



**8x8** Essentials  
eBook Series

Build Your Experience:

# Accelerate Customer Connections

Open  
x8x8

# **It's time to reimagine how you connect with customers and embrace a digital-first world.**

This eBook will give you a step-by-step guide to build and customize your customer experience using transformative APIs, SMS, chat apps, and embedded video.



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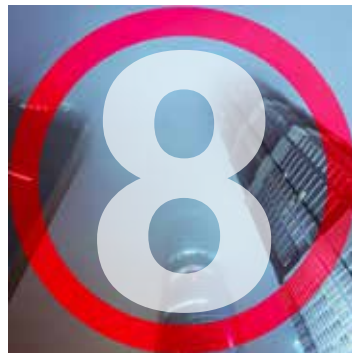
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Chapter

# 1

# Reach customers everywhere.

Transform customer engagement  
using communication APIs.

# The world is changing. Build the way forward.

On October 21, 2019, Gartner predicted the following in the first line of their CIO 2020 report: “In the future, enterprises will win by their ability to handle crisis and disruption, not by optimizing for stability.”<sup>1</sup>

A few months later, the world went from shaking hands to social distancing. The sudden changes, for example, to the way business is done, education delivered and health care provided will have lasting impact on how we work. Right now, companies of every size must re-evaluate their resilience in this environment and preparedness for what lies ahead. While most leaders had risk management or business continuity on their minds, those topics were not developed to a depth that enabled quick and adequate response to disruptive events. Current events have put this problem into stark relief.

<sup>1</sup> Gartner: The 2020 CIO Agenda: Winning in the Turns

As everyone looks for answers, it's clear cloud communications will be central to any solution that helps organizations become agile and resilient, able to adapt to the new way of connecting, communicating and working that lies ahead.

Businesses are reimagining how they interact with customers across all communication channels and all devices. For example, findings from Gartner's survey show that more organizations now cite modern architectures that support APIs and microservices for internal and external use as key differentiators in their ability to execute new business strategies.

**“A lot of our discussion has been around this idea of coming out of the turns and being better prepared for the straightaways going forward.”**

**Mike Pfister**

CIO, ConocoPhillips





The key is making these communication-based interactions a natural and seamless part of the core workflows for your business. It's not enough to have phones, contact centers and chat capabilities. Customers expect both a unified experience and convenience, meaning every interaction uses the appropriate communication channel and is proactive, fast and easy.

Many cloud communication platform vendors can get you part of the way there. 8x8 is different. Our APIs and engagement platforms provide a reliable and global communications platform-as-a-service. Our SMS, chat apps, voice APIs, and programmable video apps enable you to easily and quickly build an experience that connects with your customers anywhere using a proven, reliable global network.

## **Reach customers anywhere with a proven, reliable global network.**

Ensure your messages are delivered with a global network of 160+ top-tier carriers covering 206+ countries and territories.

Tailor messages that can reach any device with an API service built for mobile first.

Automate message delivery with confidence using rules that automatically prioritize delivery channels.

## **Drive performance-based decisions with one view of all activity.**

Make data-driven decisions instantly based on a consolidated view of all messaging activity in one, easy to read dashboard.

## **Scale your communications with the simplicity of a single, secure, reliable platform.**

Connect with customers across multiple channels, through just one API.

Start messaging customers instantly with an online portal.

Expand communications as needed with a single, reliable, secure platform that integrates voice, video, chat, contact center, APIs and analytics.

## **Trust in a proven partnership dedicated to your success.**

Realize the potential of your customer engagements with 24x7x365 support.

Deliver results with the support of an account management team focused on achieving your current and future goals.



# The 8x8 messaging and engagement platforms include SMS, Chat Apps, Voice API, Programmable Video.

SMS messaging is the most trusted communication source available. With a 98% open rate, there's no better way to keep your customers informed.





**Keep customers in the loop:** automate event-based messages to make sure customers are informed every step of the way.

**Enhance security:** using mobile number verification, two-factor authentication codes and one-time pins (OTP).

**Scale as needed:** with no limits, you can instantly send thousands — or even millions — of messages.

Get started immediately - no integration required. Just log into the online portal and start communicating with your customers.

[Tutorial](#)

[Try It Out Today](#)





# Chat Apps

Our Chat Apps API lets you manage WhatsApp, Viber, Google RCS, WeChat, LINE, Zalo and Facebook Messenger. No matter which chat app your customers use, a single API works for all of them.



## **A picture or video is worth 1,000 words.**

Directly share rich content like photos, videos, screenshots, PDFs, location tags, or files.

## **Achieve superior deliverability.**

Read receipts let you know which notifications are getting opened and Smart Retry reroutes undelivered messages to another chat app to ensure delivery - so your customers don't miss an important message, and you know what messages resonate.

Integrate with your existing environments:

### **Zendesk Support**

Already using Zendesk? Our APIs seamlessly integrate multiple chat apps into your existing Zendesk ticketing system to streamline customer communications.

### **Salesforce Live Agent**

It's easy to add 2-way chat app conversations with leads and customers to Salesforce.

### **Freshdesk**

Give your customers more options to reach out by quickly and simply integrating their favorite chat apps with your existing Freshdesk support system.

[Read Documentation](#)

[Try It Out Today](#)



# Voice API

This versatile API provides text-to-speech, call masking and app-to-app calling capabilities. Keep your data private.



## Voice Messaging

Our text-to-speech software turns your text into a voice call, improving the odds that passwords, notifications, alerts, and other sensitive data will be received.

- No call length limit
- Choice of voices and pre-recordings
- Reach landlines, improving answer rates

## Call Masking

With increasing privacy regulations and laws, it's more important than ever to keep private information private. Our Voice API features a phone number masking function that keeps numbers anonymous and stays in compliance with privacy policies and regulations.

## App-to-App Calling

Personalize the experience for your users by enabling in-app calls over VOIP. All app-to-app calls go through an IP network giving you total control over the way the call is presented.

- Built-in phone number masking
- Embed directly into your app code
- Provide names and pictures instead of area codes
- Easier to provide recordings (when needed)
- Use data instead of consuming customers' mobile minutes

[Read Documentation](#)



# Programmable Video

Gone are the days of painful phone calls and emailed screenshots. The 8x8 Programmable Video App lets customers start live video chats with agents, and is built using WebRTC to embed HD video into any application, mobile, web, or desktop.





## **Easy to deploy.**

Avoid building from scratch; just pick up the code and go. Don't worry about low level APIs or DevOps resourcing to manage infrastructure. And rely on 8x8's highly scalable and highly available infrastructure.

## **Enterprise privacy and security.**

8x8 maintains industry-leading security and compliance certifications. We use secure coding as part of the DevSecOps process as well as ethical hackers to test our systems.

## **Proven.**

This code has been hardened with over a million downloads globally. It's used in applications including banking video conferencing, education platforms, and home security applications.

## **Make it yours.**

Add or remove features, put your branding in it, and embed it into whatever application you want to.

[Read Documentation](#)



Chapter

# 2

## Put video where your engagement is.

Reimagine customer engagement  
using video.

# Reimagine your product experience with video

Recent events have forced social interactions to go virtual, prompting everyone to use video conferencing to stay connected. Businesses of all sizes have embraced video conferencing as the standard for communicating at work. Cameras on smartphones are being used to capture events as they actually happen to provide evidence and insight that aids in driving change. This creates a unique opportunity to innovate by combining these factors with rapidly evolving video technology. And as companies roll out digital workplace plans, create new ways to connect with customers, and define new business models, how they incorporate video into workflows and customer journeys will determine their success.

Let's look forward in time to provide some creative inspiration and illustrate how video can take customer engagement to the next level.

# Autonomous Delivery

Automated delivery of prescriptions and groceries is already being tested around the world. CVS and Kroger are working with Nuro, a robotics and artificial intelligence company, to provide delivery services using autonomous delivery vehicles. Positive customer service opportunities abound. Imagine some of your eggs arrive broken. Now what? What if you could press a button on the delivery vehicle and be instantly connected with a Kroger agent through video?

You present the eggs to the camera and watch the screen to ensure the appropriate views are captured. The video is recorded to keep track of the incident. With the evidence appropriately captured, new eggs are added to the next Nuro planned to be in your area during a time frame that is convenient for you. Kroger collects analytics so it can identify patterns and make adjustments to improve intact egg delivery.





# The way forward for education.

With many school districts planning for long-term virtual learning, secure video is essential to support distance learning for teachers managing classes of 25 students and to make it easy for students to stay connected. Teachers and students alike will depend on an online learning environment that removes distractions and fosters connection. Exploring and collaborating on each lesson will require a high-definition video and audio solution with the flexibility to configure the capabilities and look and feel that are best for the learning environment.

These hypothetical examples are provided to illustrate how video can be incorporated into different environments to provide evidence, convenience and even analytical insight that support new ways of operating.



# New service offerings

The do-it-yourself spirit is strong, and there are numerous examples where paying a few dollars for access to an expert, through video, would be extremely useful—and Youtube videos have their limits. For example, you're wiring up new recessed lighting in the kitchen. Before spending hours on hardware store round trips and straining your marriage, imagine purchasing a 30-minute 1:1 video session with an expert who walks through your plan, reviews your supplies, and teaches you how to complete the wiring quickly and safely.







# A modern approach to video service

If your company has previously tried incorporating video into a customer journey or workflow with limited success, it's time to try again. What's changed? Two key factors: technology has matured, and psychological resistance is being lowered.

To be clear, live video in support of customer engagement is not new, with examples ranging from video-based car rental pickup kiosks to virtual bank tellers to retail purchase decision support kiosks. But bandwidth constraints, video and audio quality issues, and even the physical ways of engaging (for example, one retailer had to provide a telephone handset for audio to overcome "shyness" and background noise) limited adoption and success. These technical challenges have now been resolved.

At the same time, psychological resistance is being lowered by the now-ubiquitous adoption of video for personal engagements and now work.

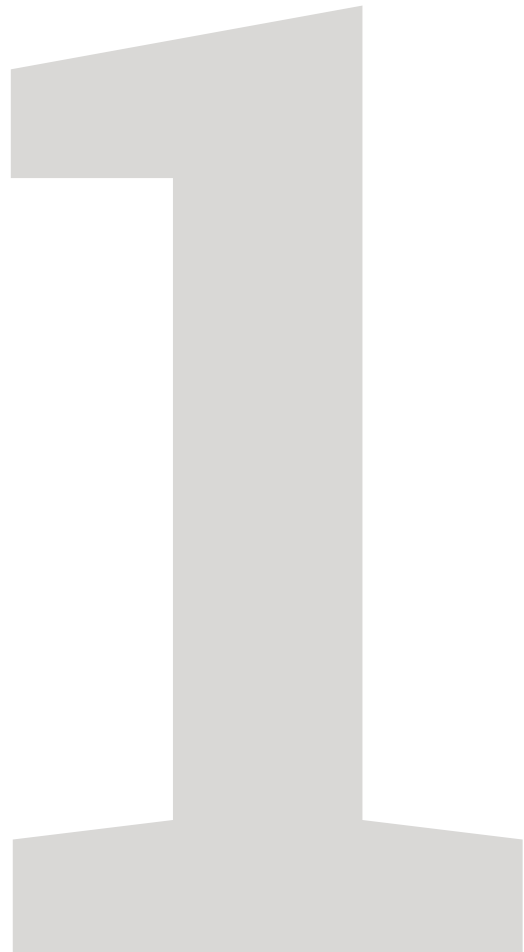


# What are you waiting for?

Today, a secure video service can be instantly embedded into your application or website. Copy and paste the code below and you're up and running. You have control over the branding and how the experience is delivered in your app. Behind the scenes, the service is running on an enterprise-class, highly available, instantly scalable infrastructure that will be there when customers need it and grow with your business as required.

Here's how to give it a try, right now.





## Step 1:

# Embed the API

```
<script src='https://meet.jit.si/external_api.js'>  
</script>
```

Then here's how you initialize it in your javascript code:

```
const domain = 'meet.jit.si';  
const options = {  
  roomName: 'PickAnAppropriateMeetingNameHere',  
  width: 700,  
  height: 700,  
  parentNode: document.querySelector('#meet')  
};  
const api = new JitsiMeetExternalAPI(domain, options);
```

And that's it!

If you would like to test the ability to add a meeting name, proceed to Step 2: Add a Meeting Name.



## Step 2:

# Add a meeting name.

Examples:

```
meet.jit.si/sto-khun-ghar
```

```
meet.jit.si/TallCountersTastePartially
```

```
meet.jit.si/977b62e1-c072-41a0-b93a-f02589e69a2d
```

You can also put it behind a tenant name. For example:

```
meet.jit.si/mycompany/some-id-you-like
```

## Advanced setup through API calls

No API calls are necessary to implement the steps listed above. This step shows you how to easily add capabilities.



# 3

Step 3:

## Attach a link that provides dial-in info.

Here's how to construct this, statelessly, for the meeting above:

```
https://meet.jit.si/mycompany/static/dialInInfo.html?room=some-id-you-like
```

You can stop here, or go even one more step further with one tap dial-in number.



