Cloud Compliance and Assurance

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Agenda

- Challenges with Cloud Compliance and Assurance
- The 3 lines of defense
- AWS Services that enable compliance
- Key Takeaways

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Cloud compliance and assurance: Challenges

Overcoming challenges to enable business outcomes

Dynamic landscape

Volume, variety, and velocity

Pace of innovation

Global/ geographic

Different compliance and security needs

Familiarity with cloud

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Which one do I use for compliance?

Wide **range** of AWS capabilities

AWS Config

Amazon GuardDuty

AWS Audit Manager

AWS License Manager

Amazon Inspector

AWS CloudTrail

Amazon CloudWatch

AWS Systems Manager

Amazon Macie

AWS Artifact

AWS Control Tower

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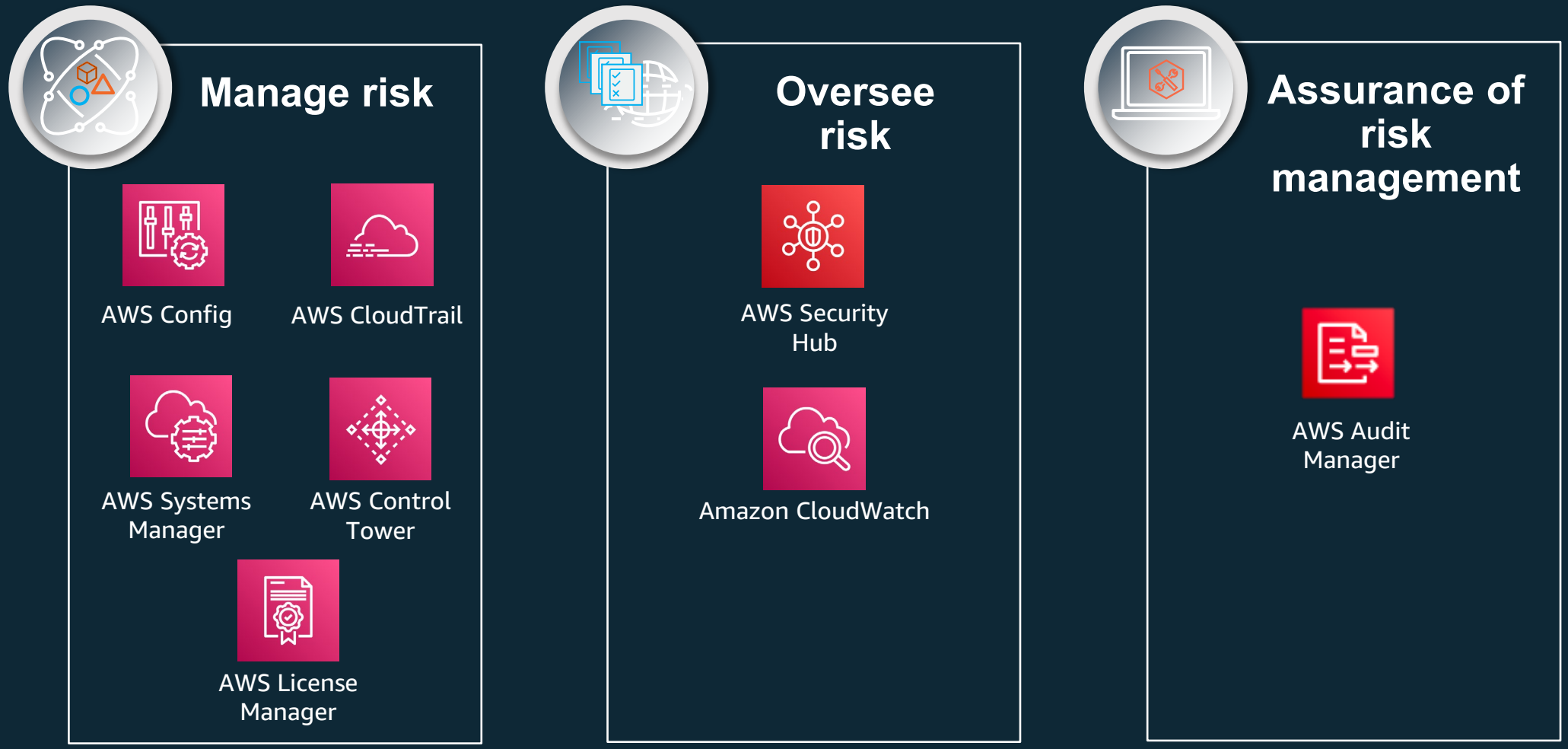
Mapping AWS capabilities

The 3 lines of defense



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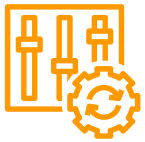
Manage risk – AWS Config

Automate compliance management

Identify

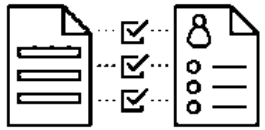
Identify control objectives across standards and regulations

