

The background of the image is a city skyline at sunset. In the foreground, there is a large stadium with a curved roof, surrounded by construction cranes and scaffolding. The sky is filled with large, golden clouds, and the city lights are visible in the background. The overall scene is a mix of urban development and natural beauty.

**8x8** Essentials  
eBook Series

# Unified Communications Game Changers in 2021



# Introduction

To identify some of the 2021 unified communications game changers, we started by taking a peek at what analysts from [Gartner](#), [Forrester](#) and [IDC](#) had to say. Then, we spoke with our partners and customers along with several 8x8 subject matter experts.


We view 2020 as a year of learning, especially as companies pivoted quickly in the early months of the Covid-19 crisis. As the year wore on, businesses learned lessons about what worked well and what they needed to do differently.

They accelerated their cloud communications plans to enable their employees to work from anywhere. Some implemented resiliency initiatives developed on the fly to keep serving customers and generating revenue.

We believe 2021 will be a year of optimisation where organisations apply what they learned, and this is reflected in our game changers.

**“Communications and collaboration tools, once considered tactical, all of a sudden were strategic assets getting boardroom-level attention.”**





# Edge Networking, 5G and Wi-Fi 6 Boost Cloud Communications Quality

**Mehdi Salour**

Senior Vice President of Global Network  
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# Edge Networking, 5G and Wi-Fi 6 Boost Cloud Communications Quality

Everyone wants a great customer experience. With cloud communications, your “experience” is only as good as your network. Exponential growth of online apps, data, and users is straining many networks.

We are living in a time when it is common that within a household, there could be two separate video conferences running concurrently with Netflix streaming in the background, and many “smart” devices all over the house connected to the same network with continuous chatters to cloud providers clogging the network. Offices could face similar challenges. Without innovation to address these challenges, severe bottlenecks could disrupt or crash services creating lots of user frustration and lost productivity.

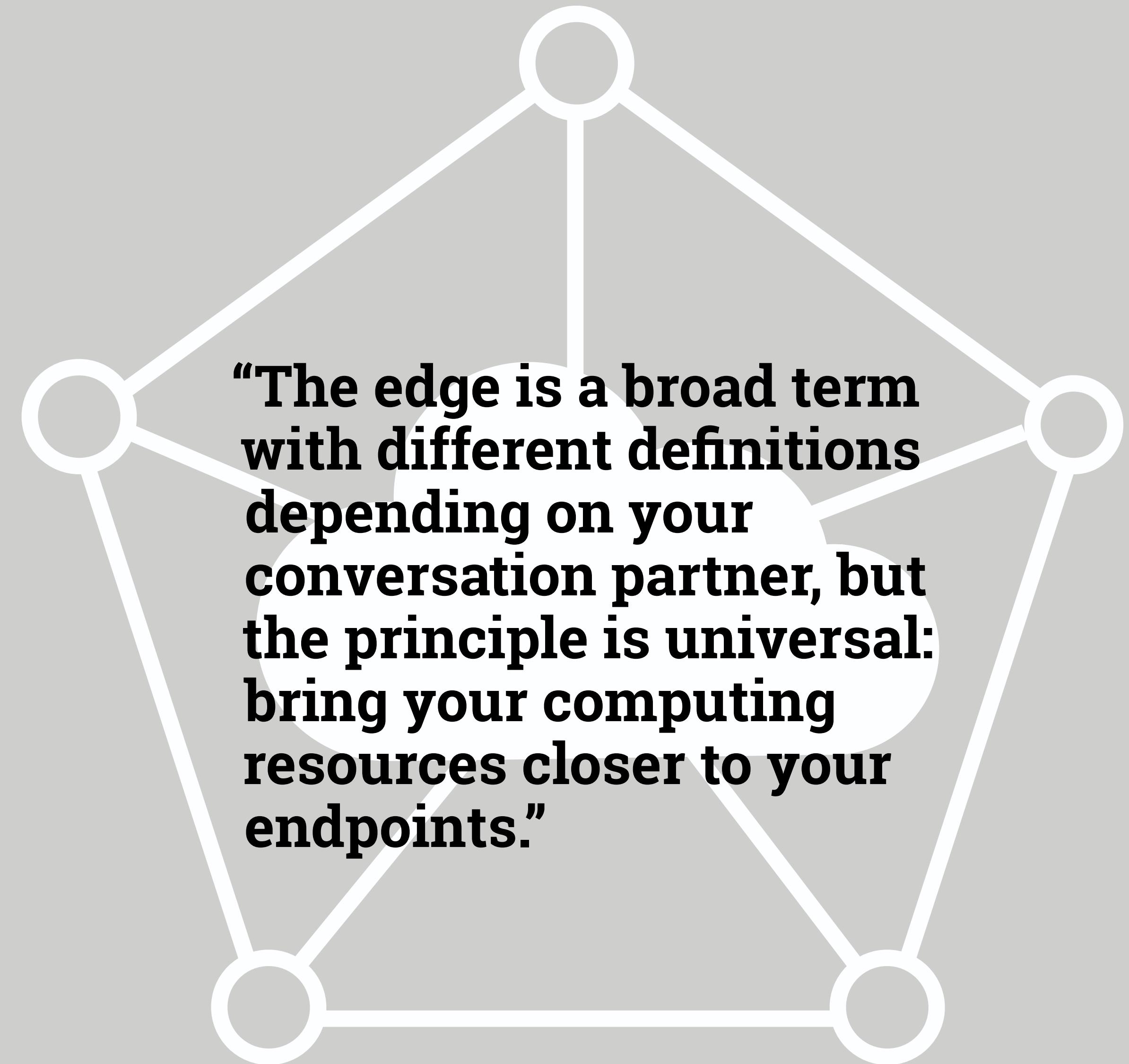
Edge networking and edge computing technologies are part of the tech industry’s solution to these kinds of potential congestion problems. In fact, leading IT analysts like [Gartner](#), [Forrester](#) and [IDC](#), all cite edge as one of their top 2021 trends because of the focus vendors have on the edge.

