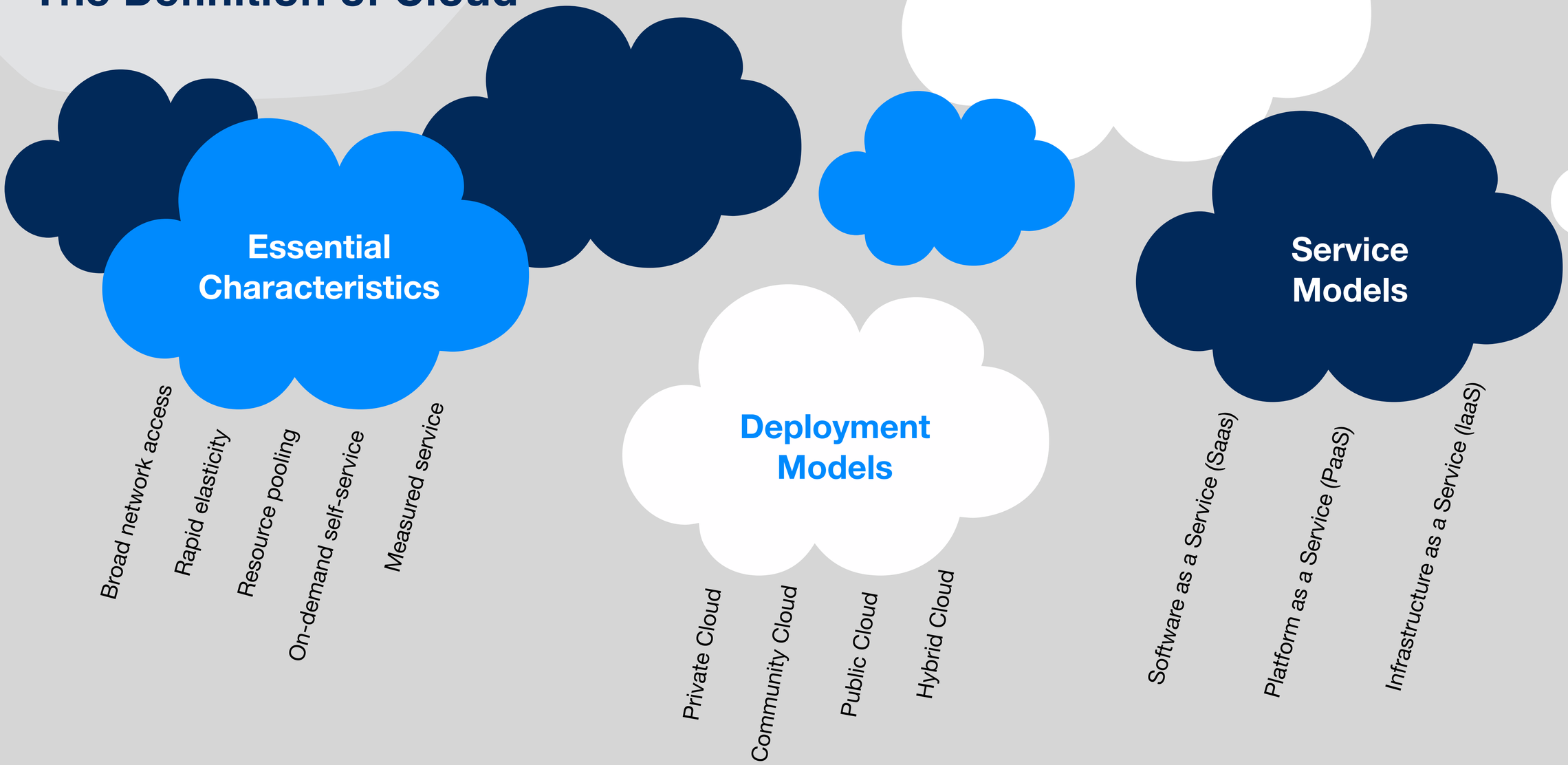
Secure Cloud

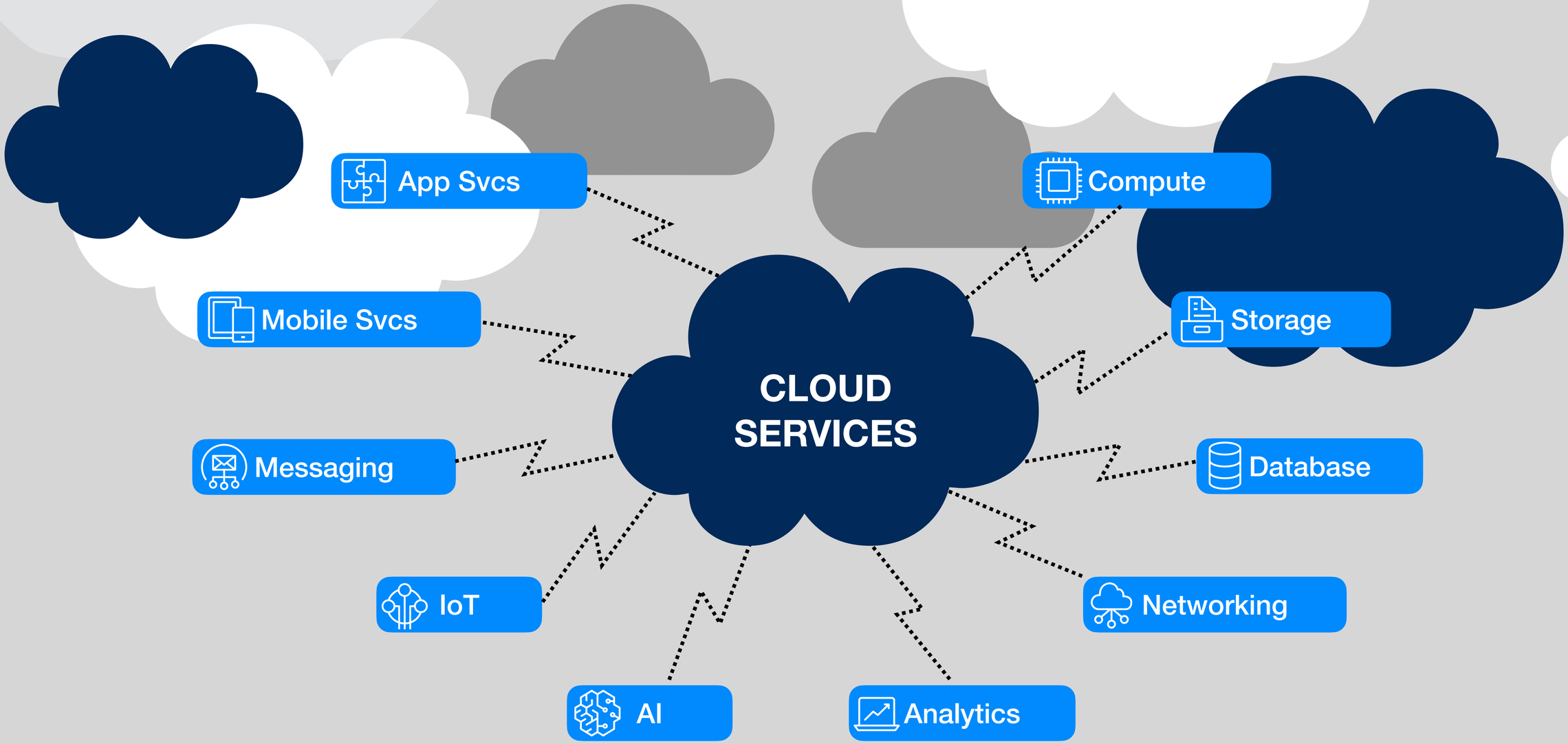
Cloud Security Made Easy: Controls and Compliance for the Win

