



# **Cloud Trends & the Role Security plays as Organizations Accelerate Transformation to the Cloud**

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PRESENTED BY

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SINGAPORE

# Cloud Computing Trends



# Cloud Computing Trends In 2023



**Increased investment in cloud security and resilience**



**Multi-cloud is an increasingly popular strategy**



**Cloud powered artificial intelligence and machine learning**

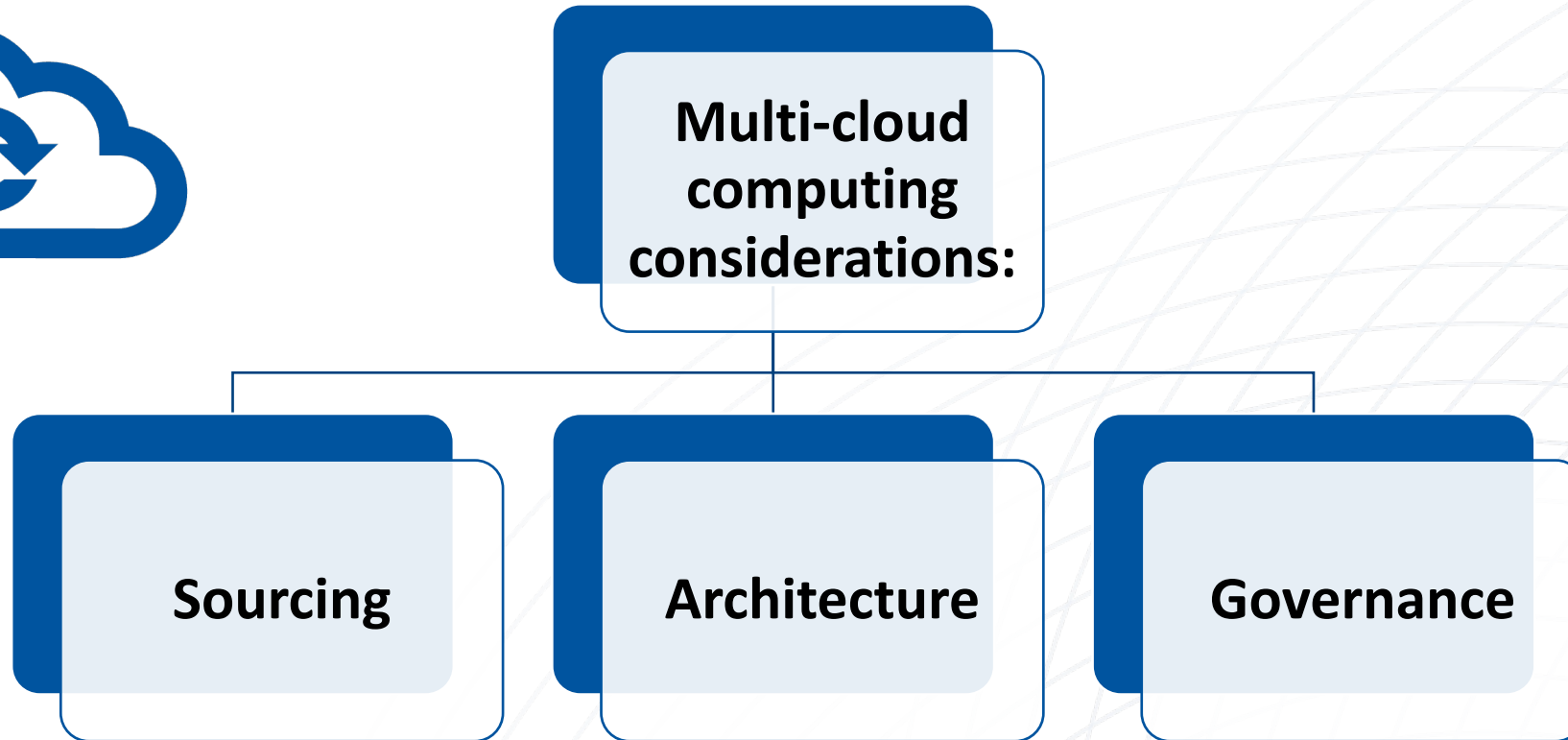
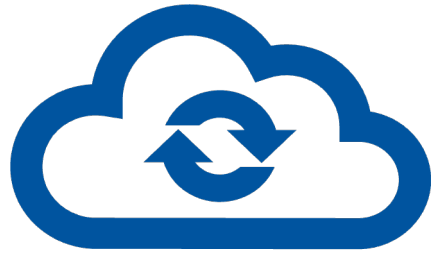


