

WHITEPAPER

BUILDING A FLEXIBLE FOUNDATION FOR NETWORK TRANSFORMATION

A COMPREHENSIVE APPROACH TO GLOBAL
CONNECTIVITY WITH MULTI-SERVICE PORT

Be it putting together multi-region enterprise resource planning (ERP) software or accessing a number of public clouds, the demand for networking is ever-growing and rising rapidly. It is resource-intensive to manage multiple connectivity services and to move at the speed of today's market.

Enterprises, managed service providers (MSP) and systems integrators (SI) are being challenged to connect and optimise applications and data in a transforming market. They need the flexibility to change and adapt while efficiently managing an increasingly complex ICT ecosystem.

The answer is a multi-service port, a networking model where multiple services can be connected via a single port. It brings simplicity to connecting the world and into the cloud.

For enterprises, multi-service port enables efficient management of network resources that are ready to support them no matter where they are on their digital journeys. Similarly, MSPs and SIs gain competitive advantages with the ability to reduce costs with fewer service providers to manage, while increasing agility and adaptability. This is a critical market where true digital transformation is seemingly at its beginning.

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Worldwide spending on digital transformation will reach \$2.3 trillion in 2023 with a compound annual growth rate (CAGR) of 17.1%, according by IDC.

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Over the next five years, digital transformation will become the majority of ICT investment and the number of devices connected to IP networks will be more than three times the global population by 2022, according to Cisco. This sea of change needs to be reflected in networking today.

The action organisations take today to build flexibility, adaptability, and simplicity into their network will pay off with the freedom to grow and adopt new applications and services in the future. The first step is using a multi-service port to build a foundation that is ready to flex to changing demand.

HOW DOES MULTI-SERVICE PORT WORK?

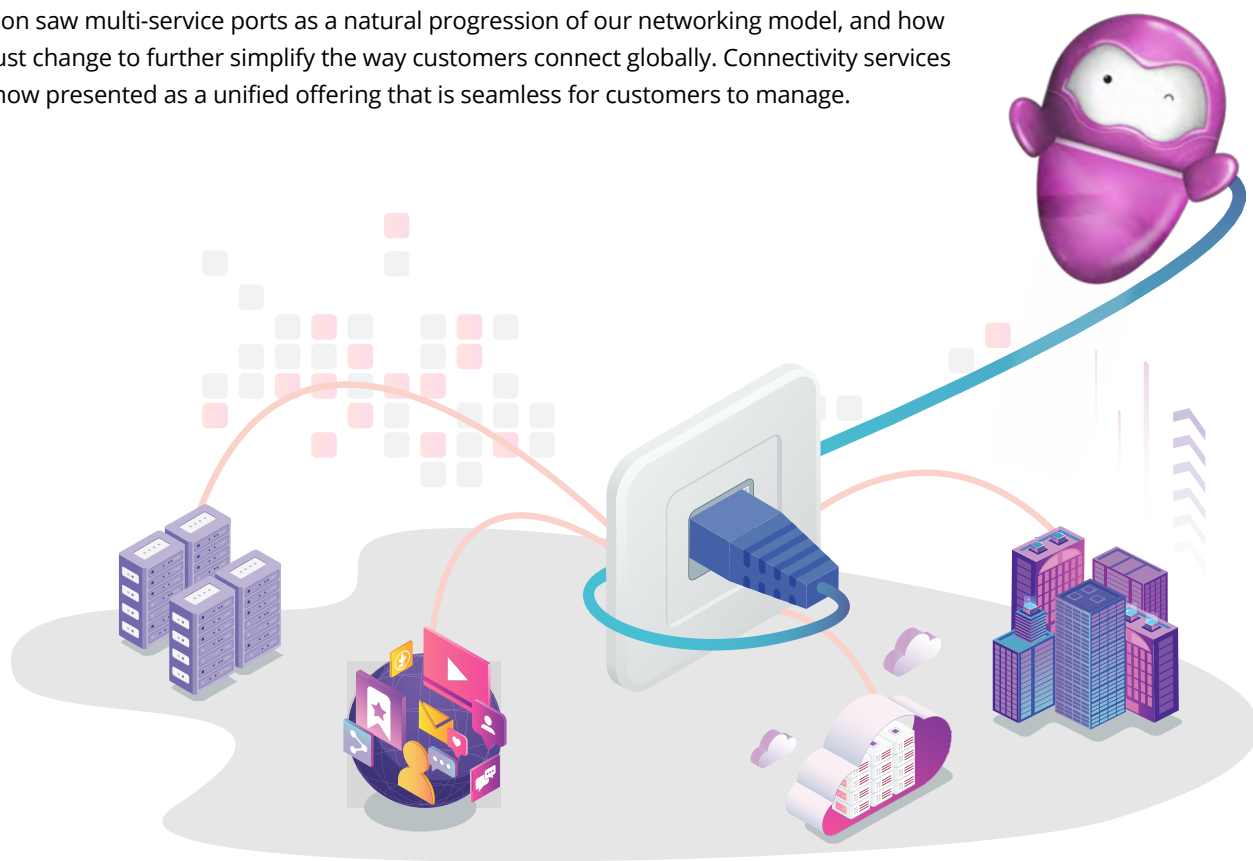
It is a gateway to connecting applications and data across the globe. Instead of allocating a single service to a port, users can use a multi-service port to connect to data centres, public clouds, internet exchanges, SD-WAN in branch locations and other network resources.