Goals for Cloud Security Discussion

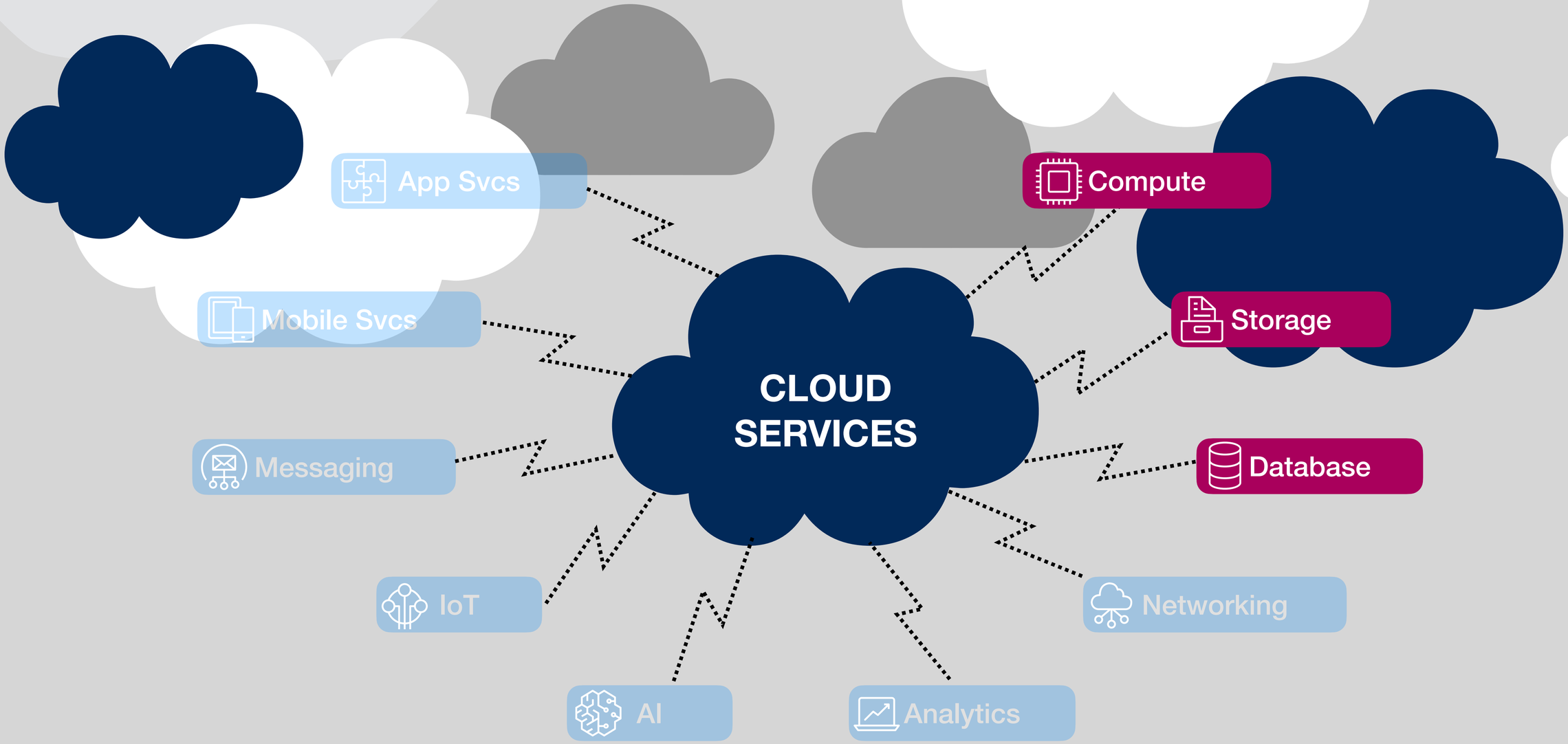
The Definition of Cloud



What Developers Use in the Cloud



What Security Understands in the Cloud



Situational Awareness: Controls

STANDARD

Identity & Access Management

Logging & Monitoring

Infrastructure Security

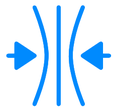
Data Protection

Incident Response

ENHANCED

Secure CI/CD: DevSecOps

