

## **Don't Pass On Advanced CPaaS**

Not All Communications APIs Are Created Equal: How Better Communication Capabilities Improve Customer Experience And Increase Revenue Versus Complex, Individual APIs

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## Executive Summary

To be effective and foster long-term relationships, companies must be able to engage with customers when, where, and how they prefer. Many organizations are on a journey to discover how to make this possible, but they are overwhelmed with all of the different tools and platforms for communications.

In June 2021, Vonage commissioned Forrester Consulting to evaluate the use and effectiveness of CPaaS (communications platform as a service) for enhanced customer communications and engagement. A CPaaS is a complete application platform for multitenant cloud environments that includes development tools, runtime, administration, and management tools for voice, video, and messaging services. An advanced CPaaS vendor has even more extensive communications capabilities: robust conversation services, multiple APIs, use case–specific APIs, monitoring and management capabilities, low-code development tools, a global carrier network, and an extensive library of sample applications. **This type of solution includes APIs such as video, voice, consumer messaging applications, two-factor authentication, webchat, and SMS/text messaging.** Less-capable CPaaS systems offer lower-level and complex APIs that require more-skilled developers to program across channels, and they vary widely in how common customer data and interactions are defined.

To explore this topic, Forrester conducted a global online survey with 1,037 customer and digital experience decision-makers and influencers from companies ranging in size from 500 to 20,000 employees. We found that not all APIs are created equal: Users of CPaaS have significantly more effective communications with their customers and prospects than those who do not use CPaaS.

Key Findings →



## Key Findings

**CPaaS enables communication where, when, and how customers want.** To meet the growing expectations from consumers and the changing technology landscape, companies are turning to CPaaS to improve their engagement programs. Those with CPaaS are much more effective at getting customers the information they want (98%) than non-CPaaS users (37%).



**Technical and business challenges prohibit agility for non-CPaaS users.** Non-CPaaS users see exacerbated challenges with their communications strategies from both a technical and business perspective. Those who use CPaaS face these challenges to a much lesser degree. For example, 94% of non-CPaaS users say the ability to send secure messages is very or extremely challenging, while only 31% of CPaaS users agree. CPaaS sets companies on an entirely different playing field than their non-CPaaS counterparts.



**Advanced CPaaS solutions propel organizations in their customer engagement journey.** While not yet widely adopted, many organizations are considering or have plans to adopt advanced CPaaS solutions. Half of surveyed decision-makers have seen or expect to see an advanced CPaaS increase revenue, citing the top benefits of improved analytics and CX that address their major challenges head-on.

