

Elevating Nokia's POV on How the Pandemic Impacted the Internet

Leveraging a News Cycle for Thought Leadership



Setting the Stage

- We support Nokia's B2B software business, which includes a security and intelligence platform called Deepfield.
- When the Covid-19 lockdowns started to occur, we anticipated this would impact internet bandwidth.
- Nokia deployed Deepfield to analyze network performance (before lockdown/after lockdown).

Early effects of COVID-19 lockdowns on service provider networks: the networks soldier on!

by [Craig Labovitz](#)
20 Mar 2020



Summary

- Unprecedented growth (in a very short time) in global internet traffic
 - Most networks see 30–45% growth over a year
 - We have been seeing 20–40% peak increase (usually in evenings) in impacted regions over the last four weeks (and in a few days)
 - So far – networks appear to be meeting demand, but they were designed to grow that much in a year, not in days
 - The edge and peering links of Content Delivery Networks (CDNs) seem to have enough headroom
 - Stress is mostly on the aggregation networks and service edge routers, where demand may be reaching capacity maximums



Nokia Deepfield Campaign Capitalizes on News Cycle

ESTABLISHING A CAMPAIGN “ANCHOR”

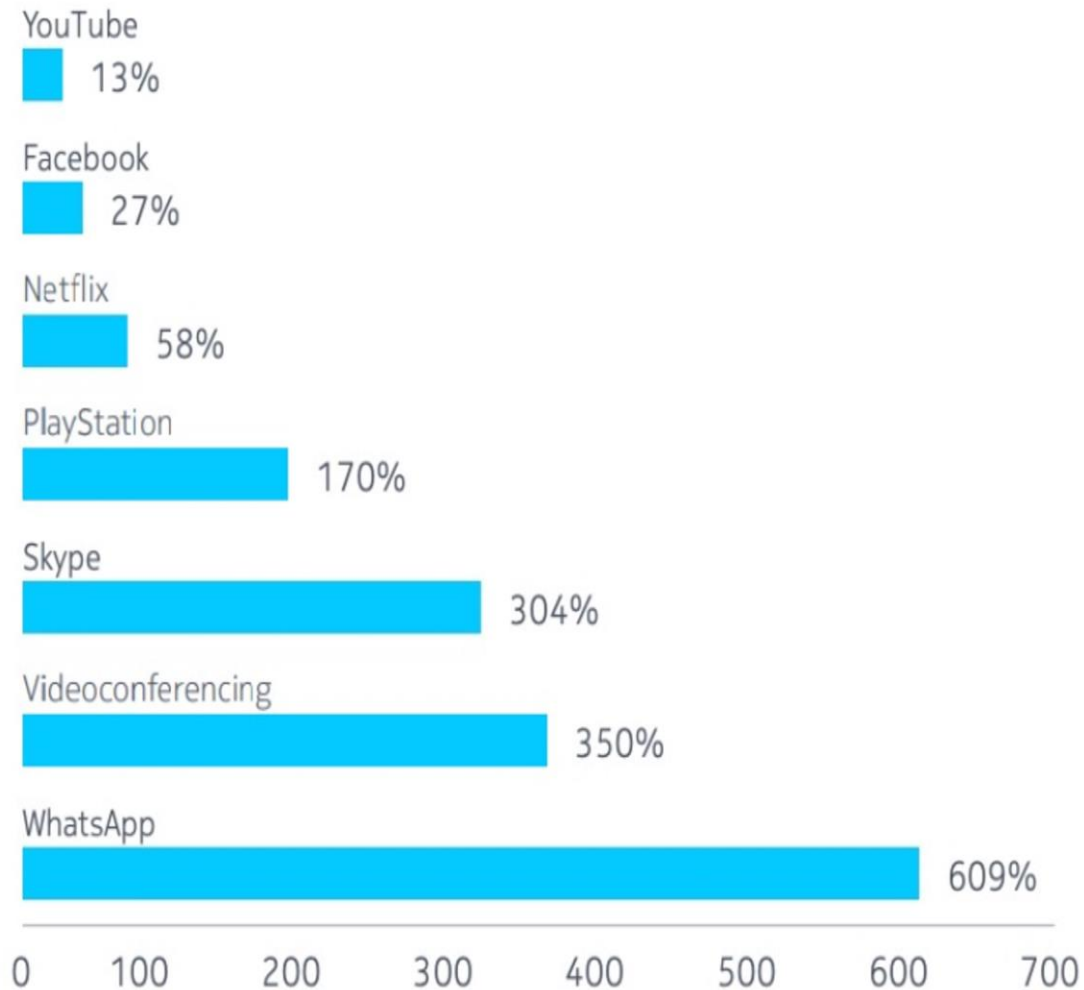
- We leveraged owned media, Nokia’s blog, to initially establish the company’s POV on the pandemic’s impact on the internet.
 - ▶ This way, journalists could see — sometimes with our helpful pointers — that Nokia was an early voice on the issue.
- We worked with the Deepfield CTO to mine what we thought would provide “hooks” for journalists.
 - ▶ Pulling data specific to Netflix and WhatsApp