Compliance Validation



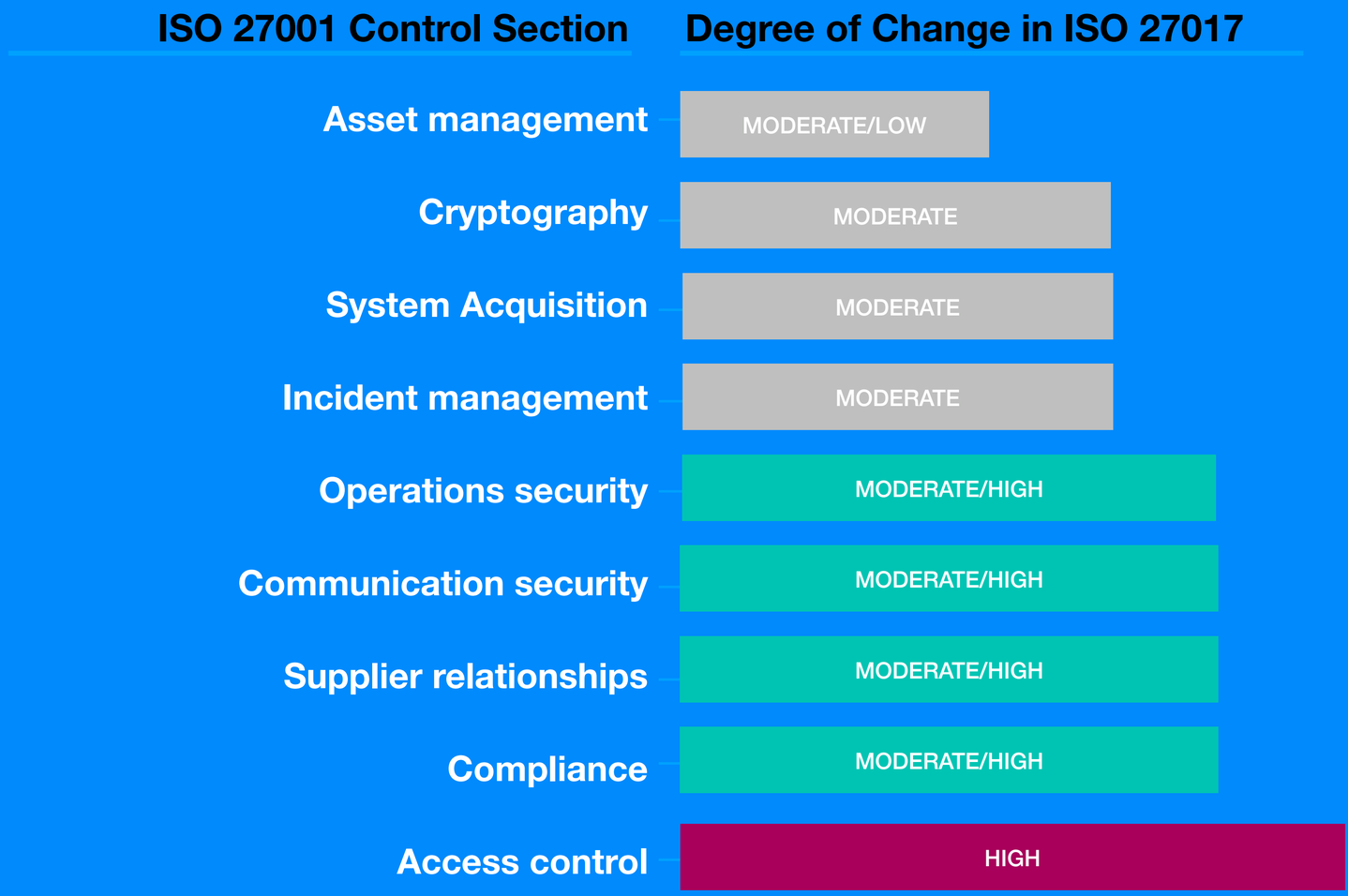
Resilience

Configuration & Vulnerability Analysis

Security Big Data & Analytics

Source: Amazon Web Services - Cloud Adoption Framework: Security Perspective

Situational Awareness: Management



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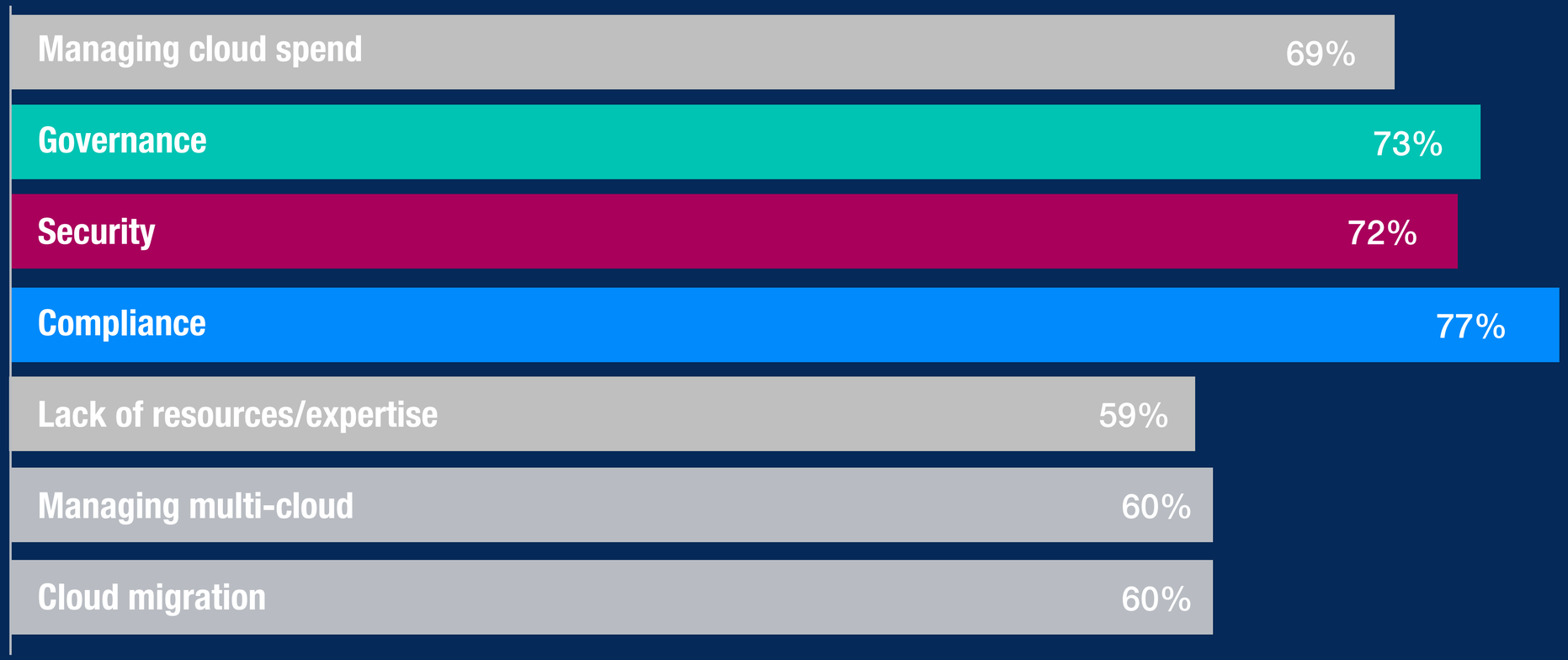
Source: Advisera Blog - ISO 27001 vs. ISO 27017: Security Controls for Cloud

