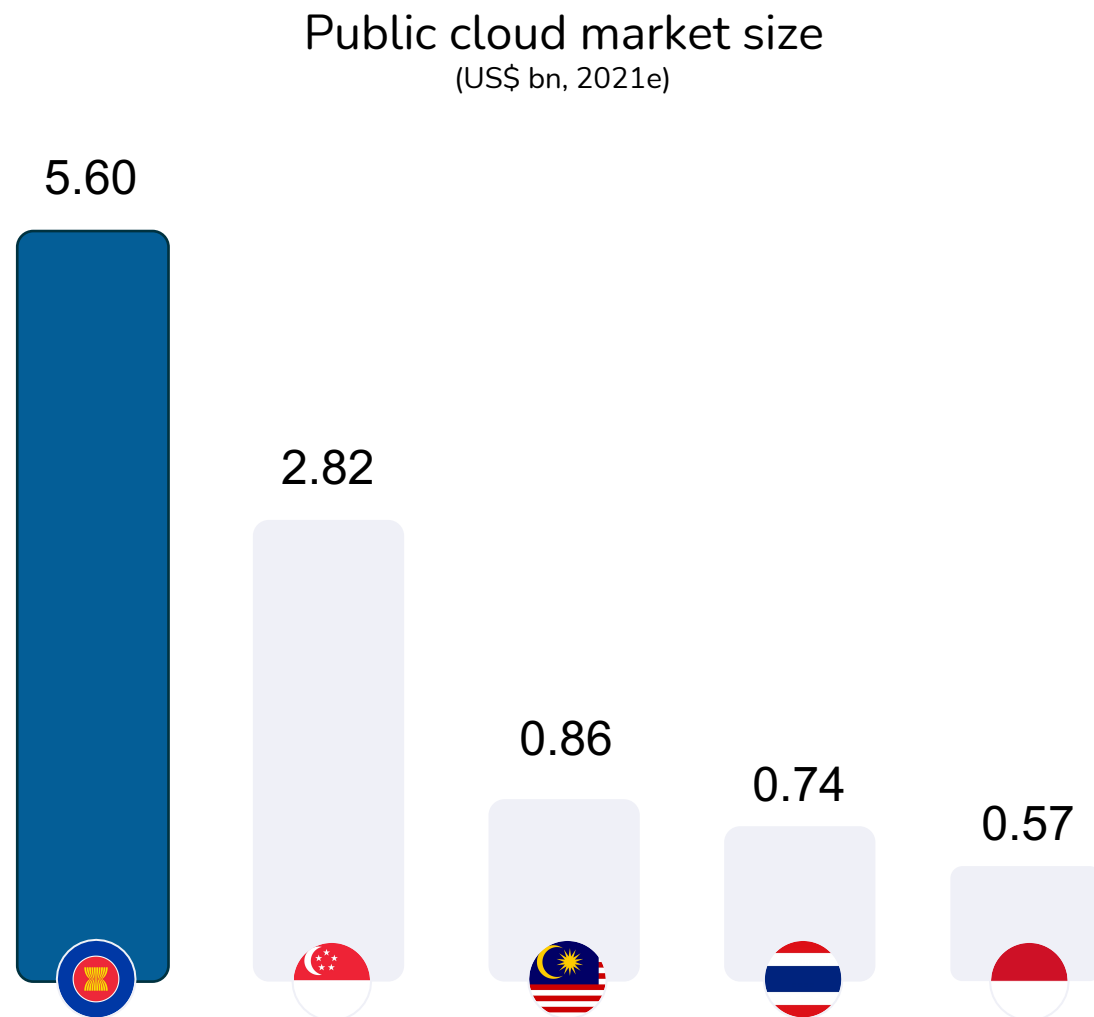


Uncover 2022

# Southeast Asia Cloud Economy

Ready to ascend

twimbit



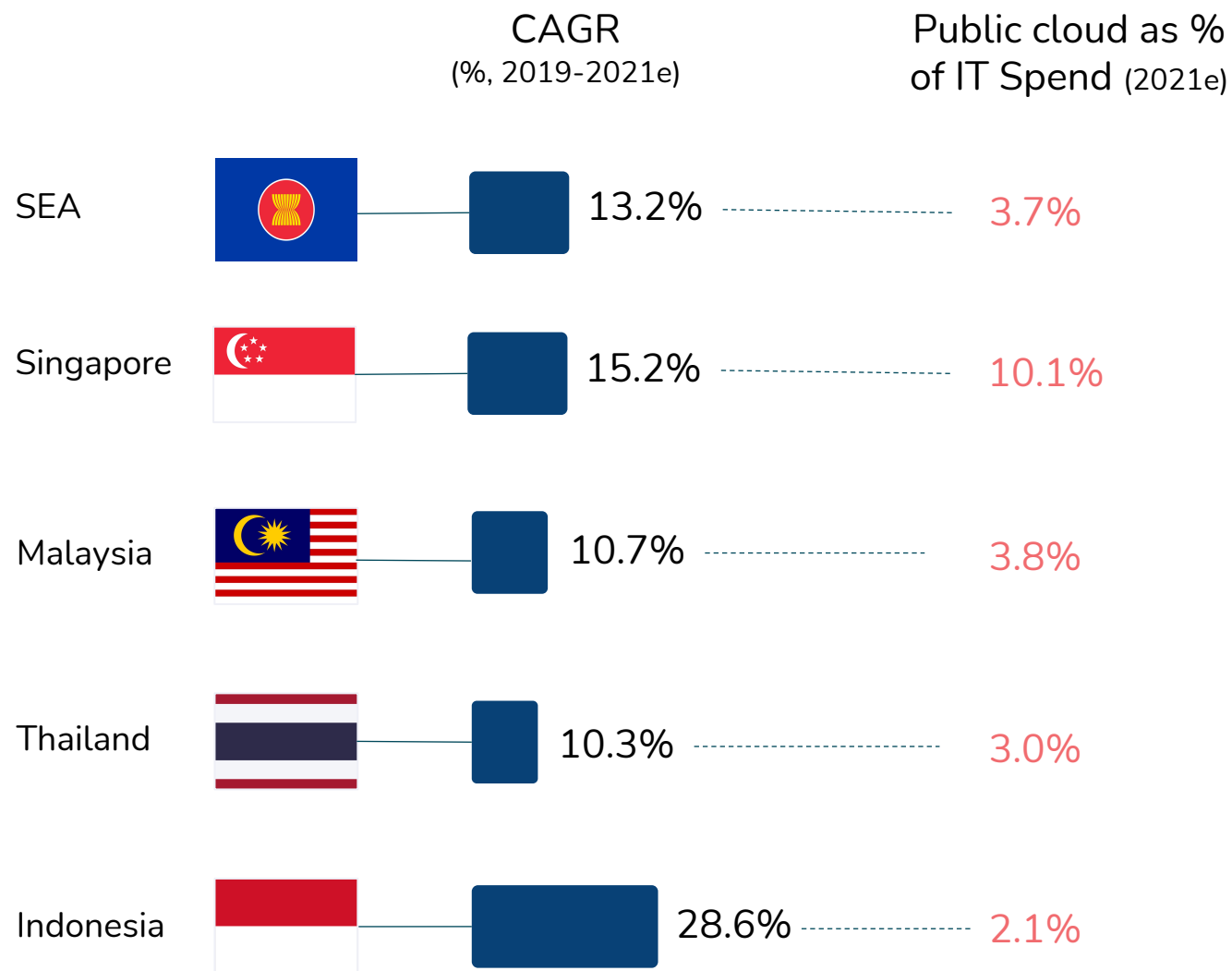
## Nascent stage for SEA market, poised for growth

Public cloud spending remains conservative due to regulatory blockade in key markets.

Singapore is more mature than the rest but that stands to change with launch of new local regions and shift in cloud sentiments.

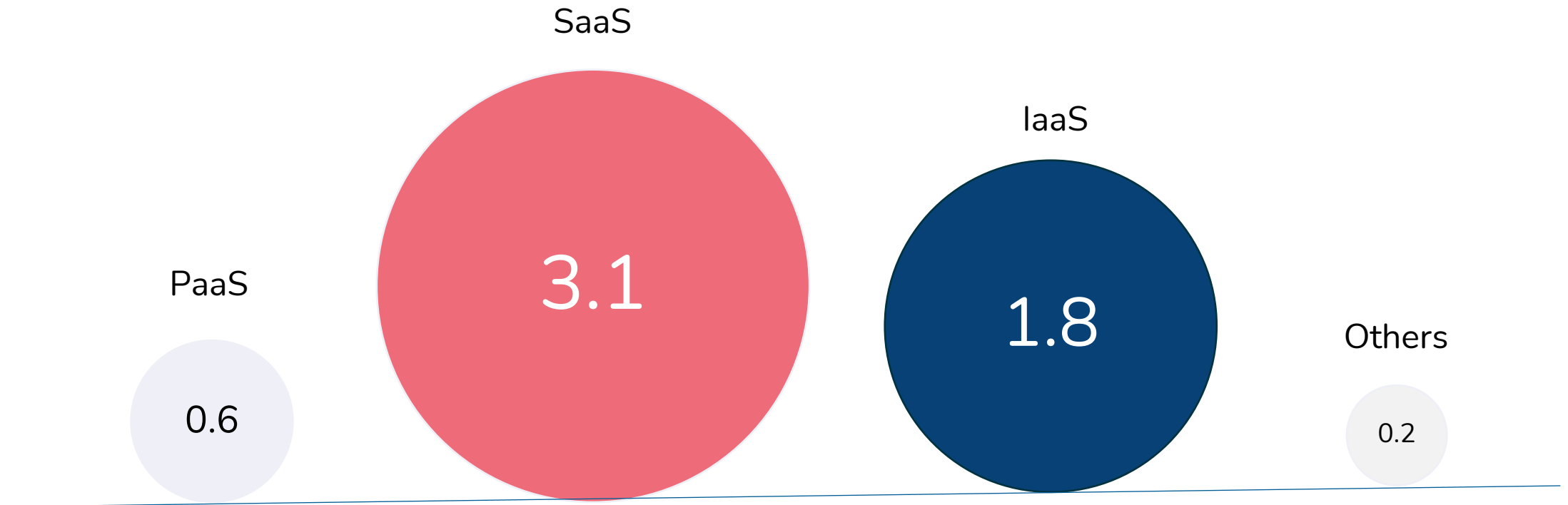
# Outpacing growth of all neighboring markets – Indonesia is the spectacle for all

Indonesia almost double Singapore's CAGR in said years. Singapore's cloud adoption maturity meant the market will likely hit a plateau, but neighboring countries are poised for exponential growth.

