



HOW TO DIRECTLY CONNECT TO AWS IN ASEAN

An overview of cloud connectivity
options to Amazon Web Services
(AWS) in ASEAN



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INTRODUCTION

This guide is intended to provide an overview of **cloud connectivity options to Amazon Web Services (AWS) from within the ASEAN region** – Cambodia, Indonesia, Malaysia, Philippines, Thailand and Vietnam to AWS Singapore. Carriers, channel partners and enterprises already using or offering AWS cloud, or looking to in the future, will find this guide helpful for assessing cloud connectivity options available to them and their customers.

We highlight the challenges faced by businesses when connecting to AWS, and the benefits of connecting directly with dedicated connections via AWS Direct Connect. In particular, when leveraging Network-as-a-Service solutions such as Cloud Connect by Epsilon.

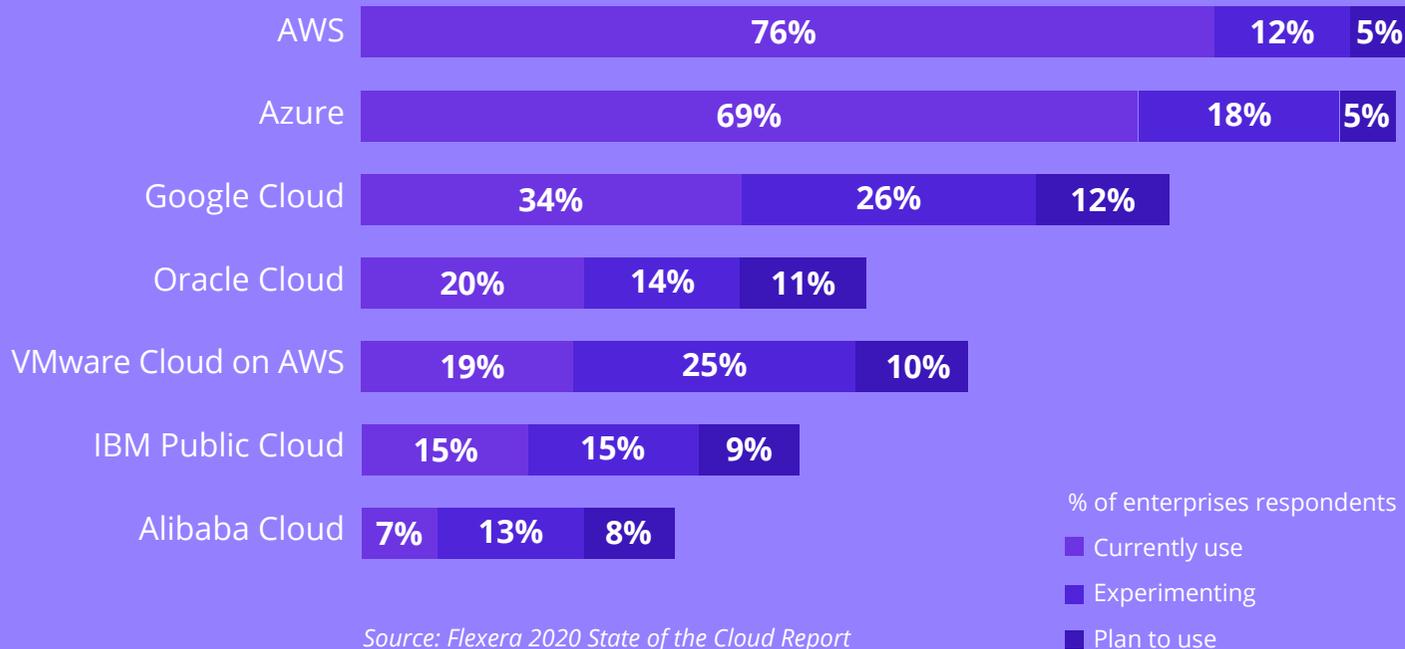




WHY THIS GUIDE AND WHY NOW?

An increasing appetite for cloud applications has driven the rapid maturity of the market, which is hardly surprising when you review what cloud services mean for the modern business. It allows them to be what they need to be in modern times – agile, flexible, cost efficient and highly scalable.