**Continued Growth of serverless computing**



**More Secure Access Service Edge (SASE) Adoptions**

# Multi-cloud is an increasingly popular strategy



# Cloud powered artificial intelligence and machine learning



**Experts project that the AI market value will skyrocket to \$850.61 billion by 2028.**

(Source: PhoenixNAP)

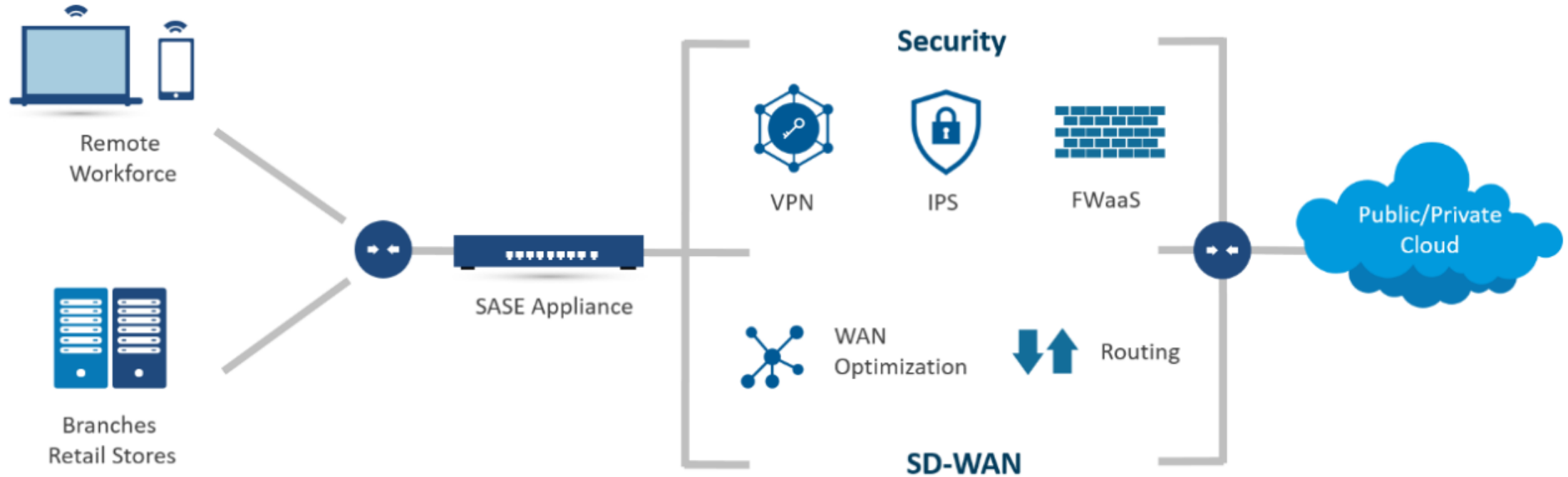
## Continued Growth of serverless computing



**Demand for serverless technologies to grow by 22.6% between 2022 and 2026.**

(Source: PhoenixNAP)

# More Secure Access Service Edge (SASE) Adoptions



Source: [Lanner](#)



# More Secure Access Service Edge (SASE) Adoptions



**Gartner predicts that by 2024, at least 40% of enterprises will have explicit strategies to adopt SASE.**

(Source: Gartner)