#### Step 4:

## Add a one-click dial-in number.

This step involves two API calls that do not require authentication or authorization to get a one-click dial-in number that looks like this:

```
+1.855.337.6796,,1366520583#
```

First, run this API call:

```
https://api.jitsi.net/NumberList?  
conference=SuccessivePortsCompeteMeanwhile@conference.meet.jit.si
```

This call returns all the phone numbers that can be used to join this meeting. The first one will always be the one closest to the endpoint that made the call.

It's run in the browser to find the number that matches the location of the user.



# 5

## Step 5:

# Retrieving the PIN Code

The second API call provides the PIN code for the meeting:

```
https://api.jitsi.net/conferenceMapper?conference=some-id-you-like@conference.mycompany.meet.jit.si
```

With that, you get the PIN.

It's that easy.

This service provides a way for you to test how easy it is to add a video service to your app or website.

Branding, a scalable infrastructure and the full suite of capabilities are available by contacting the 8x8 team at [vpaas@8x8.com](mailto:vpaas@8x8.com).

# Predict the future by inventing it

Although it may be apocryphal, **the story** of Steve Jobs telling Wendell Weeks, CEO of Corning Glass, “Don’t be afraid. You can do this.” seems to be the right sentiment for the current environment. Those companies that boldly step forward and build the future will lead the way for the new normal and achieve outsized success. A secure, programmable video service is just one example of how 8x8 can enable you to build your experience

Build the way forward with 8x8.

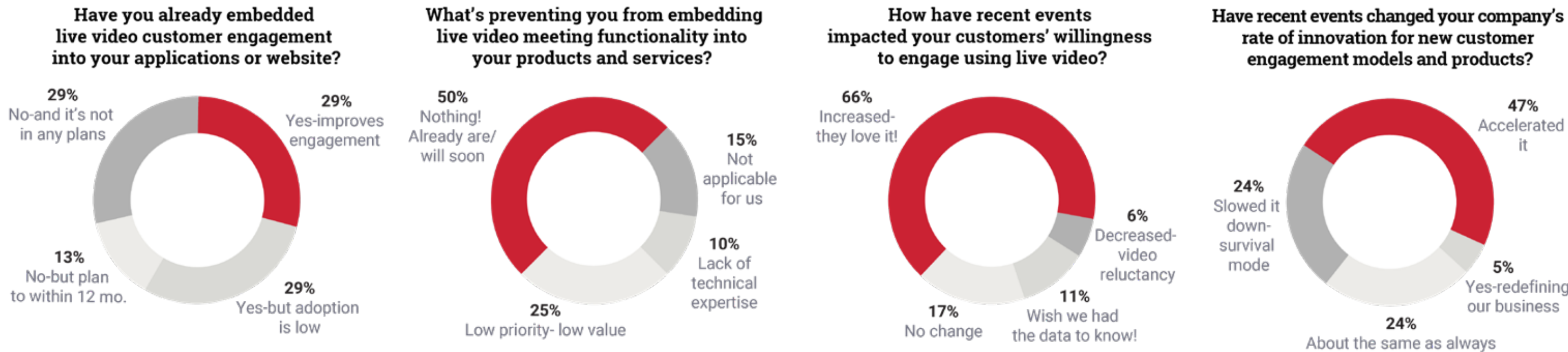


**Build Your Experience:** Accelerate Customer Connections





# 8x8 Poll Results



Sources: Facebook, LinkedIn, Twitter

Chapter

# 3

## Easy call performance monitoring.

Learn how detailed call and meeting analytics can gauge user experiences at scale.



# Let's admit it loud and clear (no pun intended): Call quality matters.

In a recent study of almost 500 businesses<sup>1</sup>, more than three in four indicated clear audio was the most important factor affecting video conference quality. And call quality continues to disappoint. Recent research found that when using video conferencing for work, over a third of respondents indicated they experienced connectivity issues, and almost one in three suffered from audio quality problems<sup>2</sup>.

Engaging through video meetings, distance learning and even online video kickboxing classes appears to be part of our foreseeable future. Many companies will need to incorporate high quality audio and video into their products and services to be successful.

<sup>1</sup> Hanover Research Small Business Collaboration Survey, August 2019.

<sup>2</sup> Hanover Research Collaboration Survey, May 2019.

# Audio Quality is Top Priority for Meeting

Feature	Need to have
Clear audio quality	72%
File sharing	66%
Audio calling	65%
Video calling	63%
Screen sharing	61%

Sources: Hanover Research Small Business Collaboration Survey August 2019

It's the same for contact centers. They've been forced to support agents working from home. IT departments are now facing performance challenges created by varying home internet service quality. And it matters: delivering excellent customer experience remains a primary objective for CMOs. [see the [Marketing Challenge in this blog](#)]

Generally, when a contact center or meetings solution is moved to a cloud provider, you improve agility and simplify operations, but also lose visibility and control over the infrastructure. There is an opportunity to regain that visibility and control for cloud-based contact centers and video solutions using WebRTC technology. New tools that monitor network performance and gauge the customer experience are now available.



# Let's first understand what can go wrong.



WebRTC audio quality can suffer for a variety of reasons, including:

- Network performance issues with the underlying transport network, i.e. the agent's end-to-end connection through the public internet to the contact center as a service platform.
- Software issues with the WebRTC protocol stack running in the agent's browser, or issues related to signaling, media transmission or NAT traversal.
- Endpoint platform issues like configuration errors, compatibility issues or environmental issues like CPU or memory constraints.

New WebRTC monitoring tools can help you analyze network performance, troubleshoot hardware and software problems, and resolve potential service quality issues.



## Why monitor endpoints?

Endpoints, such as contact center agents, provide the best vantage point to gauge the user experience. As WebRTC is implemented in the browser, the best place to get WebRTC performance data is directly from the browser running on a WebRTC endpoint. The WebRTC getStats API supports an extensive collection of real-time communications statistics that can be accessed directly from an agent's browser.



Generally speaking, the WebRTC getStats API supports three types of endpoint statistics that are vital to analyzing performance and troubleshooting problems. They correspond to stages in the media pipeline, as described in Varun Singh and Marcin Nagy's blog [How Problems in the WebRTC Media Pipeline Affect Quality of Experience](#)

- **Network connectivity** - packet transport metrics, including throughput, loss, delay and jitter
- **Media** - media stream metrics, including throughput per channel (audio, video and data)
- **Signaling** - metrics for session negotiation (SDP or XMPP) and address resolution (STUN/TURN/ICE)

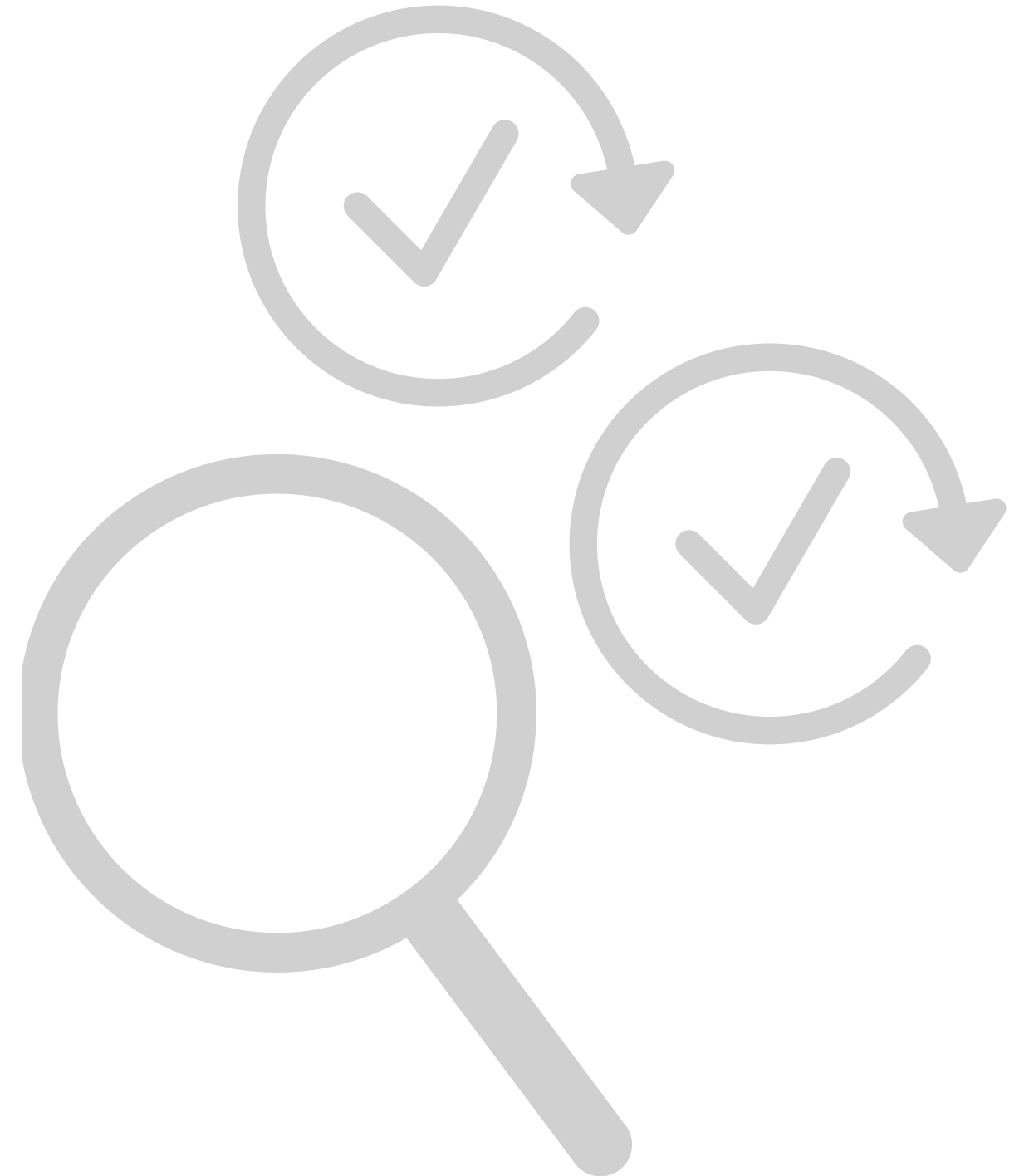
Typical challenges associated with using the getStats API to monitor WebRTC endpoints include:

- Keeping track of the WebRTC statistics each browser vendor supports.
- Ensuring endpoint statistics are collected and transported efficiently and securely.

# Tracking browser releases is a headache.

The W3C/IETF getStats API specifications outline hundreds of potential WebRTC statistics. The vast majority of these statistics are optional, so support varies widely between browsers and browser release versions.

To further complicate matters, browser releases happen frequently. Google, for example, introduces new major releases of Chrome every six weeks, sometimes adding new stats. In any given contact center or company using video conferencing, a variety of browsers may be in use (Chrome, Firefox, Safari, etc.) at different release levels, so it's important for a monitoring software provider to follow browser releases closely and perform regular regression tests to avoid incompatibilities and keep pace with change.





# Herding the “statistics cats” into one place.

WebRTC statistics must be transported from endpoints to a central repository for consolidation, analysis and reporting. This often requires a tradeoff between the breadth and depth of the data collected and the network bandwidth consumed. On one hand, you want to capture and forward as much statistical data as possible, as frequently as possible for ultimate granularity. On the other hand, you don't want to overwhelm the network with statistical data. (In extreme cases, WebRTC performance monitoring and troubleshooting tools can actually impair service quality and exacerbate problems by seizing bandwidth, a phenomenon known as the observer effect in physics.) Unfortunately, the less frequently you capture statistics, the more likely you are to miss a short-lived event like burst packet loss.

# Augmenting getStats API data.

Developing a complete view of the user experience requires collecting and examining statistical data from both endpoints in a WebRTC session. Most cloud contact centers establish simple point-to-point WebRTC connections between agents and a PSTN gateway in the contact center as a service infrastructure. Unfortunately, the PSTN gateway in the CCaaS infrastructure typically does not support the getStats API. You can use the Real-time Transport Control Protocol (RTCP) as an alternative to the getStats API to gain visibility into the PSTN gateway side of the session.



RTCP allows one endpoint to exchange performance statistics with other endpoints in a WebRTC session. RTCP statistics are robust and include delay, loss, jitter and throughput measurements (plus many more statistics if RFC 3611 RCTC Extended Reports [XR] are enabled). By combining getStats API data from an agent endpoint with RTCP data you can obtain a full, end-to-end view of the session.

You can also use RTCP to gather statistics from intermediary network elements like TURN servers (or MCUs and SFUs in WebRTC conferencing and collaboration applications). By monitoring both endpoints of the session, along with intermediary network elements you can increase the depth and breadth of the statistics you gather, which can help you identify and resolve issues more quickly and efficiently.