Humanizing the Nokia Story Extended Media Reach

DRILL DOWN INTO THE NOKIA DATA

- No surprise, the pandemic caused an increase in applications, which in turn impacted internet performance.
- Taking this a step further so the average person would understand, we worked with Nokia to isolate individual applications and their impact on the internet.
- By humanizing the story, we believed this would land with journalists.
 - ▶ It did.



Shaping Pitches That Land with Journalists



THE TRADE BOOKS RESPONDED TO OUR FIRST WAVE OF PITCHES

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Networks Absorb Annual Traffic Spike in a Week

**Matt Kapko** | Editor
March 23, 2020 10:05 AM





Networks are facing a unique and heretofore unimaginable test as untold numbers of people heed the call to stay home to limit the spread of COVID-19. This rapid shift in usage, behavior, and daily activity around the world is causing “unprecedented growth in global internet traffic,” according to [early research from Nokia Deepfield](#).

Most networks are now projected to see growth rates of 30-45% this year, and some operators are experiencing a 20-40% peak traffic increase in the most impacted regions during the last four weeks. Most of those spikes are occurring in the evenings, and in some cases the growth is accelerating in a matter of a few days, according to [Nokia's network intelligence, analytics, and security division](#).

Nokia Deepfield analyzed data from networks in Western Europe, beginning with the first lockdown measures that were put in place to mandate physical distancing. While networks are thus far meeting the spike in demand, the vendor notes that networks are typically designed to sustain these levels of growth over the course of a year, not in the span of a few days.

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Nokia reveals impact of COVID-19 on network traffic

**Written by Scott Bicheno** | 02 April 2020 @ 17:24



The Deepfield analytics team of networking vendor Nokia has been having a look at how network traffic evolved over March.

It comes as no surprise to see that video conferencing traffic [went through the roof](#), with some US networks experiencing 700% growth in use of the app Zoom alone. Zoom has come under massively increased scrutiny as a result and is consequently having to [raise its game](#). It's also interesting to see how much more popular it is, especially at the weekends, than Skype, which had been presumed to be the default off-the-shelf video conferencing choice.




The other main source of network traffic is subscription video on demand. Apparently Disney+ already accounts for 8% of all SVoD traffic in some European networks and is maintaining a higher bitrate than the incumbents thanks to the use of six different content delivery networks. As you can see there is increasingly a spike in SVoD demand in the middle of the day that now rivals the traditional evening one.


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With a surge in usage due to COVID-19, networks are fine, for now: Nokia Deepfield

by Mike Robuck | Mar 24, 2020 9:11am



Nokia Deepfield is seeing a 40% increase in network use during peak times in some countries due the COVID-19 outbreak. (Pixabay)



By most accounts, internet networks are holding up just fine in the face of increased usage due to the impact of the coronavirus, but that could change over the coming weeks.

According to research by Nokia Deepfield that started the week of March 9, networks have seen an increase of 20% to 40% during peak usage in impacted regions. As the coronavirus has stretched across the globe, networks have seen increased usage due to total lock downs of citizens in some countries, more employees working from home and increased gaming and streaming by kids home from school.

Craig Labovitz, chief technology officer for Nokia Deepfield, said in an interview with FierceTelecom that service providers typically see network growth of 35% to 45% per year. While the proverbial light is not yet blinking red, it could be over the coming weeks. Labovitz said Spain has seen a 40% increase in peak usage over the past few weeks, while the impact in the U.S. has been evident in a 29% increase over the previous two weeks.