From a single port, a “virtual connect” – a private, dedicated point-to-point ethernet VLAN connection – is established between two endpoints. This enables the organisation to rapidly consume connectivity services regardless of where applications and data are hosted.

Unlike the traditional A to B networking model, a multi-service port frees the organisation to change and adapt its services throughout its digital journey. It has an approach that supports its migration of applications and data to the cloud, increased peering, data centre interconnect, and complements the adoption of software-defined networking (SDN).

At the same time, some network service providers can deliver high bandwidth capacity ranging from 1Gbps to 100Gbps. This gives enterprises, MSPs and SIs new levels of scalability to meet the high demands in digital transformation today. No matter where they are on their digital journey, they have the network resources available to serve changing demand. A multi-service port brings order to an increasingly complex networking environment and delivers immediate access to the connectivity solutions needed.

Epsilon saw multi-service ports as a natural progression of our networking model, and how it must change to further simplify the way customers connect globally. Connectivity services are now presented as a unified offering that is seamless for customers to manage.

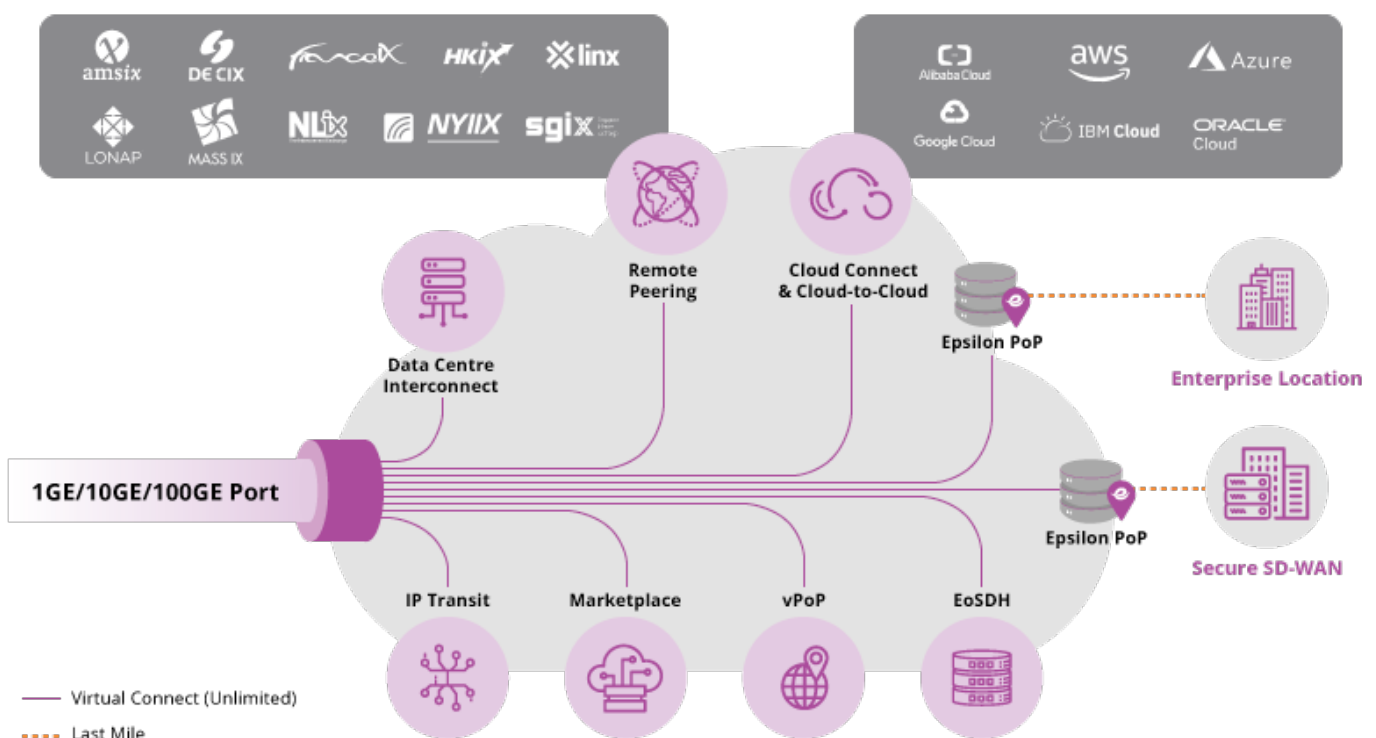


UNLEASH THE POWER OF ONE

As applications become more demanding and data traffic grows, Epsilon recognised the need for even simpler connectivity that supports increasingly complex ICT ecosystems.

For instance, interconnection between data centres (point-to-point and multipoint) and direct cloud connection (multiple public clouds) have become core capabilities for any business today. Enterprises with global requirements and MSPs serving customers across regions rely on them to power their business applications and connect their end users.