**In a peer-to-peer WebRTC application like a video chat you can get a complete view of a session by monitoring both endpoints using the getStats API, or by monitoring one endpoint via the getStats API and the other via RCTP stats.**

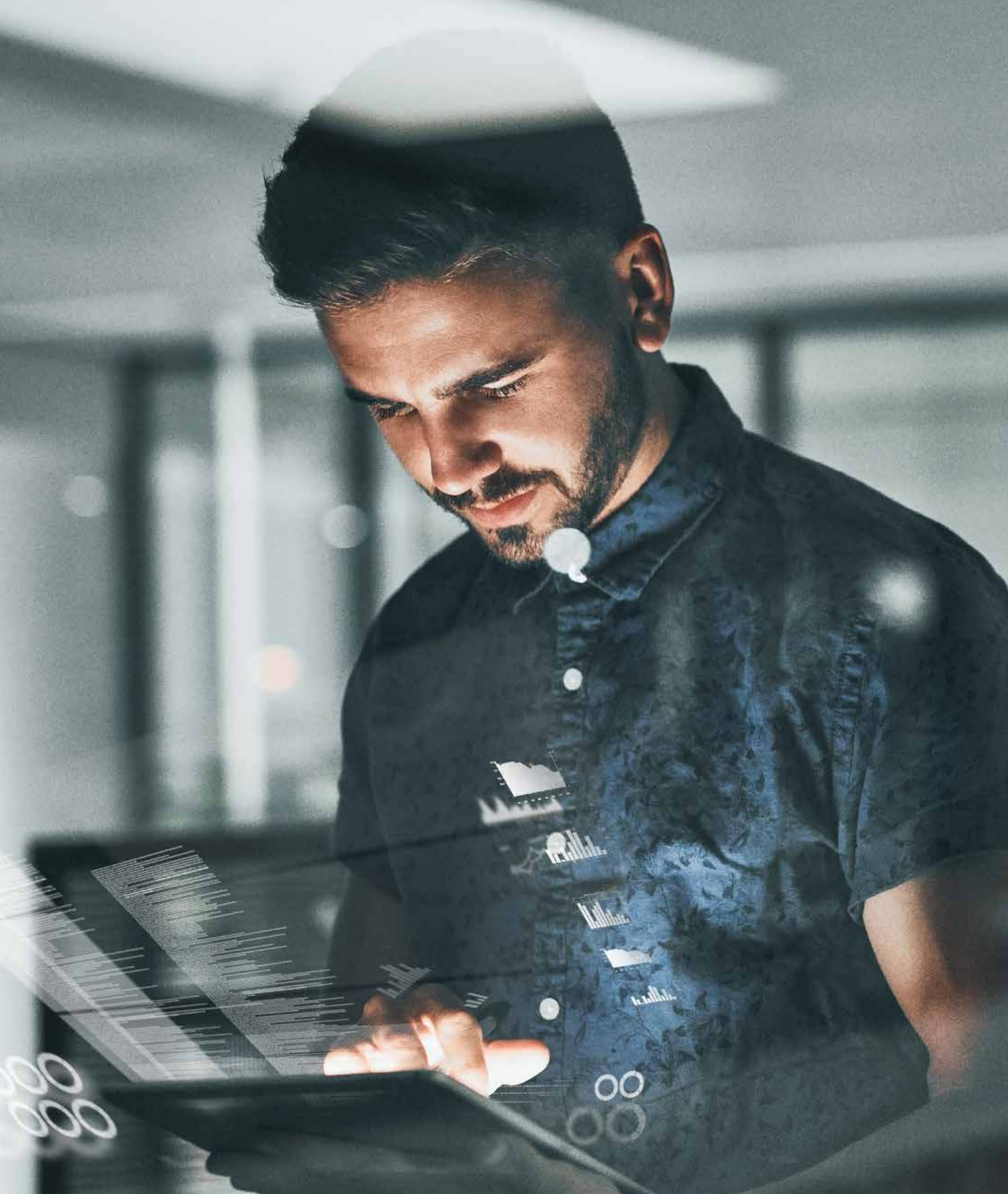


# Callstats makes it easy.

8x8 callstats is built to optimize WebRTC audio quality and improve user experiences. It embeds advanced monitoring functionality into WebRTC endpoints, giving operations teams real-time visibility into key network performance indicators and service quality metrics. The solution gathers all supported WebRTC statistics from each endpoint, transforming raw data into actionable insights.

It used an adaptive querying/reporting algorithm to balance statistical granularity with bandwidth consumption. At the beginning of a WebRTC session the callstats client queries the browser for statistics every second, and sends the results to an upstream data collector. After filtering out anomalies, the querying/reporting frequency is reduced to conserve bandwidth. The adaptive stats algorithm provides full visibility into key performance metrics, without overburdening the network or impairing the user experience.





Of course, callstats employs strong security measures to protect the privacy of WebRTC metadata. We authenticate callstats clients to prevent masquerading, encrypt data in transit to prevent eavesdropping and man-in-the-middle attacks, encrypt data at rest to protect data confidentiality, and implement strong access control mechanisms to prevent unauthorized data disclosure.

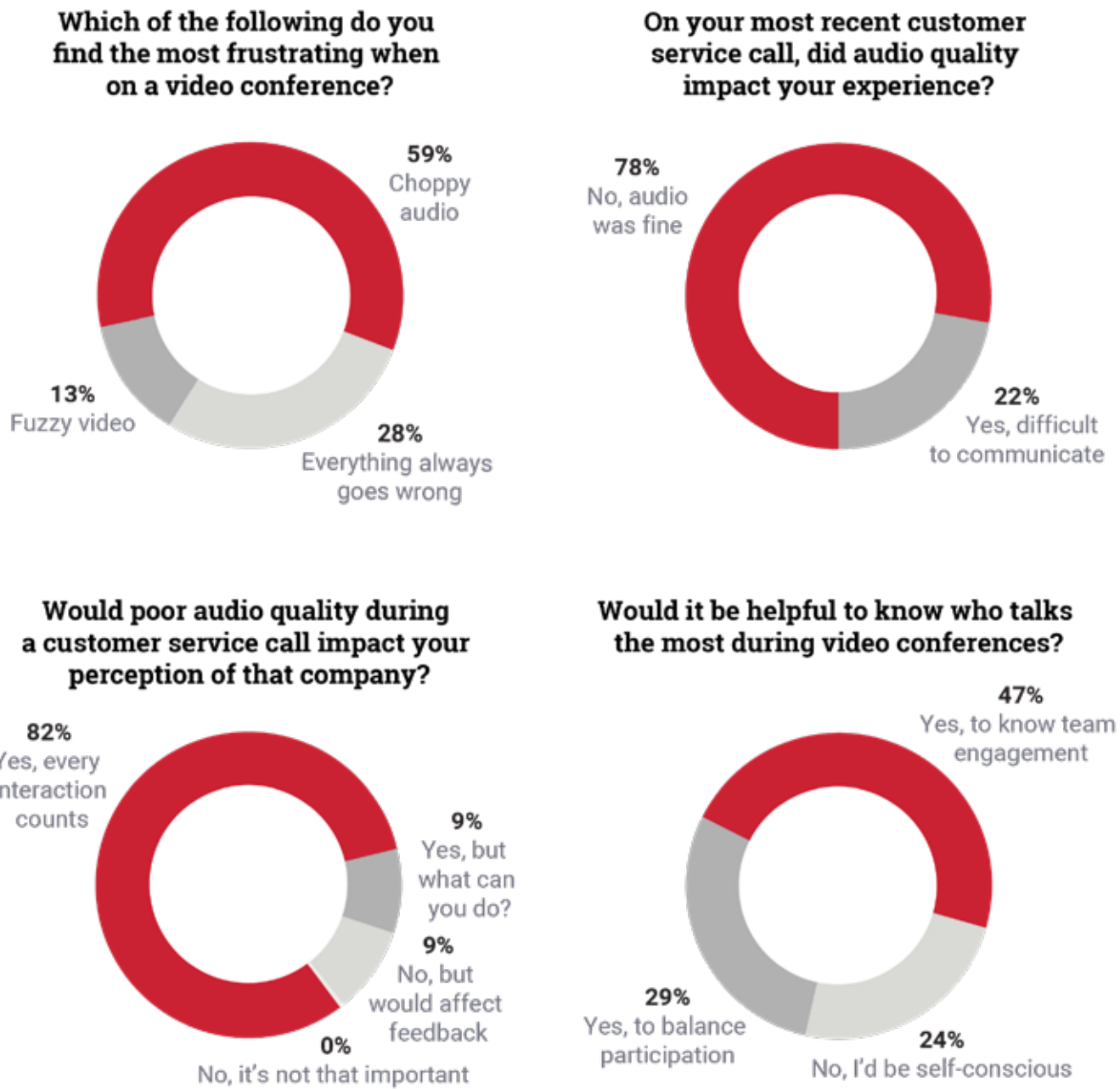
Since WebRTC is the sole focus, browser releases are closely monitored with continuous regression testing against the latest releases. 8x8 also maintains a close working relationship with Google so we can closely track the latest Chrome developments.

# Conclusion

Deploying a cloud-based contact center or meetings solution requires new tools to monitor WebRTC performance and service quality. To successfully deliver the required visibility and control to the experience, it's important to consider the performance implications of collecting and analyzing massive WebRTC datasets. 8x8 callstats makes it all easy with a secure, real-time solution that puts control of the customer experience in your hands - even for cloud-based (WebRTC) contact center and meetings applications.

Check out this [product tour](#) that walks you through how callstats works and see how easy it is to use analytics that provide visibility and control for cloud-based contact center and meeting applications.

## 8x8 Poll Results





Chapter

# 4

## Boost marketing with messaging.

Immediately start using SMS  
messaging to connect with  
customers - no integration required.



# Ignite your marketing with messaging.

It's interesting how reports talk about consumers as if they were a unique species. For example, recent McKinsey research found "55% of consumers reported turning to brands they trust during lockdown." Those 55% are you and I. Our buying behaviors have changed, and quickly. The speed and degree of change in our buying behaviors has many marketing organizations scrambling to remodel their approaches.

**"Managing this hyperlocal activity and engagement will require marketers to rewire their operating model to provide a more granular presence at scale. This approach will need to build on many of the capabilities developed around personalization (particularly analytics, trigger-based messaging, and agile test-and-learn approaches) and require renewed thinking about how to scale content supply chains and manage performance."**

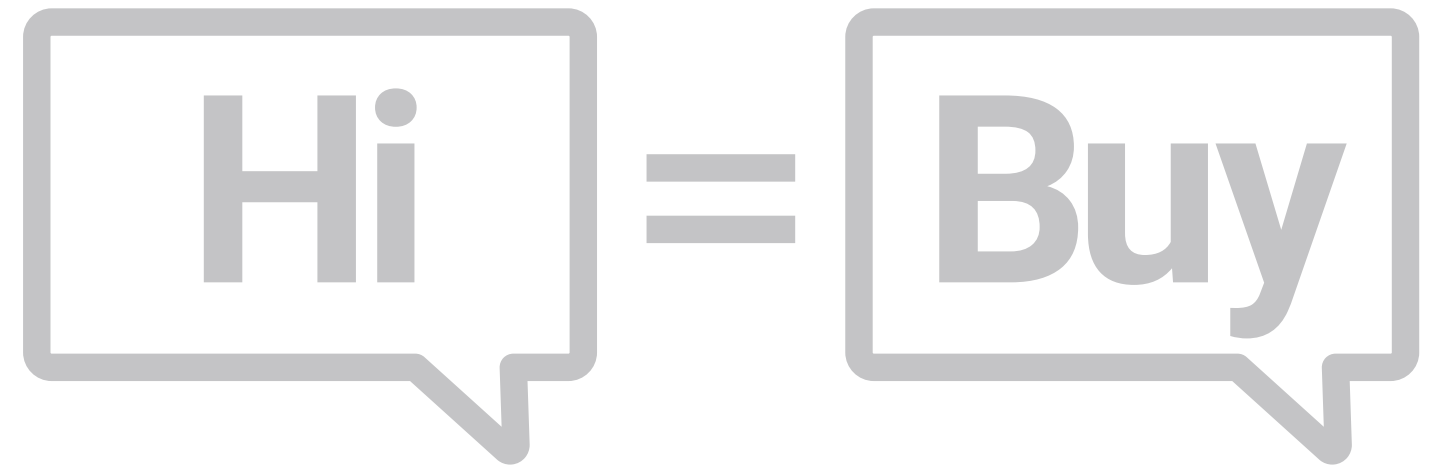
**McKinsey**

Reimagining marketing in the next normal

# The speed factor.

A key factor for success is how fast marketing departments can adjust. A critical component of that adjustment is how well they stay connected with customers.

There's lots of discussion happening about what martech is needed and what messaging is appropriate. But there's not a lot of discussion about the importance of how to accelerate the ability to get things done, at scale.