Situational Awareness: Governance

Cloud Challenges For Enterprise



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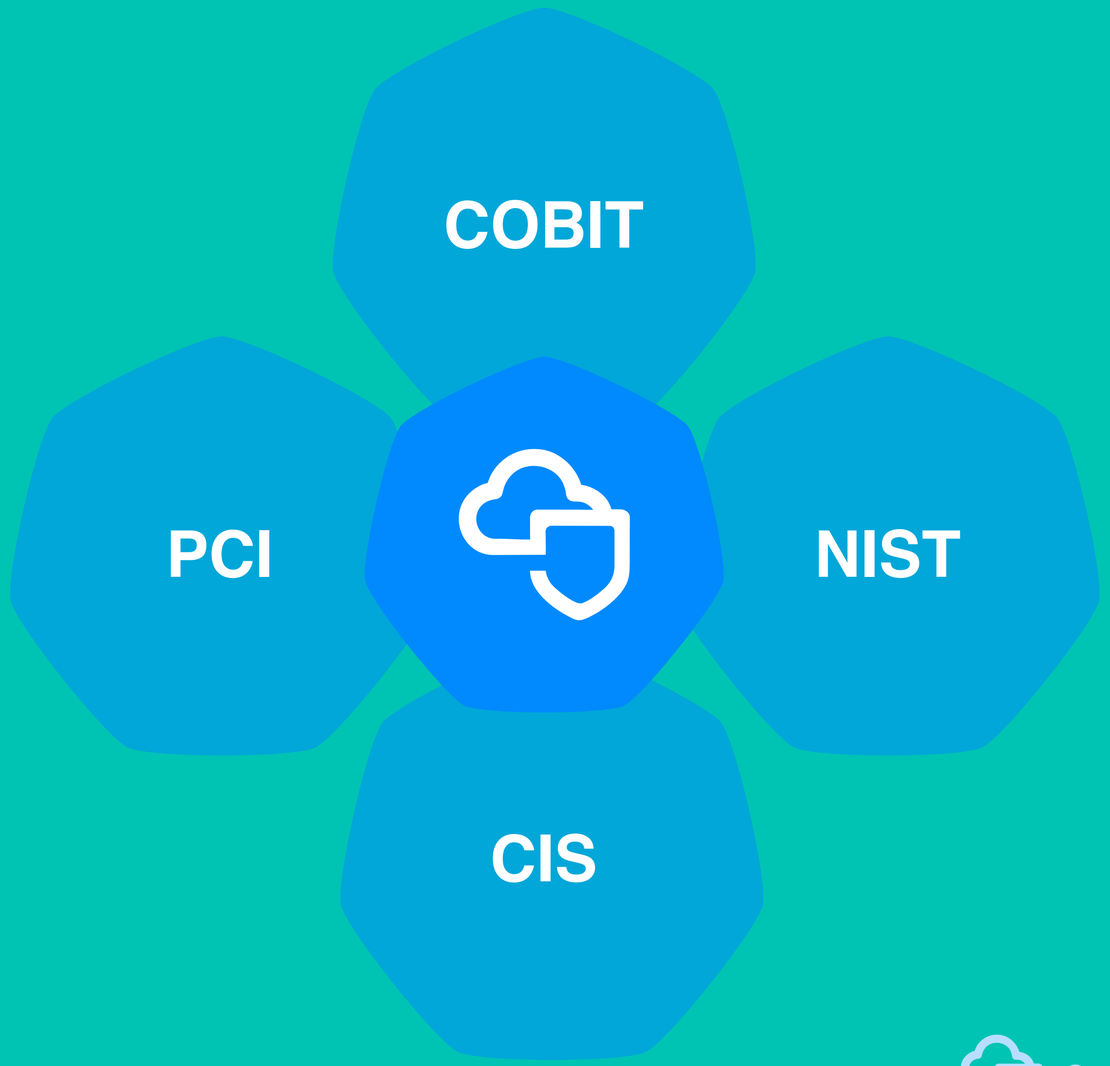
Source: RightScale - 2019 State of Cloud Report