**“Everyone wants a great customer experience. With cloud communications, your experience is only as good as your network.”**

## But what is the edge?

The edge is a broad term with different definitions depending on your conversation partner, but the principle is universal: bring your computing resources closer to your endpoints (e.g. you). You can absolutely improve quality of service (QoS) with edge networking and computing technologies. You're going to be able to do more error correction in real time without impacting latency negatively. Edge technologies also provide additional intelligence for smarter routing and traffic prioritisation. [SiliconANGLE](#) published a comprehensive and fascinating article about the edge and where it lives.

Remember that cloud communications includes a host of microservices like chat and speech and other analytics in addition to voice and video. Bringing the computing engines closer to the end user enables these services to be delivered closer to real time with less burden on cloud infrastructure, less bandwidth utilisation on the backbones, and with fewer points of failure.



**“What most of the enterprise learned from the necessary transitions and subsequent practices put into play during the pandemic will be responsible for the motivation through 2023, for 80% of edge-driven investments and business model changes.”**

IDC FutureScape: Worldwide Industry 2021 Predictions

In addition, while latency of an end-to-end call cannot be necessarily improved (as the media still needs to traverse from point/person A to point/person B), utilising proper edge networking technologies, the quality of the conversation/video can be significantly improved. It is overall good for the health of the Internet, cloud providers, and users. It is a win for everyone. As IoT devices are taking off exponentially, edge computing will only become more vital to address the needs of latency sensitive applications and decision makings that are dependent on processing the data and providing feedback in the fastest possible manner.



**“As IoT devices are taking off exponentially, edge computing will only become more vital to address the needs of latency sensitive applications and decision makings that are dependent on processing the data and providing feedback in the fastest possible manner.”**

**“By 2022, a shift of 65% of global GDP will be a result of digitalisation.”**

IDC FutureScape: Worldwide Industry  
2021 Predictions

SD-WAN technologies are one of the network edge infrastructure variations growing in popularity. When configured properly, it provides numerous benefits including improved call quality and reliability. I believe that even a single location can take advantage of SD-WAN, as the error corrections, prioritisation of traffic, and dual/multi-path access to the cloud provider can significantly improve the experience. Additionally, it provides visibility to incoming and outgoing traffic that simplify making traffic decisions about priority, such as whether to throttle YouTube content when video conferences are taking place.

Other edge flavors include working with local point-of-presence (POP) network providers that maintain edge compute equipment or content delivery networks (CDN) allowing deployment of applications in thousands of locations closer to the users. I can go into more detail on those at another time.