PUBLIC CLOUD ADOPTION FOR ENTERPRISES



In 2020, AWS, Microsoft Azure and Google Cloud were the top three public cloud providers. **76% of enterprises were running workloads in AWS**, 12% were experimenting with it, while another 5% were planning to use it in future.



IT leaders are also under increasing pressure to evolve their infrastructure rapidly and improve IT agility, to keep up with competition and meet customer demands.



To accomplish these objectives, businesses have turned to a variety of infrastructure environments to deploy various types of applications. Some applications are better suited for on-premises hosting, while others are better suited for public cloud. In fact, it's increasingly common for a combination of both, and a hybrid deployment to be the best option for many businesses in today's digital world.

In the ASEAN region, namely: Singapore; Malaysia; Vietnam; Thailand; Cambodia; Philippines; Indonesia, IT departments are under no less pressure to become more of a business enabler and meet customer demands than any other region. However, access to clouds and dedicated connectivity options are often more difficult to deploy and manage in these markets owing to limited coverage and accessibility.

CHALLENGES WITH CONNECTING TO AWS IN ASEAN





There are a few different ways of connecting to your public cloud resources in AWS. In a data centre with an AWS cloud on-ramp (using a cross connect); using the public Internet; using a virtual private network (VPN) tunnel over the public Internet; or using your own private connectivity via a network partner of AWS Direct Connect.

As the adoption of cloud strategies grows and alters the infrastructure underpinning critical applications, businesses are demanding more from their IT leaders. These includes having consistent performance, security, and visibility with a simplified and consistent operating model.

Using the public Internet, either with or without a VPN, to connect to public cloud resources do not offer the same level of performance or security compared to dedicated connection.





However, ASEAN businesses that choose to leverage on regional network providers and AWS partners for Direct Connect solutions, can still find it difficult to manage IT priorities owing to challenges such as:

Limited AWS Coverage –

AWS only has one region in ASEAN, which is located in Singapore. This is a challenge for ASEAN businesses outside of Singapore if they are looking to use AWS. They will have to manage connectivity from their location to the AWS region in Singapore.

Slow and Inflexible Network Service –

Setting up long line connection with a network provider involves a complex procurement process. This is usually followed by a long lead time in delivery and no support for bandwidth scaling when needed.

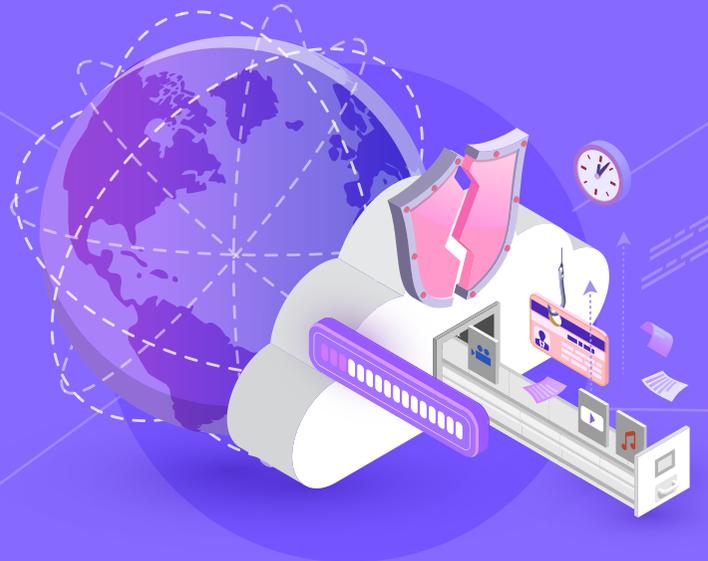
Cost Prohibitive Connection – Transferring data between your on-premises network and cloud resources in AWS Singapore would require an expensive and difficult to manage long line across multiple partners in ASEAN.

Lack of Operational Visibility and Control –

Most network providers do not offer real-time monitoring or network status updates.

Unreliability of the Public Internet –

Connectivity over the public Internet is often insecure and offers sub-par performance with no service level agreement (SLA).



WHY IS AWS DIRECT CONNECT BETTER?

Reliable, secure and dedicated cloud connectivity





AWS Direct Connect is a private, high-performing connection that connects on-premises data centres and enterprise networks to AWS cloud resources. This dedicated connection reduces network costs while providing organisations with a more consistent, reliable connection than Internet-based options.