Compliance to Cloud Control Objectives



Control Objectives

Governance, Risk, Compliance

Data Protection and Key Management

Identity and Access Management

Application and API Security

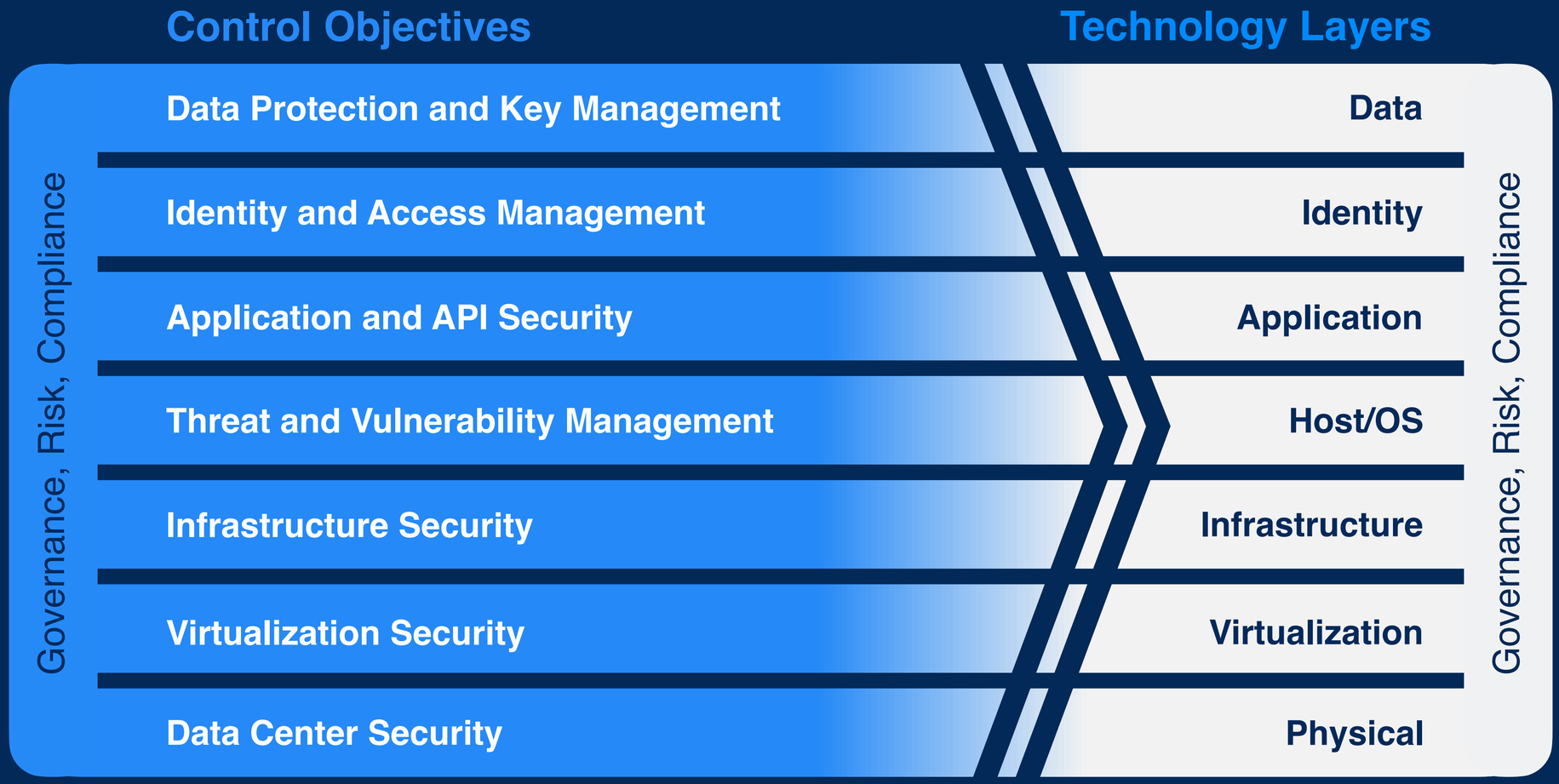
Threat and Vulnerability Management

