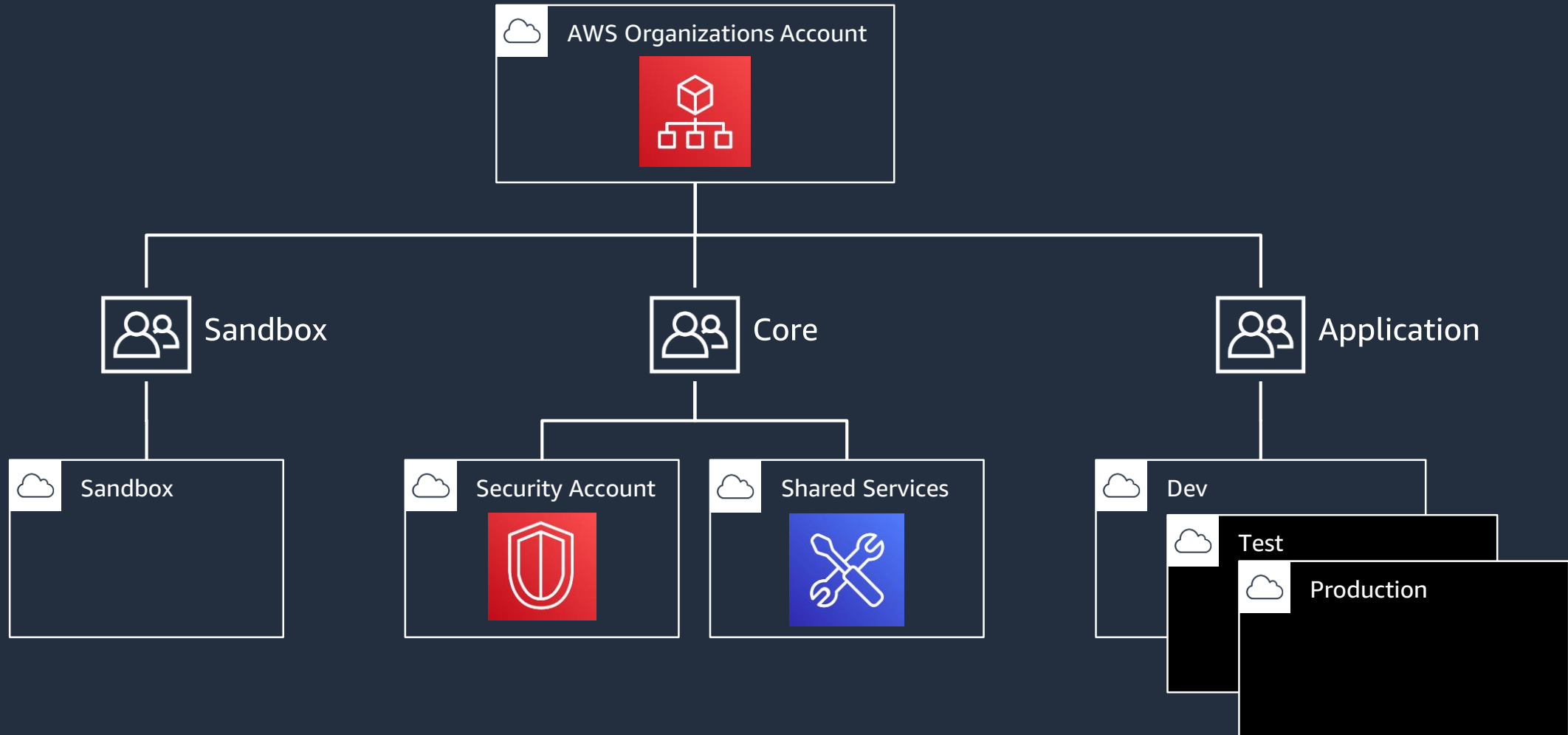


Least privilege



Disable public buckets

# Separation of duty – multi-account strategy





# Security considerations



Secure  
application



Secure  
environment

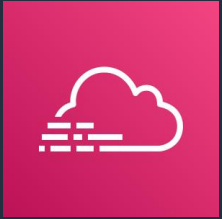


Separation  
of duties



Monitoring

# Monitoring



AWS CloudTrail



Amazon GuardDuty

# AWS Guard Duty



Generate findings  
through VPC Log  