Sure, everyone thinks they're going fast, but only a handful of leaders in each industry are actually doing so. Those leaders also excel at the ability to maintain a relevant connection with customers. It's never been more important for marketers to quickly start communicating with their customers in a way that's natural and normal by today's standards.

When it comes to connecting with us as consumers, one of those ways is SMS. With **23 billion messages** sent every day, it's part of our daily routine. The ability to send two-way messages that captures our feedback or has us confirm appointments is now natural and normal. Marketers can get started using this communication channel immediately—no integrations or fancy, expensive martech required. Merely log into a portal, upload contacts that have opted in, and hit send to get started engaging with customers through SMS.



This brief **video** demonstrates how easy it is to instantly start sending SMS messages to your customers.

Ideal uses for each type of SMS message

	One-to-one	Bulk
One-way	<ul style="list-style-type: none"><li>• Two-factor authentication</li><li>• Notifications and updates</li></ul>	<ul style="list-style-type: none"><li>• Product announcements</li><li>• Company news and updates</li></ul>
Two-way	<ul style="list-style-type: none"><li>• Confirming appointments</li><li>• NPS &amp; CSAT feedback</li></ul>	<ul style="list-style-type: none"><li>• Promotions</li><li>• Surveys</li></ul>

SMS now has many flavors.

The different types of SMS enable marketers to be more purposeful and precise with their messages.

With this portfolio, marketers can select the right type of message to engage in ways that increase customer convenience along with the ability to collect insights on how well the company is meeting customer expectations.

# Proven methods.

We asked marketers to share how to use SMS messages to effectively connect with customers. Here are some of the examples they provided and why they believe their approach works.





## Example #1:

# Recapture abandoned carts to finish purchases



With the increase in online purchasing and the rise of micro-moments of shopping, providing a frictionless e-commerce experience is now a matter of survival for many companies. As we shop in those micro-moments, we often get distracted and don't complete the transaction. Here's how one retailer is addressing this opportunity with SMS:

```
Hi <customer first name>, it's the team at <your  
company name>. We noticed that you placed <product  
name(s)> in your cart but didn't check out. Complete  
the purchase by <date> and use coupon code <code> to  
save an extra 5%. <shorturl.com/buy2933>
```

# Why this template works

## 1. Incentive + Urgency

The 5% discount code paired with an expiration date provides customers with a reason to act fast, and the discount might encourage customers who are on the fence. Test to see if a percentage or dollar-based discount works best for your business. Limited availability and expiration dates can also increase conversion rates by creating a time-bound, promotional offer.

## 2. Personalization

Using the customer's name creates a more personal connection. The first few words in your SMS are shown in the notification window of most phones. With their name front and center, customers may be more inclined to open it.

**“71% of consumers shop in “micro-moments” (shopping while doing something else). More than one in three say they do so at least weekly and up to multiple times daily.**

**NRF Research**

## Example #2:

# Capture customer feedback and reviews



Understanding how well your products and services are meeting customer expectations is obviously important to every marketer. The challenge is always in how to effectively capture that information in a timely and actionable way. Here's an example of how one business is capturing feedback through SMS.

## First Message

How was your experience with us on your last visit?  
Reply with a rating (1-5, 5 being the best) to let us know how we're doing.



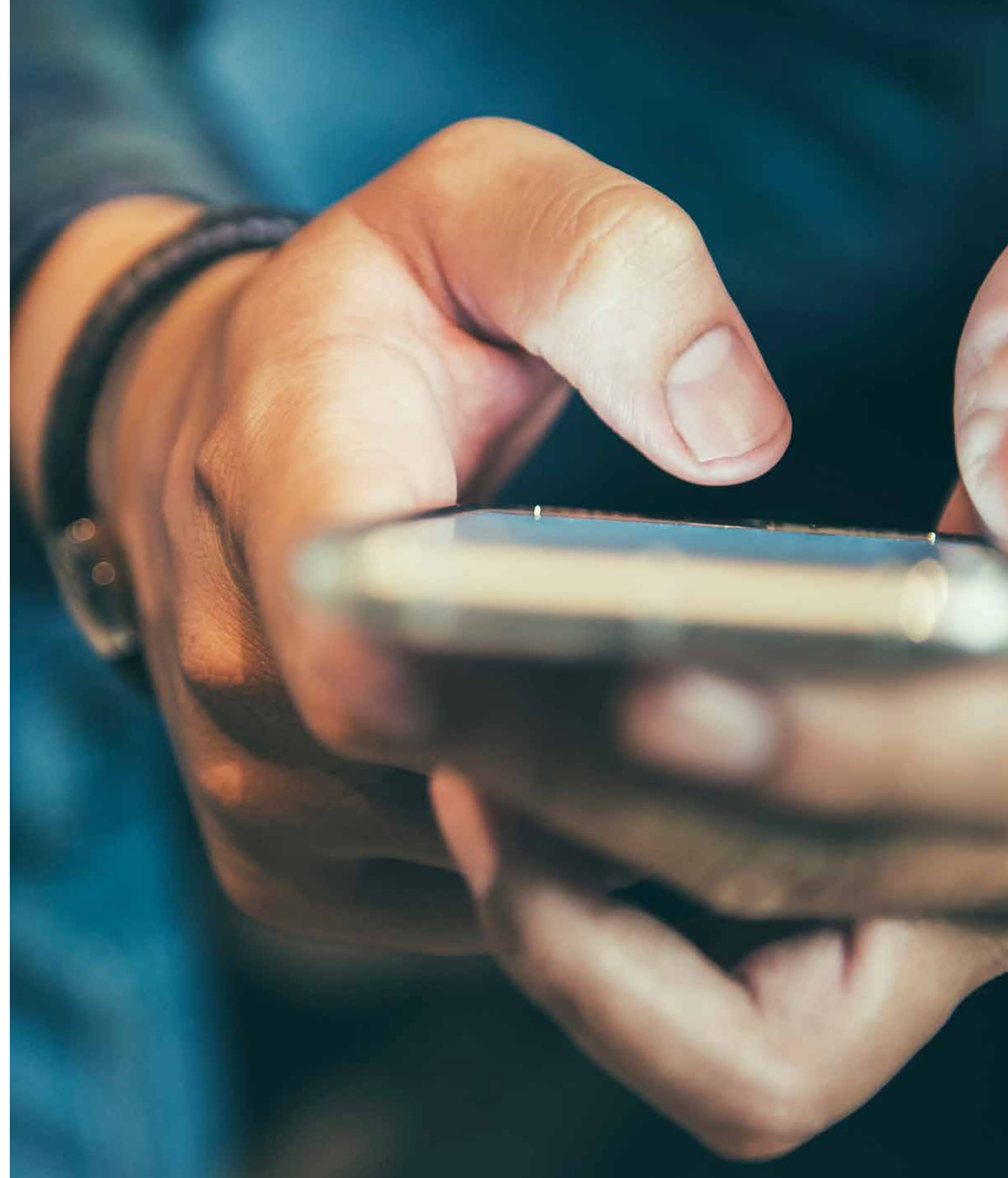
## Replies depending on response:

If they reply with a 4 or 5, then send this message:

We're glad to hear you had a great experience! If you're up for it, could you leave us a review on <Yelp or similar site> so that others know about your experience? <yelp.com/companyurl>

If they reply with a 1, 2, or 3, then send this message:

We're sorry to hear your experience was subpar and would like to see how we can make it better. Can you give us a call at xxx-xxx-xxxx and we'll make it right?





# Why this template works

## 1. Easy Action

The ability for customers to quickly and easily respond results in high response rates.

## 2. Aligned with the Customer Journey

The message is in tune with the post-purchase flow. Also, when you encourage customers to share reviews and step in when things go wrong, you build trust with them.

8x8's SMS Engage provides a templated way to create and send this type of survey at scale. The online portal makes it easy to send messages, then capture and analyze the results. Here's the [documentation](#) on how it works.

### Example #3:

## Product promotion



A jewelry retailer uses SMS messages as a core part of their promotions. Here's an example that delivers strong conversion rates.

We are going to add a new, one-of-a-kind necklace to our website. As a VIP customer, we wanted to let you know before we send it to others. Log in to see a photo of it: [shorturl.com/necklace487](https://shorturl.com/necklace487)



# Why this template works

## 1. Urgency

“Let you know before we send it to others” strikes the fear of missing out and motivates a buying decision.

## 2. The language of positioning

It's true that no one believes they are influenced by marketing. Yet, language matters. As much as we hate to admit it, words and phrases such as, “new, one of a kind”, trigger emotions that position, in this case a necklace, the product as different and better than common, mass-produced items. The result is that positioning language garners attention by triggering a mental model for how a product or service compares to similar items.

## 3. VIP Treatment

Providing special privileges and offers to customers elevates their engagement with a brand – just ask yourself what impact that frequent flyer status used to have on your choice of flights (back when we used to fly).

#### Example #4:

## Authenticate customers



As companies work to stay ahead of very capable hackers, the use of SMS for mobile verification as part of two-factor authentication processes has become a key use for SMS. Here's an example of how to add a degree of friendliness to it.

Your <company name> security code is: xxxxxx. Thank you for being a customer!

# Why this template works

## 1. Clear and Direct

This one-time password (OTP) is straightforward and enables customers to take immediate action.

## 2. Courteous

Every message to a customer is an opportunity to reinforce the perception they have about your company. Being courteous with this touchpoint is a way to add a positive touch to a simple interaction.





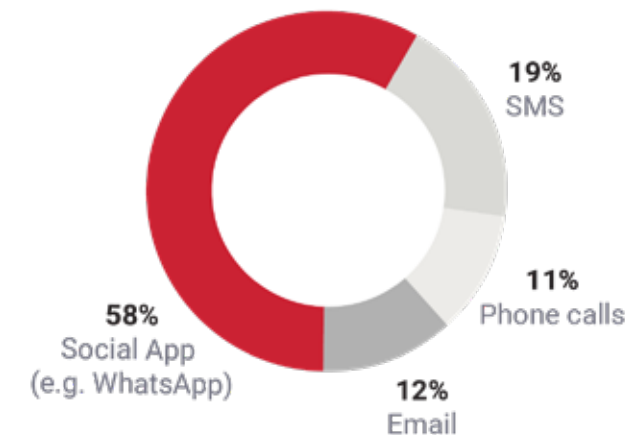
# Iterate and test.

These examples are hopefully, creative catalysts that marketers can use to develop messages and points of engagement that work for their customers. As always, it's an iterative process to find the formula that works best. The key is getting started now. Here's how with 8x8.

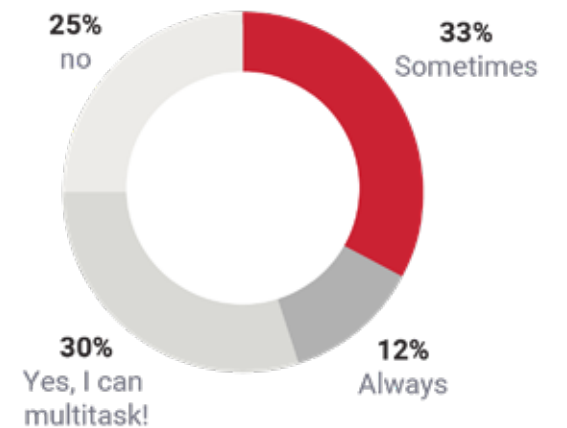
[Sign up for a free trial](#)

## 8x8 Poll Results

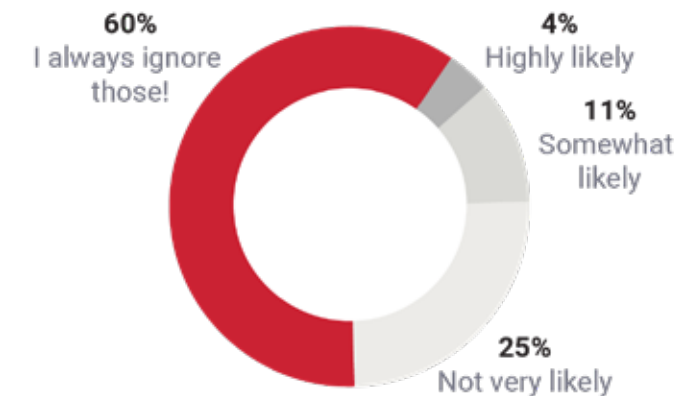
**What's your most frequently-used communications method?**



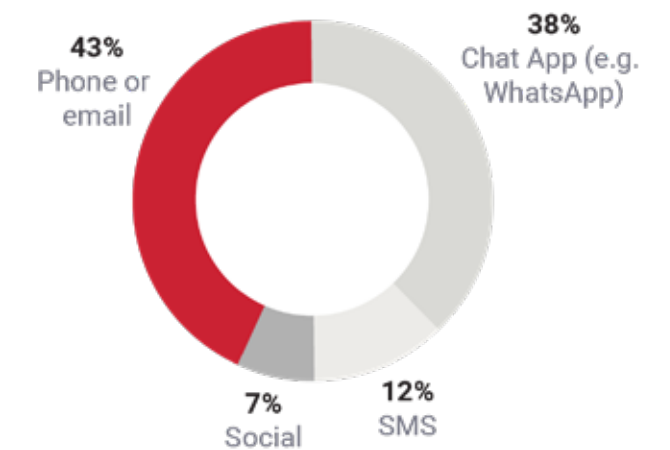
**Do you ever read or answer personal text messages during work meetings? (Don't worry, your boss won't see this!)**



**How likely are you to respond to an SMS promotion like a discount coupon?**



**If you could choose, how would you interact with customer service departments?**



Chapter

# 5

## Save 30%+ with SIP trunking.

Learn how SIP trunking makes it easy to move communications to the cloud and save 30%+ on your phone bill.