Configuration change occurs in your AWS resources



AWS Config

AWS Config records and normalizes the changes into a consistent format



AWS Config automatically evaluates the recorded configurations against the configurations you specify

AWS Config APIs & console

Amazon SNS

Amazon CloudWatch

Amazon S3

Access change history and compliance results using the console or APIs; CloudWatch Events or SNS alert you when changes occur; deliver change history and snapshot files to your S3 bucket for analysis

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Manage risk – AWS CloudTrail

Automate compliance management

Design

Control design and control evaluation

AWS CloudTrail
Track user activity and detect unusual API usage

Record
Record Activity in AWS services as AWS CloudTrail events

Store
AWS CloudTrail delivers events to AWS CloudTrail console, Amazon S3 buckets, and optionally, Amazon CloudWatch logs

Act
Use Amazon CloudWatch events and alarms to take action when important events are detected

Review
View recent events in the AWS CloudTrail console or analyze log files with Amazon Athena

Compliance auditing

Operational troubleshooting

Security analysis

Automatic compliance remediation

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Manage risk – AWS Systems Manager

Automate compliance management

Design

Control design and control evaluation

AWS Systems Manager

Systems Manager helps you safely manage and operate your resources at scale

Group resources

Create groups of resources across different AWS services, such as applications or different layers of an application stack

Visualize data

View aggregated operational data by resource group

Take action

Respond to insights and automate operational actions across resource groups

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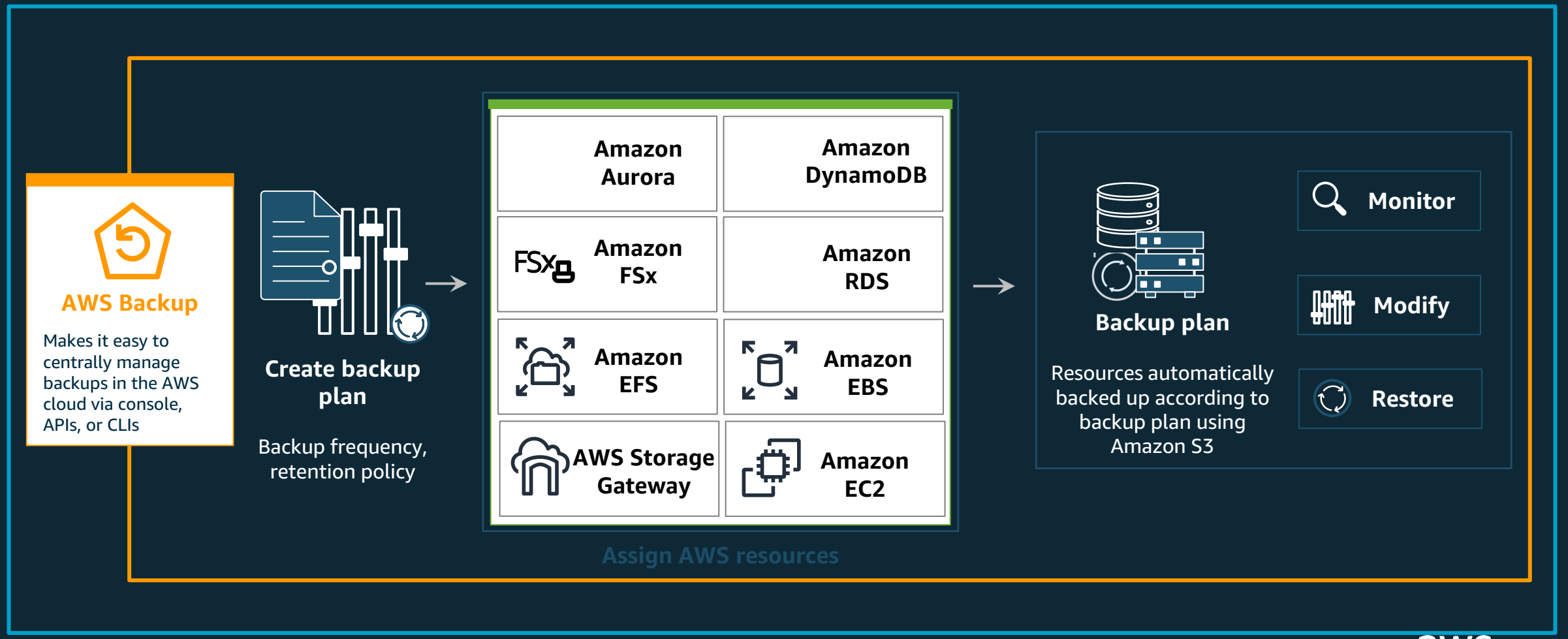
AWS Backup

Design, monitor, and assess your data compliance needs



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Demo – Automating compliance management

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Oversee risk – Security Hub

Implement continuous oversight and monitor risk

Monitor

Control effectiveness monitoring

AWS Security Hub

Quickly assess your high-priority security alerts and security posture across AWS accounts in one comprehensive view