# Gartner Forecasts Worldwide Public Cloud End-User Spending to Reach Nearly \$600 Billion in 2023

**Table 1. Worldwide Public Cloud Services End-User Spending Forecast (Millions of U.S. Dollars)**

	2021	2022	2023
Cloud Business Process Services (BPaaS)	54,952	60,127	65,145
Cloud Application Infrastructure Services (PaaS)	89,910	110,677	136,408
Cloud Application Services (SaaS)	146,326	167,107	195,208
Cloud Management and Security Services	28,489	34,143	41,675
Cloud System Infrastructure Services (IaaS)	90,894	115,740	150,254
Desktop-as-a-Service (DaaS)	2,059	2,539	3,104
<b>Total Market</b>	<b>412,632</b>	<b>490,333</b>	<b>591,794</b>



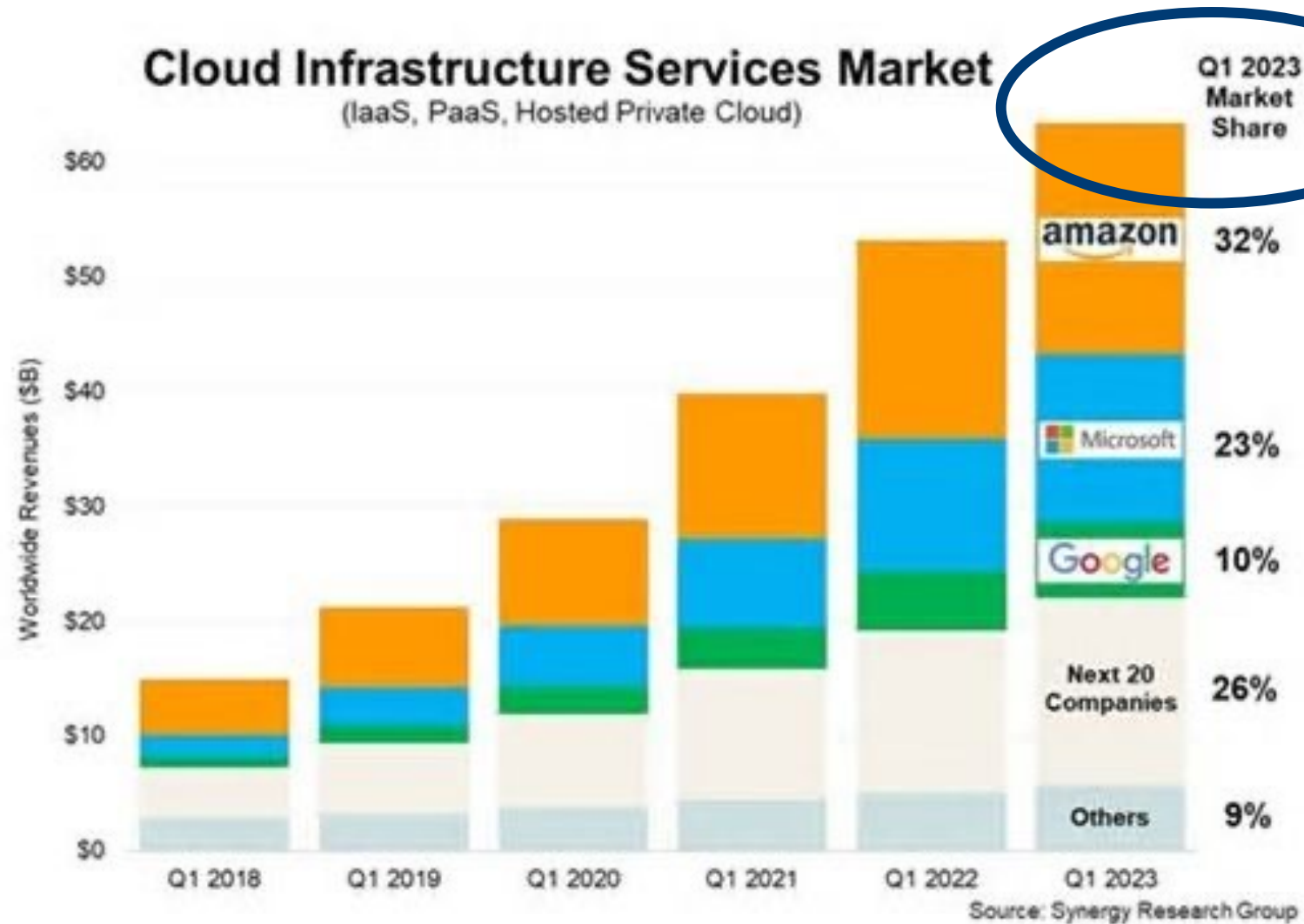
BPaaS = business process as a service; IaaS = infrastructure as a service; PaaS = platform as a service; SaaS = software as a service

Note: Totals may not add up due to rounding.