Transferring data out of AWS with AWS Direct Connect is also charged at reduced data transfer rates, making it an ideal choice for organisations frequently moving workloads in and out of the cloud. Additionally, AWS Direct Connect is compatible with all AWS services accessible over the public Internet.

As network requirements grow, AWS Direct Connect makes it easier for organisations to quickly provision new network connections across multiple AWS regions and expand their global presence. These connections are available in speeds starting from 50Mbps, scaling up to 100Gbps - depending on immediate network needs.



Direct Connect Encryption –

Encryption options with Direct Connect ensure communication between your data centre, branch office, or colocation facility is robustly secured with Direct Connect. Native IEEE 802.1AE (MACsec) point-to-point encryption is available on 10Gbps and 100Gbps connections at selected locations.

Reliable Network Performance

– Choose how your critical data is routed with reliable network experience as compared to public internet connections.



Lower Bandwidth Costs –

Reduce your network costs in and out of AWS for bandwidth-intensive workloads by transferring data directly over a private connection.

Flexible Options – Multiple connection speeds and delivery options are available with Direct Connect via network partners. Choose from 50Mbps up to 100Gbps connections.

CLOUD CONNECT BY EPSILON

Connect directly to AWS the easy way





Epsilon's Cloud Connect service provides an efficient, ubiquitous and scalable way for you to connect directly to AWS with shorter delivery lead times, self-service without much configuration, and flexible bandwidth from selected location within ASEAN.

We make ordering, provisioning, and managing your cloud connectivity infrastructure simple, efficient and reliable.

HOW DO WE DO IT?

Epsilon has been a technology partner of AWS since 2015 and a global network connectivity provider since 2003. We understand the cloud transformation and networking barriers that our clients experience and have the necessary expertise to address those challenges from all angles with our next-generation cloud networking solutions.



Our Network-as-a-Service (NaaS) platform, Infiny by Epsilon, adds orchestration and automation to our extensive network of over 250+ Points of Presence worldwide. We enable data centre interconnects from Malaysia, Vietnam, Thailand, Cambodia, Philippines and Indonesia to our AWS Direct Connect on-ramp location in Singapore. Infiny gives you on-demand network provisioning and real-time monitoring tools, removing the usual complexity of connecting directly to AWS.

IT leaders can use Infiny to buy and manage direct cloud connections with just a few clicks. We make ordering direct connections to AWS simpler and more responsive to your business' bandwidth demands.



BENEFITS OF AWS DIRECT CONNECT VIA EPSILON

Platform-Enabled – Our Network as a Service (NaaS) platform Infiny provides flexibility in implementation & operation, allowing customers to have the full control of the AWS Direct Connect lifecycle.

Quality of Service – We can guarantee the performance of our services connecting to AWS Direct Connect via our ethernet fabric. Our SLA ensures up to 99.95% availability and MEF-certified for reliability and flexibility.