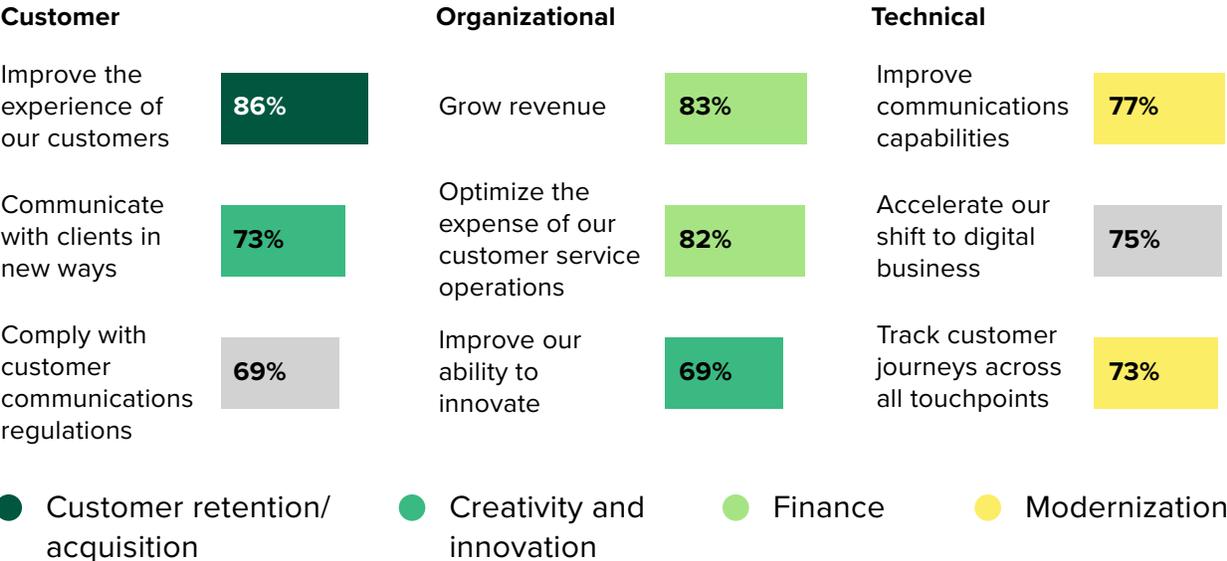


# CPaaS Enables Communication Where, When, And How Customers Want

Amid all of the global changes since the onset of the COVID-19 pandemic, customers’ and prospects’ expectations have sharply increased. Customers want to engage when, where, and how they want, leaving marketing and customer experience (CX) professionals wading through a sea of customer journey information and communications platforms to figure out exactly what the customer needs. In surveying customer and digital experience decision-makers familiar with CPaaS, we found that:

- Communication priorities spanning customer, organizational, and technical goals increased sharply since the onset of COVID.** Over the coming year, improving CX, increasing revenue growth, and advancing technology are top communication priorities for organizations (see Figure 1). These priorities run the gamut for organizations from internal (tech improvements) to external (customer-facing).

**Figure 1**  
**Top Communications Priorities For The Next 12 Months**  
 (Showing “Critical/High priority”)

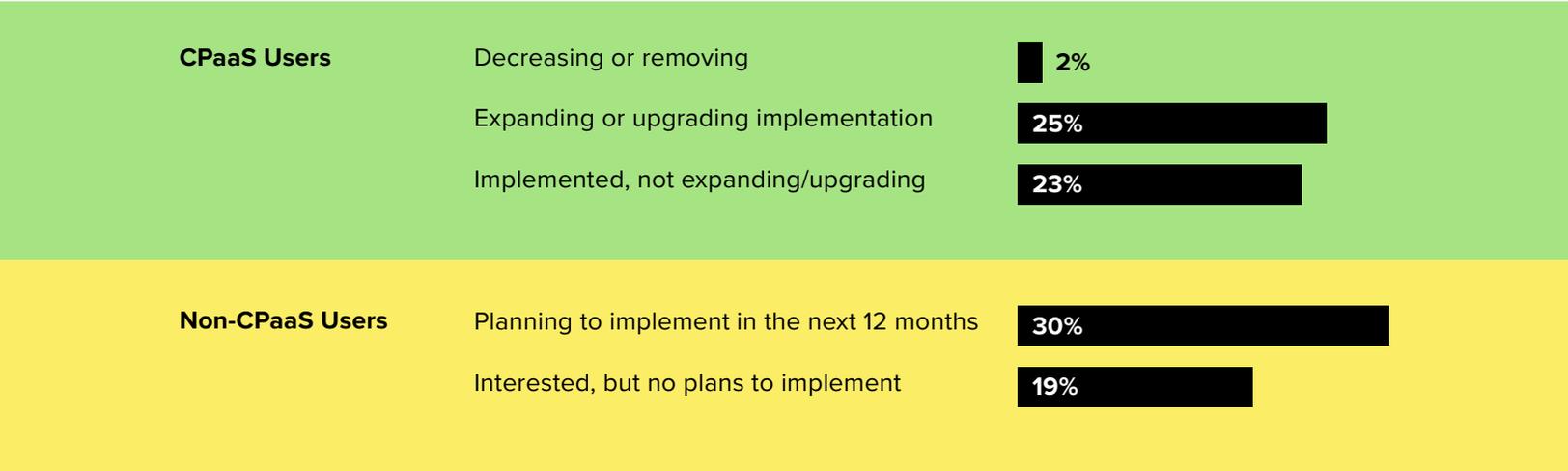


Base: 1,037 customer and digital experience decision-makers and influencers  
 Source: A commissioned study conducted by Forrester Consulting on behalf of Vonage, July 2021

For many, the pandemic has amplified these priorities. As customers and prospects increased their demands and communications tactics shifted, companies ramped up communication efforts. Decision-makers indicated that the importance of many priorities increased since the onset of COVID-19, such as improving the experience of the customer (55%), optimizing the expense of customer service operations (59%), and accelerating the shift to digital business (55%).