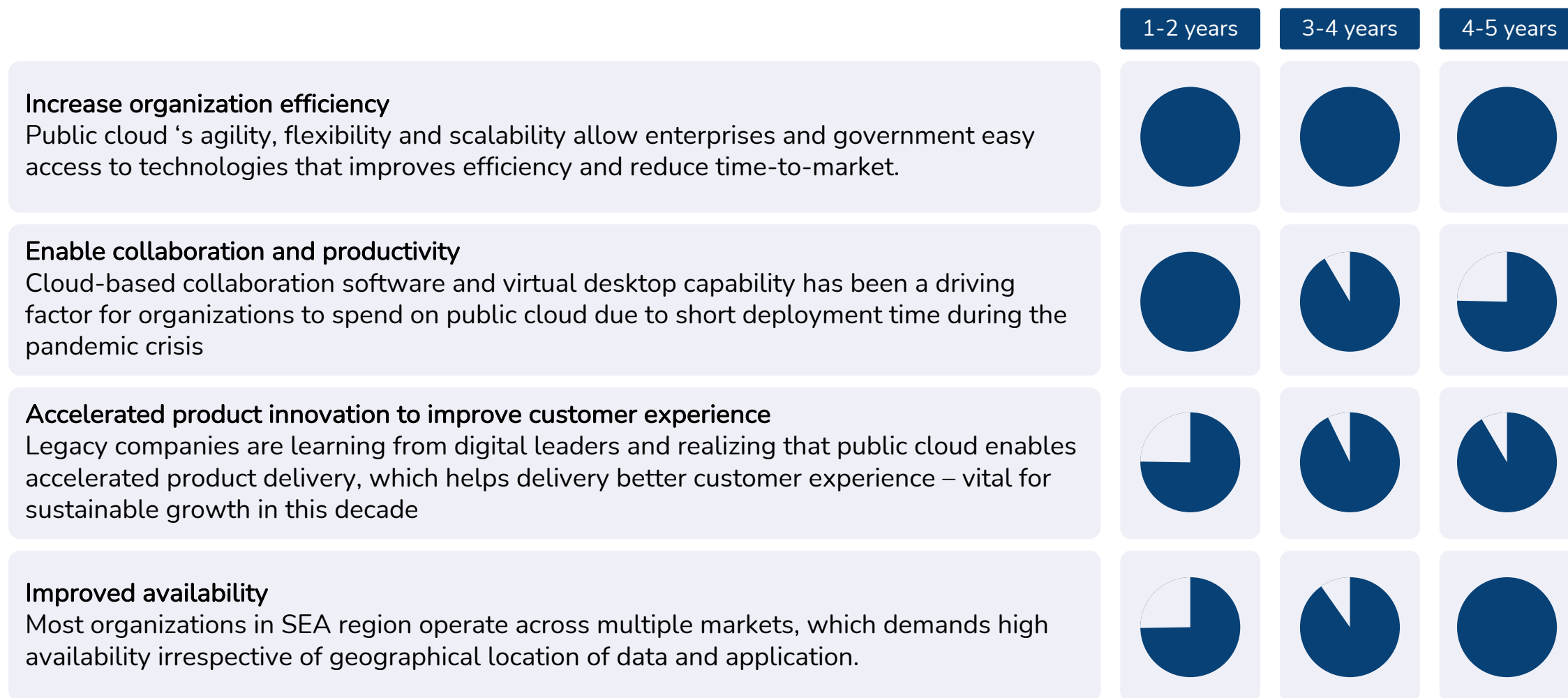


# Market learns the efficiency of IaaS and PaaS

Public cloud market by service model in SEA  
(US\$ bn, 2021e)



# Adoption driven by the need to meet consumer expectations



# Next level of growth requires knowledge sharing



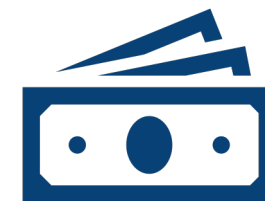
Concern on overstepping regulatory boundaries due to unclear frameworks



Challenge in garnering cloud-backing from owners/management



Insufficient expertise within organization



Higher-than expected cost due to external support and low bill visibility



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Southeast Asia  
Cloud Economy

# SEA snapshots

# SEA Highlights

## Singapore is heavily invested in technology

Despite the size of the country, Singapore is highly progressive in its development. The country is ferocious adopter of technology and firmly believes that tech innovation will be a game changer for its nation. Hence, Singapore invests US\$27.9bn a year in IT, highest within the region.

## Vibrant startup ecosystem

Government stimulus, a growing internet population and availability of venture capital have created a vibrant ecosystem for digital natives to grow in the region. This is particularly true for Singapore and Indonesia, which account for 70% of funding deal volume in H1 2021 and is home to almost all unicorns in SEA.

## Soon to unlock digital opportunities

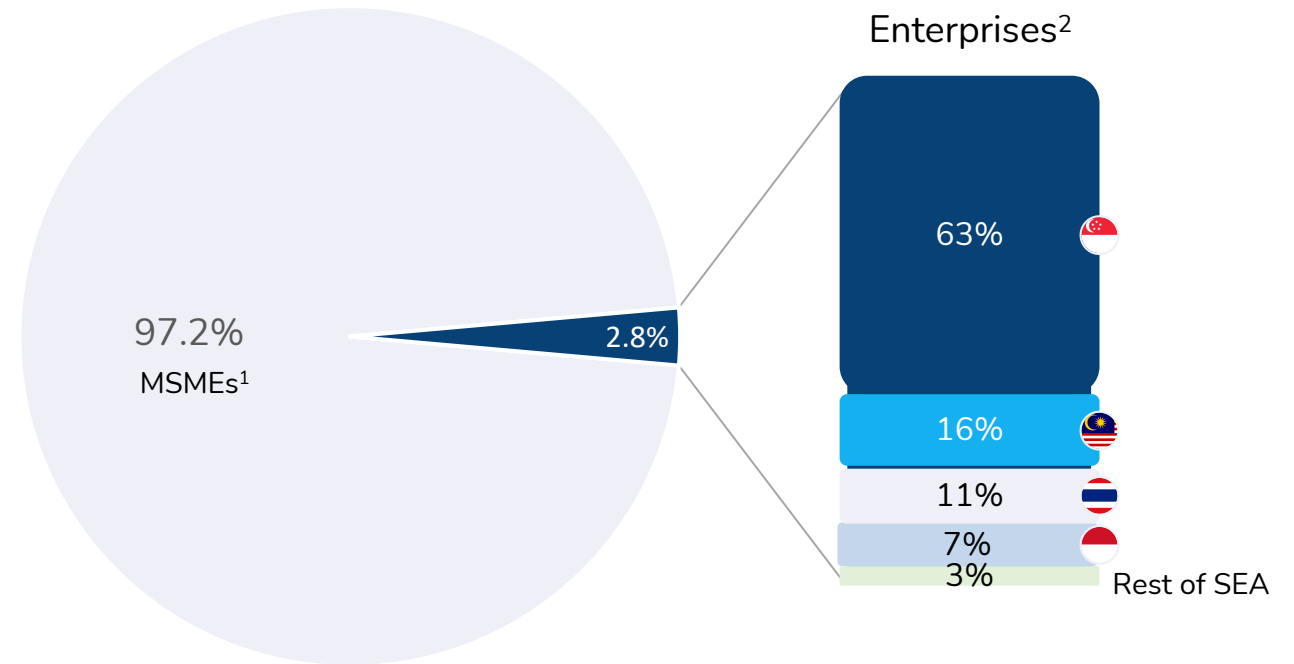
With a large internet population and global pressure, SEA is likely to unlock a significant proportion of digital opportunities present in its region within this decade. Government and enterprises



30,000+ companies in  
SEA generate >US\$5mn  
in revenue, annually

SEA is an attractive region invested by  
thousands of global companies every year

MSMEs vs. Enterprises in SEA  
(%, 2020)