## Wi-Fi 6 and 5G

Wi-Fi 6 launched at the end of 2019 and devices that support it dripped out in 2020. In 2021, expect more widespread adoption in homes and offices. From a cloud communications perspective, Wi-Fi 6's key value proposition is not necessarily faster speed. It simply enhances and improves the performance and experience of the Wi-Fi users as we see more and more Wi-Fi enabled devices share the Wi-Fi network. The contention and collisions of congested Wi-Fi networks on the previous generations of Wi-Fi can be detrimental to the quality of real-time communications such as voice and video calls.

OFDMA, a fancy-named technology called Orthogonal Frequency-Division Multiple Access, should alleviate much of the unpredictability users experience in highly congested areas. It can easily support more endpoints and bandwidth-intensive applications simultaneously. OFDMA uses modulation, which allows multiple clients to share a channel at the same time.

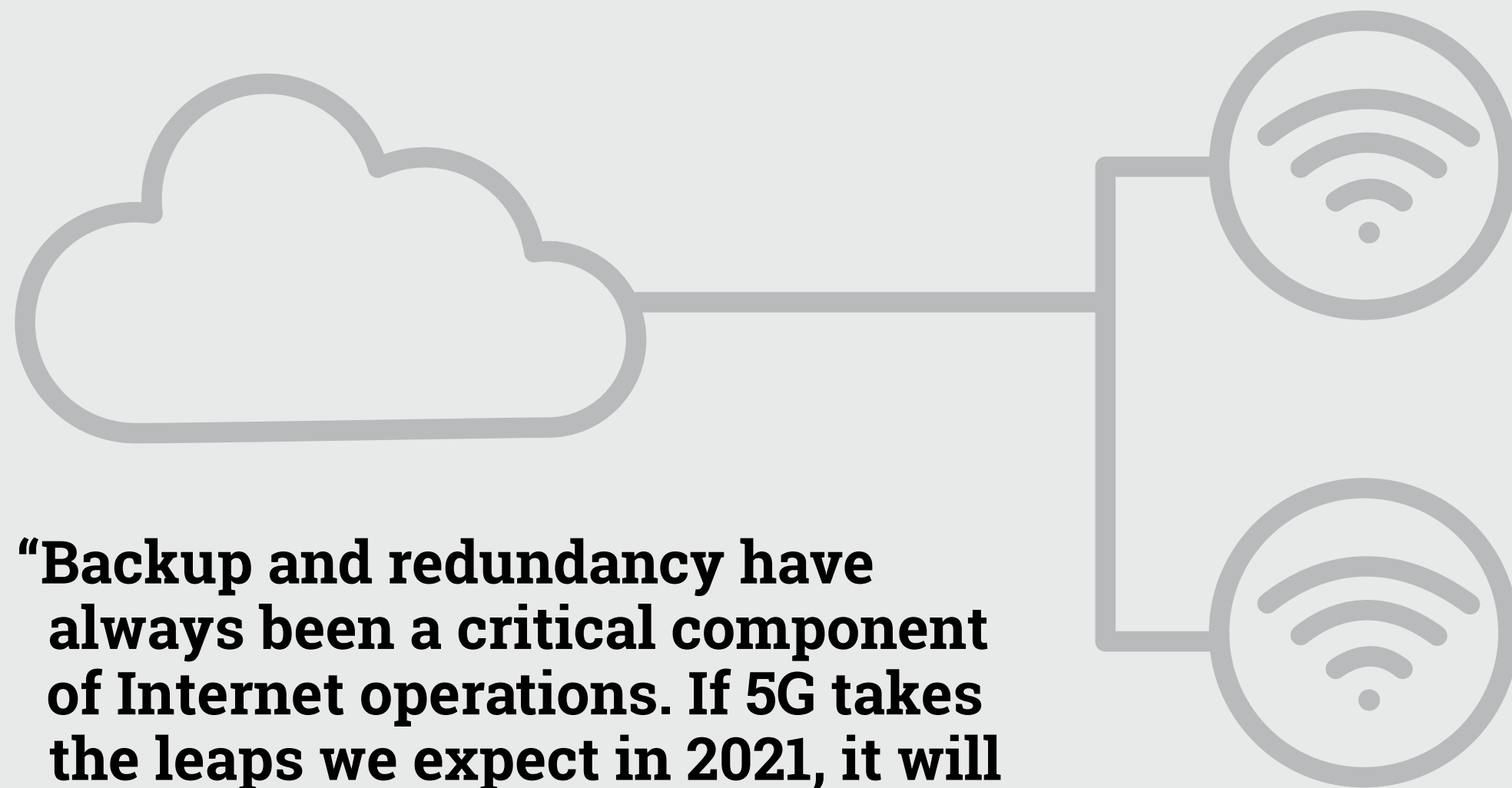
**“OFDMA should significantly address the unpredictability of performance and user experience in highly congested Wi-Fi networks.”**





