



WHITEPAPER

CONNECTING START-UP UNICORNS

DELIVERING ELASTIC NETWORKING FOR HIGH-GROWTH,
CLOUD-FIRST AND SOFTWARE-CENTRIC BUSINESSES

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Disruptive businesses need a disruptive approach to networking. Start-up Unicorns have been reshaping industries around the world and they need a new approach to networking that enables innovation and removes the limits on their organisations.

Unicorns have been successful in disrupting traditional business models across any number of verticals and now they are influencing how networks are procured, managed and deployed both locally and globally. These are businesses that are born in the Cloud that have new needs and expectations. Their services are built around an optimised user experience that demands explosive scalability matched with the flexibility to serve changing demand day-by-day and hour-by-hour.

The challenge for Unicorns is to find a connectivity provider that understands these needs and can deliver networking that mirrors their approach to business. Legacy models were not developed to serve network-dependent businesses that move at the speed of a Unicorn. They need a connectivity provider that thinks like them and can execute at the highest possible level.

THE UNICORN CLUB

Since the early 2010s, the number of companies with valuations over \$1 billion has exploded. In 2014 and 2015, the segment went from a few scattered outliers like AirBnB, Dropbox, Spotify and Uber to being a truly global phenomenon.

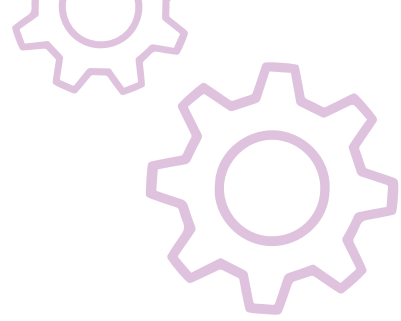
While Silicon Valley and the California tech scene has been a driving force behind many of the biggest names in the Unicorn Club, China, the UK, India and Germany have all produced Unicorns. Further diversification in the Unicorn Club will only continue with growth in local funding, enabling more start-ups to bring their products and services to global audiences.

Unicorns are not defined by geography and in many ways the billion-dollar valuation is just a convenient benchmark. What really separates Unicorns from other segments is their behaviour. They are usually Cloud-first, high growth and software-centric businesses. By their very nature, they need their suppliers and partners to think differently and share the same vision for innovation.

In the connectivity space that can be difficult to find. Unicorns benefit from global connectivity that can support limitless growth while adapting to changing needs and delivering exceptional performance. They need networking that enables innovation and can support disruption.

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HYPER-ADAPTABLE NETWORKING

What makes connecting a Unicorn different from any other business? From their very inception, Unicorns have no legacy infrastructure and are comfortable with a Cloud-first or Cloud-only model. They are simply looking for the best solutions for the getting the outcomes they want. It is a pragmatic approach that is driven by the need for simplicity, efficiency and results.

It is possible to say that all businesses want these things but in a Unicorn these are part of every fibre of their business and are essential to their success. Rather than being something that they aspire to, Unicorns have to behave this way otherwise they won't survive. There are a few distinct characteristics that are in the DNA of Unicorns that shape their approach to networking.

Disruptive

Applications and services can change an industry overnight. A new model with growing user base can change a market and put traditional services out of business. In a matter of months, a business can be established and capture a global audience.

Adaptable

Unicorns have a high tolerance for risk and are driven to innovate despite the prospect of failure. They need the flexibility to adapt their services to changing markets. Regulations can change, removing access to a city or an entire country. They have to be prepared to turn up or down services to match demand.

High Growth

Unicorn success is often driven more by user numbers than actual revenue. When an application or service takes off, they need to be ready to rapidly scale to accommodate exploding user growth.

Network-Dependent

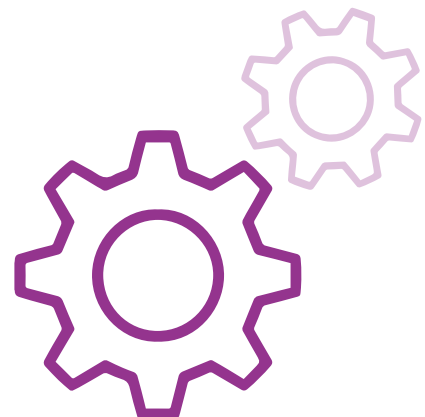
Networking is often the critical channel for engaging with users, subscribers, customers and partners. The network is the critical touchpoint and defines the experience users have with a Unicorn's applications and services.

Software-Centric

Software platforms are often central to their offerings and the foundation for the services they deliver. These platforms are driven by developers and rely on the integration of multiple APIs to deliver new and unique services to users.

Born in the Cloud

Everything that can be hosted in the Cloud is in the Cloud. The agility and speed that Cloud delivers is essential to scaling, growing and adapting to new market conditions.



LEGACY NETWORKING FAIL

These extremely dynamic characters are at odds with traditional networking models. Almost every key behaviour is challenged by networking models that are slow, inefficient and built to serve brick and mortar multinational corporations. The old way of approaching connectivity actually inhibits innovation and makes it increasingly difficult to change and grow.

An ideal scenario for network operators selling connectivity would be to lock customers into multi-year deals where businesses have to estimate their usage in the long-term. There would be limited scope for scaling up or down and rolling out new services could take weeks or months.

For a Unicorn, this would mean limited growth and spiralling costs. They wouldn't be able to move fast enough to serve new demand while having to estimate the response to their services in new markets. One market could grow overnight and another could stagnate. They would still be locked into inflexible contracts and unable to serve new user growth.

It is a nightmare scenario for any high-growth business. The traditional model simply can't move fast enough to serve these needs.

