

# CTO Andrew Dugan explains how the Lumen platform keeps data moving

By Andrew Dugan, CTO

Today's applications require something more than a centralized cloud model according to 82 percent of global IT decision makers surveyed in June 2020\* by Quadrant Strategies. A centralized cloud is too far away for many enterprise applications, but many customers don't want to manage on-premises storage at the level of distribution that their applications require.

That's where edge compute comes in, but

just having applications that are close to users from a latency perspective isn't enough.

Distributed applications need to be working in coordination with a larger ecosystem of workloads in the cloud, in enterprise data centers and market edge locations. The power of the Lumen™ Platform is its ability to control latency, bandwidth and security for applications across cloud data centers, the market edge and on-premises.

It all comes back to what customers will want in the future: applications that don't just sit in one place. The ability to move workloads between a centralized cloud and edge compute or on-premises—wherever customers choose—is becoming an important part of what drives our customers' businesses.

## Intent-Based Networking

Changes to the network infrastructure—including the security protocols on customers' new connections—are part of that ability to move applications around. But customers don't want to



worry about the network. They only want to worry about their applications.

Enterprise customers tell us they don't want to order network infrastructure separately from applications. They want the network to come with—and be available between—their application locations, so when they order the cloud infrastructure, the network is there. That's a huge differentiator for the Lumen Platform: you get the network when you get the cloud—it's not a separate step.

If a customer needs more bandwidth, the network scales with it. If an application has specific latency needs, the customer specifies it, and the network provides the right latency. That's "intent-based networking." You specify your network intent for your applications, and the network takes care of it.

Customers need managed services to orchestrate where their applications are running based on shifting demands: time-of-day, running promotions, etc. At peak times, many applications will need the low latency that comes with edge compute: 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. For example, controlling a robot in a fast-food restaurant's automated kitchen: sensors feel the cooking pressure, and an optical sensor sees the next lemon to grab to function efficiently. If your application is 30 milliseconds away in the centralized cloud, you'll have to run your line at a slower speed.

Having low latency, either on-site or at the market edge, lets you run a robotics control application where you couldn't otherwise do it effectively. So whether you have the IT resources to manage a local server farm, or you want somebody else to do it close to your facility, the Lumen Platform has the ability to provide high-performance networking and edge compute that can add tremendous value.

### **Securely Absorb Shifts in Demand**

More than 90 percent\* of global IT decision makers surveyed believe that the control of an underlying network layer is essential to multi-cloud infrastructure management. The Lumen Platform has the most direct routes to the cloud. As a global network operator that can scale up or down, we can deliver direct connectivity services between applications to help meet customers' dynamic performance needs.

A lot of providers run over the public internet, but that doesn't allow you to effectively control latency. Because of the way network routing works, if an application service jumps between multiple network providers, you can't deterministically figure out what the path is. You can't guarantee latency. The Lumen Platform offers customers a real performance advantage because

we own and operate one of the largest internet backbones in the world.

Lumen can control the other side of that connection, too, because we also build out services to enterprise buildings. By managing enterprise connectivity, market edge connectivity and centralized cloud connectivity, we can allow the network to flex with dynamically changing application demands.

Recently, we've observed that Covid-19 has resulted in about a 35 percent increase in internet traffic. Many of our customers think Covid-19 will result in a permanent acceleration of their digital initiatives: two in three\* global IT decision makers surveyed believe the changes to business operations brought on by COVID-19 will remain, driving a long-term shift in business strategy.

The Lumen Platform is built to absorb the massive, unpredictable traffic shifts that can occur with something like COVID-19. We have the scale, and the scale of the Lumen network gives us better visibility into security threats, as well. With connectivity to core cloud data centers, co-location capabilities, and numerous central offices for edge compute, the Lumen Platform is an ideal place for distributed applications to live and do amazing things.

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*\* 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.*



<https://news.lumen.com/CTO-Andrew-Dugan-explains-how-the-Lumen-platform-keeps-data-moving>