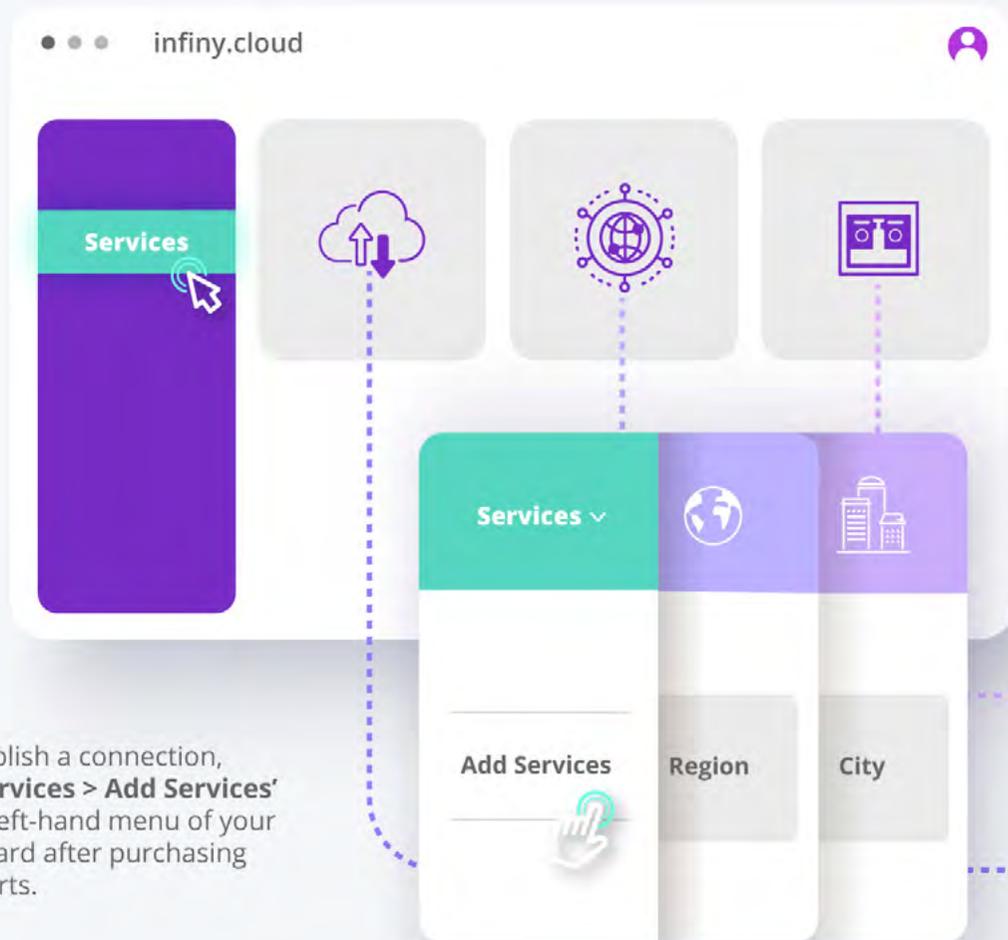


Expertise in AWS Direct

Connect – We've partnered with AWS on direct connect for more than 6 years and is recognised as AWS Direct Connect service delivery launch partners in 2019.

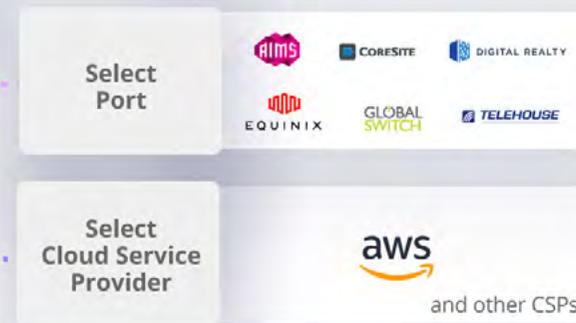
A Complete Cloud Journey – We support our customers' cloud journey from direct connect to cloud networking. With cloud networking, we integrate with AWS native networking construct such as Direct Connect & Transit Gateway to deliver a simple and powerful solution.