# Use SIP trunking and save 30%+ on your phone bill.

As companies reevaluate how communications will support their business now and going forward, they will rely on the secure, proven capabilities of Session Initiation Protocol (SIP) trunking to accelerate digital transformations and substantially lower phone bills. With the impending decommissioning of TDM services around the world, they have additional incentive to do so. Gartner forecasts that by 2022, all network service providers in North America and Western Europe will announce the end of support of ISDN PRI service. They expect that by 2025, only a few providers in Europe will support the service.

**By 2022, all network service providers in North America and Western Europe will announce the end of support of ISDN PRI service.**

**Gartner**





With the ability to quickly connect on premise phone systems to the internet, SIP trunking provides an easy way to start moving communications off TDM services, accelerate the migration of communications to the cloud and start saving money that can be reinvested into more strategic initiatives. SIP trunking's ability to support voice, video and messaging means you can deliver the communication channels employees need to be productive and connected with customers.

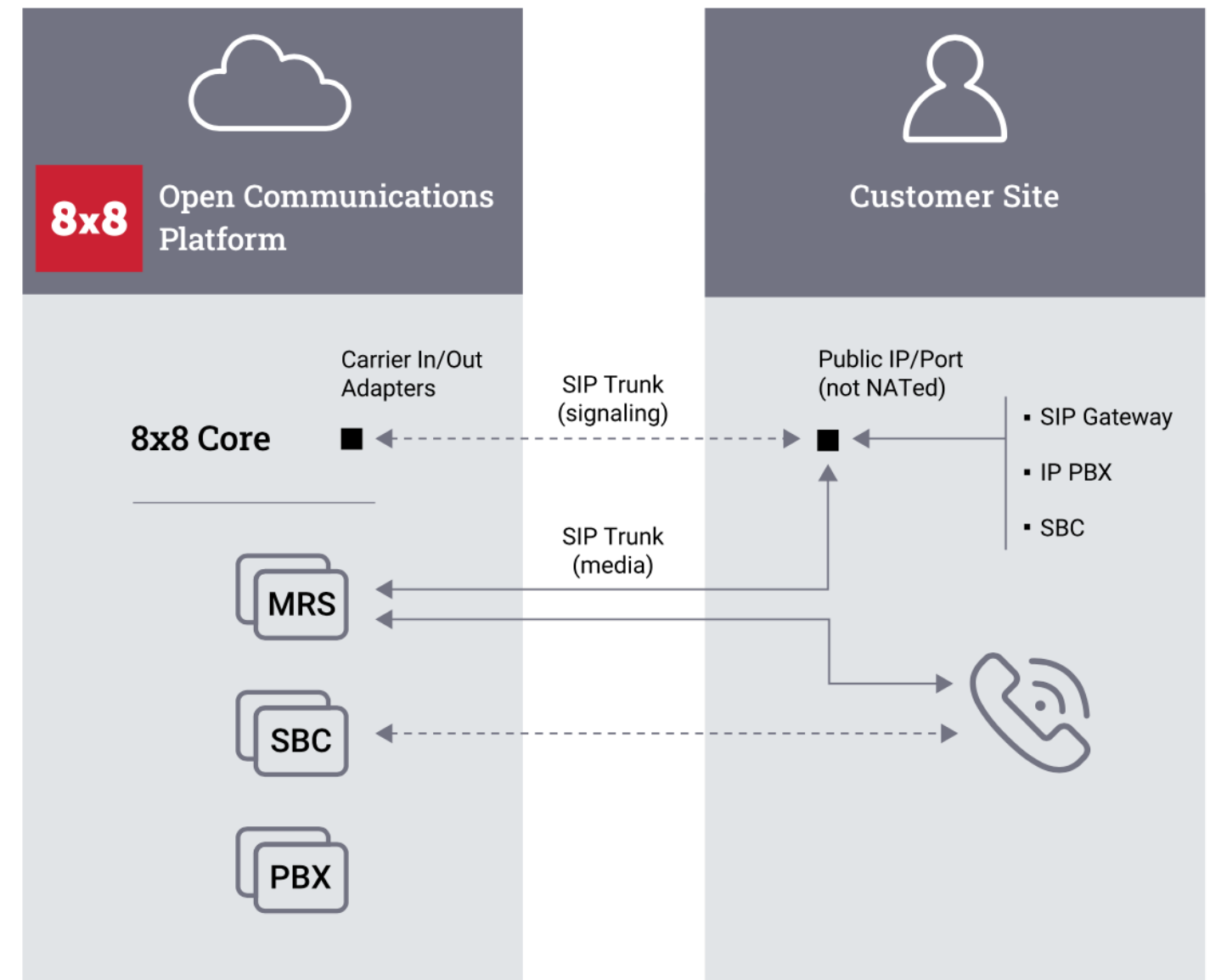
The promise of SIP trunking spans a wide range of uses—from wholesalers enabling traffic across the carrier networks, to companies adding international connections, to a company needing a short-term connection as part of their transition to the cloud.

The elegance of SIP trunking—and what makes it viable across this wide spectrum of uses—is that it looks and behaves like one large network.

# How does it work with 8x8?

SIP trunking is essentially just a SIP connection between 8x8 and your environment to enable SIP in/out calling over the internet or MPLS. It could be to a PSTN gateway, an SBC or even an on premise IP-PBX. With an 8x8 SIP Trunk, here's how it works:

Once the SIP trunk is connected, the calls will route from the PBX through the 8x8 SIP trunk to access the public internet and then be routed through 8x8's network of tier one carriers. No more connection to your local phone company for expensive MPLS line rental.





# 8x8 SIP trunking consideration

- Recommend a firewall and ACL
- Addresses can be whitelisted by ACL
- Must connect to a static and public IP (no NAT)
- Media (RTP) goes through MRS (Media Relay Servers)





# Different types of SIP trunk deployments.

Enterprise SIP trunking has changed communication so radically in the last 20 years that it's hard to remember what communication was like without it. Quietly and incrementally, trunking has been shaping our idea of how, when and where we stay in contact with our customers and service providers. Yet, over this same time, many companies have chosen to slow down or push out investments in their communication technology. Recent events have magnified the consequences of those decisions. Technology and business leaders are now looking to accelerate digitization of their business while also becoming more operationally efficient. SIP trunking has many benefits, but one of them is extremely important right now: the ability to start saving money that can be reinvested into strategic initiatives. We see SIP trunking being deployed in three main ways:

- 1 Wholesale communication providers**
- 2 Enabling international connections**
- 3 Short-term bridge to UCaaS / CCaaS**



## Moving global traffic.

Telco dealers are providing low-cost SIP trunking along with related services to help their customers optimize the value of cloud communications. These companies are looking for reliable, affordable SIP trunks to route millions of call minutes across the internet. Their customers save money and accelerate their transition to UCaaS and CCaaS. In exchange, the wholesalers get a technology that's easy to deploy and maintain along with the potential for new revenue opportunities from related value added services.

# Enabling international connections.

The global economy depends on every company's ability to connect headquarters with each of their international locations. SIP trunking is a cost effective way to quickly establish communication links between the HQ and satellite office locations. For example, a company headquartered in Hong Kong may want to expand operations in the US. They can quickly set-up a SIP trunk to enable cost-effective communications between the two locations.



**Build Your Experience:** Accelerate Customer Connections



## Short-term bridge to UCaaS/CCaaS.

Companies already using 8x8 cloud services can connect to another part of their business, or a new acquisition, that's still using an on-premises phone system to enable extension-to-extension dialing between the on-premises system and the 8x8 phone numbers.

## The characteristics of this approach include:

- 8x8 can set up a fallback rule for extension-to-extension dialing
- Requires a public IP/port
- No PSTN connections, only extension-to-extension (a standard SIP trunk can be added)
- Purpose-built adapters with redundancy in each data center
- In/out adapters

# Are SIP trunking and VoIP the same thing?

Although these terms are often used interchangeably, they are not the same thing. Voice over IP (VoIP) describes a way to conduct phone calls over the internet.

SIP is a protocol used to start, maintain, and end voice, video and messaging communication sessions in VoIP applications.

So while all SIP trunking is used to deliver VoIP, not all VoIP uses SIP.



# Top 8 reasons for 8x8 SIP trunking.

Whether you're a wholesaler routing large volumes of calls or a company looking to keep teams connected with an affordable, reliable cloud communications solution, SIP trunking offers:





## **1. Better call quality:**

Sending voice data over the proven audio capabilities from 8x8 ensures better call quality—it's in the contract!

## **2. Scalability:**

Unlike wired systems, SIP trunking doesn't need hardware to scale. With the ability to auto-scale, your business will never miss a call.

## **3. Reliability:**

With wires and cables out of the equation, you aren't subject to broken lines, noise or analog attenuation. Since SIP trunking uses the internet and the cloud, users can expect to see a giant leap in terms of overall reliability.

## **4. Elimination of VoIP gateways:**

With SIP trunking, companies are not required to buy or

manage VoIP gateways, as SIP uses an IP address to receive calls rather than separate channels.

## **5. Low maintenance:**

SIP trunking replaces hardware communication servers or facilitators to significantly reduce maintenance and associated costs.

## **6. Speed and flexibility:**

Instantly add new lines when needed.

## **7. Enable remote working:**

Quickly enable your teams to stay connected no matter where they are located.

## **8. Customer care:**

Companies can now opt for 24/7 customer service so that they can offer their customers the best service strategy.

With all of these advantages, it isn't surprising that SIP trunking is fast becoming the default way business communications get done. Additionally, it's based on a predictable rate and the amount used. 8x8 provides inbound and outbound calling with features detailed in the 8x8 SIP Trunking Interface Specification. The feature set includes telephony functions such as Caller ID, e911, inbound and outbound termination, and 411 services.

Take the uncertainty out of the equation by choosing a SIP technology provider that can scale to meet your business' needs, whatever they may be at any given time. Call 1-855-780-9485 or review this SIP Trunk Interface guide for more information on the 8x8 SIP Trunk solution.

# The SIP Trunk Series

[Understanding SIP Trunking](#)

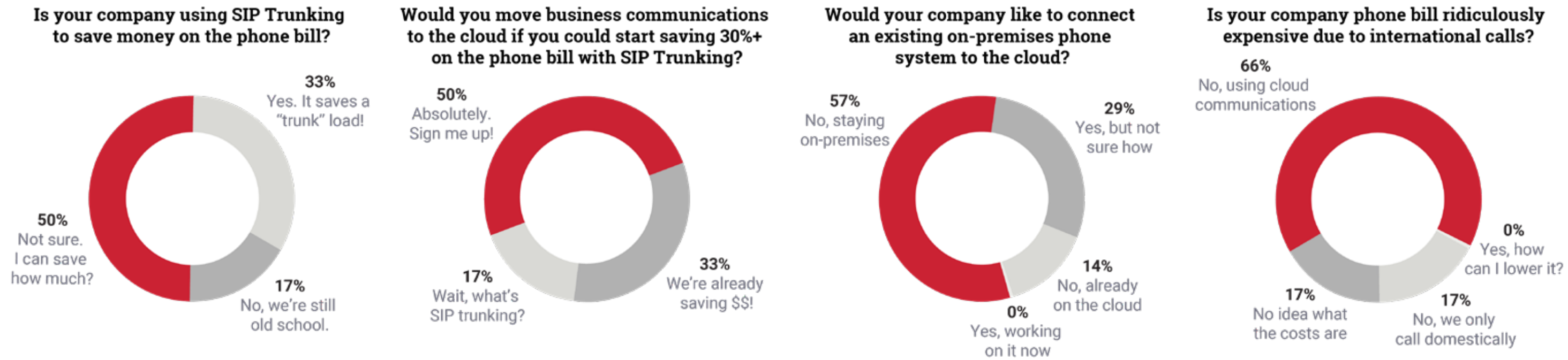
[What are SIP Port Numbers and SIP Trunking?](#)

[Enterprise SIP Trunking: What Is It and Why Do You Need It?](#)

[Hosted PBX vs. SIP Trunking: What's Best for Your Business?](#)

[The Essential SIP Trunk Pricing Guide To Save Business Costs](#)

# 8x8 Poll Results



Sources: Facebook, LinkedIn, Twitter



Chapter

# 6

## Dazzle with a social chat app.

Increase customer engagement using the rich media experience and reliability of 8x8's chat apps API.