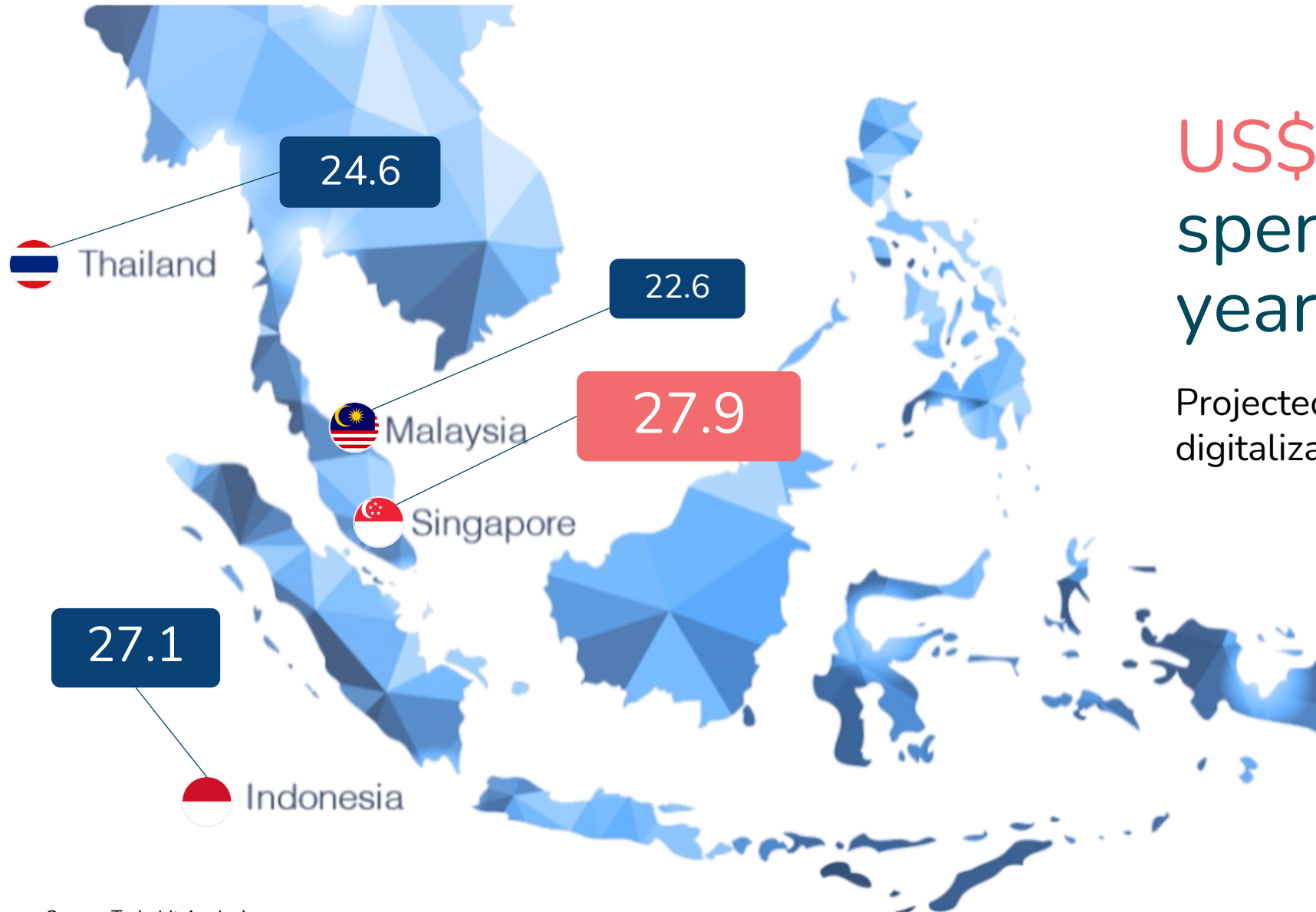


Note:

<sup>1</sup>MSMEs is an acronym of Micro, Small, and Medium Enterprises

<sup>2</sup>Enterprises are defined by companies registering more than US\$ 5mn in revenue per year

## IT Spend by Country (US\$ bn, 2021e)



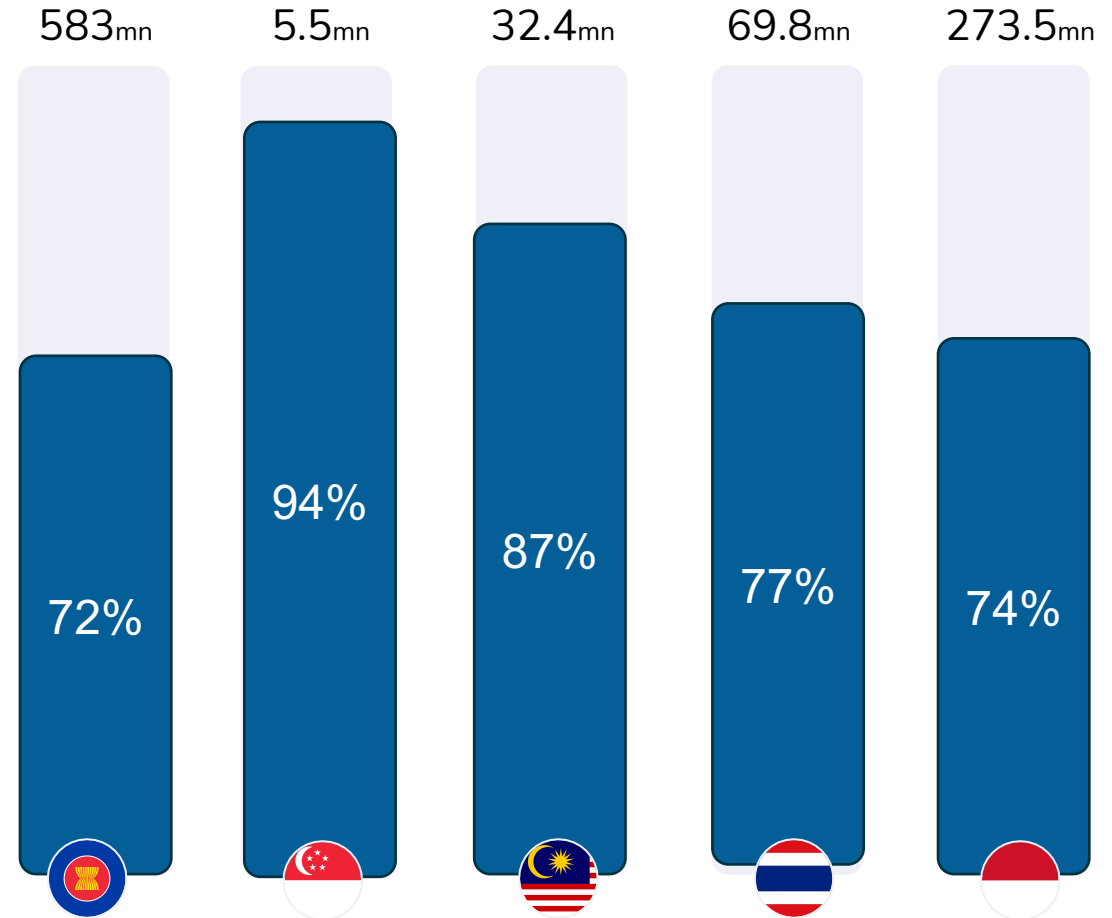
**US\$151.4bn**  
spend on IT every  
year in SEA

Projected to grow 3-4% y-o-y as  
digitalization takes center stage

>420mn people in  
SEA are internet users

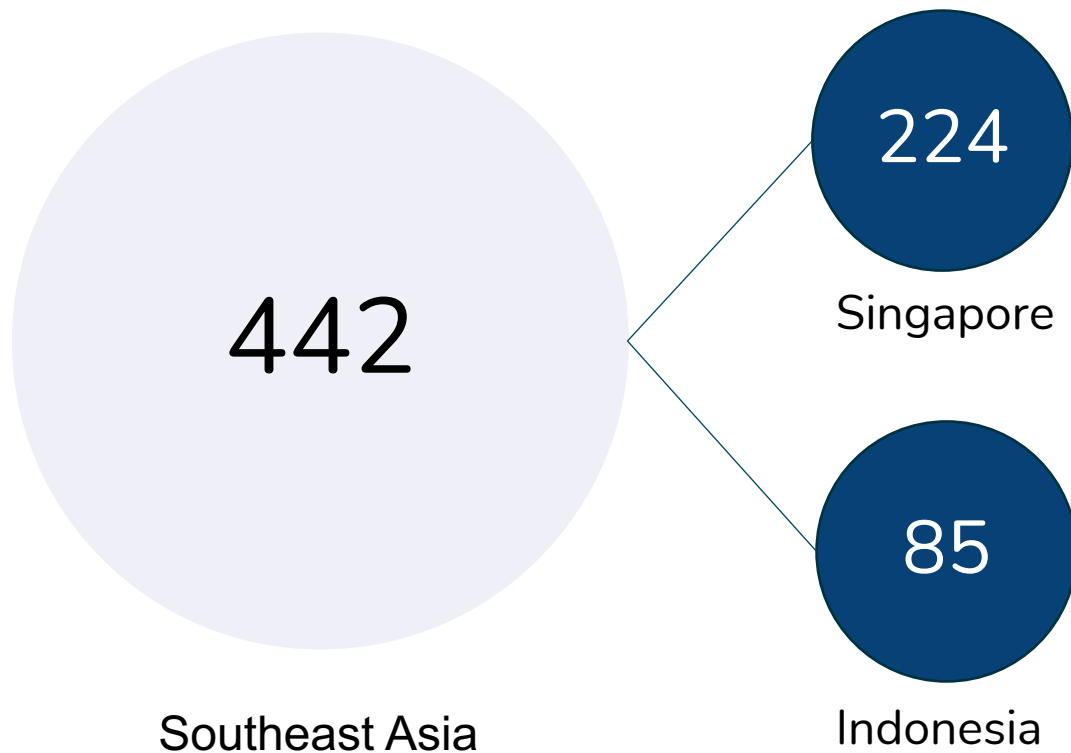
50.1% of SEA internet users  
come from Indonesia

Internet population within total population  
(2020)

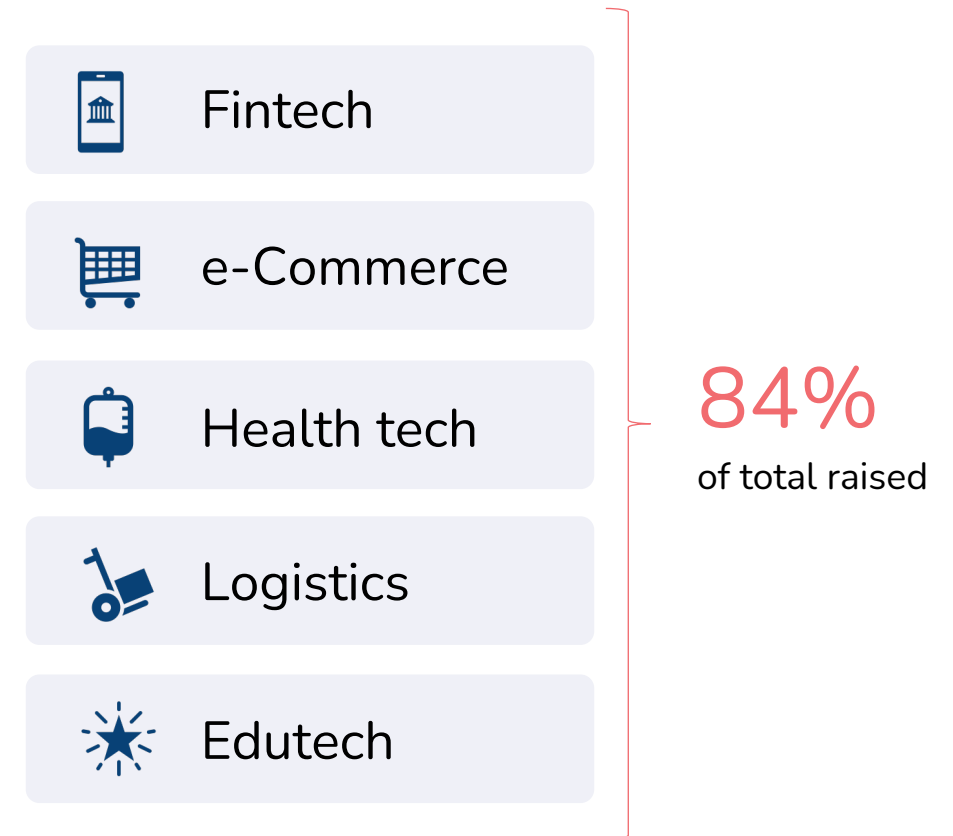


# US\$11.7bn raised by SEA Digital Natives in H1 2021; 5% of total global VC funding

Digital native deals distribution in SEA  
(H1 2021)



