G-Core Labs.

Leveraging direct connectivity services to future-proof network architecture.

Megaport

About the Company

G-Core Labs is a Luxembourg based global IT solutions provider offering managed hosting, CDN and cloud services. They have built out an unprecedented IT infrastructure for an industry leading game developer, Wargaming, and as a result, have also become the World Guinness Record holder for "Most Players Online Simultaneously on one MOG Server - 1,114,000 online players". To ensure they can continue to scale mission-critical infrastructure in a cost effective manner while meeting the stringent performance demands of massive real-time data traffic, G-Core Labs rely on Megaport's elastic interconnection services to future-proof this key company asset.

Challenges

According to Niko Partners, Southeast Asia (SEA) games revenue will grow to more than $3 billion by 2020. Increase in net new gamers, existing gamers playing more games, and higher resolution streaming are just a few key drivers behind the booming traffic. As such data flow rapidly grows, G-Core Labs needs to address multiple challenges at the same time:

Network Performance:

Consistent service delivery with the highest throughput and lowest possible latency for Wargaming's flagship Massive Multiplayer Online (MMO) game "World of Tanks" directly translates into great user experience. Providing high-quality online gaming experience is challenging due to the best-effort nature of the Internet. Thus the need for robust and resilient interconnection, which keeps Round Trip Time (RTT) and packet loss to the possible minimum, is essential more than ever to support a growing base of richer game versions and diverse |users in the APAC region.

Cost Efficiency:

Depending on the time of day and year, traffic can fluctuate drastically. Daily peak time is typically between 19:00 and 22:00 local time when most players come online, with an even higher peak during major holidays like Christmas and summer break. With traditional means of bandwidth sourcing, G-Core Labs has to anticipate, pre-provision and commit to larger amounts of bandwidth in order to meet peak end-user demand. This inevitably drives overall connectivity cost up and is of particular concern where international bandwidth costs in Southeast Asia run high.

Flexibility:

Traditional providers typically require much longer provisioning time and more manual procedures to complete a service request. Lead time varies greatly and from just getting the account setup to submitting an order to getting an LOA could take several weeks. Capacity choices are also limited to a defined set of bandwidth tiers, making it impossible for real-time bandwidth scaling, either up or down, where and when G-Core Labs needs it.

> " The nature of our business demands minimal latency interconnection with guaranteed yet flexible bandwidth at reasonable prices.
>
> We've researched and found no such provider in Asia except Megaport, who provides true flexibility to scale connectivity real-time, up or down at a per Mbps granularity. Another key value to us, both cost and operations wise, is the ability to easily self-provision additional services through the portal. "
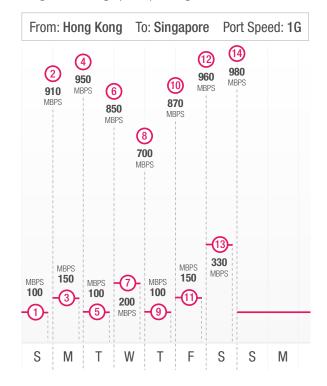>
> – Andre Reitenbach, Managing Director

Solution

Megaport helped G-Core Labs solve the challenges regarding network performance, cost efficiency and flexibility by enabling them to consume right-sized, scalable connectivity in an on-demand and cost-effective manner between key Point Of Presences (POPs) in Asia Pacific region.

Through a combination of peering on Megaport's Internet Exchange (IX) in 3 locations, namely Hong Kong, Singapore, and Sydney, and data centre connectivity between Hong Kong and Singapore, G-Core Labs is now able to carry their high volume data traffic through direct and better routes to meet the high performance demands of their end customers. In network performance terms, this equals minimizing RTT to far less than 150ms and minimizing packet loss.

Megaport's on-demand and unique "choose any speed, for as long as you need" bandwidth model has also provided G-Core Labs the freedom and control to consume exactly what they need at any given time. This has greatly simplified their planning and increased their agility. The resulting savings can also be easily visualized through the Megaport pricing calculator.

From: **Hong Kong**	To: **Singapore**	Port Speed: **1G**

② 910 MBPS
④ 950 MBPS
⑥ 850 MBPS
⑧ 700 MBPS
⑩ 870 MBPS
⑫ 960 MBPS
⑭ 980 MBPS

① 100 MBPS
③ 150 MBPS
⑤ 100 MBPS
⑦ 200 MBPS
⑨ 100 MBPS
⑪ 150 MBPS
⑬ 330 MBPS

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For example, a 1-week bandwidth cost comparison with daily peak of 3 hours results in **82% savings.***

- Constant 1G with traditional provider:
  500 USD/week
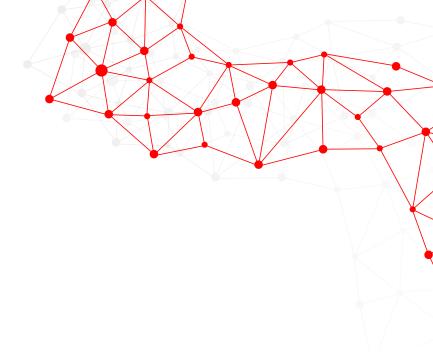- Right-sized connectivity with Megaport:
  88 USD/week

Finally, the simplicity of the Megaport solution, one port with multiple services, has provided additional cost and operational benefits to G-Core Labs on top of those gained by right-sizing capacity and paying only for what's actually used. As such, G-Core Labs is considering to add direct cloud connectivity through Megaport in the near future.

*Based on prevailing rates and is subject to change without prior notice. Bandwidth cost is VXC only.

POINT   CLICK   CONNECT

Results, ROI, and Future Plans

Improve Network Resiliency: G-Core Labs has existing peering relations in region. By expanding and connecting to the same and additional peers on Megaport's IX, they are able to perform load sharing and increase available bandwidth to improve overall network performance.

Minimize Latency: The Hong Kong - Singapore elastic connectivity directly helps to eliminate traffic detours otherwise necessary between these two key markets. G-Core Labs is therefore looking to Megaport to elastically link-up other key markets in region as well.

Right-Scaled Connectivity: Unique to Megaport, G-Core Labs can now "Point, Click, Connect" in the Megaport Portal and instantly scale capacity in tandem with actual bandwidth requirements, without the cumbersome need to forecast and pre-provision idle capacity. "In our experience, provisioning lead time through the Megaport Portal is extremely low comparing to others. The ability to control any service in a few clicks is ground breaking." says Andre.

Direct Cloud Connectivity: As Megaport offers direct connectivity into all leading cloud service providers and it's easy to add additional services on top, G-Core Labs is also exploring to add direct cloud connectivity in the near future.

More information

We make connectivity easy

Megaport is the highly scaled Network as a Service (NaaS) organisation utilising 100 Gbps technology to deliver dedicated access to cloud services. The Company's Software Defined Network (SDN) enables the interconnection of enterprises and service providers across hundreds of data centre locations around the globe. Fast, flexible, and dynamic, Megaport's connectivity solution is transforming the way businesses reach leading cloud services from Microsoft, Google, Oracle, Amazon Web Services, Nutanix, IBM, Salesforce, and Alibaba.

Megaport

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