Shaping Pitches That Land with Journalists



AS DID BUSINESS AND MAINSTREAM MEDIA INCLUDING BLOOMBERG AND WIRED (TWICE)


Bloomberg

Technology

Homebound Workers Close to Overwhelming Internet Junctions

By [Thomas Seal](#)
March 26, 2020, 11:29 AM PDT Updated on March 27, 2020, 2:49 AM PDT

- ▶ Nokia found 300% growth in remote-conferencing apps in U.S.
- ▶ Equipment upgrades expected to stop data pipes jamming



Lack of Internet Connectivity at Home is Biggest Challenge, Says Khan Academy CEO

With so many workers videoconferencing from home -- while their children stream videos and play Fortnite -- the internet is creaking at the seams, according to [Nokia Oyj](#).

The junctions between different internet networks are close to being overwhelmed, the Finnish telecom equipment company said in a weekly report seen by Bloomberg News.

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KLINT FINLEY BUSINESS 03.24.2020 07:21 PM

YouTube Slashes Video Quality to Save Bandwidth

Meanwhile, Microsoft and Sony plan to throttle game downloads during peak usage hours to help prevent internet congestion during the Covid-19 pandemic.



PHOTOGRAPH: PAUL TAYLOR/GETTY IMAGES


TECH COMPANIES ARE aiming to prevent internet congestion during the [Covid-19](#) pandemic by limiting bandwidth for applications like consumer video and game downloads.

WIRED BACKCHANNEL BUSINESS CULTURE GEAR IDEAS SCIENCE SECURITY

KLINT FINLEY BUSINESS 03.26.2020 00:00 AM

Go Ahead, Stream All You Want. The Internet Is Fine—for Now

Netflix is slowing streams in Europe in an effort to preserve bandwidth amid the pandemic. But US providers seem to be holding up to the surge in usage.



Security company Cloudflare says internet traffic in the US is up 10 to 20 percent since early February, with peak internet usage up about 13 percent. PHOTOGRAPH: MIROSLAW NOZKA/GETTY IMAGES

NETFLIX says it will lower the quality of its video streams in Europe in an effort to preserve bandwidth for more essential online activities. But early data shows that most US broadband providers, and many elsewhere, are standing up to the surge in internet traffic generated by the many people stuck at home amid the [Covid-19](#) pandemic. At least for now.



Network traffic insights in the time of COVID-19: June 4 update

by [Craig Labovitz](#)

9 Jun 2020



Executive summary

- Peak traffic “normalizes” at 25-30% above pre-pandemic levels
- Aggregate traffic volumes continue to be over 25% above pre-pandemic levels
- Video streaming rates back to normal (no speed/quality reduction) almost everywhere
- Distributed Denial of Service attacks on the rise; DDoS traffic increases 40-50% (February to May)

Intro

Societies across the world are preparing to reopen slowly. With the majority of people still working and learning from home, the effects of COVID-19 pandemic on global networks continue to be present.

In this blog – a follow-up to our [April 9 blog](#) – we take a more extended snapshot of the effects of COVID-19 pandemic on the internet with focus on the US networks. It's been ten weeks since March 19 lockdowns – when “shelter-in-place” orders were declared in the state of California and New York City; fourteen weeks since the first lockdown in Italy (February 21), and 18 weeks since the city of Wuhan, China was closed to incoming and outgoing traffic (January 23).