Amazon GuardDuty

Amazon Macie

Amazon Inspector

AWS Firewall Manager

IAM Access Analyzer

Integrated partner solutions

Continuously aggregate and prioritize

Findings from AWS and partner security services highlight emerging trends or possible issues

Conduct automated security checks

Use industry standards such as the CIS AWS Foundation Benchmark and PCI DSS

Take action

Investigate findings and/or take response and remediation actions

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Demo – Continuous oversight of risk

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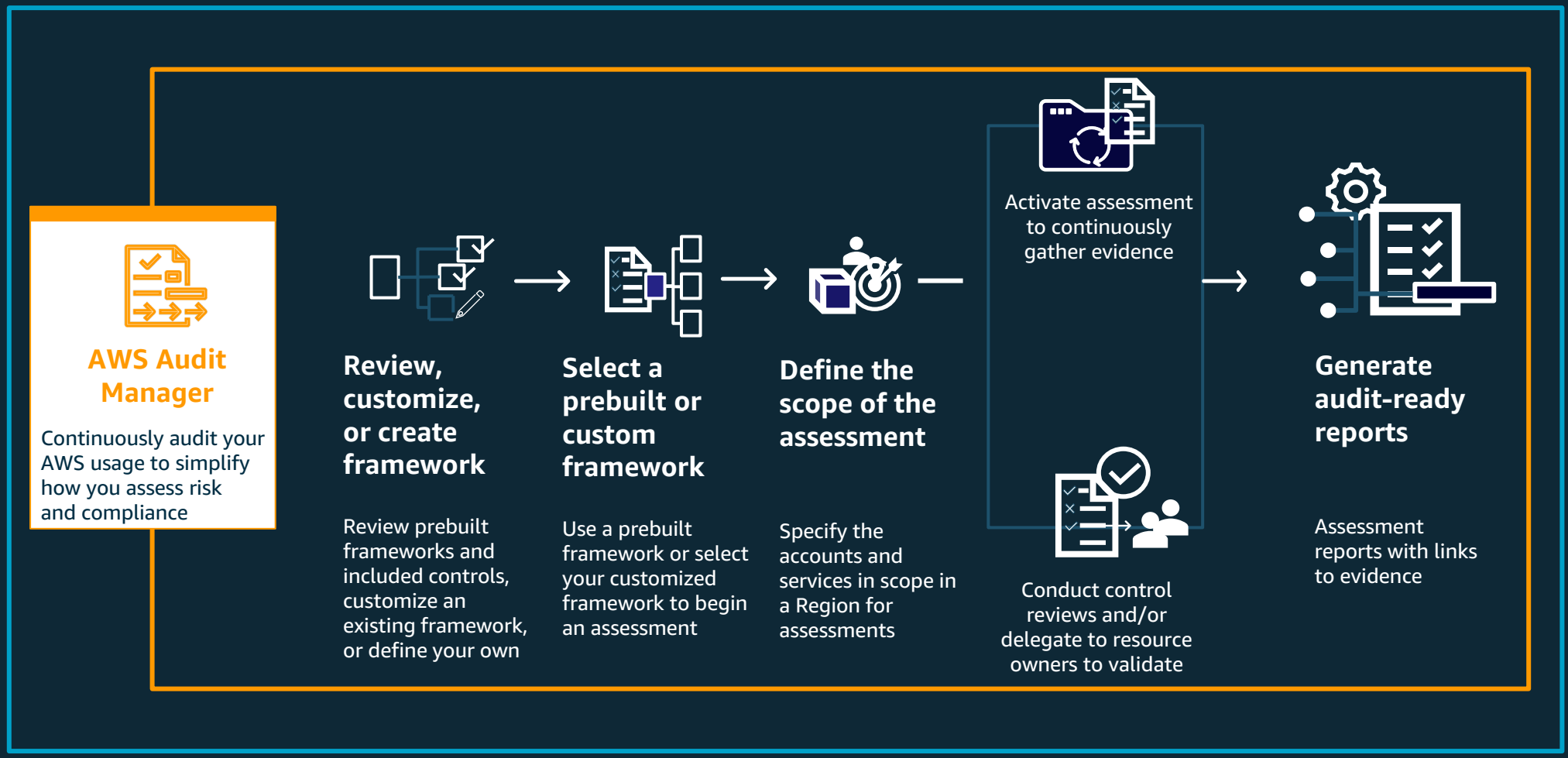
Assurance of risk management – Audit Manager

Assess, gather evidence, and independently verify

Assess

Control effectiveness assessment



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Demo – Assurance of risk management

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Key takeaways

01

3 lines of defense

Helps you identify the right AWS service(s) for the right job

02

Data protection is key for operational resiliency

You can operate with greater safety, ease, and efficiency with automated data protection

03

“Art of the possible”

AWS offers wide range of capabilities to help simplify cloud compliance and assurance

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Next steps

01 *Dive deep*

02 *Browse the blog*

03 *Talk to your account team*

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