Source: Gartner (October 2022)

Source: <https://www.gartner.com/en/newsroom/press-releases/2022-10-31-gartner-forecasts-worldwide-public-cloud-end-user-spending-to-reach-nearly-600-billion-in-2023>

# Cloud Revenue and Market Share Trends



Source: Synergy Research Group

# Cloud Security Trends



# Top Cloud Security Trends to Watch in 2023



**The Continuous Threat of Leading Cloud Attack Vectors**



**The Ever-evolving Shared Responsibility Model**



**Changes in the Macroeconomic Environment Impacting the Way Security Teams Operate and Choose Security Solutions**



**Evolving Cloud Use Cases and the Impact on Risks for Enterprises**

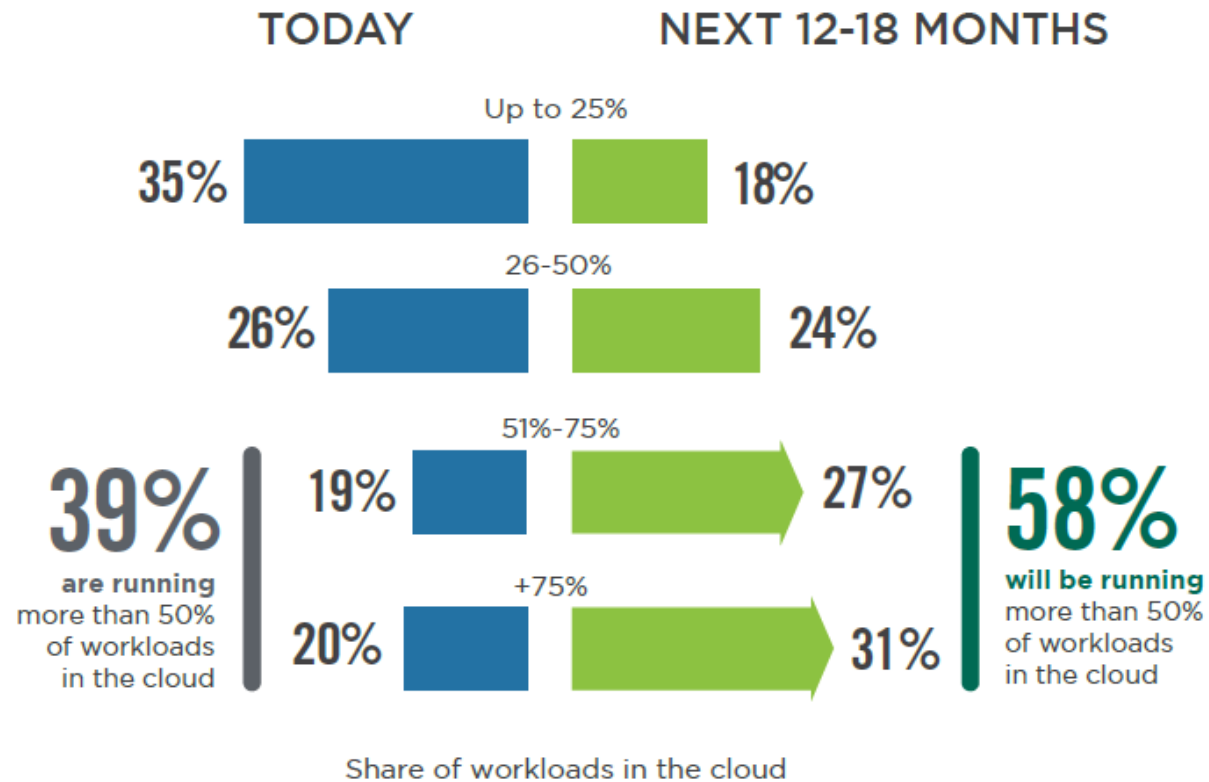
# **(ISC)<sup>2</sup> 2022 Cloud Security Report**



