

A new type of crisis: What happens to a network when we unexpectedly have to stay at home?

By Andrew Dugan, CenturyLink Chief Technology Officer

From boardrooms to factory floors around the world, **the spread of COVID-19 has created unprecedented challenges for businesses of all sizes.** In moments like these, the human spirit repeatedly shows its resiliency and courage. Hopefully soon, people and businesses everywhere will return to their normal routines. But in the meantime, CenturyLink stands firm in our resolve to be there for our customers.

Supporting the “work at home,” “learn from home,” and the “homebound”

We have a whole new demand being put on networks: Employees may need to work at home, students may need to learn at home, or we may just need to stay home. With all of this, CenturyLink is prepared. Currently, we are seeing no impacts to our network, making the risk to our customers’ service continuity minimal. However, we know how quickly things can change. Our Network Operations Center is constantly monitoring usage across our network. **Through a combination of smart technologies and human expertise, our teams can quickly add capability, modify paths, and shape traffic to meet the changing needs of our customers.**

Preparing for today and what may happen tomorrow

We operate one of the world’s largest and most interconnected networks and believe consistent, resilient, high-bandwidth connections are essential to today’s consumers and businesses. We’re being tested -- the economic activities of so many people are dependent upon secure and reliable network connectivity. **CenturyLink has prepared for just this type of challenge. We stand ready, willing and able to serve our customers’ near-term and long-term needs.** Our customers trust us to weather the current crisis, to eliminate the threat of service outages, and to ensure data traffic continues to flow smoothly despite increased demand. Preparing for natural and man-made crises is part of what we do, because clients trust us to be there. Our company knows that trust comes from consistency, and business continuity is the best way to ensure that.

Providing reassurance in a time of crisis

I’m grateful to CenturyLink’s small army of highly skilled technicians who virtually

monitor, manage, and maintain our network and services across the globe, ensuring our customers never have to worry about it. We are confident about our network performance and connectivity, and we want to help alleviate our customers' concerns. They trust us to do that, and we have the best people and technology to face up to this challenge

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Update: April 9, 2020

Network update:

We are approximately a month into a big spike in traffic volume across our network due to the many stay-at-home and work-from-home situations across the globe. We are identifying different usage patterns as people settle into new schedules and activities. Because of our ability to monitor usage, add capacity and reroute traffic, we are confident in the network's continued high performance.

Network Performance

The network is currently functioning well given the significant volume increase due to our agile team of engineers monitoring congestion and hotspots and addressing those issues by adding capacity or rerouting traffic real-time. We are confident of the network's optimal performance despite increased activity and will continue to prioritize turnup capacity and optimize flows daily.

Volume

The last few months have produced significant increases in volume. In the past, network volume has spiked when children come home from school or in the evening when people are streaming video or gaming. In today's situation, our traditionally low volume day-time hours have seen heavier traffic periods, which is when the network can best absorb this traffic. We have seen increased traffic across the IP Backbone, voice, conferencing, collaboration and residential platforms.

Flexibility

We can adjust the network to accommodate hot spots and congestion issues real-time. Our teams of network engineers optimize traffic flow globally by activating host circuits, upgrading capacity, revising data limits, strategically planning patch releases, utilizing overflow routing and rebalancing traffic as necessary to facilitate high performance on the network. This increased, minute-to-minute focus and flexibility from our engineering teams has proven key to the smooth network operation we've seen in these unprecedented times.

We operate one of the world's largest and most interconnected networks. And as a [Designated Critical Infrastructure Partner](#) we are positioned for the situation the world finds itself in today.

We will continue to actively monitor the network from our virtual Network Operations Centers (NOCs) around the world. CenturyLink has the flexibility to add capacity, modify paths, and adjust traffic based on utilization and we are continually refining our approach.

Update: April 1, 2020

[CenturyLink Content Delivery Network \(CDN\) meets customer needs during elevated traffic levels](#)

With much of the world's population staying at home, CenturyLink is seeing sustained CDN traffic increases from its customers across our global footprint. We are taking active measures to ensure optimal experiences during this period of sustained elevated traffic levels.

Update: March 27, 2020

On March 27, 2020, we filed the following disclosure with the SEC:

The impact of the COVID-19 global health crisis on our operations will depend upon several factors, including the effectiveness of outbreak mitigation steps, changes in spending patterns, economic conditions in our markets, work from home trends, the financial position of our customers and the sustainability of our supply chains. These factors could increase demand for some of our products and reduce demand for others, and could impact our ability to serve customers. We are not able at this time to estimate the impact of the global health crisis on our financial or operational results. We do not have any current plans to provide any further update on the financial impact of the global health crisis until we release our earnings for the first quarter of 2020.

We operate one of the world's largest and most interconnected networks. And as a Designated Critical Infrastructure Partner - with established government and industry partnerships - we have made significant efforts to be prepared for the situation the world finds itself in today. Our team, our technology and our network are poised to meet the challenge before all of us. And while we have seen an increase in traffic across almost all areas, our network is performing the way it was designed to perform.

Network Health Update

We are seeing an increase in the Internet Network globally.

The CenturyLink network is performing at its normal high standard, and while there are limited areas of congestion outside the United States, we have added multiple terabits of capacity and will continue to do so to keep ahead of demand.

As expected, video and gaming consumption are higher globally as well.

Currently, our Content Delivery Network (CDN) is performing within normal ranges with no material issues. Through our constant monitoring, when we identify hotspots, we can manually move traffic to less congested routes and quickly increase capacity on commonly used routes.

Residential network consumption has grown in the United States and our network is performing normally under the increased usage.

Most of this growth is during the day which is our lower volume network traffic hours. In light of COVID-19, we have suspended our data usage limits on consumer and small business services. We will waive late fees and will not terminate service to these customers through May 12, 2020.

The volume and time of voice and collaboration usage is rising globally.

Our voice network is experiencing increased loads but performing normally. To keep up with the demand, we have added capacity to our voice collaboration platform, as well as to many of our partners and customers for their increased demands. We are also working with our third-party conferencing partners to make real-time network upgrades to increase capacity and create maximum traffic efficiency. We will continue to monitor the network and assist our customers and partners with their additional needs.

To get the most out of their experience, we encourage our customers to use audio and conferencing best practices.

With the increased demand for connectivity, collaboration and content, the CenturyLink network is running at its normal high standard.

We will continue to actively monitor the network from our virtual Network Operations Centers (NOCs) around the world. CenturyLink has the flexibility to add capacity, modify paths, and adjust traffic based on utilization and we are continually refining our approach.