- **As part of this digital acceleration, more and more companies are turning to CPaaS to solve communication and engagement issues.** Nearly 50% of companies have either implemented or are expanding their CPaaS capabilities, while another 30% have it on their roadmap (see Figure 2).

**Figure 2**  
**Adoption Plans For CPaaS**



Base: 1,037 customer and digital experience decision-makers and influencers  
Source: A commissioned study conducted by Forrester Consulting on behalf of Vonage, July 2021

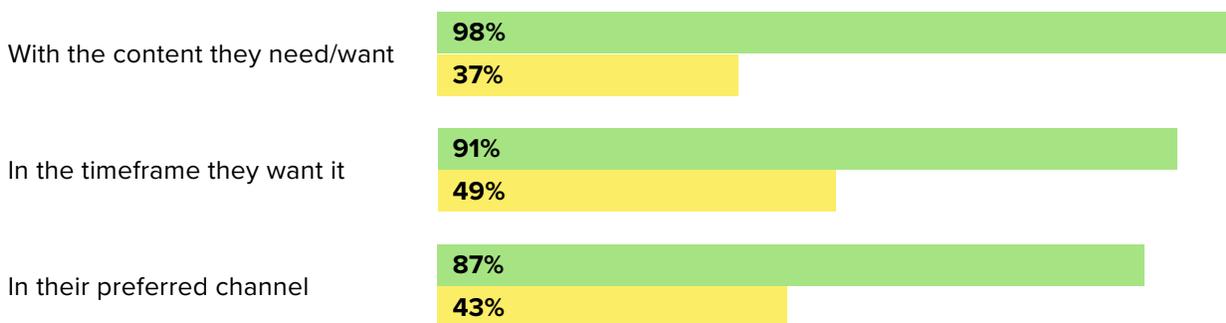
- CPaaS users are much more successful at getting customers what they want when they want it.** In total, seven in 10 firms feel they can get information to customers when, where, and how they want it. However, a closer look at the data reveals that there are major differences in experiences for companies that use CPaaS versus non-CPaaS users. CPaaS users are significantly more effective at providing customers with information when and how they want (see Figure 3). The numbers are astounding: 98% of CPaaS users feel they are very or extremely effective at getting their customers the content they need or want, compared to just 37% of non-CPaaS users. With the stakes so high for customer acquisition and retention, combined with increased demands from consumers, how can companies proceed with a communications plan that doesn't include CPaaS?

98% of CPaaS users are very or extremely effective at getting their customers the content they need or want, compared to just 37% of non-CPaaS users.

**Figure 3**

**“How effective is your organization at getting information to your customers in the following ways?”**

(Showing “Extremely/Very effective”)



Base: 522 customer and digital experience decision-makers and influencers who currently use a CPaaS  
 \*Base: 515 customer and digital experience decision-makers and influencers who do not currently use a CPaaS  
 Source: A commissioned study conducted by Forrester Consulting on behalf of Vonage, July 2021

## Technical And Business Challenges Inhibit Agility For Non-CPaaS Users

Companies face some crippling challenges as part of their engagement programs. However, in looking at CPaaS versus non-CPaaS users, we found that:

- **High-level challenges span business and technology needs.** The lack of integration with existing tools and platforms (71%), inability to secure messages (66%), and difficulty integrating with communications services (61%) are top technical challenges for companies in aggregate. Meanwhile, top business challenges are siloed business units (72%), lack of expertise (66%), and being locked into a vendor contract (61%). In fact, 44% agree that it is difficult to educate customer experience and digital experience professionals about CPaaS. In total, all of these challenges lead to negative CX (59%) and loss of revenue due to a lack of customer communications (51%).
- **Companies that do not use CPaaS are much more likely to face those challenges.** Zooming in to compare the challenges of non-CPaaS users is eye-opening. Non-CPaaS users are significantly more likely to struggle with technical challenges across the board, which extends to amplified business challenges as well. Unsurprisingly, non-CPaaS users are more likely to experience crippling consequences around CX and finances (see Figure 4). The survey data shows that non-CPaaS users' challenges are generally more rudimentary, while CPaaS users are focused on more advanced communication enablement.
- **Non-CPaaS users see heightened integration challenges.** When enabling communications with their customers, 83% of non-CPaaS users find the lack of integration with existing tools and platforms very or extremely challenging. In general, CPaaS and non-CPaaS offer a wide range of channels, although there is a difference in adoption of video — perhaps the result of the current communications trends that spiked as a result of the COVID-19 pandemic (see Figure 5). Yet both agree (44% CPaaS and 50% non-CPaaS) that disconnected data is an issue. This leads to engagement journey hot spots as customers move across channels, and it impairs full-journey analysis. If organizations were to deploy channel support on one system, it would eliminate the disconnected data issue.