Epsilon's Multi-Service Port makes it more flexible and adaptable for businesses to serve changing demands and simplify how they manage their network resources globally. It allows them to deploy virtual connect services which include Data Centre Interconnect (DCI), Cloud Connect & Cloud-to-Cloud, Remote Peering, IP Transit, Marketplace, SD-WAN, vPoP, EoSDH and Last Mile.





Data Centre Interconnection

Connect your mission-critical workloads across metros, countries and continents at the click of a button.



Cloud Connectivity

Bypass the internet and seamlessly connect your private infrastructure to the public cloud with our SDN technology.



Access to Internet Exchanges

Keep your traffic local and your latency low by accessing to the world's largest internet exchanges without the need for extra equipment or infrastructure through remote peering.



Secure SD-WAN

Our SD-WAN service delivers the security, visibility and control you need to connect and run your enterprise IT networks.



Last Mile Enterprise Connectivity

Seamlessly connect multiple enterprise locations around the world from a single source and reduce deployment costs.



Virtual Point of Presence (VPOP)

Enables you to set up a virtual PoP instantly in our global network locations and connect to your end-users seamlessly.



IP Transit

Our network is designed for connections to multiple Tier 1 transit providers and internet exchanges, providing fault resiliency and extensive global IP coverage.



Marketplace

Gain direct access to our global service providers and enterprises through publicly available community ports, allowing you to reach new markets instantly.