## “5G will cover approximately 60% of the global population by 2026.”

Ericsson Mobility Report



**“Backup and redundancy have always been a critical component of Internet operations. If 5G takes the leaps we expect in 2021, it will become an important component of both quality of service (QoS), and consistency of services as well.”**

At least in the United States, you can hardly turn on a television or pick up a magazine without seeing a 5G advertisement. [5G](#) has a chance to really disrupt mobile experiences but depending on how 5G indoors fares and grows; it could reinvent how people inside the offices/homes access the cloud providers and content. Apps may live in the cloud, but continuously better transportation systems to and from the “cloud” such as 5G will drive better experiences.

Additionally, 5G could play a growing role in a business continuity plan. For instance, if a local network outage takes out regular/Wi-Fi Internet connectivity, a customer could flip to 5G to keep employees or contact centre agents accessible and working. Backup and redundancy have always been a critical component of Internet operations. If 5G takes the leaps we expect in 2021, it will become an important component of both quality of service (QoS), but consistency of services as well.




## Application administrators and network managers need to collaborate closely in 2021

The furious pace of networking innovations including edge computing makes it increasingly important that app and networking teams work together on solution designs, continuous performance monitoring and implementing user feedback. Great app, lousy network equals bad experience and vice versa. Remember that cloud communications is only one kind of app that competes for corporate bandwidth. Networks get more intelligent by the day with increased capabilities to prioritise and optimise traffic, sometimes aided by AI. I think folks in IT organisations recognise this and will trend toward more collaboration across teams in 2021.

For those planning to introduce cloud communications and collaboration tools and those who are planning upgrades in 2021, do not forget to include networking services as part of your plan. Talk with your teams and trusted advisors about how to give your users


the best experience possible. This, in 2021, will mean evaluating innovations including edge, 5G and Wi-Fi 6 to see what makes the most sense for you to deploy.



**By 2021's end, 80% of enterprises, informed by the experience of the shift to a primarily remote workforce, will develop a mechanism to double the acceleration of the shift to cloud-centric infrastructure and applications.**

IDC FutureScape: Worldwide Industry 2021 Predictions





# Unified Analytics Capabilities Create and Define UC/CX Leaders

**Matt Taylor**

Senior Director, Product Management  
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# Unified Analytics Capabilities Create and Define UC/CX Leaders

2021 will be defined by a world reviving from the COVID-19 pandemic. Companies that were forced to have a significant percentage of their staff working from home will continue to work differently and not bring everyone back to the office. Companies will be supporting and selling to other companies and consumers who are feeling their way back to a new normal.

Physical interaction almost non-existent during the pandemic will not come back fully. Whether managers with employees, supervisors with contact centre agents, or retailers with their customers, companies will depend on analytics even more to understand where to pay attention. What is going on in my company? With my customers? Unifying analytics—bringing together insights from all over the company—will be crucial to this process of focusing attention.