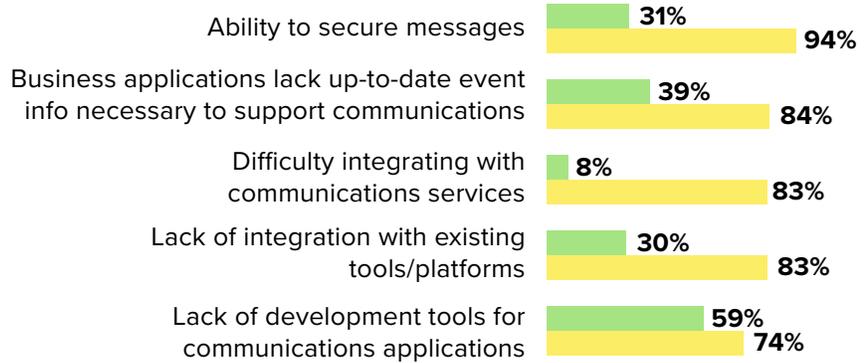
**Figure 4**

**Top Challenges When Enabling Communications With Customers And Their Consequences**



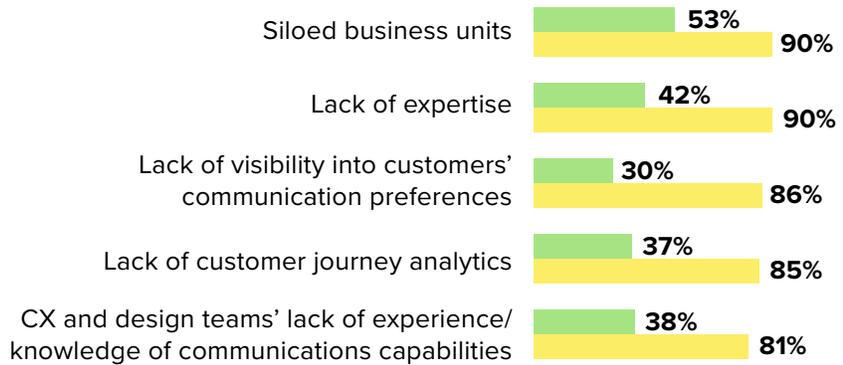
**TOP 5 TECHNICAL CHALLENGES**

(Showing “Extremely/Very challenging”)

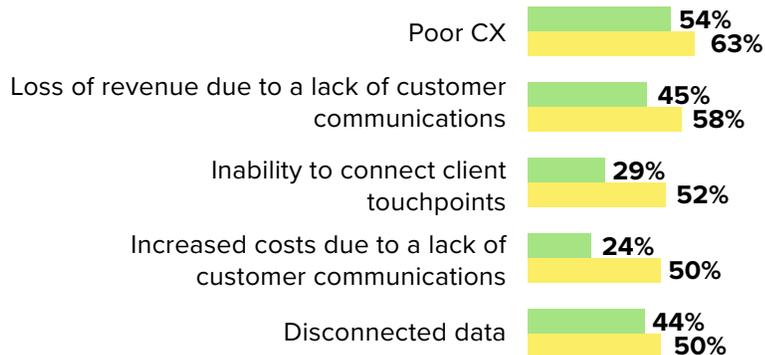


**TOP 5 BUSINESS CHALLENGES**

(Showing “Extremely/Very challenging”)



**TOP 5 CONSEQUENCES OF THOSE CHALLENGES**



Base: 522 customer and digital experience decision-makers and influencers who currently use a CPaaS

\*Base: 515 customer and digital experience decision-makers and influencers who do not currently use a CPaaS