# (ISC)<sup>2</sup> 2022 Cloud Security Report



## KEY FINDINGS



Source: (ISC)<sup>2</sup>, Cybersecurity Insiders

# (ISC)<sup>2</sup> 2022 Cloud Security Report

## KEY FINDINGS

**76%** use two or more cloud providers



Source: (ISC)<sup>2</sup>, Cybersecurity Insiders



# (ISC)<sup>2</sup> 2022 Cloud Security Report

## KEY FINDINGS

39%



**MULTI-CLOUD**

(e.g., multiple providers without integration)

33%



**HYBRID**

(e.g., integration between private and public clouds)

27%



**SINGLE CLOUD**

(ISC)<sup>2</sup>, Cybersecurity Insiders

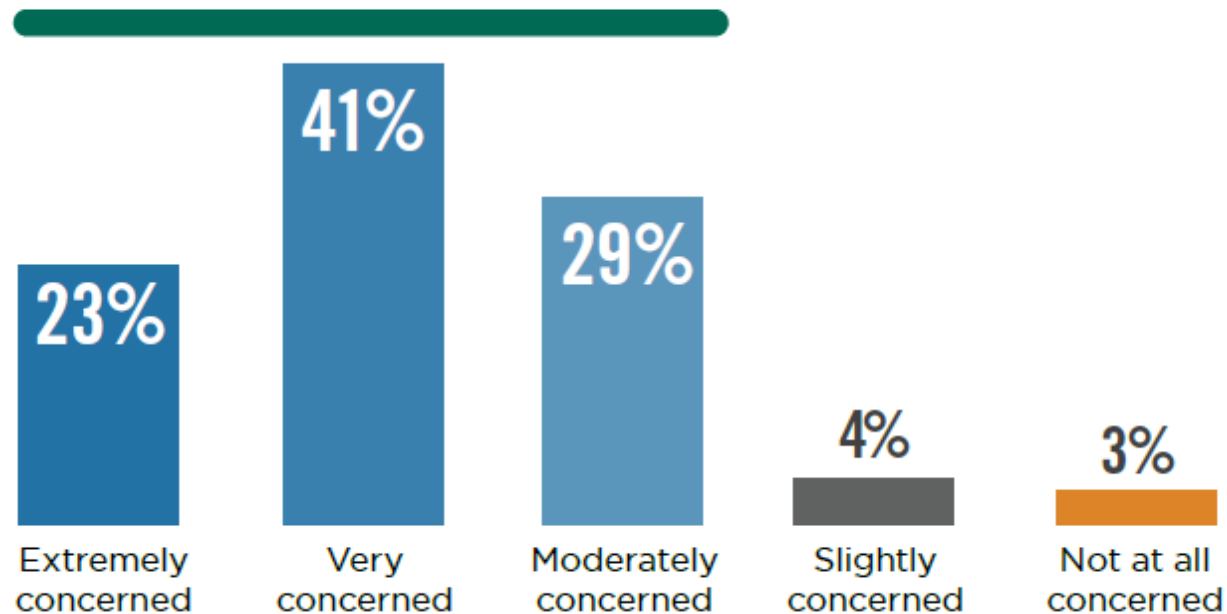
# (ISC)<sup>2</sup> 2022 Cloud Security Report

## SKILLS SHORTAGE CONCERN



# 93%

of organizations are moderately to extremely concerned about the shortage of qualified cybersecurity professionals



Source: (ISC)<sup>2</sup>, Cybersecurity Insiders

# (ISC)<sup>2</sup> 2022 Cloud Security Report

## MULTI-CLOUD SECURITY CHALLENGES



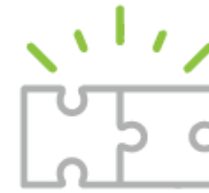
61%

Having the right skills to deploy and manage a complete solution across all cloud environments