EoSDH

We provide you the interoperability between current and legacy technologies in emerging markets.

With an array of connectivity options, businesses can easily change the virtual connect service and even move the port to another location on the network.

A SIMPLE WAY TO SOLVE NETWORK CHALLENGES



Removing Complexity

A multi-service port enables users to consolidate vendors and connectivity services into a single easy-to-manage port. Organisations no longer have to manage multiple service provider relationships, track and compare pricing across services, and allocate resource to creating their own ecosystem of connectivity. Using a multi-service port, they can plug into an existing ecosystem and access global connectivity with a simple and seamless model. Less resource is needed to manage connectivity and fewer vendors are required to connect applications and data.



Automating Processes

With an SDN management layer, organisations can automate networking provisioning and access a comprehensive range of services on-demand. They can take their approach to networking into the future and immediately benefit from removing manual processes and long lead times. A multi-service port puts organisations in control of their connectivity and enables them to move with greater agility.



Driving Costs Down

Organisations only pay for what they use which drives costs down, and they benefit from a fixed monthly recurring charge (MRC) for their ports. The days of over-provisioning for a single service are over. A multi-service port is a cost-

efficient way to increase the flexibility of an organisation's operations while scaling to meet new demand. They get the services they need when they need them, and only pay for what they get.



Growing Reach

Using Epsilon's Multi-Service Port, organisations can benefit from seamless connections to global networks with hundreds of data centres, cloud service providers (CSP), internet exchanges (IX) and more. A multi-service port removes barriers to serving demand in new markets and supports digital transformation across the globe. Organisations can quickly and efficiently deploy applications and services wherever they see opportunities.



Preparing for Change

Whether an organisation is "cloud-first", "cloud-only" or just starting its digital journey, a multi-service port gives it access to the services it needs today, as well as tomorrow. With a comprehensive range of services available from Epsilon's Multi-Service Port, the organisation is ready to connect applications and data no matter where they are located. It has the freedom to connect and grow without adding complexity to its operations.



USE CASE: GAINING TRUE FLEXIBILITY WITH MULTI-SERVICE PORT

A multi-service port can deliver increased flexibility in the network, especially when providers offer the ability to move ports anywhere on their network. Some network service providers require customers to buy new ports to serve changing demand, which adds cost and complexity to operations.

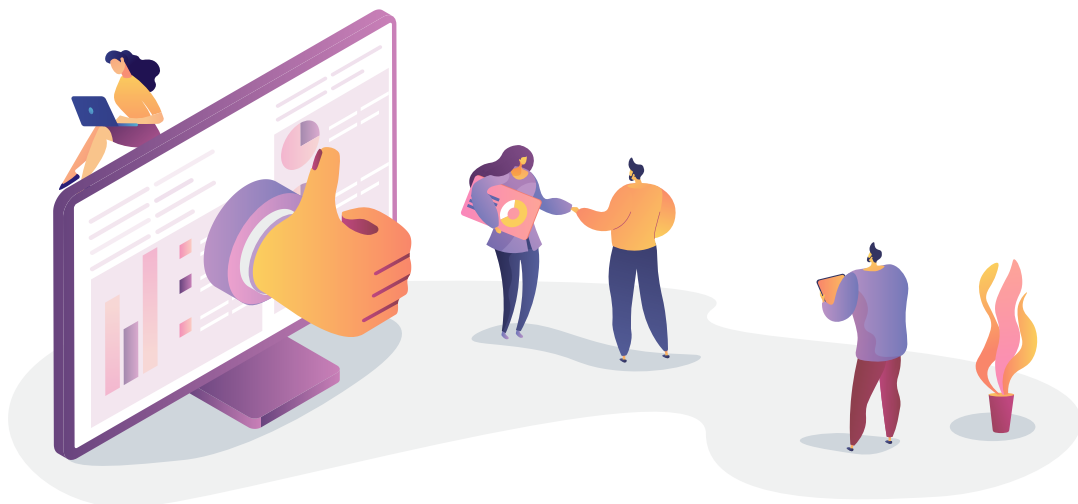
For example, an IT services company with operations across the Asia-Pacific region could be seeing demand on its network declining in Hong Kong but growing focus on cloud in Singapore. It would need to support more customers in a different market, which would traditionally mean buying additional ports for new connectivity services such as direct cloud connections.