Leading SEA digital native sector  
(H1 2021)





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Quick to adopt

# With >420 million internet users in SEA, B2C companies are main public cloud spenders



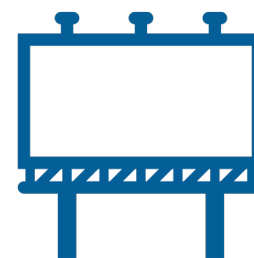
Digital natives



Financial services



Public sector



Media & entertainment

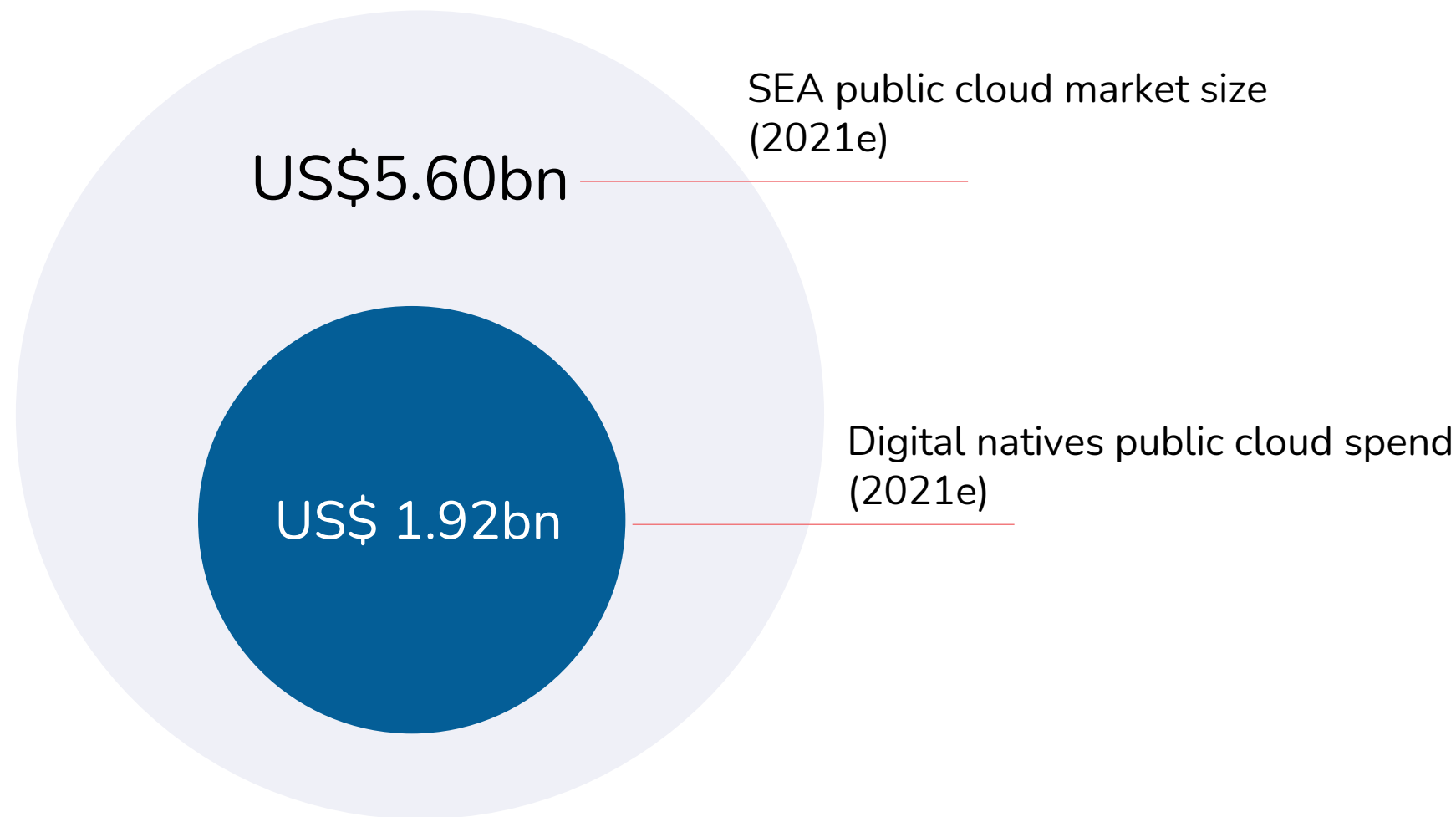


Transport & logistics

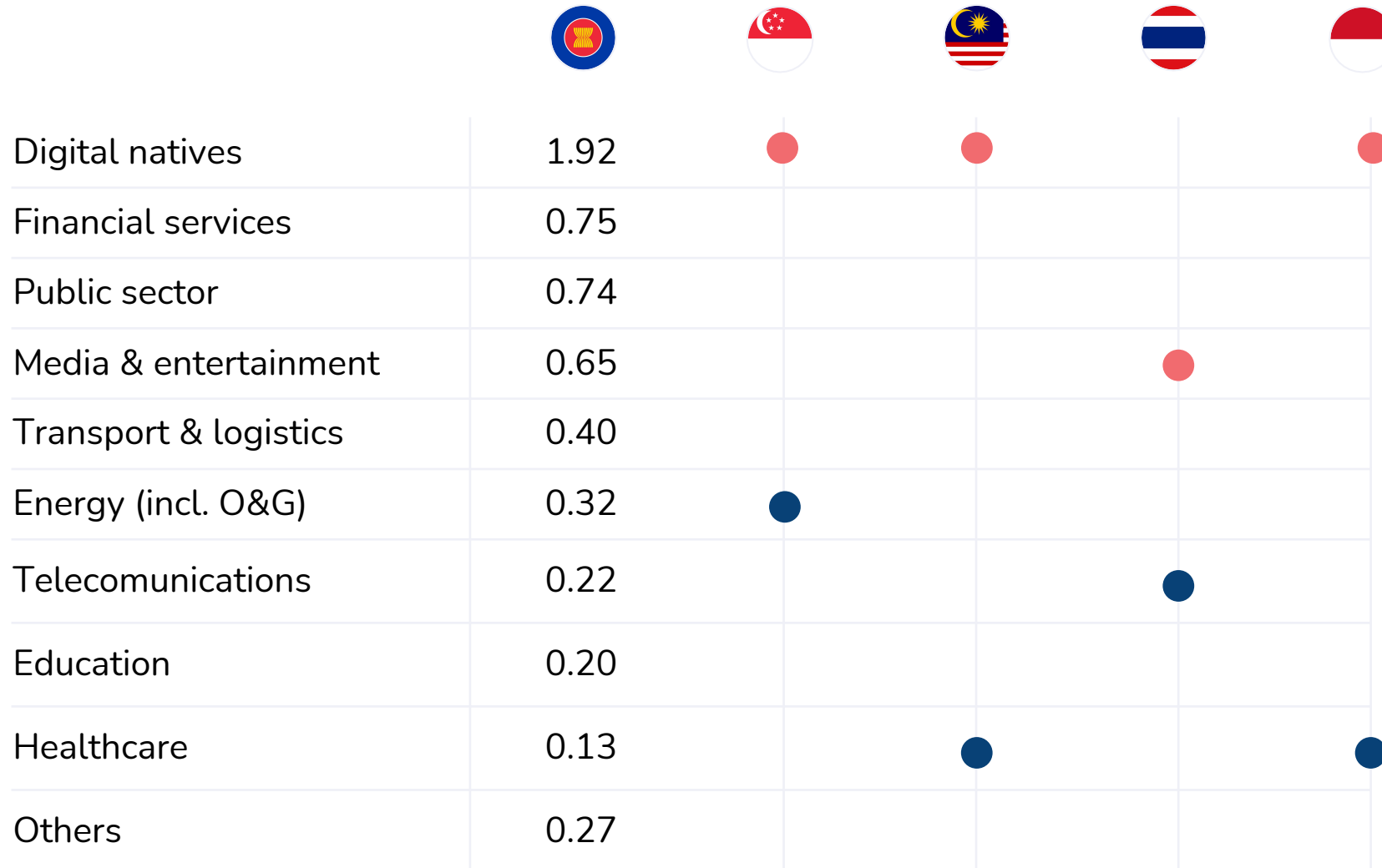
The pandemic required B2C companies and governments to adopt digital at an accelerated pace. Speed to market and scalability was the key attraction.

Singapore's public sector leads the region for cloud adoption whilst counterparts remain conservative in 2021.