Infrastructure Security

Virtualization Security

Data Center Security

Cloud Control Objectives to Technology Layers



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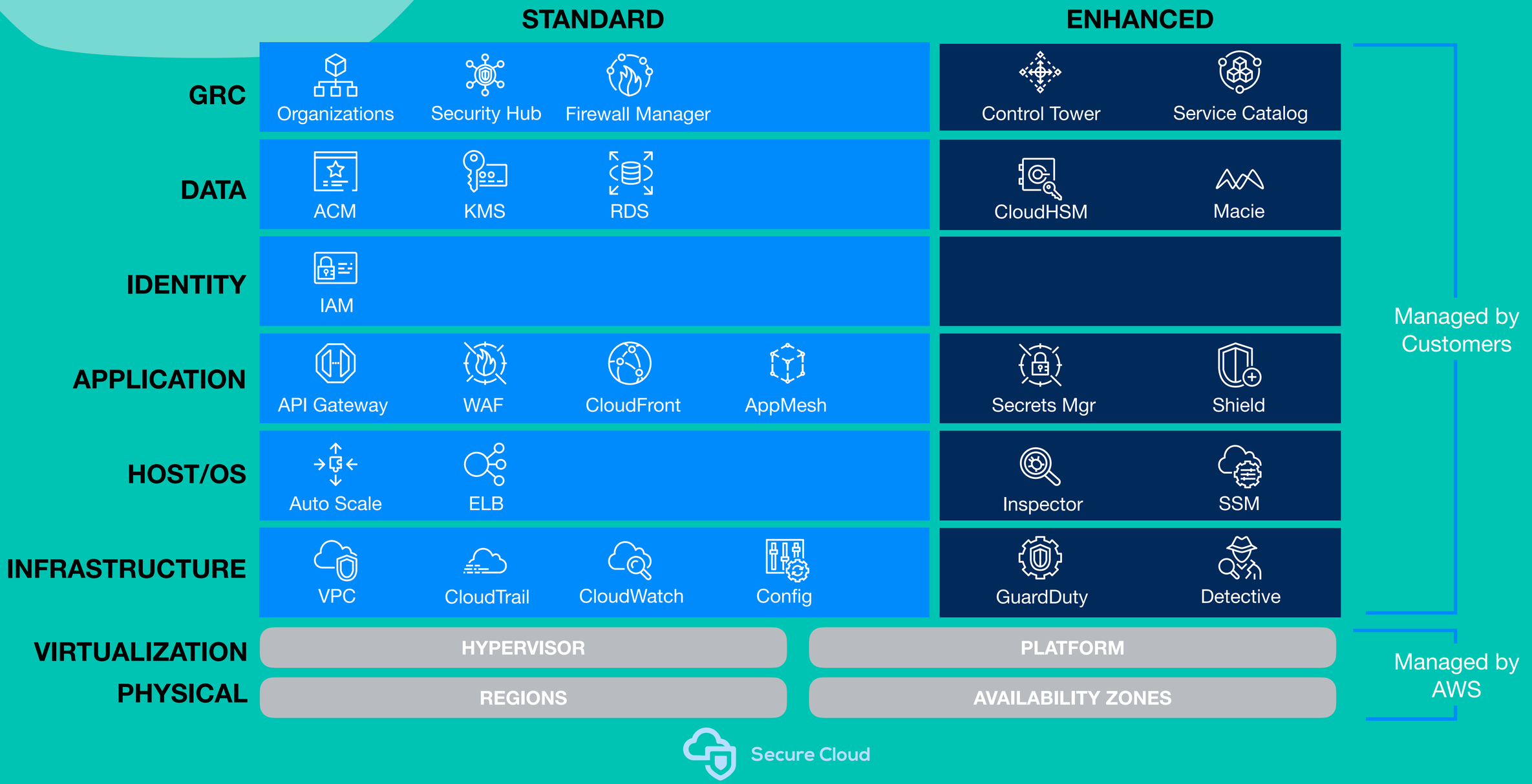
Technology Layers to Cloud Controls Matrix