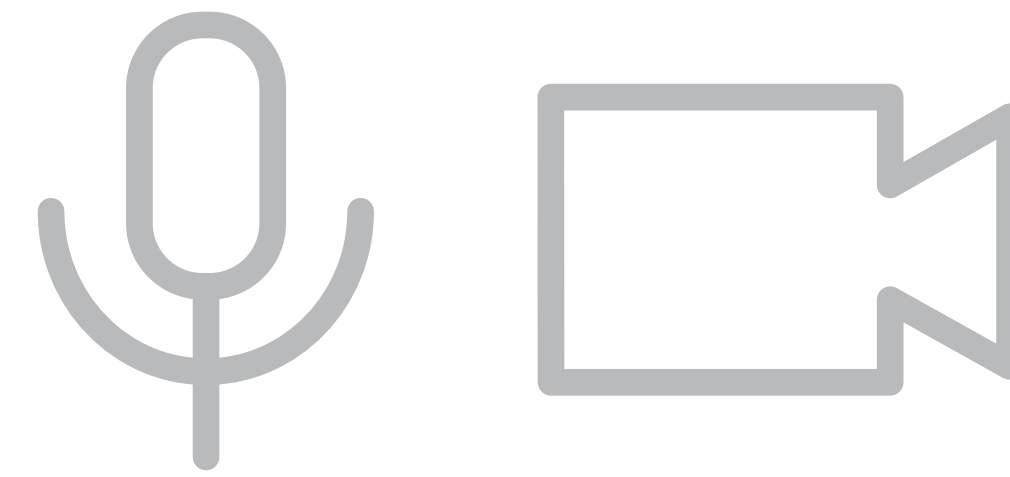


**“Physical interaction almost non-existent during the pandemic will not come back fully. Whether managers with employees, supervisors with contact centre agents, or retailers with their customers, companies will depend on analytics even more to understand where to pay attention.”**



**“By the end of 2021, only one-quarter of organisations will have the insights needed to understand the correlation between the customer experience and the employee experience.”**

Ventana Research



## **Connecting and Connectivity**

The nuts and bolts of UC—connecting people externally and internally via voice and video—will continue to be crucial into 2021 as people continue working remotely. This means that analysis on connection quality (e.g. which of my employees need to upgrade their in-home connectivity) will continue to be critical.

Managers will be leaning heavily on IT resources to first identify employees who are having poor connectivity issues and then to identify the causes of those issues. 2021 will see IT begging for even more proactive resources to point them in the right direction and identify employees that need help.