Digital natives  
account for  
**34%** of public  
cloud spend in  
SEA



## Public cloud spend by industry (US\$ bn, 2021e)



Core industries  
remain **slow in  
adoption**  
across SEA

Note:

- highest spender
- lowest spender

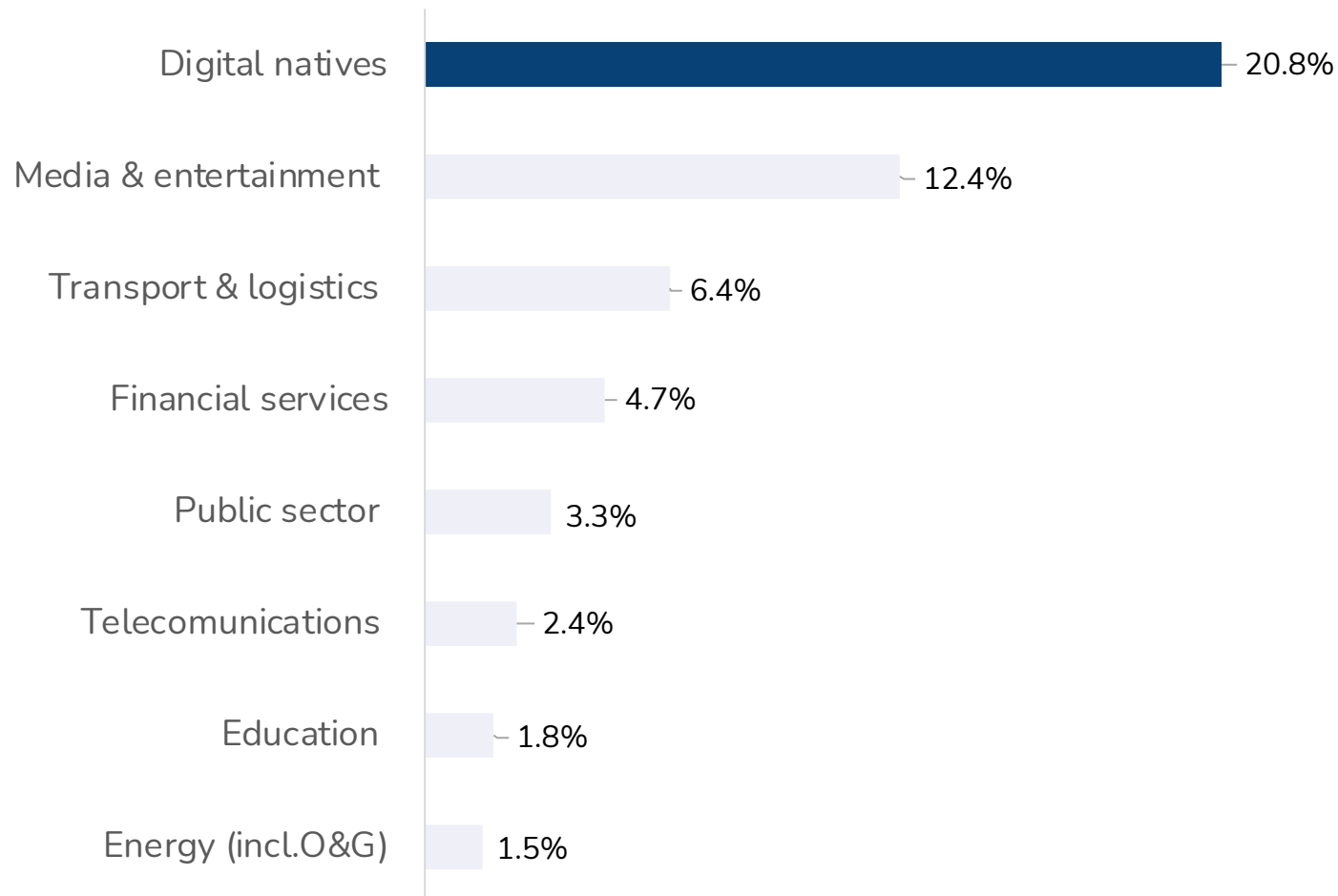


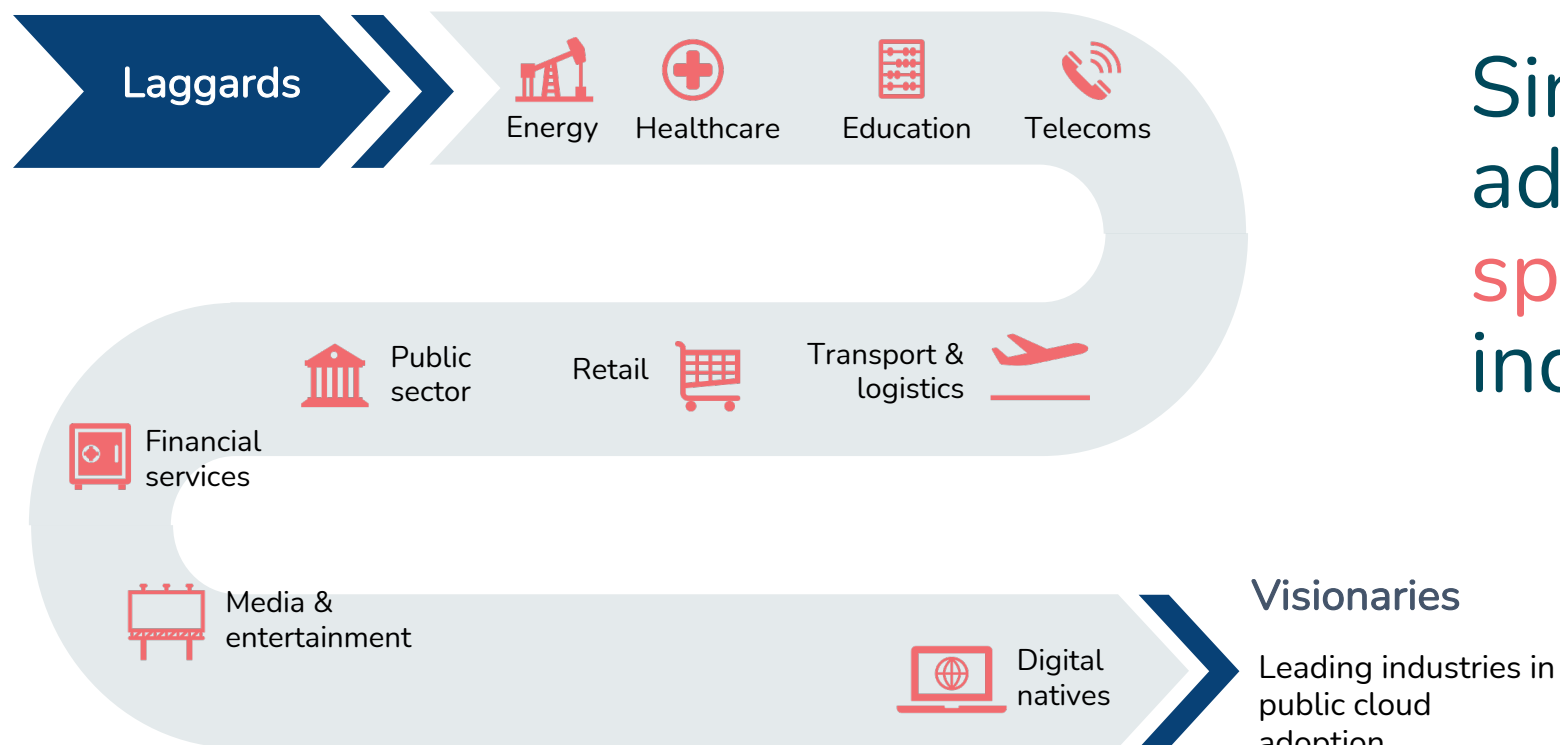
# Cloud spend is on average 2.6% of IT spend across core industries

There are visionaries in all industries, where the spend on cloud is much higher than industry average.

For instance, Petronas, Malaysia's state oil company is a pioneer cloud adopter and one of the biggest in the country. For its upstream and downstream business. Cloud accounts for at least 5% of its IT spend.

Cloud spend within IT Spend in SEA  
(%, 2021)