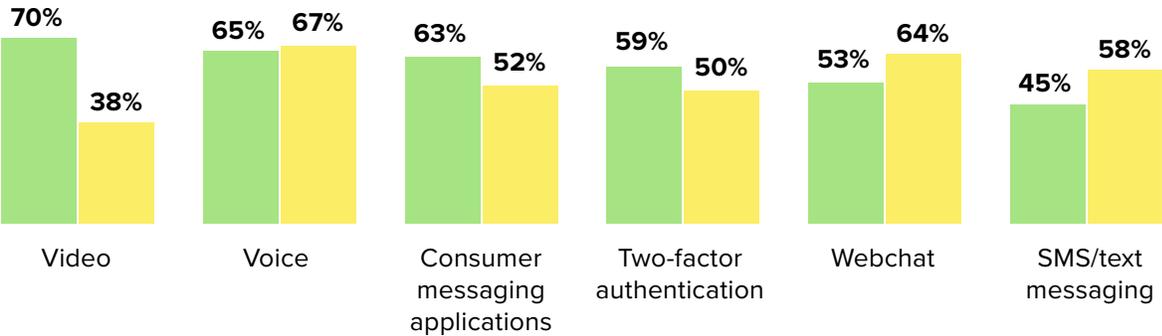
Source: A commissioned study conducted by Forrester Consulting on behalf of Vonage, July 2021

Given that most non-CPaaS users are already using the channels that CPaaS can assist with, even if they are not using CPaaS itself, it makes sense that they find integration very challenging since they are likely using many third-party tools. Those who use CPaaS are much less likely to struggle with integration challenges (30%), showing that partnering with a CPaaS vendor that can successfully integrate communication tools and platforms is critical to enabling better customer communications.

**Figure 5**

**CPaaS Users:** “For which of the following services does your company use CPaaS?”

**Non-CPaaS Users\*:** “Which channels is your company using to communicate with customers?”



Base: 522 customer and digital experience decision-makers and influencers who currently use a CPaaS  
 \*Base: 515 customer and digital experience decision-makers and influencers who do not currently use a CPaaS  
 Source: A commissioned study conducted by Forrester Consulting on behalf of Vonage, July 2021

- **Non-CPaaS users lack the agility and speed needed to meet customer demands.** As we know, time is money. Agility and speed are critical for organizations as they attempt to adapt and respond to ever-changing needs. CPaaS development tools aid in agility and experimentation as they try to understand what customers need and want. Those without CPaaS face major internal barriers and limitations in their customer communications, including overly long timelines for implementing communication capabilities and difficulty experimenting with new communication capabilities (see Figure 6). Furthermore, on

the journey to really knowing your customer, obtaining, connecting, and understanding customer analytics is critical, but it's especially difficult for those without CPaaS as 85% say it is very or extremely challenging to track and understand the effectiveness of their communications. CPaaS vendors offer "more fully featured, packaged apps for contact centers as well as lower-level APIs to support customizations," enabling the creation of a frictionless customer journey.<sup>1</sup>

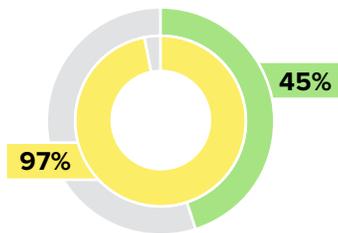
85% of non-CPaaS users say it is very or extremely challenging to track and understand the effectiveness of their communications.

- **Better development tools contribute to agility.** Both CPaaS users (59%) and non-CPaaS users (74%) stated concerns about their technology stack. Developing, testing, deploying, and monitoring CPaaS applications can be challenging if teams have to deal with low-level, complex APIs along with being limited to no testing or monitoring.

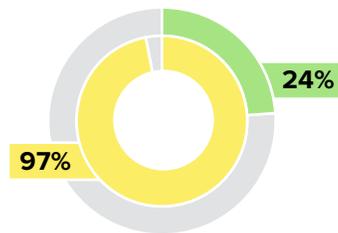
**Figure 6**

**“Rate your level of agreement with each of the following statements.”**

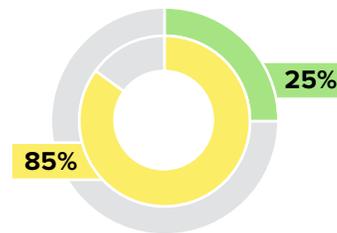
● CPaaS ● No CPaaS\*



It is very **difficult for us to experiment** and try new communication capabilities