# Chat apps: the new customer experience frontier.

Chances are, you have a social chat app or two installed on your smartphone. And if you don't, your kids almost certainly do. Chat apps have become the conversational medium of choice, especially for the new generation. As of this writing, WhatsApp has over **2 billion users**, Facebook Messenger has **1.3 billion users**, WeChat has **1.2 billion users**, Viber has **1.1 billion users**, Line has **217 million users** and Zalo has **100 million users**. And there are many more social chat apps.

As consumers, we use these apps to communicate with friends, but increasingly we're using them to communicate with businesses.

# The two biggest differences between chat apps and SMS:

1

## Chat apps support rich content.

SMS messages are plain text, while chat apps can relay video, images, files, and more.

2

## Chat apps offer more insight.

While SMS can only track delivery rates, most chat apps enable the sender to track open rates and more





## Some of the common ways that chat apps are used include:

- **Customer Support:** Provide your customers an additional avenue to reach you, with 2-way conversation support.
- **Reminders and notifications:** Ensure your customers are aware and ready for an impending delivery or status of an order.
- **Live updates:** Keep your customers and followers updated on the latest industry happenings through timely messages, and drive traffic to your website via links.
- **OTP:** Send customers a one-time passcode to increase security through two-factor authentication

# Using chat apps for customer support.

Social chat apps are a great way to reach your customers on the channels they prefer. And by reducing the number of support inquiries coming in through phone calls, they can also create cost savings. Many call centers report that after incorporating chat, call volumes decrease, and cost per customer interaction dramatically decreases. Importantly, support agents can handle multiple chat conversations at once, while phone calls require undivided attention.

As you think about adopting chat apps into your support workflows, it's important to think about your call center design and maturity:



## Early stage:

These generally smaller teams use a lightweight CRM or contact center, or none at all. At this stage, we recommend looking at chat app providers with a portal to collect incoming messages, assign conversations to agents, and respond to each inquiry. Also, we recommend using a provider that allows you to initiate contact to the customer as well. There are some times when you will want to send a message to your customers and not want to wait for an inbound query...



### **Mid stage:**

Companies in this stage typically use a support system such as Zendesk, Freshdesk, or Salesforce to support a medium-sized team. They probably support voice as a channel for support but have not yet enabled chat apps as a support channel. For these organizations, it can be helpful to use a chat app provider with out-of-the-box integrations with your primary support tool. This way, your support team can continue to live inside their existing tool.



### **Advanced stage:**

Organizations in this stage typically have advanced support software and multiple support teams. They most likely have custom tools and services integrated by dedicated engineers. For these types of organizations, we recommend finding a provider that offers a chat app platform through APIs. This will enable their engineers to build it into existing systems.

An open platform like 8x8 provides solutions supporting all of these maturity levels, including an online portal, integrations, and one API for 7 chat apps.



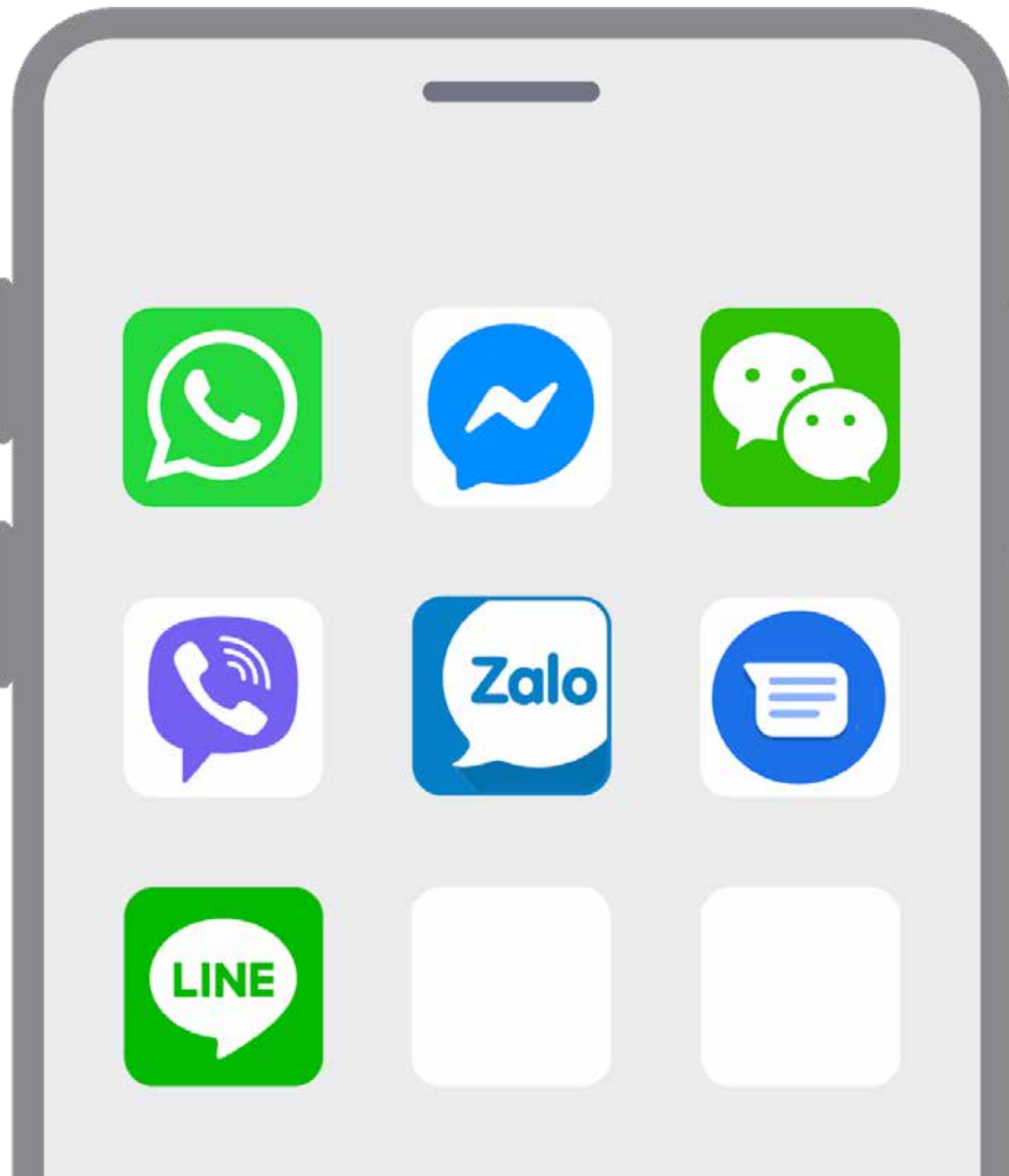
# About the 8x8 Chat Apps API.

The 8x8 Chat Apps API has a built-in orchestration system to send messages to 7 chat app channels based on user preferences. If all channels fail to deliver, it can fall back to SMS. The same capabilities are available through integrations as well as through the portal.



## This enables you to:

- Reach customers on their favorite messaging apps, including WhatsApp, Facebook Messenger, WeChat, Viber, Line, Zalo and Google RCS.
- Track metrics like deliverability, message engagement, and link clicks.
- Increase engagement through the use of rich content that automatically adapts to various chat app channels.
- Ensure deliverability through SMS fallback when users lack cellular data connectivity.
- Reimagine customer engagement through two-way conversations in multiple chat apps.



# How to integrate the Chat Apps API without using a platform provider.

Not interested in using a chat app platform provider?

While it is possible to do it yourself, it is much more complicated. Here are the top considerations you'll need to know in order to do the custom software engineering integration work yourself to handle each chat app directly:

- WhatsApp requires end-to-end encryption, so you will need to set up a Docker container, a SQL database, and ensure high availability.
- Learn which chat apps allow marketing messages to be sent, because some, including WhatsApp, do not.
- Opt-in and consent policies vary between chat apps. For example, WhatsApp requires active user consent to receive messages unless the user initiates the conversation.
- You must choose whether to integrate with your existing support software or build a standalone app.
- Ensure ticketing and support agent assignment requirements meet the needs of the business.

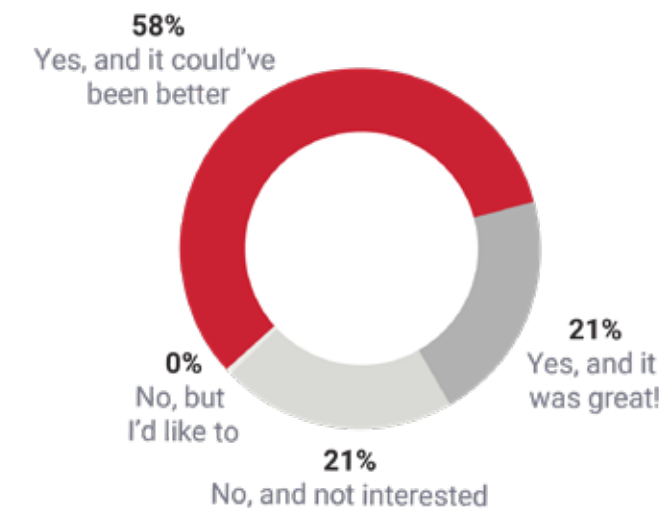


- Each chat app has its own unique user identifier that will need to be mapped to your internal systems' unique customer identifiers.
- Each chat app uses its own delivery notification mechanism.
- Each chat app supports a different set of functionality, including a variety of actions and payment mechanisms.
- If a user is out of data coverage, your message may be delayed and you will need a fallback channel such as SMS.
- Thoroughly plan redundancy and resilience. Missed or undelivered messages can be very costly in terms of customer experience.

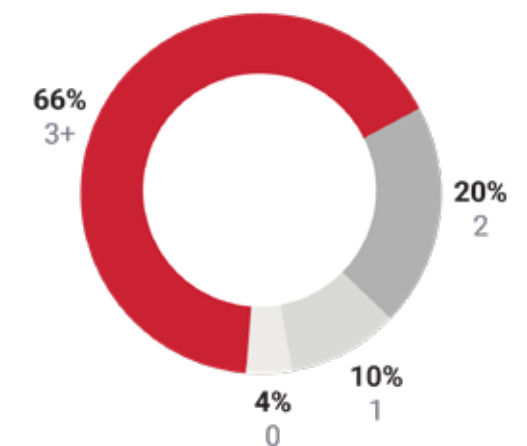
Going it alone is not impossible, but the above considerations make a strong argument for a platform provider that handles the complexity for you, enabling you to reliably reach customers anywhere with just one API. 8x8 is here to help. Learn more in the [8x8 Chat Apps API documentation](#).

## 8x8 Poll Results

**Have you ever messaged with a business through a social chat app?**



**How many social chat apps are on your phone?**  
(FB Messenger, WhatsApp, Viber, WeChat, Telegram, Line, Zalo, GroupMe, Skype, Discord, etc.)



Sources: Facebook, LinkedIn, Twitter

# 5 Tips for API security.

From end-to-end encryption to two-factor authentication, these tips demonstrate how to keep your data safe with 8x8 APIs.



# How many times have you had a company tell you that your password or other personal data has been compromised? Probably too many.

Security is a real issue, and it can be very detrimental to a brand's reputation and customer retention. Below are five tips for increasing security when using APIs to keep your data and your customers' data secure and safe. At the end, we'll discuss some other methods that 8x8 uses to stay secure.



# API Security Tips:



## **Don't store API keys in your code.**

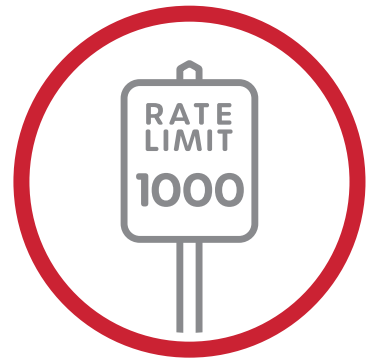
This may be the easiest method when you're creating something quickly, but storing your API key in your source code is a bad idea. It makes it easier for it to be exposed and taken advantage of. For instance, if your code is stored on Github in a public repository, someone could just download it straight away. If it's stored in a private repository, there is still risk if you integrate with any third party APIs. You don't have complete control over those third party APIs and if they get hacked, then you may become vulnerable as well. There are many other better ways to store your API keys, such as in environment variables, in files outside your app's source tree, or using encryption.



## **Check into your API provider's security and compliance credentials.**

Your application's security is only as good as that of your API providers. If you're serious about understanding their security (which you should be), then be sure to vet their security and compliance certifications. These external validations should offer some reassurance and can reduce your legal risk

exposure. For instance, if you're building a healthcare technology product, it may be important for your API provider to be HIPAA compliant.



### **Use rate limiting.**

We've all heard of the consequences of a company being a recipient of a nasty denial of service attack. An important first step to reduce the risk of them is to limit the number of requests that can be made in a certain time window. If the rate limit is exceeded on your API, then block the API key sending the unrestrained requests. It's best practice to return the HTTP 429 "Too Many Requests" response status code.