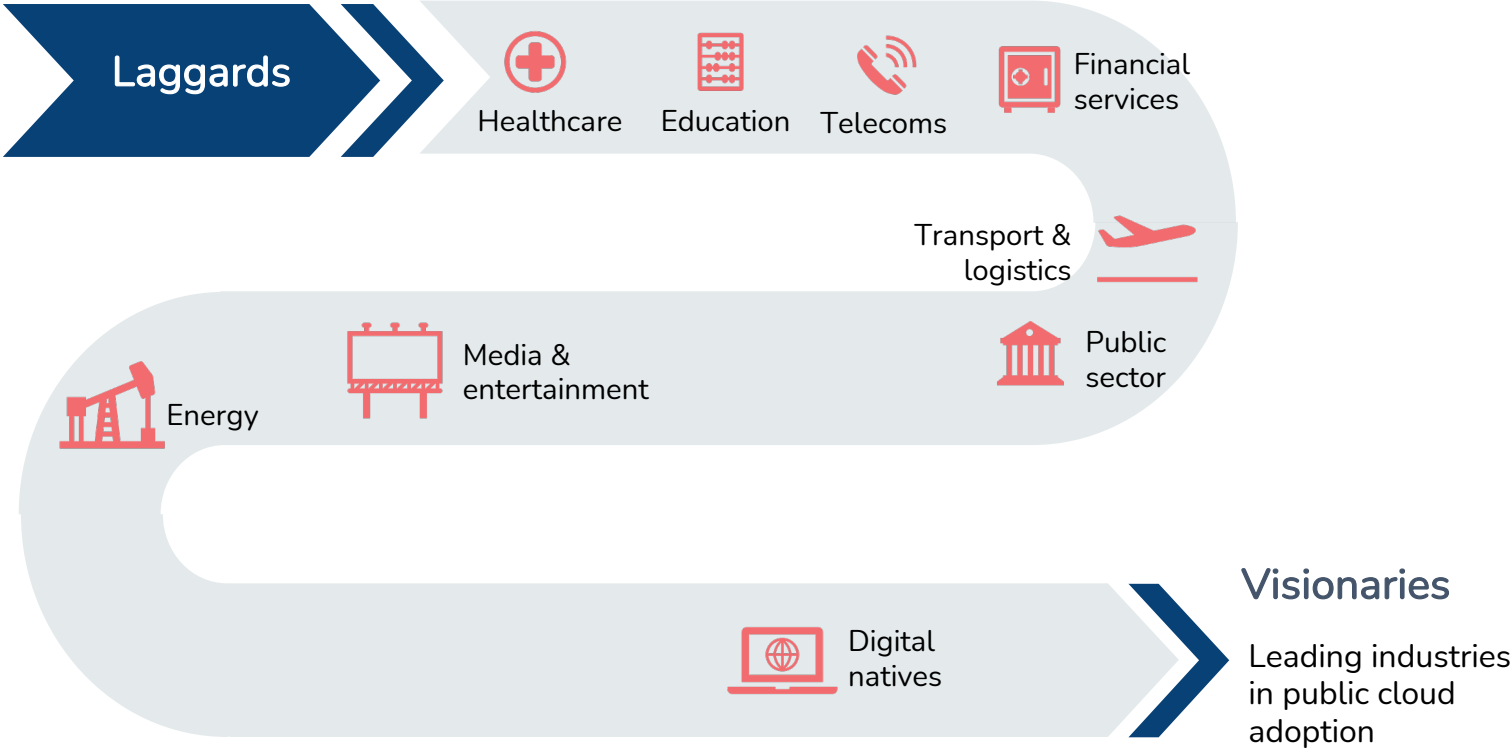


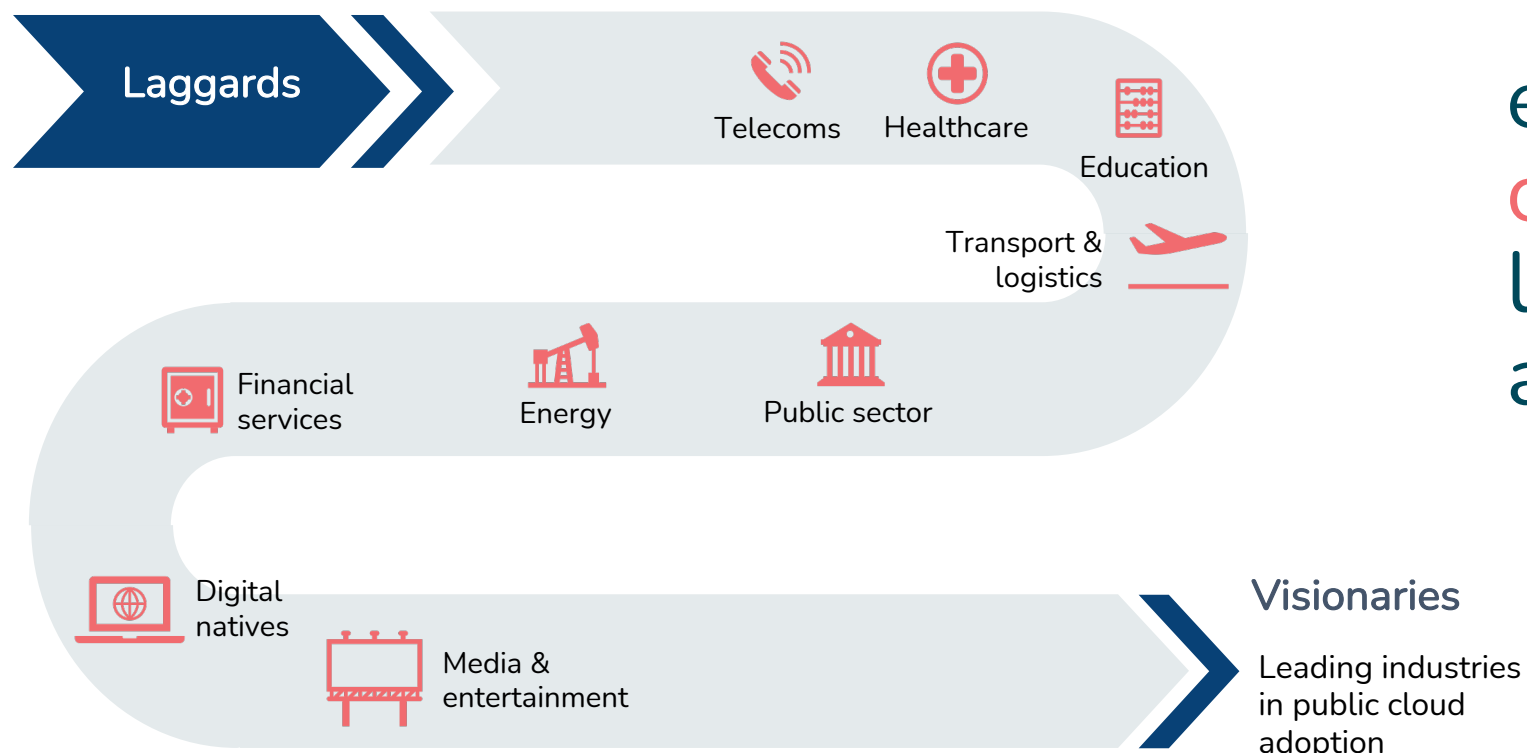


Singapore public cloud adoption is much more spread out across core industries



Malaysia is slow in adoption but that **stands to change** with the MyDigital plan in action



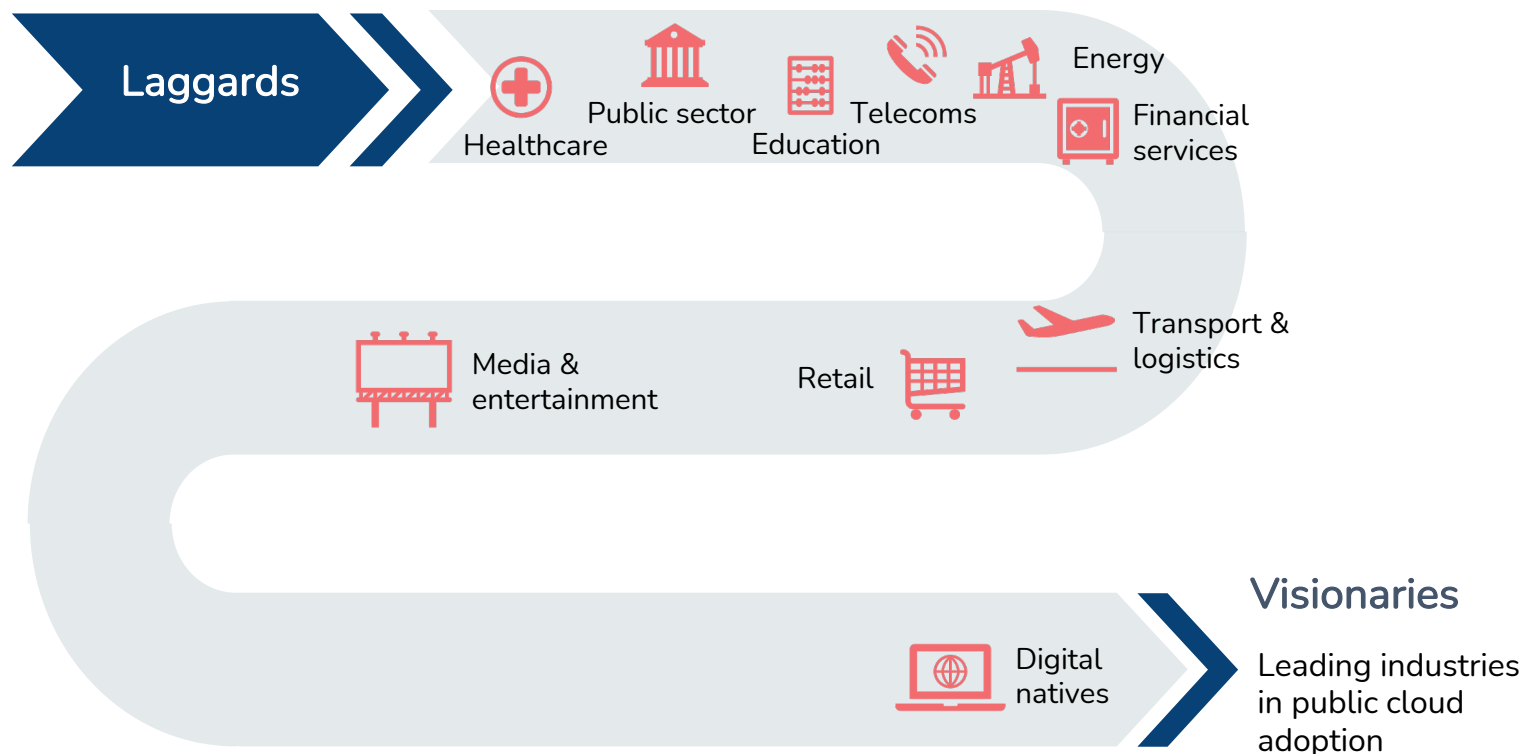


Thailand enterprises are open to cloud but limited in budget allocation



# Indonesia adoption maturity lags its neighbours, this is set to change with local availability zones

Indonesia market is driven by digital natives. Core industries are the next growth frontiers.



# Common use cases in SEA

## Financial services: Upgrading risk management practices

Financial institutions are finding value with cloud to support running large complex daily and intraday risk calculations, monitoring transactions, detecting frauds, and help ensure regulatory compliance.

## Media and entertainment: Providing personalization and managing archives

Prominent news and media outlets use cloud to deploy predictive models based on their user activity to improve personalisation. Furthermore, media outlets are using cloud to help manage large backups of media files.

## Transport and logistics: Leveraging analytics to optimise supply chain

Cloud can provide the infrastructure to support a real-time inventory system allowing logistics to have on-demand information across the supply chain. This maximises their ability to respond to demand fluctuations and emergencies.

## Public Sector: Creating a common technology platform

Singapore's GovTech developed the Singapore Government Tech Stack (SGTS) which acts as the base stack for all the government applications. SGTS enabled the government to gain the required speed and agility to meet citizen expectations.

## Education: Ensuring infrastructure stability for remote learning

Using cloud enabled education institutions the much-needed elasticity to handle spike in demand. Many schools and universities had to shift to digital channels and cloud helped managed the rush of activity on these channels.

## Energy: Centralised data management

PETRONAS utilises a unified cloud solution to manage crude oil information across the whole organisation. This enabled their team to have a consistent and reliable stream of data across their organization.