SETTING UP CONNECTIVITY TO AWS VIA INFINY

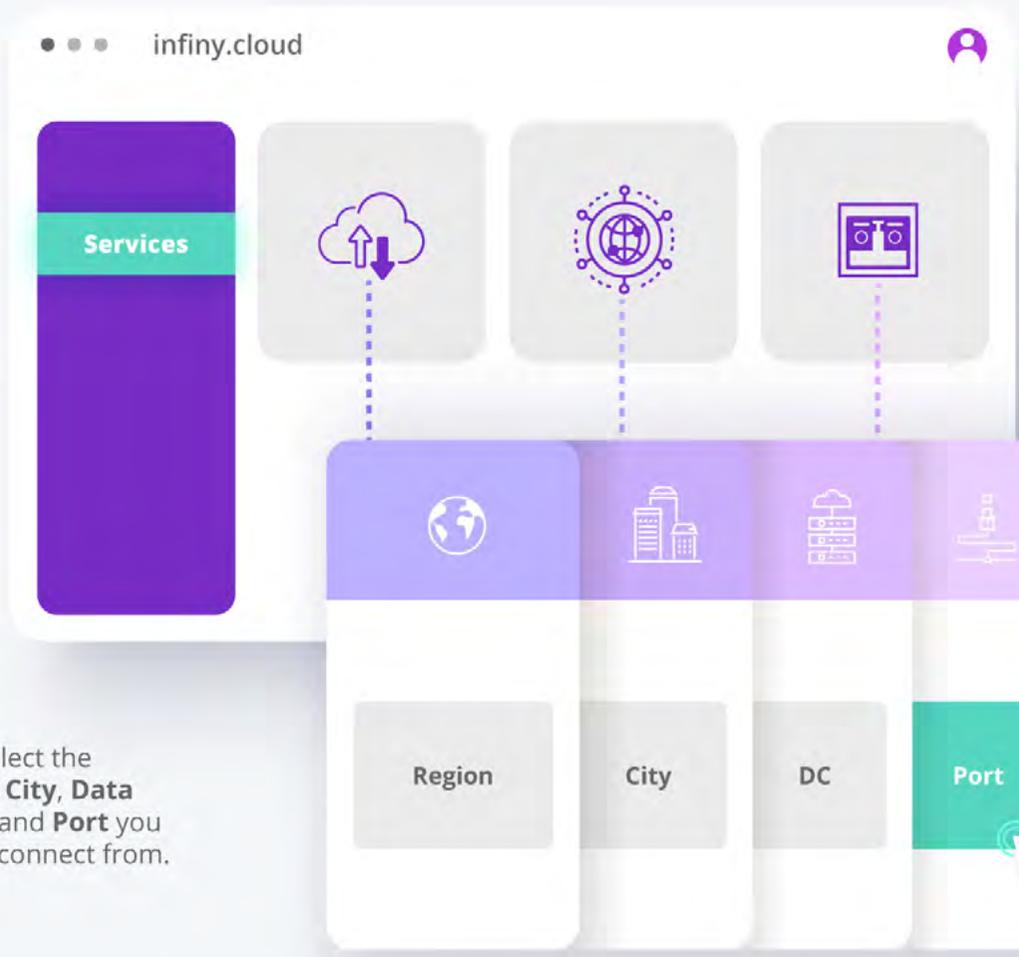


1. To establish a connection, click **'Services > Add Services'** on the left-hand menu of your dashboard after purchasing your ports.

2. Select **AWS** and the type of connection.



SETTING UP CONNECTIVITY TO AWS VIA INFINY



3. Next, select the **Region, City, Data Centre** and **Port** you wish to connect from.

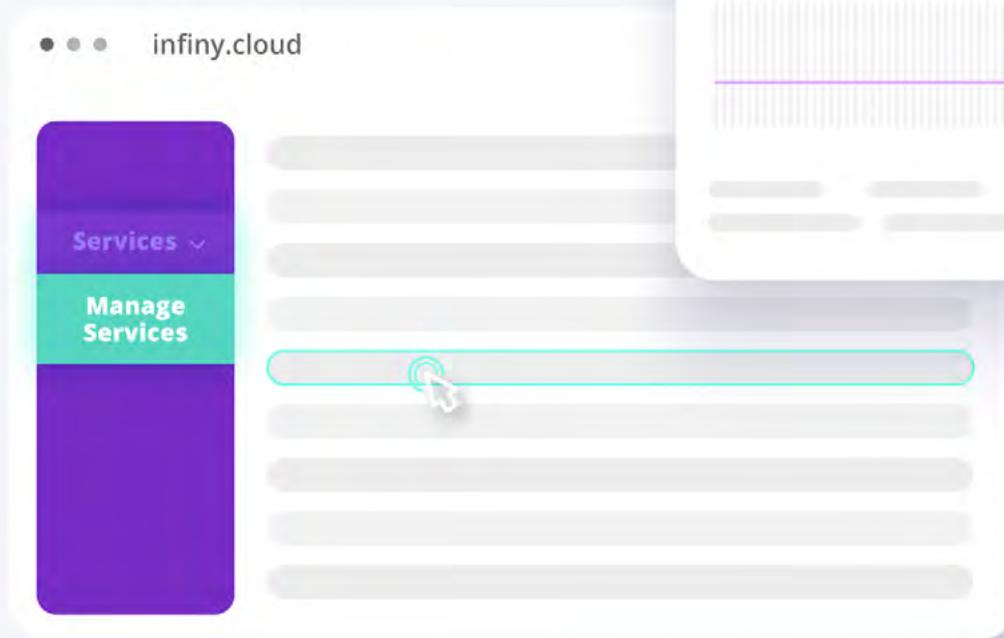
4. Depending on your business needs, customise the **Bandwidth, Contract Duration** and **type of Network Protection** required.