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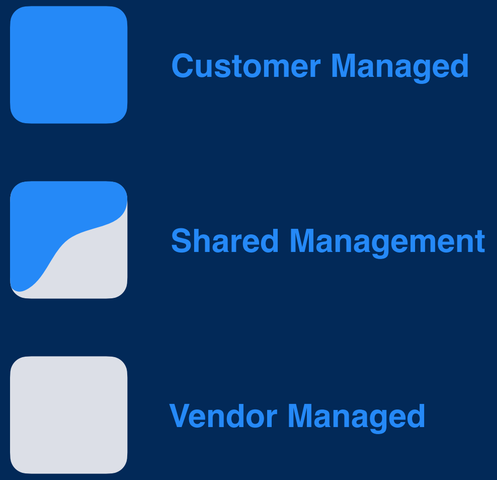
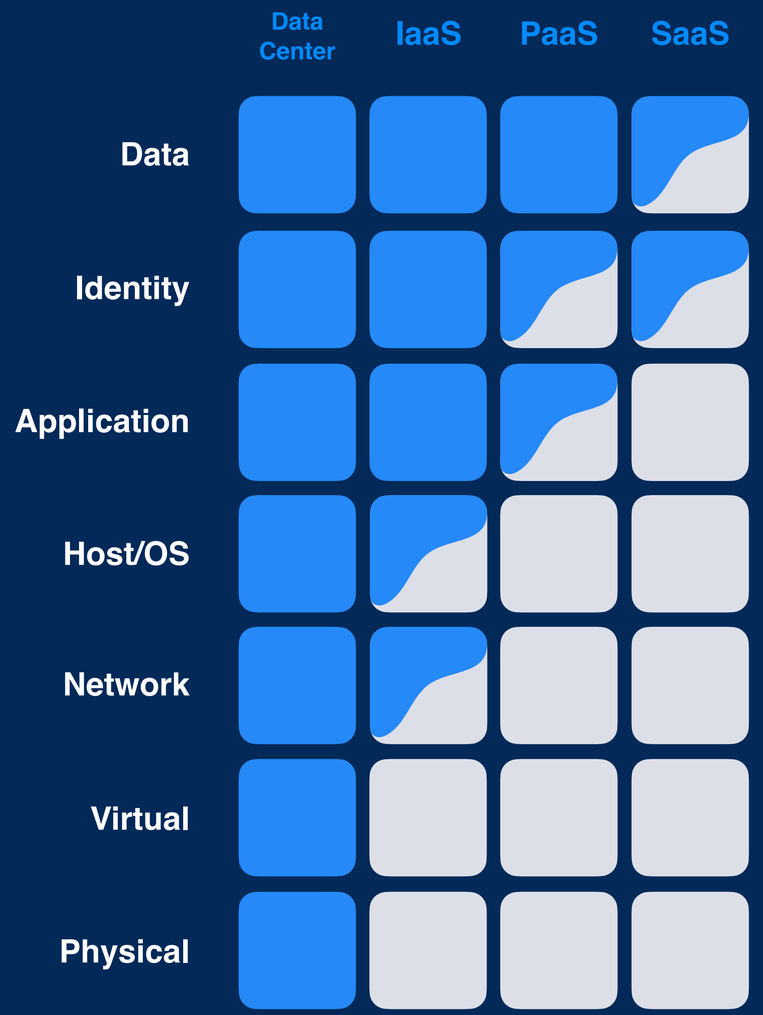
Shared Responsibility Matrix





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Security Architecture - Confidentiality: Protected

In-Transit

In-Use

At-Rest

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Security Architecture - Integrity: Automated

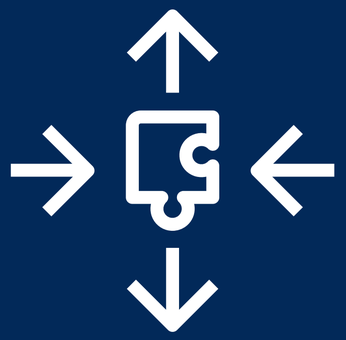
Code

Test

Release

Security Architecture - Availability: Resilient

Caching and Balancing



Auto-Scaling

Replication

Cloud Security Framework - Summary

CONTROLS

- Standard
- Enhanced

Technology:
Tactical

CIS - CSC
Critical Security Controls

MANAGEMENT

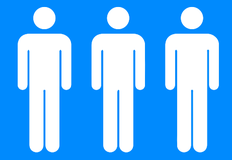
- Identity
- Protect
- Detect
- Respond
- Recover

Process:
Operational

NIST - CSF
Cybersecurity Framework

GOVERNANCE

- Plan
- Build
- Run
- Measure



People:
Strategic

ISACA - COBIT
Control Objectives for
Information Technologies

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Next Steps for Cloud Security Framework

Cloud Controls Matrix	**AWS, Azure, GCP Security Controls**
Security Control Library	**Security Controls mapped to Frameworks**
Security Baselines	**AI, Containers, Serverless**