# Common use cases in SEA (contd.)



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# Infrastructure-as-a-Service providers



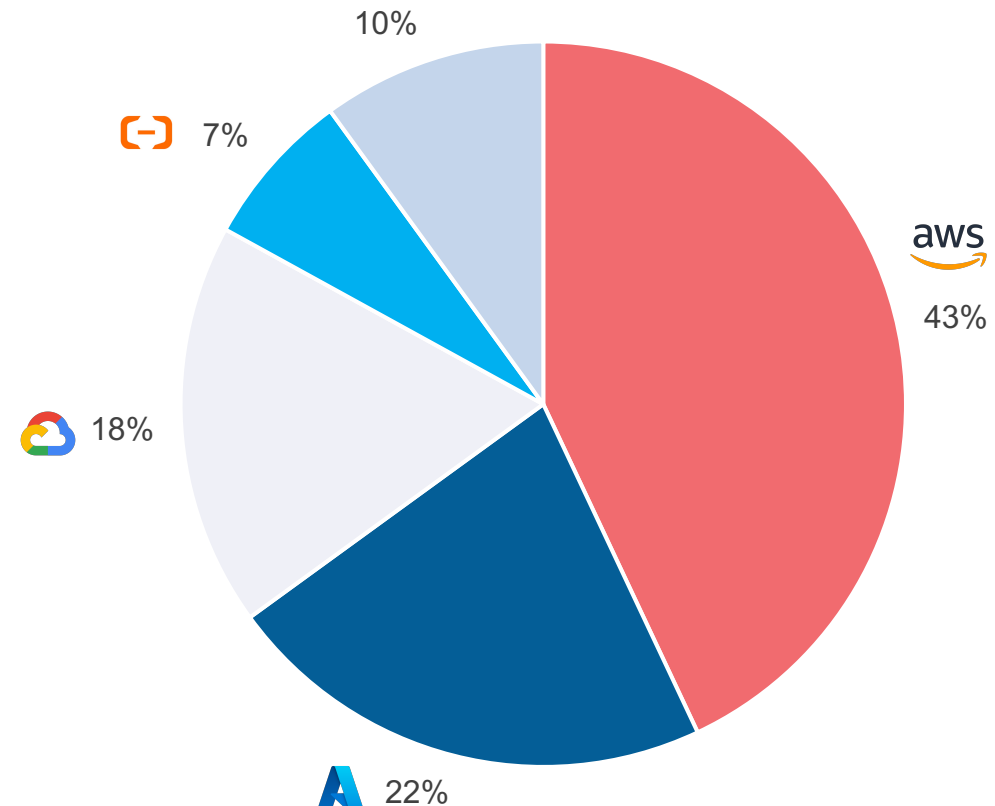
## AWS success driven by Digital Natives and market confidence

AWS has reaped the benefits by seeding opportunities early in digital natives. Their customers grew exponentially and so did their usage.

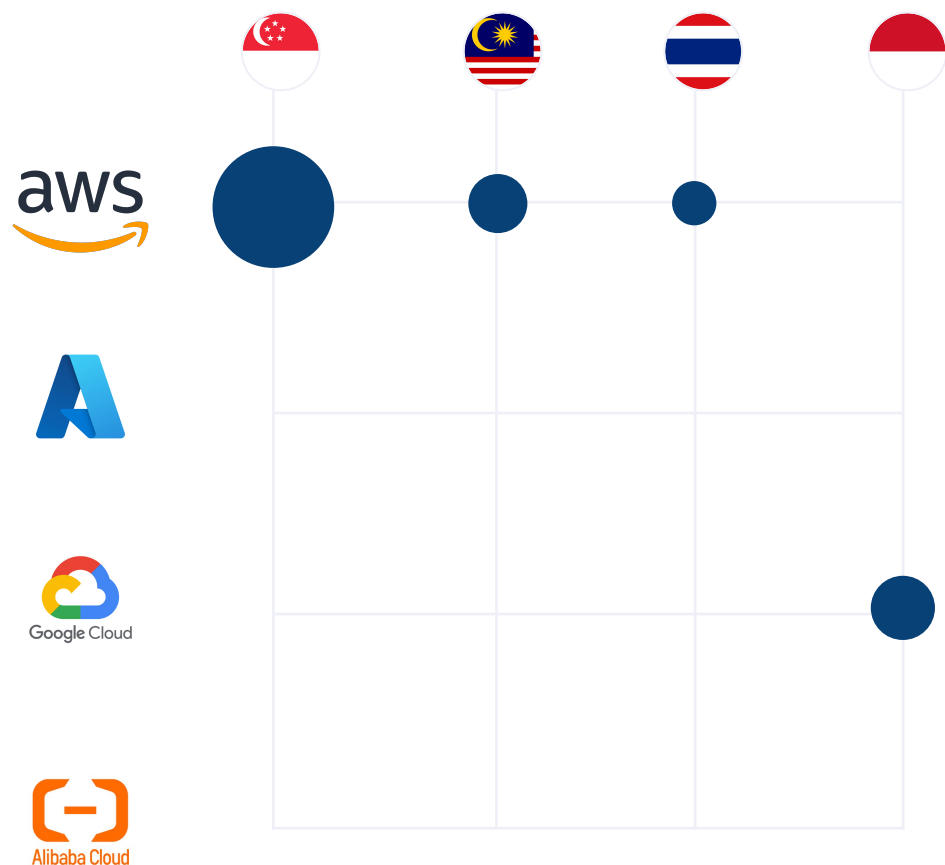
Enterprises often perceive AWS as the mature cloud that can meet the complexity of their demand.

Competitors of AWS are narrowing the gap by unlocking the next growth segments.

IaaS providers market share in SEA  
(%, 2021e)



IaaS market leader by country  
(●, 2021e)



Note: The size of circle represents the level of market leadership

Source: Twimbit Analysis

## AWS strong dominance is limited to Singapore

In SEA, data residency is a stringent matter. Cloud adoption frameworks are also unclear; hindering cloud migration in all SEA countries except Singapore.

The IaaS market is a fairly-level playing field amongst vendors in Malaysia, Thailand and Indonesia. The American vendors take the top 3 spots, followed by Alibaba Cloud and others.

Unlike other markets, Google Cloud emerge victorious in Indonesia. Credit for this goes to capturing DNBs spend since their early days and quick action in data center investment and launch.

Competition is growing in intensity, and it may be hard for AWS to maintain leadership in Malaysia and Thailand.

# IaaS vendors are heavily invested in Indonesia

Compared to other SEA countries, Indonesia is a favorite amongst vendors as it is poised for exponential growth

Google Cloud was the first American vendor to launch its region in Indonesia back in Q1 2020. Their focus since then has been to build a digital talent in the country through education and its software suite – Google Workspace.



AWS Region will open by  
the end of 2021 / early  
2022



Microsoft Azure region  
planned for  
end of 2023 / early 2024



Alibaba Cloud launched  
3<sup>rd</sup> data centre in  
June 2021



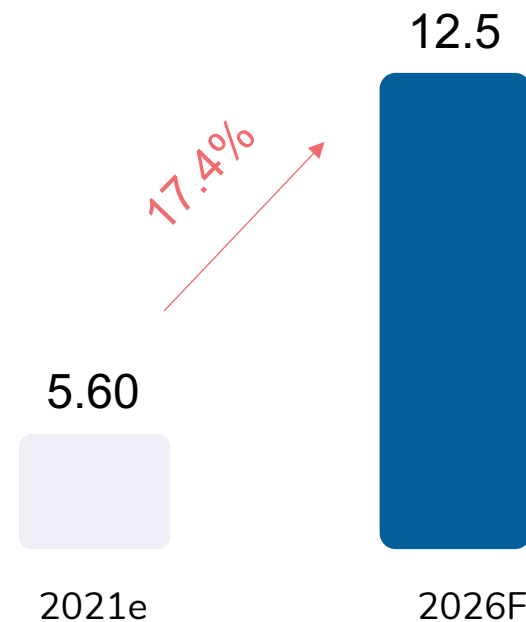
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# Predictions 2026

# #1 SEA public cloud market to reach US\$12.5 bn

More IT budget will be allocated to cloud infrastructure across industries

SEA Public cloud projected market size  
(US\$ bn, 2021e and 2026F)