Sustaining the Nokia Deepfield Campaign

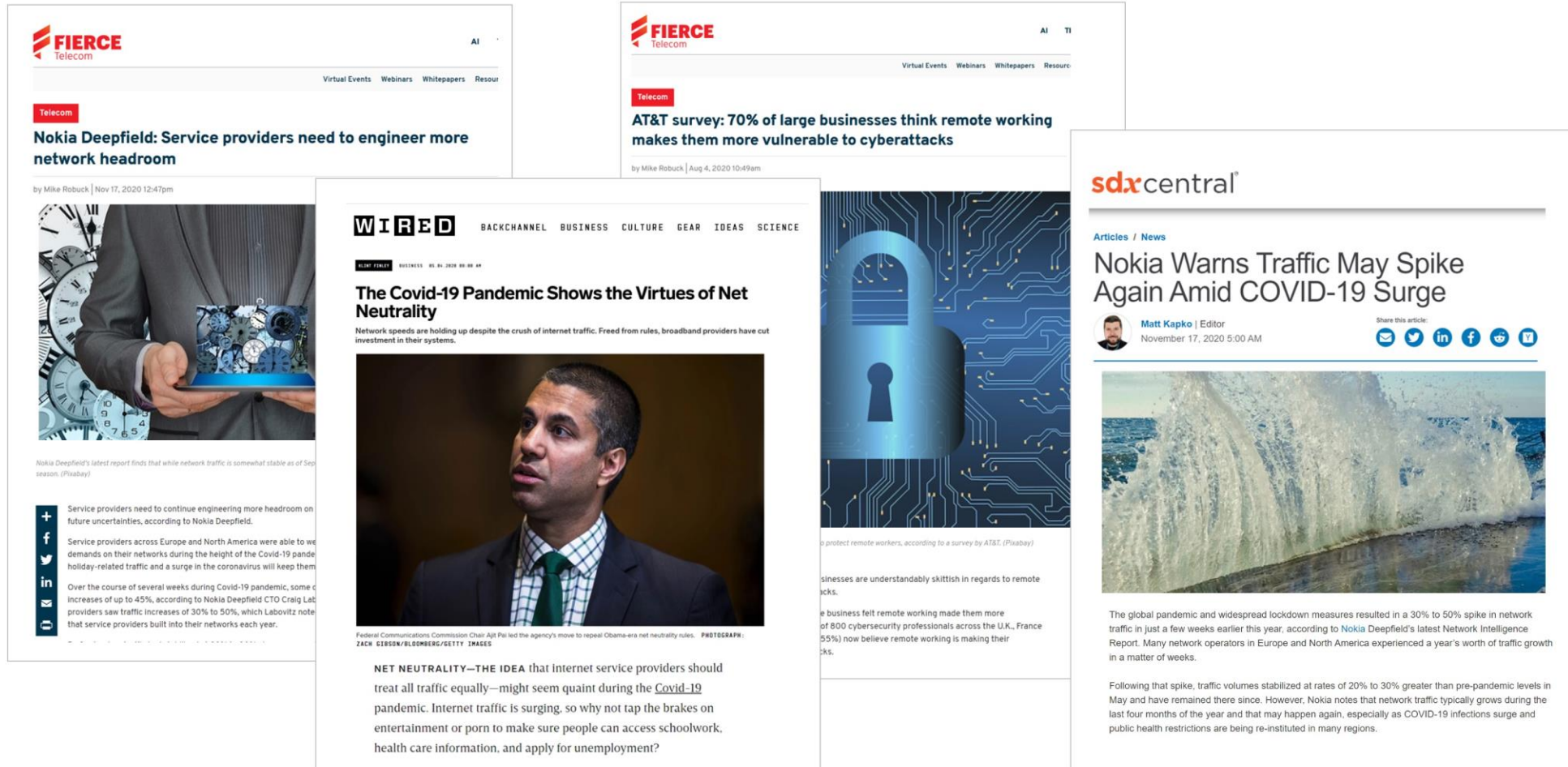
LOOKING BEYOND INITIAL PUSH

- We teamed with Nokia to continually replenish the narrative with fresh content.
 - ▶ Included publishing more blog posts.
- And continued pitching both trade and business journalists.

Sustaining the Nokia Deepfield Campaign



SAMPLE COVERAGE FROM CONTINUED MEDIA PUSH



THE WALL STREET JOURNAL.

BUSINESS | MEDIA & MARKETING

Forget the Streaming Wars—Pandemic-Stricken 2020 Lifted Netflix and Others

From Hulu to Disney+, largest streaming services are expected to end the year with 50% more U.S. subscribers



'The Crown' was the most watched Netflix show for the last two weeks of November, in a year when the service's content drew large audiences.

PHOTO: DES WILLIE/NETFLIX/ASSOCIATED PRESS

By [Lillian Rizzo](#) and [Drew Fitzgerald](#)

Dec. 30, 2020 9:33 am ET

The past 12 months were billed as the year when a flood of new entrants would force streaming services to wage an all-out war for subscribers. Instead, incumbents and rookies alike feasted on a base of shut-in customers eager for more things to watch.

The largest streaming services are expected to finish 2020 with combined U.S. subscriber numbers more than 50% higher than a year ago, according to a Wall Street Journal analysis of data from market-research firms MoffettNathanson LLC and HarrisX.

Sustaining the Nokia Deepfield Campaign

BY ESTABLISHING A BEACHHEAD AT THE START OF THE NEWS CYCLE, JOURNALISTS CALLED US.

- The best example of this is the Journal reaching out to us for Nokia Deepfield data and input.

The gap between Netflix usage on weekends and weekdays also shrank as homebound customers had more opportunities to consume programming on weekdays, said Craig Labovitz, chief technology officer of Nokia Deepfield, the telecom-equipment maker's network analysis unit.

Let's connect

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