Using Epsilon's Multi-Service Port, the company can simply move one of its ports in Hong Kong for DCI to a data centre in Singapore for direct on-ramp connection to a CSP. At any time, it can move its port on the network fabric and adapt to changing demand with new efficiency and speed.

A truly adaptable approach means that the IT services company has risk-free access to the connectivity it needs and isn't tied to one location or service. It can continually refine its approach and evolve its services with a flexible networking foundation.

The outcomes cascade across the value chain with added last mile connectivity on the same port to end user locations in Singapore, delivering lower cost yet high-performance connectivity for an optimised user experience. Powering the connectivity for applications and data with high availability, the company and its customers gain consistent access to the solutions they need.

Over time, the company can continue to scale up to serve growing user demand, while adapting to new technologies adopted within the company and by its customers.



CHOOSING A MULTI-SERVICE PORT SERVICE PROVIDER

Not all multi-service ports are created equal. The ability to access multiple services from a single port is offered by a number of network service providers but the underlying infrastructure and business models can vary. If an organisation's objective is to complete their digital journey with simplicity, efficiency and flexibility, they will need to look at the details.

While price can be a driver for decision making, the right multi-service port will offer long-term value as well as near-term cost reductions. It just depends on which service provider an organisation selects. There are several key differentiators that separate one multi-service port from another:



End-to-End Set-Up and Support

The port provider should offer a comprehensive end-to-end service that includes cabling within the data centre to set-up a port. They should be hands-on and include set-up as part of their service. Otherwise, they are offering a port but not all of the steps it takes to get started.



A Comprehensive Service

A multi-service port should support last mile connectivity. A truly end-to-end solution includes the last mile and enables the management of the network all the way to an office premises. Some service providers will offer multi-service ports but leave the last mile for the organisation to sort out themselves. If the service provider isn't supporting set-up or the last mile, they aren't delivering simplicity.



The Ecosystem

The ecosystem has to offer access to hundreds of data centres as well as world-leading IXs and CSPs. Network reach should go beyond developed markets and offer a depth of connectivity in emerging markets. It should be able to support the organisation no matter where it needs to be present and offer direct access to multiple clouds and IXs.



A Carrier-Grade Network

Network infrastructure underpins all of the services offered via a multi-service port. A service provider should have an industry certified (eg. MEF-certified) carrier-grade network with scalability up to 100Gbps. A carrier-grade network ensures that applications and data are delivered reliably

and consistently. It should also offer scalable bandwidth options from 1Gbps, 10Gbps and 100Gbps. Scalability and reliability ensure the organisation has a long-term connectivity partner that is ready to grow with its demands.