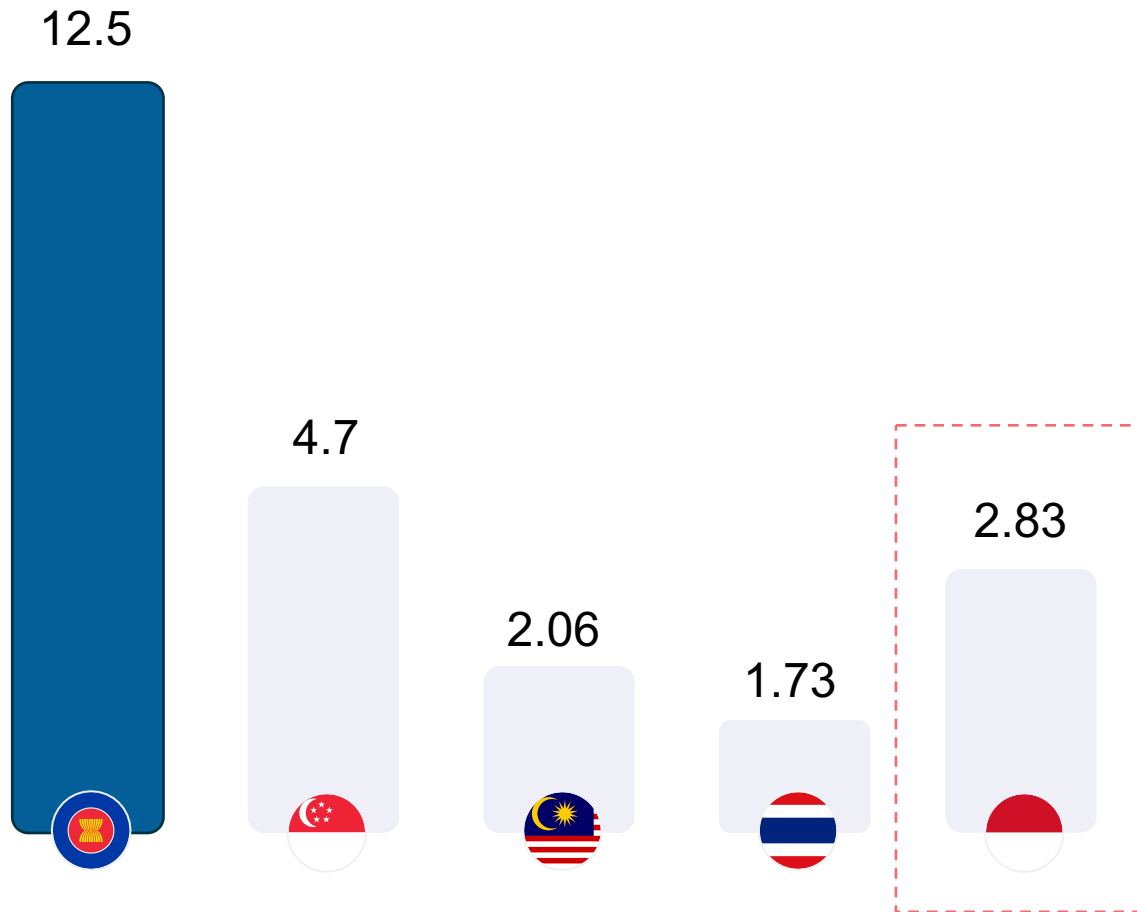
5%

SEA IT spend

46%

IaaS + PaaS spend to  
grow in contribution

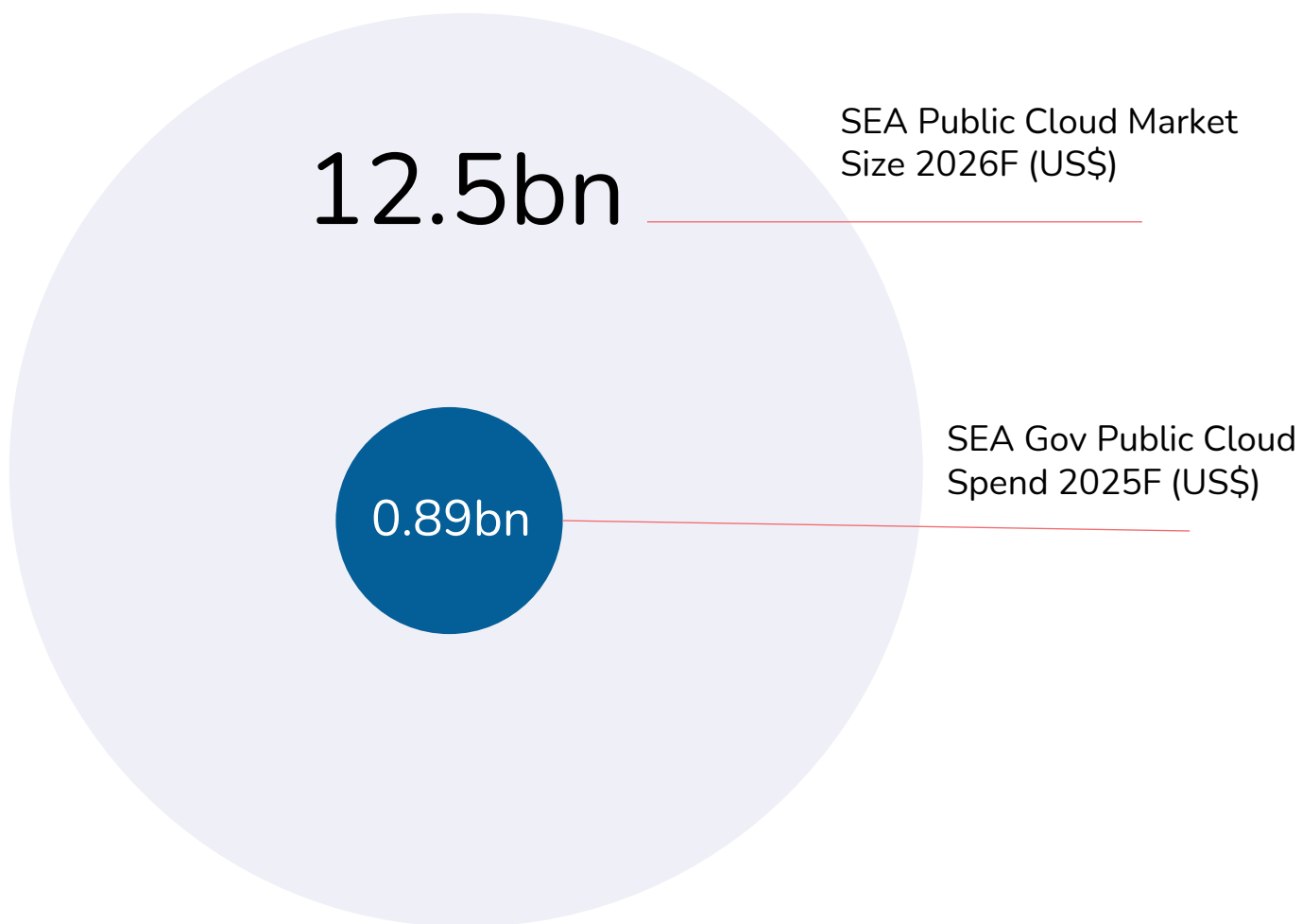
Public cloud market size  
(US\$ bn, 2026F)



#2

Indonesia will be  
**2<sup>nd</sup> largest** public  
cloud market in SEA

With availability of local region by all 4 leading IaaS vendor, regulatory blockade will be eliminated, triggering growth in Indonesia's cloud market



#3

Governments will  
account for  
**7% of total market**

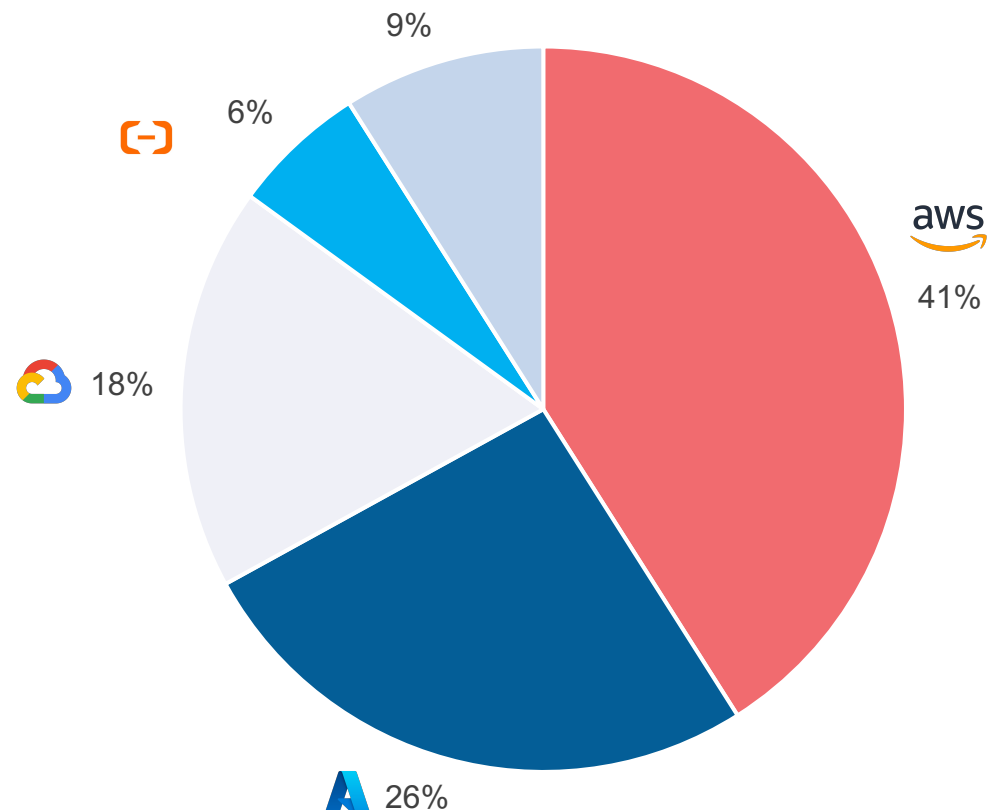
The most significant growth in cloud  
adoption amongst industries

## #4

# Azure may gain 4% of SEA IaaS market share

Azure will benefit from Microsoft's strength in enterprise business and vast partnerships as core industries begin their cloud journey.

IaaS vendor projected market share in SEA  
(%, 2025F)





# Final thoughts

# Final thoughts

## Digital Natives made the market in SEA

Digital natives account for 34% of the total public cloud market. Most enterprises and SMBs have yet to migrate their infrastructure to cloud. Digital natives' continuous growth in the region has simultaneously grown the public cloud demand.

## Pandemic shifted digitalization sentiments

Though the pandemic has done more harm than good, slowing down digitalization is not one of them. Government and enterprises alike are starting to realize the answer to business continuity is digitalization. This has shifted the topic from conversation to execution.

## Talent roadblock to adoption

The biggest challenge in the region is the lack of tech talent. The demand outweighs the supply. Both vendors and governments have put considerable effort into resolving this issue. However, the outcomes today are disproportionation to the needs.

## B2C industries are first to adopt

Banking, media and entertainment and logistics and transportation are the industries pressured to migrate to cloud. This is driven by the >400 million strong internet population, which are demanding seamless services as they become accustomed to a digital lifestyle.

## Indonesia may leapfrog Singapore

Accounting for more 50% of SEA internet population, businesses in Indonesia may soon understand the vitality of cloud in realizing the opportunities onshore. This will boost the cloud economy in the country; making it the most important market in the region by the end of the decade.

## AWS is the go-to provider for now

AWS dominated SEA IaaS market with 42% share and lead in all SEA countries except for Indonesia. This is driven by adopters' confidence in the maturity of its solution and acquisition of key SEA spenders. However, this stand to change as competition stiffen in the region.

# Final thoughts

(contd.)



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