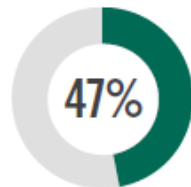
53%

Ensuring data protection and privacy for each environment

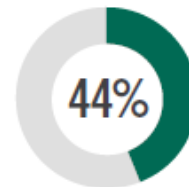


51%

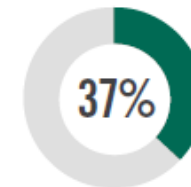
Understanding how different solutions fit together



Loss of visibility and control



Understanding service integration options



Keeping up with the rate of change

Source: (ISC)<sup>2</sup>, Cybersecurity Insiders

# (ISC)<sup>2</sup> 2022 Cloud Security Report

## OPERATIONAL SECURITY HEADACHES



44%

Lack of qualified staff



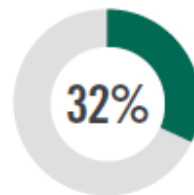
42%

Compliance

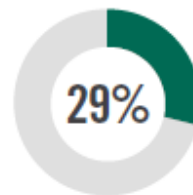


36%

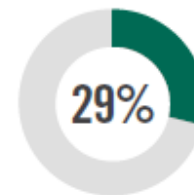
Visibility into infrastructure security



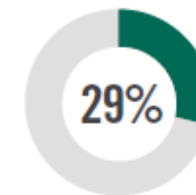
Can't identify misconfigurations quickly



Setting consistent security policies



Complex cloud-to-cloud/  
cloud to on-premises security rule matching



Implementing continuous and automated security controls in the cloud

Source: (ISC)<sup>2</sup>, Cybersecurity Insiders

# (ISC)<sup>2</sup> 2022 Cloud Security Report

## BIGGEST SECURITY THREATS



62%

Misconfiguration of the cloud platform/wrong setup



54%

Insecure interfaces/APIs

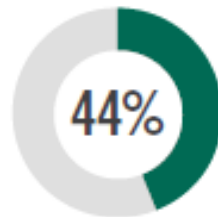


51%

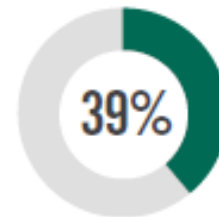
Exfiltration of sensitive data



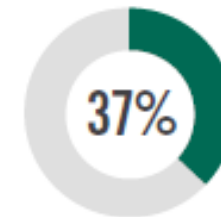
Unauthorized access



Hijacking of accounts, services, or traffic



External sharing of data



Foreign state-sponsored cyber attacks

Source: (ISC)<sup>2</sup>, Cybersecurity Insiders

# (ISC)<sup>2</sup> 2022 Cloud Security Report

## BARRIERS TO CLOUD ADOPTION



**40%**

Lack of staff resources or expertise



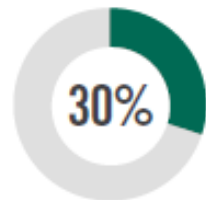
**33%**

Legal and regulatory compliance

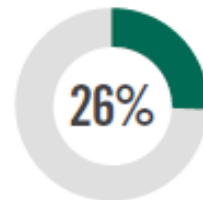


**31%**

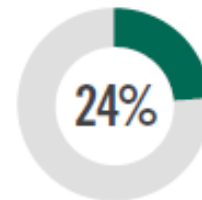
Data security, loss and leakage risks



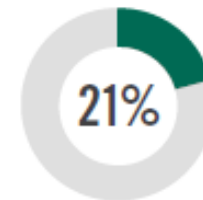
Integration with existing IT environment



Fear of vendor lock-in



General security risks



Loss of control

Source: (ISC)<sup>2</sup>, Cybersecurity Insiders

# Role of Security



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**Protection of Data  
and Applications**



**Implement Security  
Measures**



**Maintain  
Comprehensive  
Security Strategy**



**Review of Security  
Policies and  
Procedures**



**Education of  
Business  
Stakeholders**



**Enable and Support  
Business Objectives**



# Takeaway

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**Security is an enabler for Organization transformation to the cloud**



SINGAPORE

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