All of the control is in the hands of the network operator while the Unicorn may be used to procuring Cloud environments from Amazon Web Services (AWS), Alibaba Cloud or Google Cloud Platform in seconds. One segment of their ICT operations would be self-service and on-demand while networking would be stuck in the past and out of sync with their business.

Networking has to serve these new expectations and offer these businesses a reliable, flexible and agile foundation for innovation. Otherwise networking is the bottleneck and the barrier to success for these organisations.

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CONNECTING UNICORNS WITH CLOUD-CENTRIC NETWORKING

Cloud-centric solves many of the largest networking challenges facing Unicorns. Just like Unicorns themselves, Cloud-centric networking is disrupting traditional networking models and delivering connectivity in a way that mirrors the Cloud. It removes the limits that traditional models place on Unicorns and turns networking into a driver for innovation.

It gives them an elastic networking environment that is ready to scale to meet new demand and adapt in a changing market. Cloud-centric networking is connectivity that is purpose-built to support businesses in the Cloud era. Unicorns benefit from a model that delivers the agility of the Cloud in connectivity. Cloud-centric network is able to do this because it delivers:

- **Self-Service.** Global connectivity can be procured online at the click of a button. Just like AWS or any other Cloud service provider, services can be connected via an online portal with minimal steps between logging in and completing the transaction. Deploying networks can be as simple as any other Cloud service.
- **On-Demand Connectivity.** Networking can be delivered on-demand. Businesses can turn up global networks in minutes instead of weeks. That means that a Unicorn can see demand in one market and roll out infrastructure to support their business. They can scale up to meet rapid demand in new locations and know that they have on-demand connectivity ready to support them.
- **Guaranteed Performance.** Many Unicorns serve ultra-sensitive users who will leave their service if there are any performance issues. If an app doesn't work, it gets deleted in minutes. That is why guaranteed end-to-end Quality of Service (QoS) and Experience (QoE) are critical to Unicorn growth. Cloud-centric networking delivers new visibility into network performance and offers QoS and QoE that optimises application performance.
- **Opex-based.** Moving capex to opex gives Unicorns new flexibility to grow. They are able to budget on a month-by-month basis and manage costs accordingly. As revenue or funding comes in, they aren't lumbered with heavy upfront costs for services and can adjust them as they go. This is cost efficient and matches Cloud models.
- **Comprehensive Solutions.** Cloud-centric networking can support Data, Voice and Cloud connectivity. It can provide connectivity between data centres from one metro area to another or support the integration of rich communication services into a mobile app. It can give on-demand Cloud access to multiple Cloud providers creating new redundancy while supporting vendor consolidation. That delivers new simplicity.
- **APIs.** Cloud-centric networking can be delivered via APIs and be incorporated into existing platforms. Connectivity can be fluid and leveraged in new environments. It can provide a foundation for the delivery of new services and be seamlessly integrated with other APIs to create entirely new offerings.

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Unicorns benefit from a model that delivers the **agility of the Cloud** in connectivity

THE DEVOPS REVOLUTION

Software is driving the future of networking and that benefits software-centric businesses like Unicorns. For too long networking has been focused on the transport layer without recognising the potential applications and software development in the connectivity space. That is changing and this will create the applications, platforms and services of the future.

There's an opportunity for software-centric businesses and connectivity providers to partner and collaborate to create new services. Networking is a foundation for building innovative services and connectivity providers can be more involved with the entire ecosystem. The benefit for both groups is that infrastructure becomes more agile and overall, is simpler to manage.

We are seeing this with Network Function Virtualisation (NFV) but it is only just the beginning. The more software-centric a networking becomes, the more fluid, elastic and agile networking will be. This will be critical to the development of Internet of Things (IoT) applications and services that no longer tied to a single human subscriber. For the network to support IoT, artificial intelligence and other high growth technologies, there has to be further innovation in automation, virtualisation and DevOps as a whole.

With a new dedication to software development, the network can become a living, breathing organism that's ready to support the most adventurous Unicorns.

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CHOOSING A CONNECTIVITY PROVIDER FOR THE FUTURE

The first step to turning networking into an enabler for innovation is choosing a connectivity provider that is focused on the future. The best connectivity providers are evolving their networking solutions to match the needs of Cloud-first businesses. They are in tune with changing needs and are not afraid to adapt and behave like a Unicorn themselves.

There needs to be a shared set of values and shared purpose. Cloud-centric networking brings solutions and customer experience in line with Unicorn's expectations but it is the mind-set shift and openness to disruption that will defines success.

Connectivity providers that are exploring new ways of serving their partners and deliver customer service excellence will enable a Unicorn to grow in the long term. Today's solutions may not serve tomorrow's demands. Unicorns need the support of a connectivity provider that is as passionate about disruption and innovation as they are. They need a connectivity provider that is proactively supporting them and finding new ways to solve their networking challenges.

The benefit for Unicorns is that they gain a partner that wants to collaborate, innovate and drive new growth with new models. Networking can be the source of new growth and experience for users. Unicorns just need to find a connectivity provider that has moved beyond legacy models and is creating the future of networking. ■

ABOUT EPSILON

Epsilon provides connectivity and infrastructure solutions to Communications, Applications, Content and Cloud service providers. Its underlying network infrastructure, intelligent application layers and industry expertise enables its customers to seamlessly deliver mission critical, high performance applications and communications services globally. Epsilon offers a wide range of communications infrastructure services from network connectivity, co-location or data centre services and system integration through to an on-demand ordering platform for ethernet services and cloud access.

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