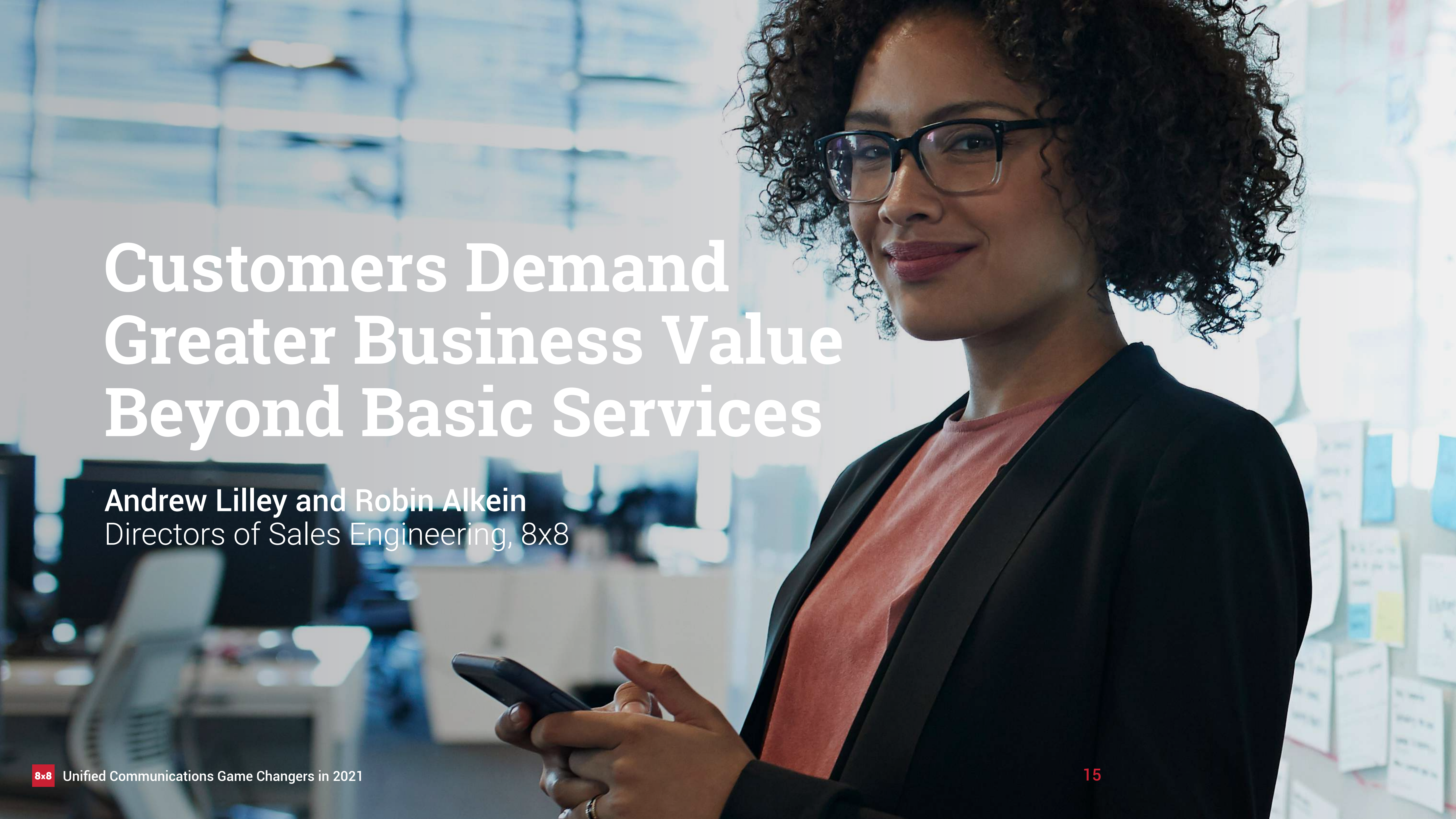
## Lines between UC and CC Blur

Expect the differentiation between UC and CC (contact centre) to blur even more in 2021 as companies use ring groups and simple UC-based queues to handle different kinds of customer support and sales. Inside sales reps, relationship managers, and other knowledge workers supporting external customers have been forced to do their jobs from home and many will continue working from home. This means sales and service managers, finance managers, and others will count on additional analytics capabilities to track productivity and highlight issues for teams that are even more widely distributed.



**“Expect the differentiation between UC and CC (contact centre) to blur even more in 2021.”**





# Customers Demand Greater Business Value Beyond Basic Services

**Andrew Lilley and Robin Alkein**  
Directors of Sales Engineering, 8x8



# Customers Demand Greater Business Value Beyond Basic Services

Our systems engineering teams around the globe listen to customers every day. Even as we architect communications solutions for them, they remind us that basic voice and video services are no longer enough to meet their needs. Work from home was 2020.

So in 2021, expect customers to demand more business value from their communications and collaboration tools. They want help delivering better, more cost-efficient services to their customers from personalised interactions to improved security and performance. They want to offer more self-service options and gain more actionable insights from analytics.

Additionally, planning for a potential post-pandemic world is also top of mind for many organisations. They want to discuss technology implications and workforce considerations to be better prepared than when Covid first hit. Lots of employees, given a taste of working from home, do not want to return to long commutes to the office. IT administrators need to be ready to adapt to evolving HR policies. Our SEs take these concerns seriously and infuse them into the customer solutions we design.

**“In 2021, expect customers to demand more business value from their communications and collaboration tools. They want help delivering better, more cost-efficient services to their customers, from personalised interactions, to improved security and performance.”**



We have identified four top trends over the next 12 months that will shape how we support our customers' continued digital transformations.

1

## API Usage Explodes to Personalise Customer Interactions

Application programming interfaces (APIs) will be very popular throughout 2021 and beyond because they allow you to deliver personalised services and innovate to reinvent ecommerce and support options. Equally important, they provide your customers with more control about how they want to receive services such as via chat, SMS, voice etc.

While customers may be able to purchase the use of APIs for things like embeddable video and bots from cloud communications vendors, API marketplaces will emerge along with tools to make it easier for any user to build their own APIs. In effect, communications and

collaboration services become part of a cloud platform where organisations can add the customisations that give them competitive advantages.

**About 20% of global organisations today use CPaaS APIs to enhance their digital competitiveness. But, by 2023, nearly 90% of organisations will use CPaaS, according to Gartner.**

# 2

## Self-Service Movement Expands as AI and Related Technologies Give Buyers More Control

Otto, 8x8's support bot, has thousands of daily user interactions and resolves 65% of queries without requiring an agent up from 25% just a couple of months ago. If an agent is needed, Otto can find a human to help within two minutes (on average).

