

SVP Paul Savill shares why Lumen has the 'edge' in meeting the growing data needs of clients

By Paul Savill, Sr. VP of Enterprise Products

Application architecture has made huge strides over the last few years as a result of cloud environments, containerization, microservices and other IT innovations. Up until recently, most enterprise applications were centrally based. They didn't have to engage with other pieces of data, with IoT devices, or with other applications in unison to achieve a function. But that's no longer the case: in fact, four in five* global IT decision makers surveyed say that a centralized cloud model cannot support the demands of their current workloads or applications.



Take industrial robotics as an example: the connection between the controlling application and robots on the factory floor needs precise latency; those applications don't just talk to the robots. Those applications also need to store information in cloud locations for other parts of the business running in other areas of the world. There's also linkage back to the vendor who wants to proactively perform maintenance on the robots, monitor their condition and initiate repairs before breakdowns happen.

Orchestration ties applications together with other applications, with the data that's being moved and with the compute, storage and network infrastructure. Orchestration technology is evolving rapidly, and that's a big part of what the Lumen™ Platform aims to deliver. Our goal is to connect application and data orchestration with network orchestration using an API approach. Software-defined networking (SDN) enables the orchestration layer to issue calls to the network, turning up new connections on the fly to wherever that data needs to go, and then turning the connection back down again once that data gets there. That saves money, makes the process

more efficient and enables a lot more flexibility.

The Growth of Edge Compute

I recently read that two percent of enterprises have an edge compute solution deployed in some form, but within three years, 50 percent will deploy edge compute solutions. That correlates with the growth of IoT applications which benefit from low-latency edge compute.

In addition, many customers need to reduce their rapidly growing technology footprints on-premises. We have customers in retail who are doubling their compute every year, and they're running out of space. They don't want to turn a store or a restaurant into a datacenter. Localized edge compute especially makes sense when you have multiple stores concentrated across many different metro areas, and you need to send technicians to change hardware or fix things from time to time.

Low-latency is a key factor, as well: 60 percent* of global IT decision makers surveyed require a latency of 10 milliseconds or less for their applications, and one in five require 5 milliseconds or less. We see that in several vertical industries: hospitals don't want to use their space to house data centers, but they must collect and rapidly process large amounts of data, and they need compute and data close-by for low-latency and stronger data privacy. Investment firms need to deploy very low-latency applications to support high-frequency trading. Delivering live media events is another great example—a Lumen global content customer built an application to distribute live video, but tight latency and peering requirements meant it wouldn't work on a public cloud, so our edge compute serves live programming to their viewers. We're deploying similar distributed solutions for customers who need to run video games with compute very close to gamers' eyeballs. Our presence around North America, Europe, South America and the Pacific Rim is the best in terms of public internet backbone. We offer the most-connected public internet network with the lowest latency around the world.

5G Misconceptions

CTOs at customer companies and cloud service providers tell me they initially thought that edge compute applications could only run on 5G networks, but now they realize that isn't the case. Lumen's edge compute services don't need 5G and are compatible with multiple wireless technologies.

Nearly a third* of global IT decision makers surveyed are skeptical about their organization utilizing 5G, and a majority* have significant security concerns when it comes to relying on 5G networks. Other wireless technologies often are better suited for edge compute solutions, and customers often prefer private wireless networking access methods over shared public 5G networks.

In addition, customers need more bandwidth than 5G can provide. Their bandwidth needs are doubling every year or so, and even a Gb/sec is not enough. By the time 5G gets deployed ubiquitously, it will already fall short of the bandwidth needs of most enterprises. That's where Lumen's extensive fiber connectivity steps in. Fiber is the most efficient, highly scalable way to move bits across a metro, across the country, and across the world.

Managed Application Services, from Fiber to the Cloud

Nine in 10* global C-Suite leaders surveyed say fiber infrastructure is essential to connect to a distributed cloud network. The Lumen platform connects more of the world's data centers than anybody else. We carry the bulk of the world's data—from fiber to the cloud.

Rather than competing with cloud service providers, we're a managed services partner delivering joint solutions with Google, Microsoft, Amazon, and VMware. The Lumen Platform ties it all together and makes it work more cost effectively and with higher performance from cloud to edge to your premises. We can help you with your factory floor and your robotics, we can integrate security and applications, and we can deploy and manage a private wireless network that covers your million square foot campus.

It all comes back to enabling managed application services across a distributed environment, and connecting them through the physical world. That's the role we play, and we think we play it better than anybody else.

** In June 2020, Lumen sponsored a Quadrant Strategies online quantitative survey with 2,464 Senior IT Decision Makers and C-suite executives from large and midsize organizations in the US, UK, Germany, France, Australia, Argentina, Colombia, Brazil, Singapore and Japan.*



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