Stream

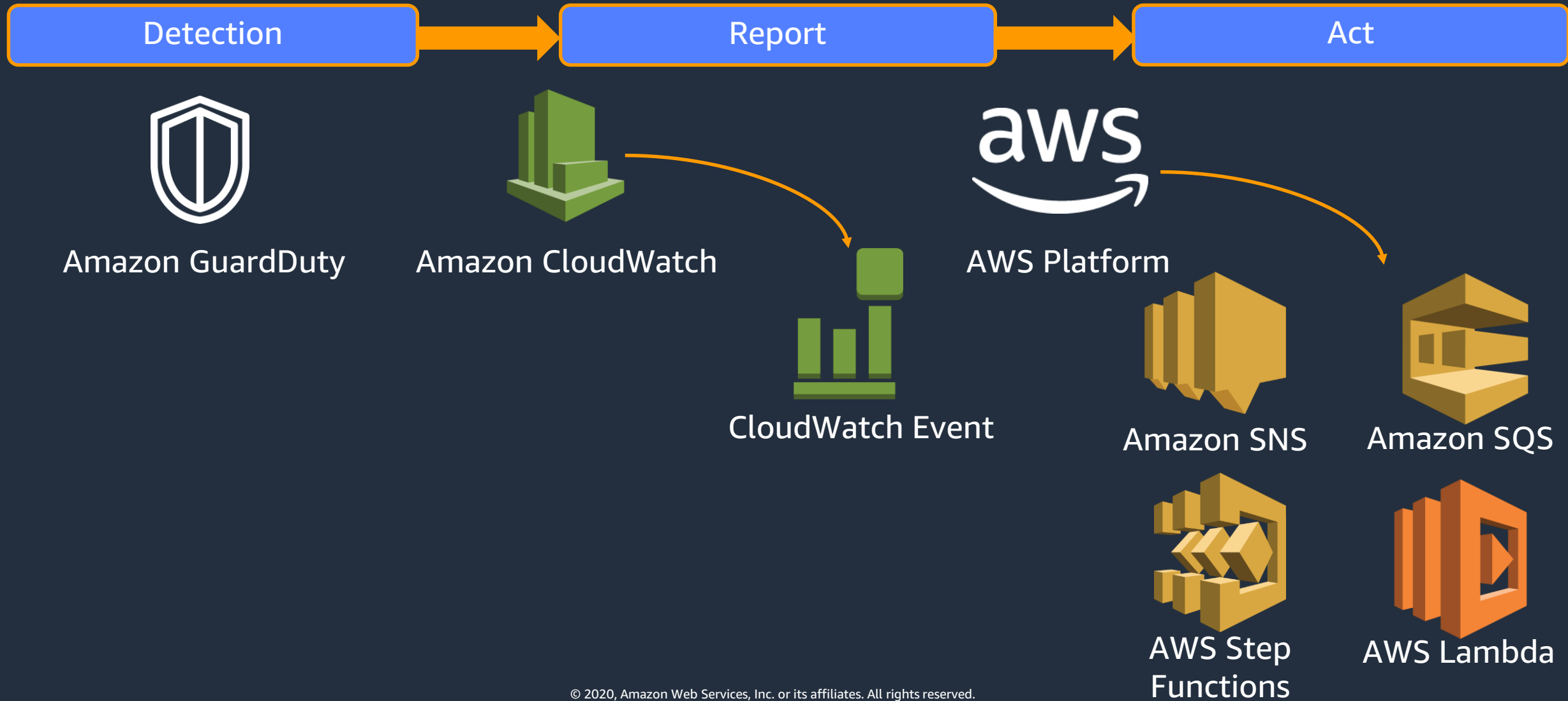


Queries to  
questionable  
domains

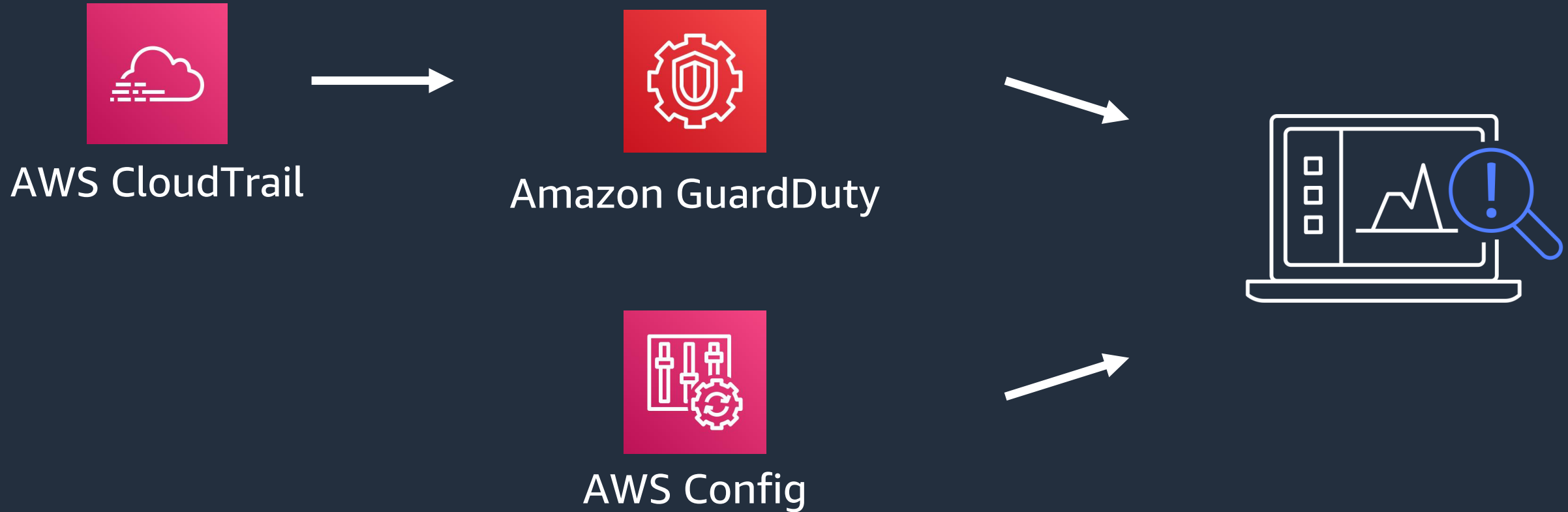


AWS CloudTrail  
history of AWS  
calls and user  
activity

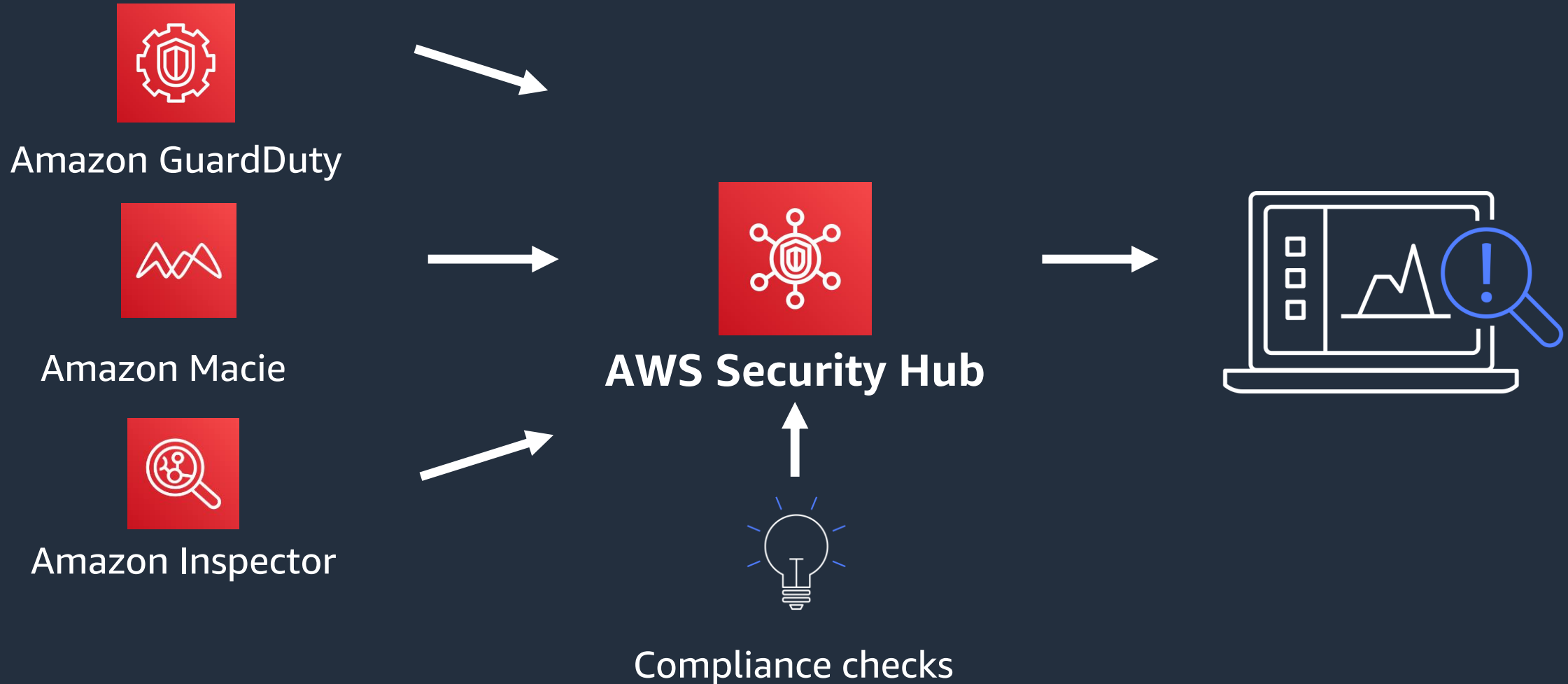
# Automating Remediation



# Monitoring



# Monitoring – the easy way



# Monitoring - evolution



Manual



Alerting



Automated

# Security considerations



Secure  