SETTING UP CONNECTIVITY TO AWS VIA INFINY

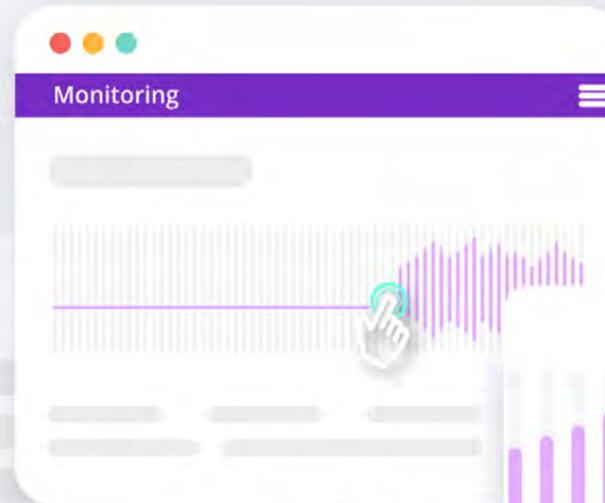
1.

You will now be brought to the **Network Analytics** page where you can view bandwidth utilisation and advanced analytics including jitter, latency and packet loss.



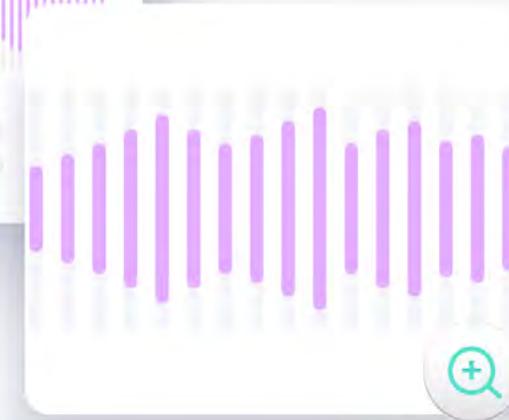
4.

To view other other services, click '**Managed Services**' on the left-hand menu of your dashboard and select the service you would like to manage.



2.

You can view the graph within a certain period. Dragging the mouse across the graph allows you to **zoom** in on a section.



3.

Click on the three line on the top right to **download** the graph as an image or pdf document.

CASE STUDY: TOKOPEDIA





CASE STUDY: TOKOPEDIA

Requirement: Tokopedia plans to optimise connectivity between CSPs to secure its production infrastructure and offer a seamless experience to their customers.



CHALLENGE

- Tokopedia operates their e-commerce infrastructure on 3 different CSPs.
- The company wanted to protect the network connectivity with a backup via a 2nd provider given the critical nature of their cloud resources.
- They do not have a unified cloud networking solution with controller/ dashboard to manage their cloud services and is dependent on native cloud constructs.



SOLUTION

- Epsilon's managed Cloud Routing service connects Tokopedia's production environments in Amazon Web Services (AWS) & other CSPs via multiple high-speed Cloud Connects on Epsilon's private network.
- Supported by Epsilon's dedicated service manager and engineer with monthly review of the service & proactive updates on the network performance.



POSITIVE OUTCOME

- High bandwidth for connecting Tokopedia's applications and moving data.
- Scalable bandwidth terms and options suited to changing e-commerce market demands in Indonesia.
- Secure applications and data via Epsilon's private global network.
- Multiple connectivity services to major cloud platforms through a single service provider.