It takes our organization **too long to implement** communication capabilities



We have **limitations when it comes to tracking and understanding** the success of any communications capabilities we deploy

Base: 522 customer and digital experience decision-makers and influencers who currently use a CPaaS

\*Base: 515 customer and digital experience decision-makers and influencers who do not currently use a CPaaS

Source: A commissioned study conducted by Forrester Consulting on behalf of Vonage, July 2021

## Advanced CPaaS Solutions Propel Orgs In Their Communications Journey

When comparing the survey results of organizations that are CPaaS users against those that are non-CPaaS users, it is clear that engaging a CPaaS vendor delivers profound benefits for companies. Even further, engaging an advanced CPaaS vendor solves the key issues that companies face. An advanced CPaaS vendor has more extensive communications capabilities, robust conversation services, multiple APIs, use case-specific APIs, monitoring and management capabilities, low-code development tools, a global carrier network, and an extensive library of sample applications. Less-capable CPaaS systems offer lower-level and complex APIs that require more-skilled developers to program across channels and vary widely in how common customer data and interactions are defined. They do not offer low-code capabilities, opening the range of users who can integrate communications into applications. We found that:

- **Both CPaaS users and non-users have a common future state in mind.** While challenges are amplified for non-CPaaS users, their ideal use of CPaaS aligns with that of CPaaS users. As part of their digital transformation, current CPaaS users plan to extend their use of CPaaS with a focus on CX improvements and modernization. While non-CPaaS users are also focused on CX improvements and modernization, they have a heightened focus on security of communications within their current framework.

### An advanced CPaaS vendor has:

- Extensive communications capabilities
- Robust conversation services
- Multiple APIs
- Use case-specific APIs
- Monitoring and management capabilities
- Low-code development tools
- A global carrier network
- An extensive library of sample applications

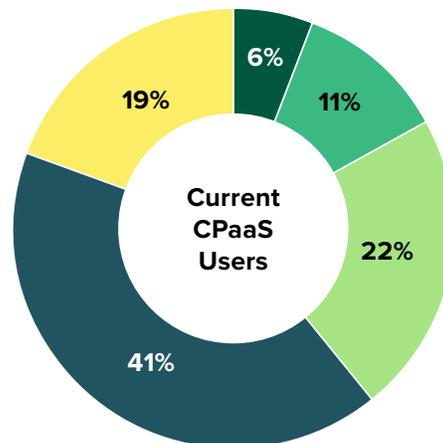
- **High adoption is planned for advanced CPaaS vendors.** While users of CPaaS solutions have seen much lower levels of key challenges, some organizations take it one step farther by partnering with an advanced CPaaS vendor. There are a few early implementers of advanced CPaaS vendors, but many CPaaS users are at the starting gate, with interest or planned adoption of advanced CPaaS in the next 12 months (see Figure 7). Planning or interested users likely use only a single API (e.g., SMS) but are starting to realize that their competitive advantage is slipping against those that have already adopted an advanced CPaaS solution.

56% of decision-makers expect revenue to increase by using an advanced CPaaS vendor.

**Figure 7**

**“What are your company’s plans for using an advanced CPaaS vendor?”**

- Expanding
- Implemented
- Planning to upgrade
- Interested, but no plans to implement
- Not interested



Base: 522 customer and digital experience decision-makers and influencers who currently use a CPaaS  
 Source: A commissioned study conducted by Forrester Consulting on behalf of Vonage, July 2021

- **Revenue is expected to increase, and customer service inquiries are expected to decrease with advanced CPaaS.** By using an advanced CPaaS vendor, 56% of decision-makers expect revenue to increase by an average of 8%. Half (50%) also anticipate that customer service inquiries will decrease by about 25% by partnering with an advanced CPaaS vendor. For example, a customer who gets an automatic notification about the location of their shipped package is less likely to call customer service with a shipping inquiry.

- Advanced CPaaS addresses major challenges head-on with big benefits.** Advanced CPaaS vendors alleviate major challenges companies face, enabling communications with customers from a technical perspective while also making progress toward top business communication priorities (see Figure 8). For example, 41% of decision-makers said that the inability to connect customer touchpoints was very or extremely challenging, but with an advanced CPaaS vendor, they cited the ability to connect customer touchpoints as the top benefit. Similarly, 51% cited loss of revenue due to a lack of customer communications as a major challenge, but 57% cited increased revenue as a top business benefit of using advanced CPaaS.

