epsilon

WHITEPAPER

THE GLOBAL INTERCONNECT ECOSYSTEM

IMPORTANCE OF CONNECTIVITY IN A MULTI-CLOUD STRATEGY

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INTRODUCTION

A Multi-cloud strategy is a simple concept: a business spreads its IT assets, its software and applications, across several cloud-hosting environments, rather than just one.

It seems only a short time ago that we thought that the way forward was to place the business workload in a single cloud, public or private. Then hybrid cloud appeared, where a business spread its IT workload across on-premises and private cloud for critical data and applications and third-party public cloud services for less critical workload with orchestration between the two platforms. It's an attractive option because it gives businesses choice and flexibility.

But fast forward a few years and there are now viable and highly advanced public cloud options. Why confine yourself to just one public cloud, when there are multiple public cloud platforms like Microsoft Azure, Alibaba Cloud, Amazon Web Services, Google Cloud and IBM Cloud, offering unique and differentiated application and service benefits.

Multi-cloud computing makes sense for both enterprise and OTT digital service providers making use of the cloud and connectivity ecosystem to deliver their services over the internet or private WAN. No matter how they got there, the majority of enterprises now find themselves managing some sort of multi-cloud infrastructure. It has become normal practice.

In a 2018 survey by Forrester Consulting, 86% of respondents (all cloud technology decision makers in business with more than 1,000 employees) described their current cloud strategy as multi-cloud. What's more, 60% of enterprises in the survey reported they are now moving or have already moved mission-critical applications to the public cloud. Spending on the cloud is also steadily increasing, with IDC reporting that worldwide spending on public cloud services and infrastructure forecasted to reach $210 billion in 2019, an increase of 23.8% over 2018.

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ADVANTAGES FOR ENTERPRISES AND OTTS

What then are the advantages of a multi-cloud strategy?

Obviously, there are some key benefits you might expect from using cloud infrastructure; delivering the flexibility and agility needed to deal with dynamic commercial and operational demands. However, there are also several additional distinct advantages to taking a multi-cloud approach.

1

Risk mitigation and resilience

Taking a multi-cloud approach and using the cloud services of a number of different providers will eliminate single points of failure in business systems and applications. If a business' hardware and software operational assets are held in a single cloud or its connection link fails for whatever reason, then the organisation suddenly has a big problem. Even though public cloud providers and network service providers typically offer at least 99.5 percent availability as part of their SLAs, businesses should consider distributing core workloads across multiple cloud infrastructures and connectivity transit mediums to dramatically reduce the possibility of downtime.

DRAMATICALLY REDUCE the possibility of downtime.

2

Choice and optimised return on investment

All public clouds vary – they are built differently with different service and application functionality, so it's unlikely that any one public cloud will meet all of an enterprise's requirements. Specific applications will require specialised stacks to run, which means some businesses will need to have a multi-cloud approach.

With a multi-cloud approach, rather than bending its business processes to suit a single provider, a business has multiple options so it can find the provider with the right fit for a business function without having to compromise its choices.

find the provider with THE RIGHT FIT FOR YOUR BUSINESS FUNCTION

3

Lower latency

Latency is always critical consideration for businesses holding mission-critical processes and data in the cloud. The cloud is only as good as the network connection supporting the application, so it's operationally important for businesses when managing and monitoring their IT workloads.

A number of factors influence latency; for instance, where the user connects from, which cloud data centre they connect to, the route, and the network provider and its infrastructure used will all have an impact on the time it takes for network traffic to travel. With a multi-cloud infrastructure, the data centre cloud on-ramp closest to the user can serve up the required data and minimise latency.

serve up the REQUIRED DATA and MINIMISE LATENCY.

4

Reduced risk of vendor lock-in

Fear of vendor lock-in is one of the big objections to cloud computing. Not all public clouds are constructed the same and they are not all compatible with each other. If a business opts for one single cloud provider, then it runs the risk of becoming locked into continuing to do business with them. It can be very hard for organisations to switch to another cloud provider, any such migration becomes very time-consuming, technically difficult and expensive.

not all PUBLIC CLOUDS are constructed the same

CHALLENGES IN A MULTI-CLOUD APPROACH

Despite its manifold and obvious advantages, adopting a multi-cloud strategy is far from plain sailing.

The simplicity of the cloud has been one of its most persuasive selling points – a developer can spin up an application and test it away from the production environment, IT can have access to on-demand resource on a pay-as-you-go basis - but managing connectivity to multi-cloud infrastructure is complex. It's a heterogeneous mix of environments, an interconnected ecosystem of data centres from different vendors, connected by different network providers. There's no doubt that its management places a heavy burden on enterprise IT.