Otto keeps getting smarter, enabling customers to get help faster either from Otto directly or because more support personnel are available to take customer calls.

Fast, accurate resolution at lower costs are reasons why organisations will be more frequently adopting self-service options in 2021.

Self service can take several forms and can be used for sales and support. AI is helping recommendation engines get smarter enabling website visitors to find

items quickly or assist users when they do not know what they need. Services now enable customers to chat with a bot and have resources instantly delivered to them via SMS, for example. Expect increasing demand for virtual agents and interactive voice response capabilities that can provide an Alexa-like experience for people reaching out to your organisation.



**Organisations say they are most satisfied with early AI use around self-service IVR (84%), and AI's ability to deliver real time support by answering FAQs (84%).**

8x8 AI Adoption in Business Communications Report



# 3

## Data Lakes Form to Help Organisations Fully Harness Their Data

Everything and everyone on the Internet generates data. Organisations want to harness it to measure ROI and inform future business decisions. This is not new. What is new and gaining steam in 2021 is the expanded scope of what can be measured and having a central repository to process all of the data in one place to wring the most value possible from it.

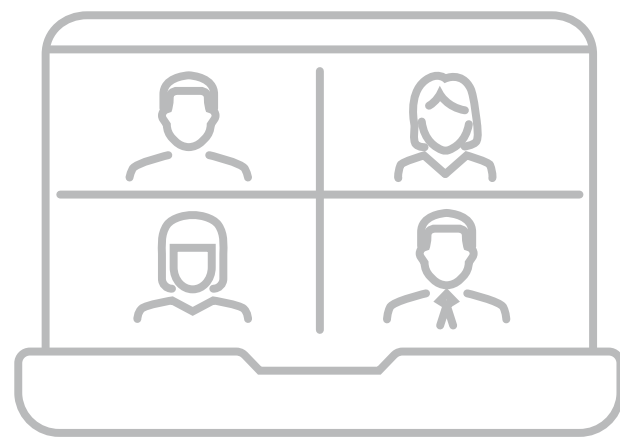
Imagine having speech analytics, call quality info, chat, and video conferencing data reside in one place for processing. That is the vision for unified analytics. While not yet 100% fully available yet, expect big strides toward it in 2021. Organisations want to make better use of their data and provide their users with a seamless experience across all lines of communication/collaboration including a complete 360-degree view of customer interactions.

**“Imagine having speech analytics, call quality info, chat, and video conferencing data reside in one place for processing. That is the vision for unified analytics.”**

# 4

## Customers Get the Choice to Use Apps or a Browser for Communications

In 2021, the Internet browser will become a front for communications and collaboration innovation. While some video conferencing services, like [8x8 Meet](#), can already be used on a browser without requiring plugins or downloads, we see full stacks of apps moving to the browser. Browser-based apps have several benefits including that they work on any device, security updates can be automatic without requiring user intervention and administrators have flexibility in the way they configure backups.



**“Browser-based apps have several benefits including that they work on any device, security updates can be automatic without requiring user intervention and administrators have flexibility in the way they configure backups.”**

This is possible thanks to a Google-developed framework called WebRTC. However, customers will still get to choose between mobile apps and browser-based communications. You may want to go with an iPhone or Android app because that is how lots of people like to communicate. They bring their own devices to work and want to use the apps that work for them. Your ultimate communications solution needs to reflect users’ styles—or they will find other tools to use and that can cause more problems.

We expect that over the course of 2021, we will be working with clients to help them understand the pros and cons for their specific situation.



# About 8x8

8x8, Inc. (NYSE: EGHT) is transforming the future of business communications as a leading Software-as-a-Service provider of voice, video, chat, contact centre, and enterprise-class API solutions powered by one global cloud communications platform. 8x8 empowers workforces worldwide to connect individuals and teams so they can collaborate faster and work smarter. Real-time business analytics and intelligence provide businesses unique insights across all interactions and channels so they can delight end-customers and accelerate their business. For additional information, visit [www.8x8.com](http://www.8x8.com), or follow 8x8 on [LinkedIn](#), [Twitter](#) and [Facebook](#).