### **Make all requests use HTTPS/TLS encryption or IPsec connections.**

HTTP requests are insecure. You don't want any man-in-the-middle attacks or impersonations - it's critical to ensure that the data sent has not been modified or tampered with. If your API provider does not offer a secure, encrypted method for use, it's worth finding a new API provider.



## Enable two-factor authentication.

Your API provider probably has a portal of some sort to do configuration, look at charts, and manage your account. If someone can get access to your login credentials to the portal, then they may be able to get direct access to your API key and/or your API configuration. You should ensure all employees are setting strong passwords or passphrases. Accounts become much more secure when two-factor authentication is enabled. Rather than trusting a user to make a strong, unique password, adding another layer of security greatly helps reduce your risk of getting compromised. A couple of common forms of two-factor authentication include **SMS passcodes** and authentication apps.



# Security at 8x8.

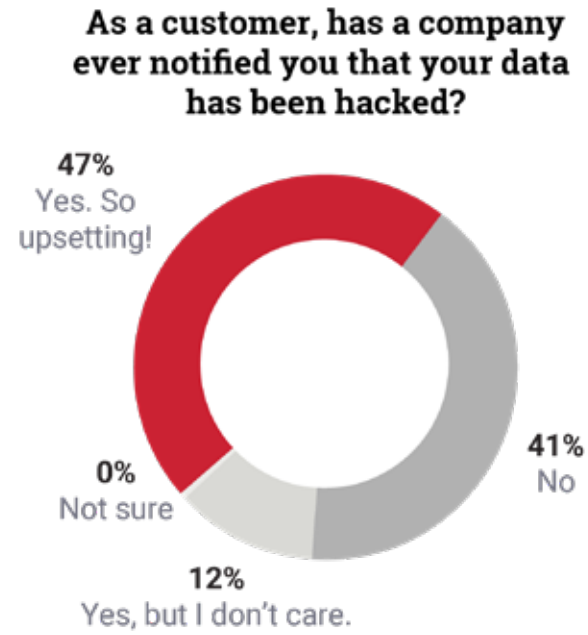
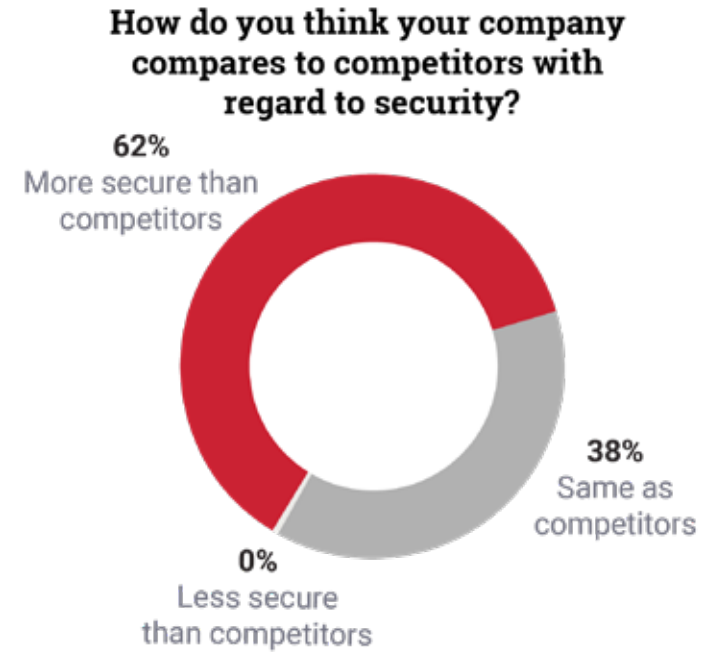
From physical security to data at rest or in motion, 8x8 is committed to protecting customers using the highest levels of security and compliance policies and procedures, verified by third-party **security and compliance certifications**.

Scans happen on a continuous basis throughout our systems. We have a team of internal pen testers, and we bring in a major global pen testing firm to ethically hack our systems and APIs regularly.

We recognize the need to balance usability and security to best serve our customers. We rely on multiple vectors of risk analysis and input to accomplish that balance. One of our most critical risk intelligence vectors is our external tester and security community.

A core part of delivering on the promise of customer security is listening and responding to the larger security community. As an example, our average response time to confirm an issue from a security researcher and begin prioritizing the issue is around 1 hour. Our researcher community helps us keep our customers secure.

# 8x8 Poll Results



Sources: Facebook, Linkedin, Twitter



Build Your Experience: Accelerate Customer Connections





Chapter

# 8

## The business case for APIs.

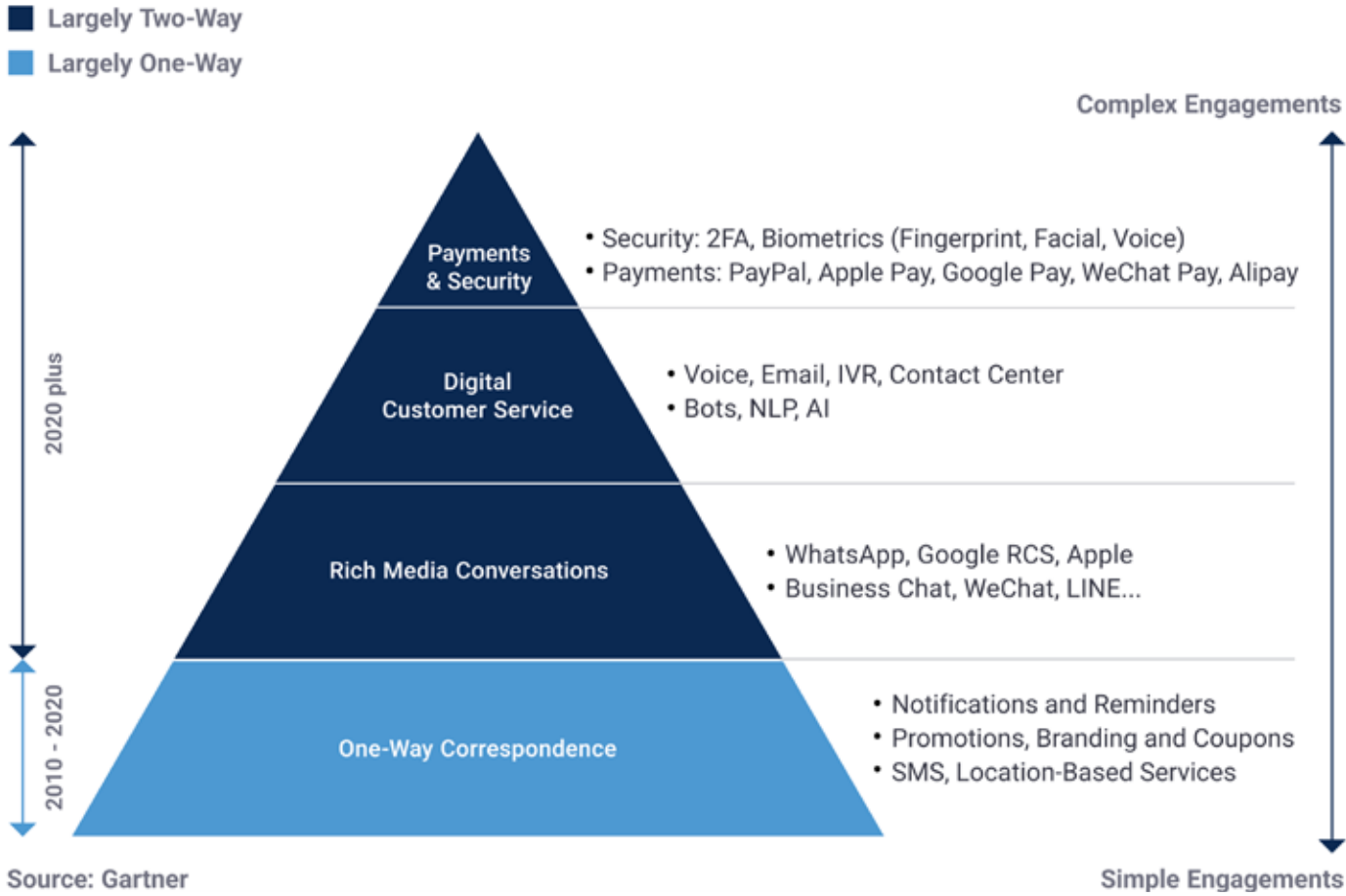
Dazzle the CFO with the cost savings  
and profitable revenue growth  
potential of communications APIs.



# Everyone is talking about it.

Communications Platform as a Service (CPaaS) solutions simplify the integration of communications capabilities into applications, commonly through the use of APIs. Once reserved for larger, more forward-thinking technology companies, communications APIs are now accessible to virtually any business. From doctor's appointment reminders to delivery driver ETAs, CPaaS is everywhere.

# Key CPaaS Components for Retail Conversational Commerce



Gartner analyzed the use of messaging tools in the retail sector, and the research shows use cases are becoming more sophisticated. Until this year, usage has predominantly been one-way correspondence like notifications and reminders. As the '20s progress, retailers are incorporating multimedia messages, new digital customer service channels and additional payment methods, all through APIs<sup>1</sup>.

Given the dramatic change in how we do business over the last 6 months, now is a perfect time to begin or expand your CPaaS journey. Many organizations have seen improvements in customer satisfaction scores, increased business agility, and a reduction in fraud issues through the deployment of one simple API<sup>2</sup>.

<sup>1</sup>Gartner: New CPaaS Tools for Navigating the COVID-19 Reset for a Superior Retail Customer Experience: 5 June 2020

<sup>2</sup>Gartner: (Hype Cycle for Platform as a Service, 2020; 12 August 2020)

# 62% of people are, or planning to, use APIs for communications.

This chapter explores how to get started with APIs, the total cost of ownership (TCO) impact of build vs. buy, and provides three tips to help ensure success and a positive return on investment.

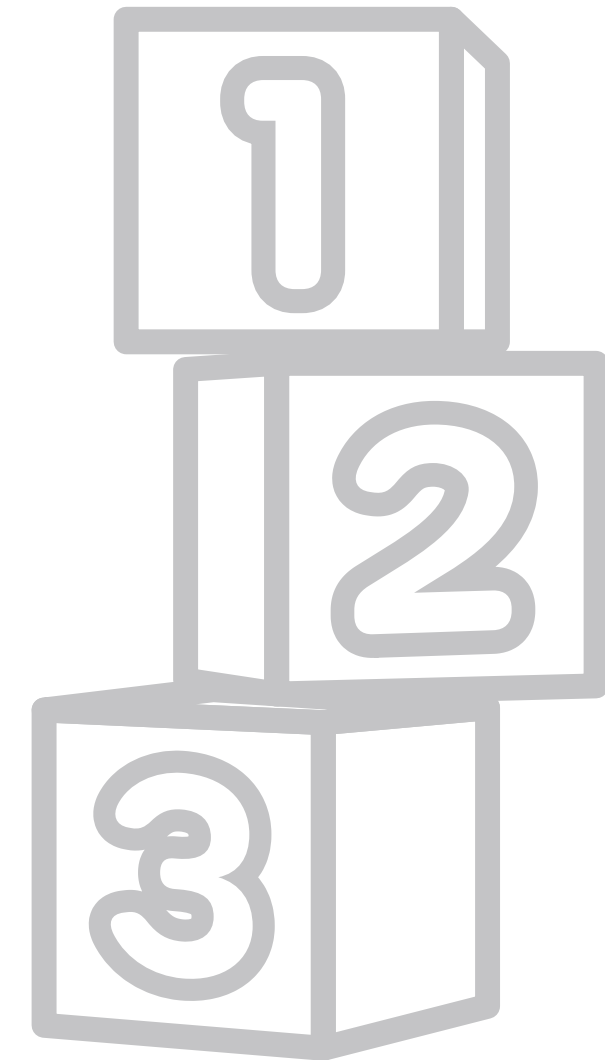


# Getting started is easier (and cheaper) than you think.

CPaaS services now abound, packaged as APIs, SDKs, packaged apps, and more. While these choices can feel overwhelming, there are some easy and low-risk ways to get started.

For the API newbie, SMS is a perfect place to start. SMS APIs are fast to deploy, secure, and have numerous tried and tested use cases.

Here are some ideas.



Using 8x8 SMS API for Appointment Reminders

Example Scenario

= entry field

Item	Amount
Appointments per month	130,000
Number of reminders sent per appointment (e.g. 2-week, 1-week, 1-day)	3
% of no-show appointments/month	6%
Total no-show appointments/month	7,800
Average cost of a no-show appointment (including lost revenue, cost to reschedule, etc.)	\$40
Total 1-month cost of no-show appointments	\$312,000
% of no-show appointments that can be avoided through SMS (by sending reminders and offering cancel and change appointment options)	20%
Cost savings from reduced no-show appointments through SMS	\$62,400
SMS cost	\$0.0065
Total monthly cost	\$2,535
Total monthly saved money	\$62,400
Total monthly cost	\$2,535
Net money saved in 1 month	\$59,865
Net money saved in 12 months	\$718,380
\$1 on SMS saves \$X in Costs	\$24.62

# Appointment follow-ups

Missed customer appointments are costly for the service industry. Customers failing to make appointments is a major issue for any service business. Sending just 1 SMS reminder per customer could save nearly \$300,000 over a 12 month period<sup>3</sup>.