application



Secure  
environment



Separation  
of duties

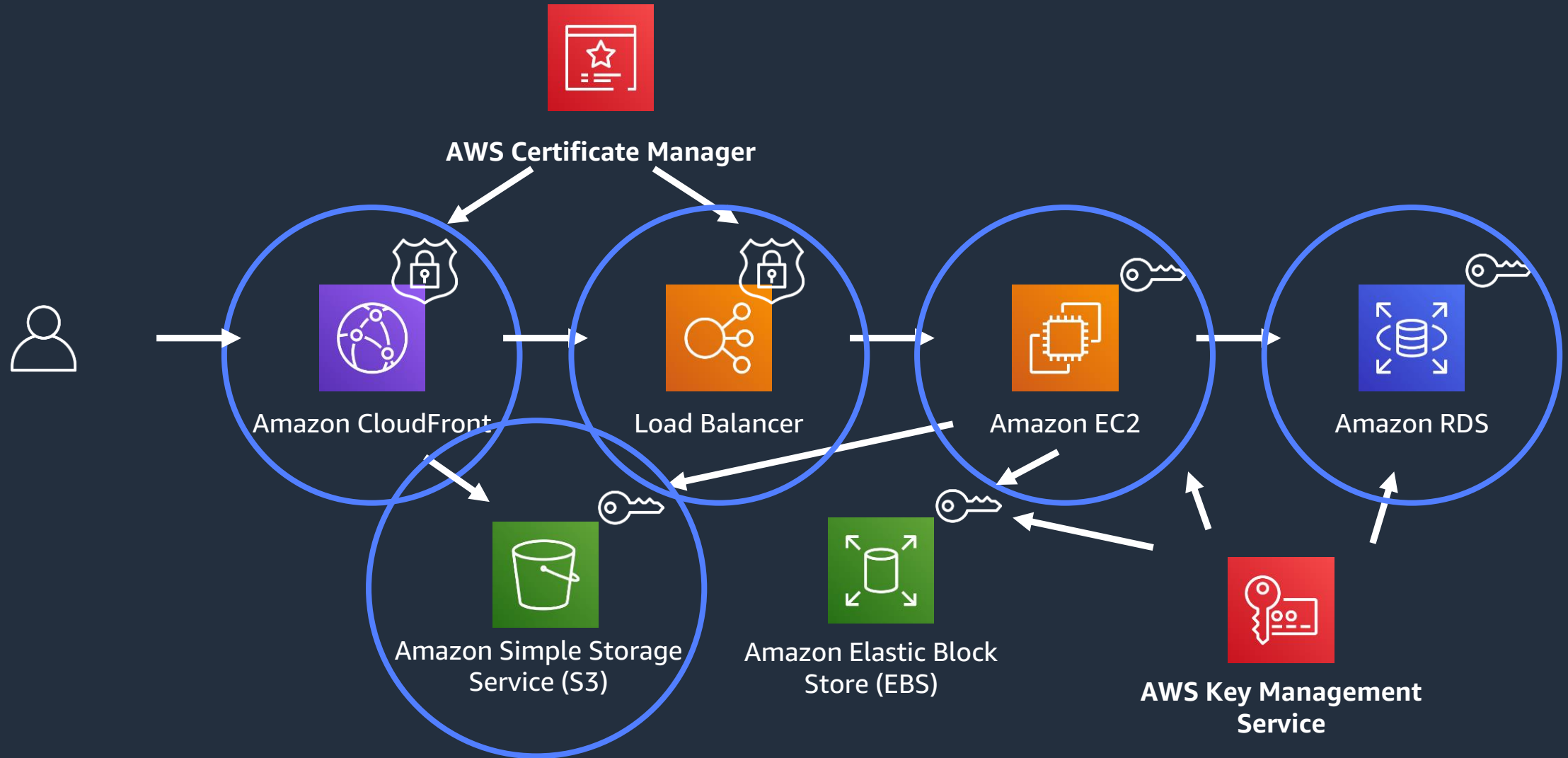


Monitoring

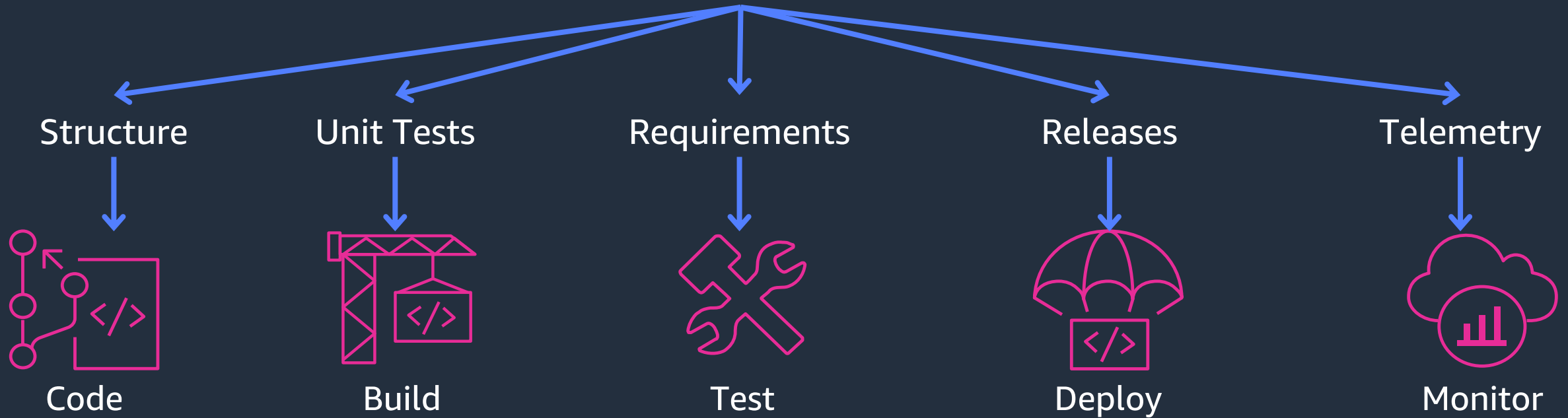




# Secure application = use service features



# Every step an opportunity for compliance



# Security considerations



Secure  
application



Secure  
environment



Separation  
of duties

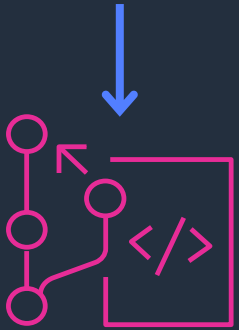


Monitoring