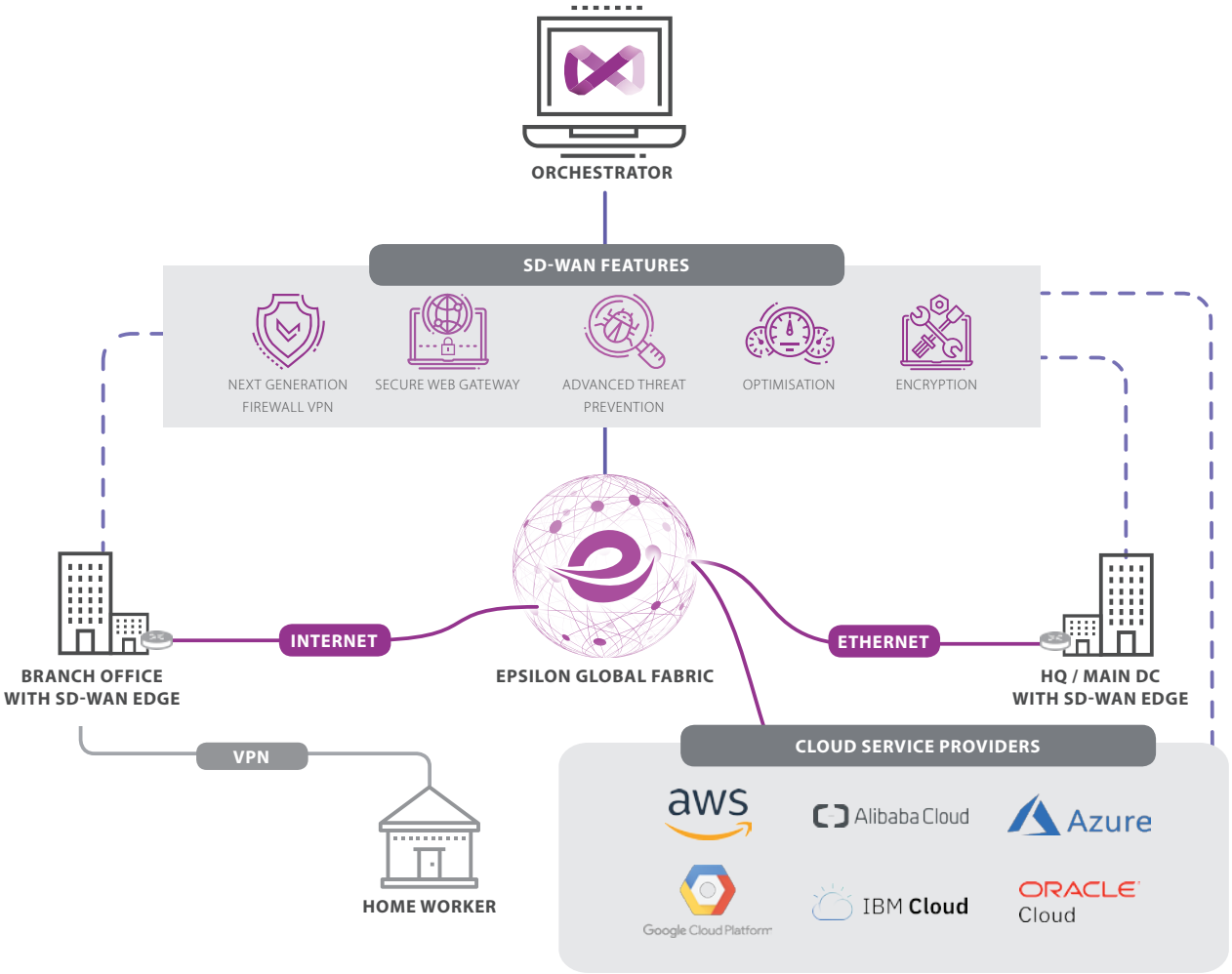
Let's just consider what this management involves. Each service provider will have different processes and platforms, so enterprise IT needs technical knowledge of each cloud. Each service provider will have its own billing system, pricing model and payment options, which must all be navigated and monitored to maintain control over costs and deployment options.

Connectivity also plays a vitally important role in a multi-cloud infrastructure. It has to be flexible, elastic and mirror the commercial model of the cloud-based applications its supports, otherwise any scalability advantages will be diminished. Enterprises must also consider the variety of options for connecting to the cloud and how much visibility they have over the network, especially when managing an environment with multiple clouds across regions.

MANAGING GLOBAL CONNECTIVITY

With the management of a multi-cloud infrastructure becoming more complex, there are obvious advantages to having a global connectivity provider assist in the navigation of the connectivity enablement of a full end-to-end solution. It removes the headaches of complexity and required expertise in connecting to the Cloud and allows the business to focus fully on its core areas and competences instead.

Epsilon, whose global network fabric is connected to over 220 data centres, is allowing enterprises and OTT players to take full advantage of the global interconnect ecosystem in their multi-cloud strategy. It offers direct connections to world-leading CSPs, including Amazon Web Services, Alibaba Cloud, Google Cloud, IBM Cloud, Microsoft Azure and Oracle Cloud, over its carrier-grade, hyper-scalable backbone.



