Co-location imperatives for new hyperscaling cloud environments

By Vimal Kaw

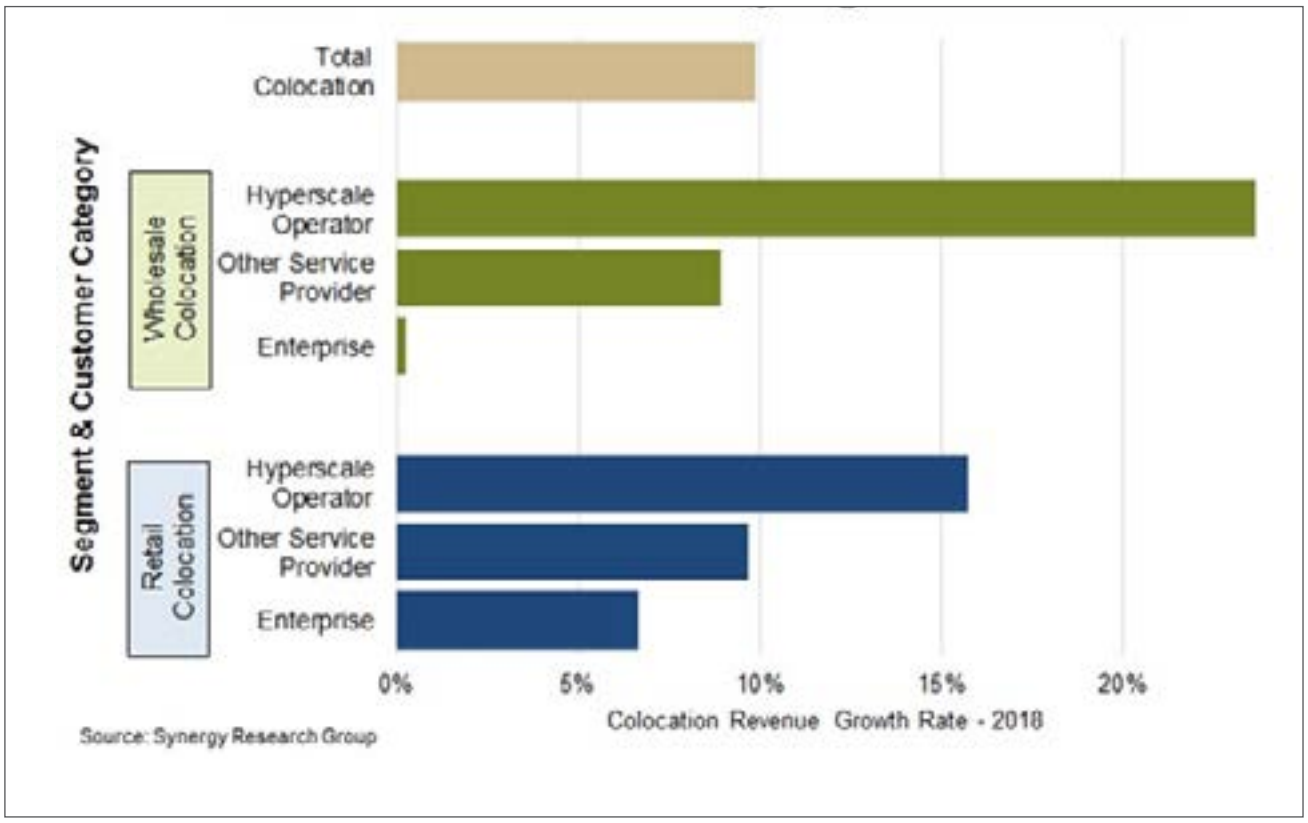
Owing to readily availa datacenter capacity, co-location completely fits the bill in hyperscaling cloud environments

In the digital age, businesses need the ability to scale quickly and respond proactively to business demand. Filling this immense business need, hyperscale data centers have risen to match the dynamic needs of the digital era. Hyperscale data centers are modular in nature, and have proven unmatched scalability to quickly expand or contract with changing business dynamics and most importantly, with comparatively lower software and hardware costs.

The future undoubtedly belongs to hyperscale data centers, as statistics from different firms indicate. Cisco estimates that by 2021, traffic within hyperscale data centers will quadruple, and hyperscale data centers will account for 55% of all data center traffic by 2021. Another report by Allied Market Research titled, 'Hyperscale Data Center Market by Type', states that the global hyperscale data center market is expected to generate $71.2 billion by 2022 from $26.33 billion in 2017, growing at a CAGR of 20.7% from 2017 to 2022. On similar lines, a report by Markets & Markets estimates that the hyperscale data center market will grow from $25.08 billion in 2017 to $80.65 billion by 2022, at a CAGR of 26.32%.

The growth for hyperscale data centers is also creating a surge in demand for the co-location market. Recent data from Synergy Research Group shows that hyperscale operators are the fastest growing customer category for co-location providers. For both wholesale and retail co-location, 2018 revenue from hyperscale customers grew much more rapidly than revenues from other service provider customers and from enterprises. While the overall co-location market grew by 10% in 2018, revenues from hyperscale operators grew by 24% in the wholesale segment of the market and by 16% in the retail segment.

Colocation Market Growth by Segment & Customer



Analysts from Synergy Group believe that the growth for co-location service providers is primarily because hyperscale data center players have realized that they cannot support the huge growth by building their own data centers. These players are hence relying on co-location service providers to lease out their capacities.

WHY CO-LOCATION IS A SUITABLE OPTION?

Given the pace at which businesses operate, co-location is a suitable option, as it gives enterprises the capability to rent power, cooling and other IT equipment with lower TCO and more efficiency. When complemented with hyperscale data centers, this translates into greater economies of scale. In addition, enterprises have access to the most advanced IT infrastructure at faster deployment cycles and lower costs. As co-location service providers have advanced tools and skilled manpower to maintain the IT infrastructure, enterprises can expect an improvement in the performance of their IT system.

The following reasons will help you understand why the combination of co-location and hyperscale data centers is extremely beneficial:

REDUCING THE COST OF DOWNTIME

A study by Ponemon Institute has found out that the average cost of a data center outage rose to $740,357 in 2015—an increase of 38% since 2010. The biggest critical point noted by the study—human error was behind 22% of outages. As most processes are automated in a hyperscale data center, they can cut down this error by a significant percentage. Hyperscale data centers have sensor enabled hardware which constantly look out for signs of failure by closely monitoring critical aspects such as noise or temperature.

ABILITY TO SCALE

Hyperscale data centers are built for scale, and can scale both horizontally and vertically. Horizontal scaling refers to adding more servers in the network, while vertical scaling refers to adding more CPU or RAM.

REDUNDANCY

Hyperscale data centers are built for redundancy. In case a server fails, the application can be transitioned or moved from one server to another without any downtime. Also, thanks to modularity, enterprises can replace individual physical components than the traditional approach of replacing the entire server.

BETTER ENERGY EFFICIENCY

Hyperscale data centers use lesser energy, as they use several power saving techniques such as liquid cooling and hot aisle isolation. Hyperscale data centers also use specialized data center infrastructure management software that enable IT equipment to cut down their power consumption when not in use.

In the future, with more enterprises choosing a multi-cloud strategy, it will be beneficial to choose co-location service providers who have hyperscale capabilities.