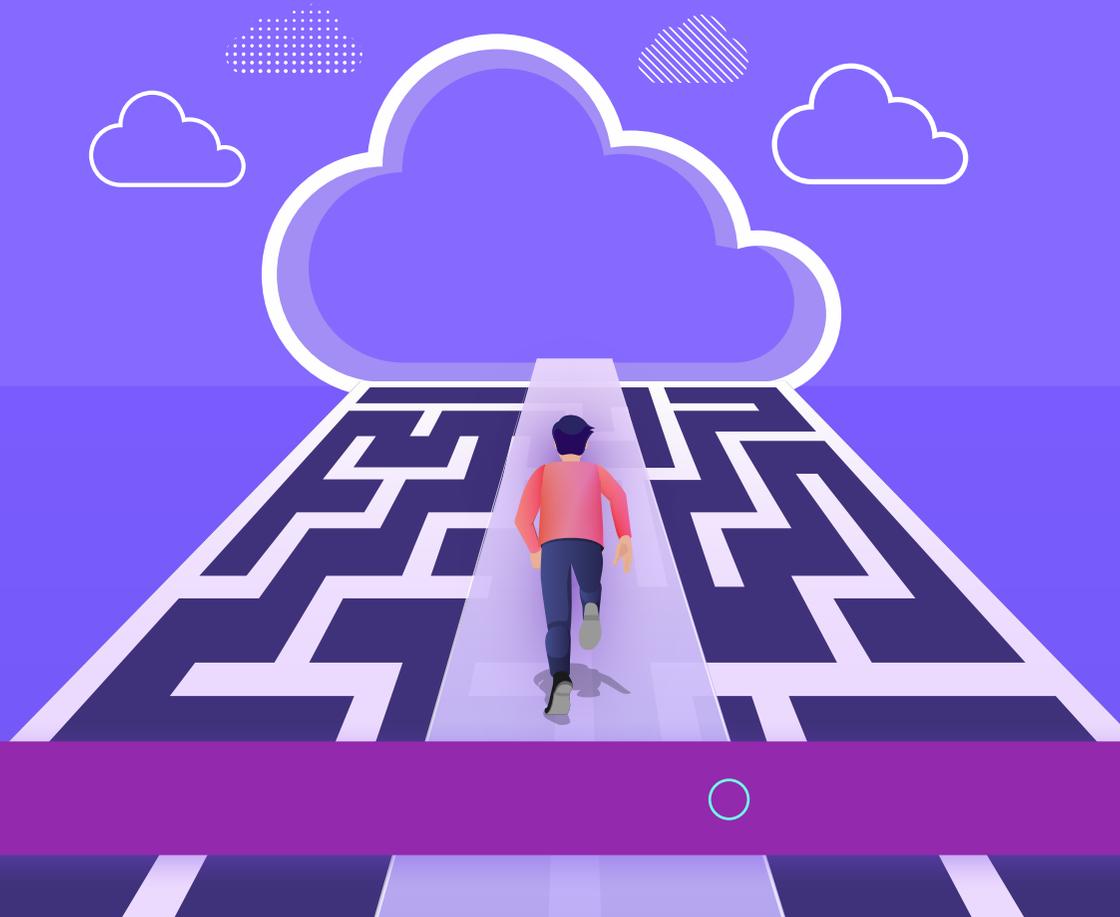


Our platform helps merchants reach new audiences while providing a seamless online shopping experience for consumers. With the rising demands for a better digital experience, we needed an agile and flexible solution for securing and improving the performance of our connectivity to the cloud. Epsilon's cloud connectivity solutions make it simple for us to directly access the CSPs of our choice with the Layer 3 routing that matches our needs