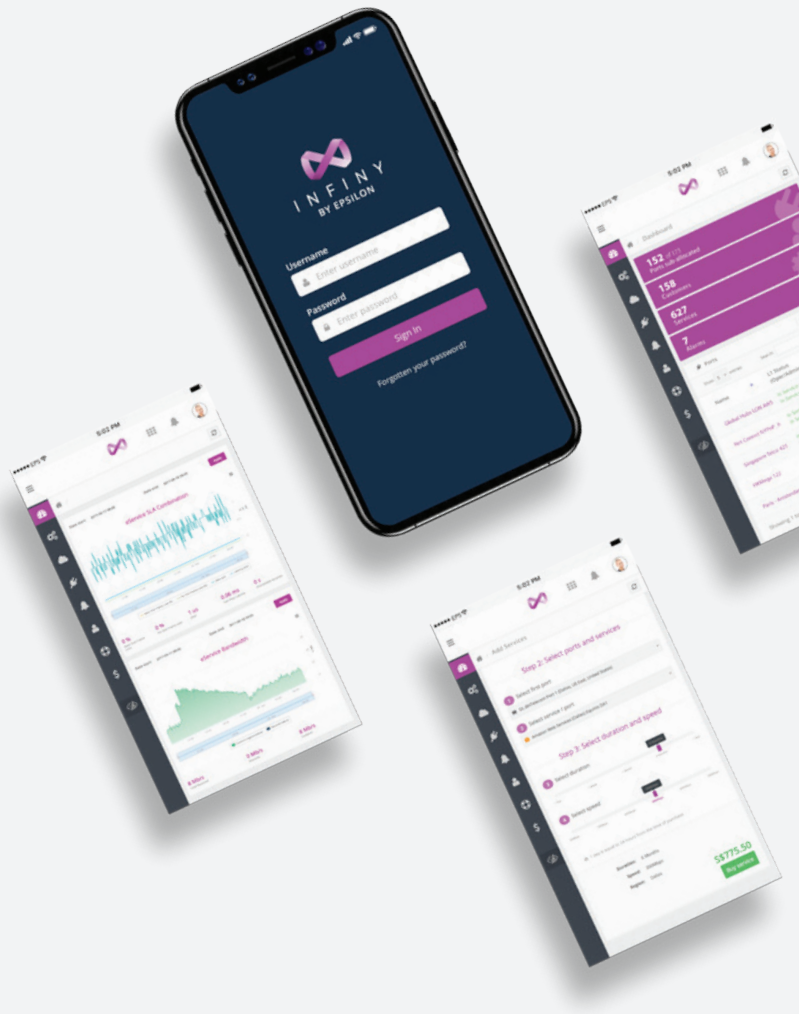
A full end-to-end orchestrated enterprise WAN: Epsilon's Enterprise solutions allow customers to deploy a global SD-WAN that connects enterprise locations, while giving on-demand direct access to the world's leading Cloud Service Providers.

Epsilon's Cloud Connect solution combines its global network fabric and Software-Defined Networking (SDN) platform Infiny to enable Cloud on-ramps in multiple locations across the United States, Europe, Middle East and Asia Pacific. The solution is offered using its MEF-certified Ethernet service that can be delivered in granular bandwidth ranging from 2Mbps up to 100Gbps.

With more and more companies born in the cloud, speed to market is becoming the key winning factor for all kinds of businesses today. They are starting to move or have already moved their workloads to multiple Clouds, reducing complexity while gaining diverse industry-specific solution stacks offered by the CSPs. This demand for multi-cloud connectivity will see many more businesses turning to service providers like Epsilon to deliver seamless connectivity to multiple CSPs and edge locations across the globe.

Epsilon's customers can use its SDN platform Infiny to turn up private connections to the Cloud with real-time network monitoring and there will be no management needed for routing between Clouds. They can access Infiny via a web portal, mobile app or use APIs for on-demand, scalable and secure direct connectivity to an ecosystem of world-leading Cloud Service Providers without being tied down to rigid contracts. It delivers the flexibility, scalability and quality to rapidly serve new global demand while connecting and optimising applications and services. Customers can register for an account on Infiny for instant access Epsilon's dense global interconnect ecosystem.

2 Mbps up to **100 Gbps**



Register for an Infiny account on
www.infiny.cloud

ABOUT EPSILON

Epsilon is a cloud-centric global connectivity and communications network service provider, connecting to 220 data centres in 26 markets. The company's SDN platform, Infiny by Epsilon, combines on-demand connectivity, a web-based portal and APIs to give partners simple and effective solutions. All Epsilon services are powered by a carrier-grade, hyper-scalable global backbone that connects the world's communications and technology hubs. Epsilon is headquartered in Singapore with offices in London, New York, Dubai and Sofia.
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