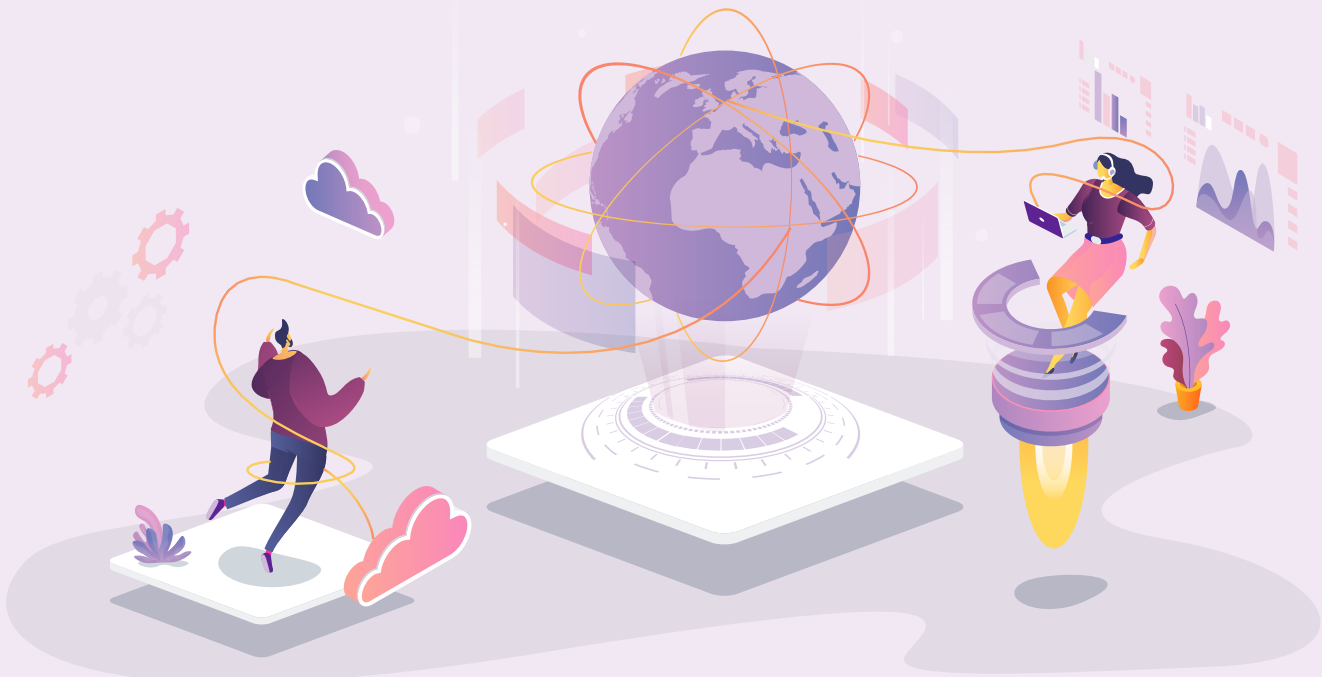
Port Portability

Organisations should be able to move their port across different locations on the service provider's network. They shouldn't be locked into one location and required to buy another port if all they want to do is move it. Port portability removes risk for the organisation and enables them to maximise the value of the port they have on the network. As demand changes, the port can be moved, offering new efficiency and simplicity.



Networking Expertise

At the end of the day, it is still about networking. Service providers should have a proven track record of developing and optimising network infrastructure to support applications and data. It ensures that every step of the way the organisation has a trusted partner that understands how to deliver high-performance networking across the globe.



THE FUTURE IS FLEXIBLE

The multi-service port proposition matches the needs of an ICT market that is changing rapidly. Selecting the right service provider will ensure that an organisation is ready to quickly pivot to meet new demand and support emerging applications and services. Over time, this adaptability will only increase as new services are made available via these ports and a growing number of organisations and end users benefit from them.

While an organisation cannot predict the future, it can build a networking foundation that is ready to change and adapt with new technologies and user behaviours. The organisations that act now will be ready to adopt new solutions and create a competitive edge with flexible and adaptable networking. Their internal users will see the benefits of a reliable and consistent digital experience, while customers will see new applications and services seamlessly implemented and delivered.

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Multi-service port offers a simple but powerful way to ensure networking is ready to serve the demands of the future and optimise networking to serve the entire value chain.

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ABOUT EPSILON

Epsilon is a cloud-centric global connectivity and communications service provider, connecting to 220 data centres in 39 cities. 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, a member of Kuok Group, is headquartered in Singapore with offices in London, New York, Dubai and Sofia.

For more information, visit epsilontel.com.

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