Ryan de Melo

VP of Engineering at Tokopedia

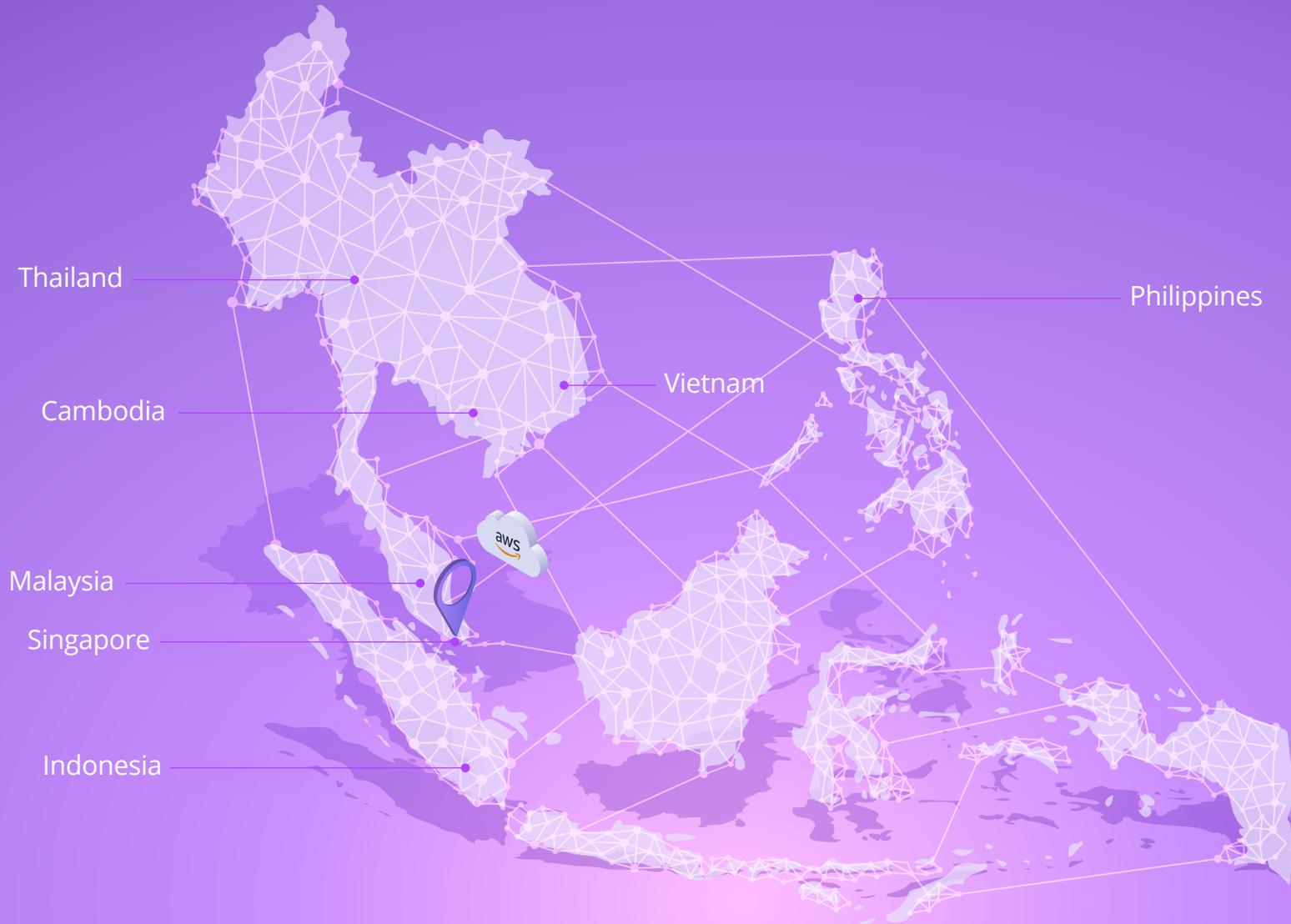


CONNECT TO AWS FROM ASEAN





CONNECT TO AWS FROM ASEAN



EXPECT ONLY
THE BEST WITH
EPSILON





Secure Critical Data –

We protect your mission critical data over our private ethernet backbone: a carrier-grade, next-generation packet optical global network.



Global Access Locations –

We offer a truly global reach that enables you to connect across 41 cities covering Asia-Pacific, Middle East, South Africa, USA and Europe.



Scalable Connectivity –

Our Cloud Connect solution gives you the flexibility you need to scale up infrastructure, support new business growth and deploy new services - on-demand.



Reduced Complexity

– Our Network-as-a-Service model removes the usual complexity from connecting to multiple cloud providers, with one simple solution and an intuitive user interface for full operational control.



Ready-Made Network Infrastructure

– No need to invest in your own hardware or manage the complexities on your own. With simple network implementation and operation, you can reduce your networking spend and focus on your core business.



Performance and Visibility

– Bypass the Internet for a predictable, low latency service and scale bandwidth as your business demands. We offer you real-time visibility into your network performance, enabling you to monitor the quality of your AWS direct connections end-to-end.



THE BEST ROUTE TO AWS

Direct connection to AWS using Epsilon's Cloud Connect is an excellent choice for enterprises looking to resolve public internet woes, to gain a competitive edge and prepare for a next-generation world. Contact us to discuss your cloud connectivity needs.

Contact us to discuss your cloud transformation

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