<sup>3</sup>Table 1: 8x8 SMS Business Case Calculator

# Two-factor authentication

Security has never been more important—and visible—than it is today, with data breaches affecting even the largest global corporations on a daily basis. Two-factor authentication is an easy way to provide customers with added protection and help reduce the risk of customer accounts being compromised. In addition to building customers' trust, two-factor authentication also provides cost savings for your support organization. Assuming each support interaction costs approximately \$25<sup>4</sup>, just a 20% reduction in support calls relating to security could save over \$400,000 per year<sup>5</sup>.

<sup>4</sup><https://expiviusa.com/call-center-outsourcing-cost/>

<sup>5</sup>Table 2: 8x8 SMS API for Two Factor Authentication

## Using 8x8 SMS API for Two Factor Authentication

Example Scenario

  = entry field

Item	Amount
Number of customers	200,000
% of monthly customers with support cases from identity theft	4%
Total monthly customers with identity theft	8,000
Average cost of a support case	\$7
Total one month cost of support cases related to identity theft	\$56,000
% of identity theft support cases that can be avoided by strengthening security through SMS two factor authentication	70%
Cost savings from reduced delivery problems through SMS	39,200
SMS cost	\$0.0065
Number of two factor authentication SMS sent per month per customer	2
Total monthly cost	\$2,600
Total monthly saved money	\$39,200
Total monthly cost	\$2,600
Net money saved in 1 month	\$36,600
Net money saved in 12 months	\$439,200
\$1 on SMS saves \$X in costs	\$15.08





Using 8x8 SMS API for Delivery Updates & Notifications

Example Scenario   = entry field

Item	Amount
Deliveries per month	100,000
Number of messages per delivery (e.g. confirmation, pick up, getting close, delivered)	4
% of deliveries with problems	10%
Total delivery problems	10,000
Average cost of a delivery problem (including customer support, labor, etc.)	\$20
Total one month cost of delivery problems	\$200,000
% of delivery problems that can be avoided through SMS (e.g. allowing people to change or ensure they're home)	10%
Cost savings from reduced delivery problems through SMS	\$20,000
SMS cost	\$0.0065
Total monthly cost	\$2,600
Total monthly saved money	\$20,000
Total monthly cost	\$2,600
Net money saved in 1 month	\$17,400
Net money saved in 12 months	\$208,800
\$1 on SMS saves \$X in costs	\$7.69

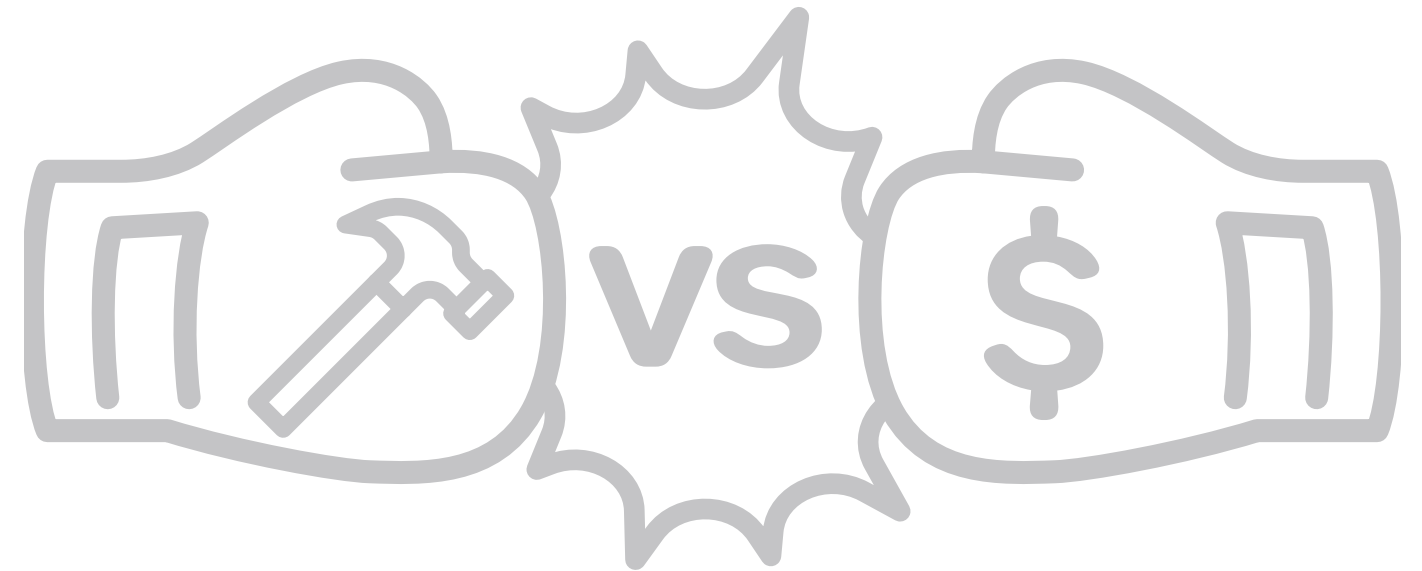
# Delivery updates

Providing customers with delivery updates and notifications is a proven way to help improve customer satisfaction and reduce costs associated with delivery issues. For example, just a 10% reduction in delivery issues could provide a savings of over \$200,000 per year<sup>6</sup>.

<sup>3</sup>Table 3: Using 8x8 SMS API for Delivery Updates & Notifications

# Build vs. buy: A case study in deploying performance monitoring analytics.

When deploying APIs, many companies must prioritize which projects their developers will work on. Performance monitoring for real-time communications (WebRTC) applications as an example is a little bit different, you have the option to build your own solution, or buy a 'drop-in' service.



# Build:

If you have the resources, building a performance monitoring tool for your specific use case may seem like an obvious choice, giving you complete flexibility and control over the features and functionality. But don't re-assign your developers without taking into account the total cost, time, risk, and complexity involved. If you invest more, the return has to be that much greater in order to justify the spending. The 'cost' when building a solution is in developer time, reprioritization of other projects, and of course financial.

In our report, [Building a CPaaS Business Case: Evaluable Build vs Buy for WebRTC Monitoring](#), we calculated the total 5-year cost of building a solution, including software, employee, and maintenance costs to be over \$1.3m, and this is assuming a fairly conservative FTE (full-time employee) cost of just \$19,500 per year. Depending on where your developer resources are located, this could be 10x higher. In addition to the cost consideration, a custom-built solution will be limited by the amount of test data available, vendors who provide data analytics tools or performance monitoring specific solutions can securely and anonymously use the billions of data points collected from their customers in order to refine algorithms and test new features.



# Buy:

Tools built to independently analyze voice and video calls provide a unique view into your company's overall communications and any quality issues. Independent performance monitoring tools are designed to be easy to 'hook up' to any compatible endpoint, aggregate the information, and provide helpful outcomes, rather than just raw data. By including every potential point of failure in the analysis, such as an agent's headset, local network, or internet service provider, the time it takes for IT administrators to solve a quality issue is greatly reduced, as the tool can provide specific details and solutions to the quality issues as they arise. In addition, the tool can grow with your company.

Data collected across your organization is invaluable, and by using an easy to integrate flexible analytics solution you can ensure the integrity and availability of the data, regardless of the endpoint or communications application you use. As your company grows and changes it is likely that so will your communication tools. The 10-seat out-of-the box phone solution you purchased as a start-up may no longer meet the needs when you're providing integrated customer service via communications API in your company application. By utilizing a vendor-agnostic data tool, it is possible to change the data source, while keeping the view, calculations, and reports you use to run the business. **An example of an independent performance monitoring tool is callstats, the 5-year cost of callstats is approximately \$240,000 per year depending on usage.**



The TCO of building a solution is approximately \$100,000 more over a 5 year period when compared to buying, but with a much greater year 1 investment due to design and set up costs. Therefore it is important to understand the requirements and objectives of the project when deciding which option is best for your business.

Verbling.com, an EdTech company based in San Francisco recently had this choice to make. Verbling connects language teachers with students across the globe and being able to quickly diagnose video quality issues for their clients is key to the company's success. When evaluating performance monitoring tools, Verbling CTO Gustav Rydstedt considered building a custom solution, but ultimately decided to integrate callstats, due to its easy 'drop-in' integration and instant access to the data they needed. [Read more about Verbling's story.](#)

**“We explored several solutions; among them trying to build some analysis tools ourselves, but callstats really made it a drop-in solution to get an overview quickly. This is why we choose callstats over others. The integration process was seamless.”**

**Gustav Rydstedt**

Verbling CTO

Deploying an unbiased performance monitoring tool not only provides a lower TCO but also provides much greater financial flexibility, smoothing the path to a positive ROI. For more information on build vs. buy for performance monitoring and to learn more about the calculations used, you can read the full [callstats build vs buy report here](#).





## Building a business case to ensure success.

Due to the nature of CPaaS APIs, it is easy to end up with a substantial investment—particularly in developer resources and time—not matched by substantial return. Whether you are looking to deploy a performance monitoring tool, add video to your customer service channels or remind customers of their upcoming appointment via SMS, it is important to treat any CPaaS work as you would with a more traditional software or technology implementation.

CPaaS services can feel difficult to understand and deploy, but if you apply some typical project management principles, it can go a long way to being successful and realizing a return on your investment.

## Steps to getting started with CPaaS:

1. **Create a plan:** Before developers spend any time testing APIs, set out a clear plan including the business outcome you wish to achieve and define the APIs best suited to reach this goal. A plan could include how many hours per week your development team should spend on the project and when the new service needs to be in production.
2. **Start small:** These days, there is an API for everything. But that doesn't mean you need to deploy them all at once. By starting small, solving a specific business problem and then expanding the use case will ensure buy-in across your business.
3. **Don't forget the metrics:** A successful outcome may be something like 'Send 500 SMS messages reminding patients of their appointment, in order to see a 10% reduction in missed appointments' When building a solution make sure you include a way to track and monitor metrics in order to measure success.

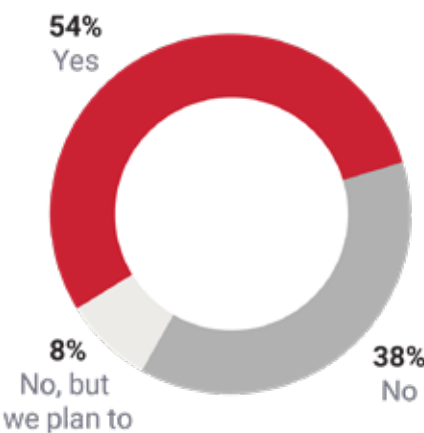
# Next Steps

Getting started with CPaaS is easier than you think, and following a few simple best practices can help to ensure a successful outcome. Get Started today.

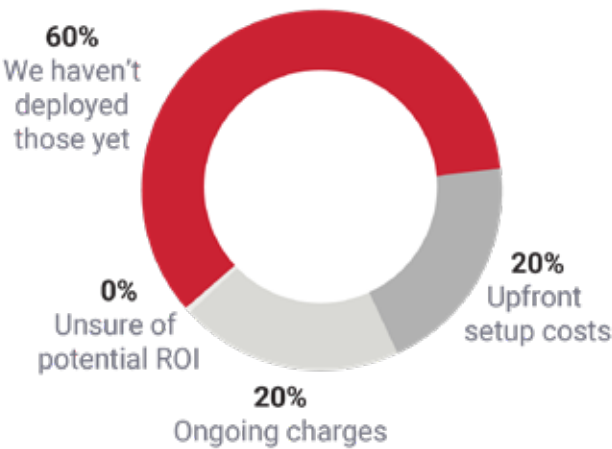
[View APIs and Docs](#)

## 8x8 Poll Results

Have you leveraged communications APIs for your company?



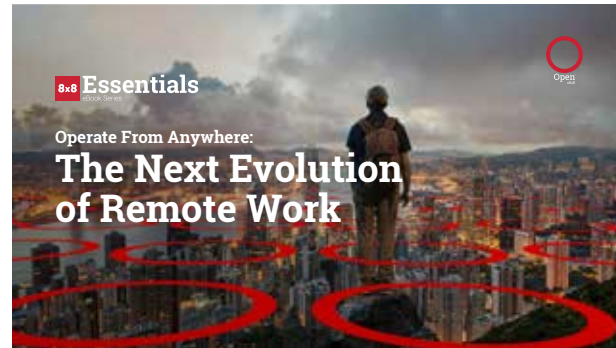
What was your primary concern when first deploying SMS or communications APIs?



Sources: Facebook, LinkedIn, Twitter



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