**Figure 8**

**Top Benefits Of Using An Advanced CPaaS Vendor**

**TOP 5 TECHNICAL BENEFITS**

Ability to connect client touchpoints	<b>60%</b>
Improved customer journey analytics	<b>59%</b>
Increased visibility into customers' communication preferences	<b>56%</b>
Increased integration with communications services	<b>53%</b>
Increased integration with existing tools/platforms	<b>50%</b>

**TOP 5 BUSINESS BENEFITS**

Improved customer experience	<b>59%</b>
Increased revenue	<b>57%</b>
Reduced costs of customer service due to proactive communications to customers	<b>57%</b>
More collaboration across business units	<b>52%</b>
Increased organizational support	<b>52%</b>

Base: 1,037 customer and digital experience decision-makers and influencers  
 Source: A commissioned study conducted by Forrester Consulting on behalf of Vonage, July 2021

**Key Recommendations →**

## Key Recommendations

Forrester's in-depth survey of customer and digital experience decision-makers about CPaaS yields several important recommendations:

### **Move to an advanced CPaaS solution to address critical communications needs.**

Advanced CPaaS can address key pain points in customer communications while also improving customer experience and increasing revenue for your organization. However, nearly half (49%) of organizations have not yet adopted any CPaaS tool. Of current CPaaS users, only 17% are using an advanced CPaaS solution. Making the switch to an advanced CPaaS vendor positions your organization for a strong competitive edge.

### **Align customer experience across the enterprise using customer journey mapping.**

Both CPaaS and non-CPaaS firms validated the impact of better customer communications, yet they identified opportunities for further revenue, cost, and customer satisfaction improvements. Engage stakeholders across the enterprise who own customer interactions and gain alignment around the current state of customer journeys.

### **Empower a customer experience focus with advanced CPaaS education.**

Customer experience should be top of mind for all members of an organization, in addition to the dedicated CX team. CX design teams need to understand the capabilities advanced CPaaS offers and apply them to future-state customer journeys. The limitations of legacy CPaaS, or the lack of CPaaS at all, erect barriers to CX design professionals to engage in customer communications projects. Limited monitoring and reporting also hide customer journey hot spots (e.g., lost customer context as they channel-hop). This information can now be exposed with advanced CPaaS.

### **Identify and gain alignment on initial customer journey improvements.**

With advanced CPaaS tools, CX teams can envision a future state of aligning communications across the enterprise. Companies should ensure that initial projects have a clear understanding of current-state KPIs, so the outcome has clear, measurable results that can inform and accelerate deployment, testing, monitoring, and implementation, fine-tuning the CX as they go along.

### **Promote the success of initial projects and expand deployments.**

The environment in which all enterprises operate is constantly changing; therefore, customer journeys always present an opportunity for ongoing improvements. Leverage advanced CPaaS reporting and monitoring tools to ferret out customer journey hot spots or opportunities for innovative communications to differentiate your firm from competitors, and iterate on these constantly.

## Appendix A: Methodology

In this study, Forrester conducted an online survey with 1,037 global customer and digital experience decision-makers and influencers to explore the effectiveness of CPaaS. The study began in June 2021 and was completed in July 2021.

## Appendix B: Demographics

REGION	
APAC	43%
EMEA	29%
North America	18%
South America	10%

COMPANY SIZE (BY EMPLOYEES)	
500 to 999	9%
1,000 to 4,999	47%
5,000 to 19,999	34%
20,000+	9%

TOP 4 INDUSTRIES	
Retail/e-commerce	17%
Healthcare	17%
Financial services	17%
Education/nonprofit	17%

RESPONDENT LEVEL	
Director	70%
Vice president	24%
C-level	7%

RESPONDENT DEPARTMENT	
IT	50%
Marketing/advertising	50%

Note: Percentages may not total 100 because of rounding.

## Appendix C: Endnotes

<sup>1</sup> Source: “The Programmable Contact Center: APIs And Low Code Optimize The Customer Journey,” Forrester Research, Inc., December 23, 2020.

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