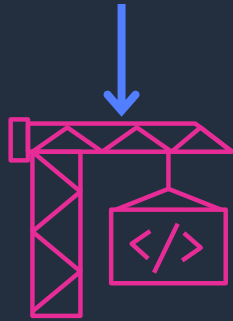
# Security mechanisms = complete

Code analysis



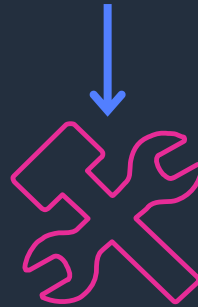
Code

Dependencies



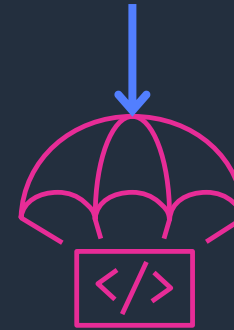
Build

Vulnerability scan



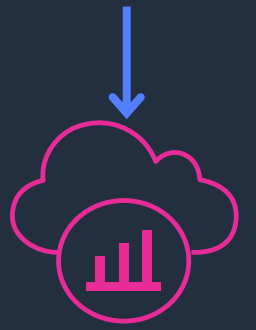
Test

Hash verification



Deploy

Automated



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
	<b>\$16.16 / month</b>	<b>3 hours 45 minutes</b>

# \$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



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

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





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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

# Thank you for attending AWS Builders Online Series

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