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Communications Platform as a Service: At the heart of digital transformation



Data is from a survey conducted by Wainhouse Research (sponsored by ALE)

White Paper

Communications Platform as a Service: At the heart of digital transformation

October 2018

Alcatel·Lucent Enterprise

Introduction

Communications Platform as a Service (CPaaS) is a digital hub that provides connections between people, objects, and applications enabling all of these components to interact and understand each other. CPaaS is relevant for organizations that need to interconnect the components of their business processes to reduce latency and improve efficiencies in the decision-making process. One of the most popular applications of CPaaS is Unified Communications as a Service (UCaaS). For organizations that understand how to harness the capabilities and opportunities, its power goes far beyond collaboration.

A deeper dive into CPaaS can take you into the world of bots and Artificial Intelligence (AI) where answers are provided to customers, objects are connected, and next level analytics are possible.

In an effort to understand the evolution of the connected experience and where CPaaS is headed, ALE worked with Wainhouse Research to collect insights from real technology users. The survey consisted of 334 marketing and IT professionals. The companies they represented were mid-to-large sized organizations, in the healthcare, education, transportation, government and hospitality sectors from across France, Australia and Singapore.

We hope our findings will shed new light on the evolution of digital engagement and how CPaaS can improve the ways in which we connect to people, things and processes.

Highlights

- On average, 85% of respondents connect differently with people, processes and things than they did five years ago.
- However, 85% of respondents believe their organizations could make better connections between people and things, using newer technology.
- 95% and 94% respectively, claim to having completed or being in the process of digital transformation and digital engagement.
- 71% believe they will deploy more digital engagement tools in the next 2-3 years.
- 52% predict they will spend more in the next 24 months on digital engagement, 48% believe they will be spending about the same or less.





Connecting with people

Since people are, after all, the intermediaries of connections, we wanted to understand how they connect today and how that's changing.

The survey respondents were asked, 'When thinking about clients (e.g. students, constituents and patients) how do you typically connect'? We wanted to know what devices they were using and the ways in which they were connecting to other people.

Not surprisingly, email and mobile phone calls came up as the most utilized means of communication, however, meeting in-person came in close to mobile. This aligns with other Wainhouse research that corroborates that a high percentage of meetings, more than 50%, continue to be conducted in-person.

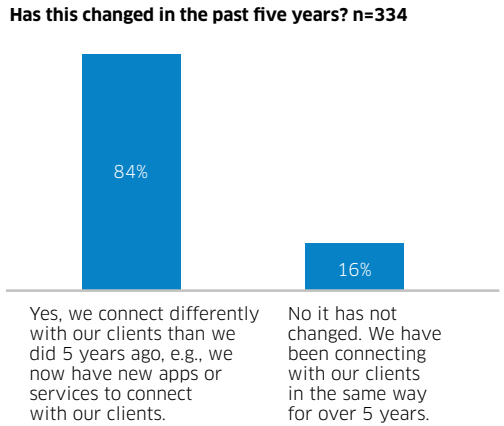
In terms of how they are connecting, mobile apps and landlines came in 4th and 5th place respectively, while video conferencing and chat were the least commonly selected coming in 6th and 7th place.

What has changed?

It is clear, for most of people in the business community that the way we connect and communicate has changed over the last few years. When asked, an overwhelming 84% of our survey respondents agreed that they had experienced change over the last five years. The introduction of new applications and services makes connecting easier and provides alternate ways to reach out and maintain client relationships.

We also wanted to understand if there were ways where they thought their company could have done things differently, or perhaps done thing better. Unfortunately, 85% of the respondents believe their organizations could do a better job of using new technology to assist in connecting people.

Figure 1. Changing the way we connect



How a cloud-based service (UCaaS) is reinventing collaboration

UCaaS is a cloud-based service that offers all the features and capabilities of customer premises equipment-based UC&C without the problems and issues. There is no deployment required, as everything is in the cloud and no CAPEX as the services are offered based on a subscription model whereby you pay per user, for what you consume.

UCaaS can be used as a standalone service (sometimes known as 'over the top') providing instant messaging, audio and video calls, file and screen sharing, group discussions and more. However, it can also be used as an addition to any existing communication equipment to perform corporate telephony functions. This is referred to as a 'hybrid communications' architecture.

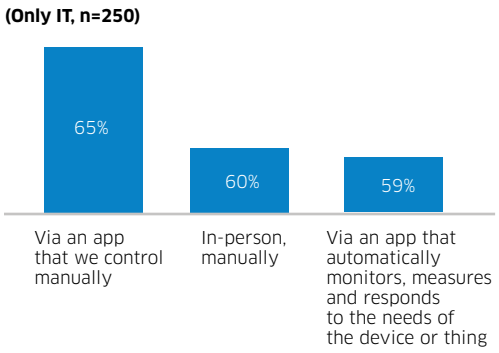
Connecting with objects



In addition to how people connect, we were also interested in the rise of connected things; and by 'things' we mean, for example, buildings, streets and perhaps remote equipment. In particular, we wanted to understand how IT departments are connecting with devices and things within their organizations.

Our IT respondents indicated that organizations have a number of ways of connecting to objects. While 65% indicated that they use an app that they control manually to connect to devices, close in 2nd and 3rd place were in-person/manually and via an app that automatically monitors and responds to devices.

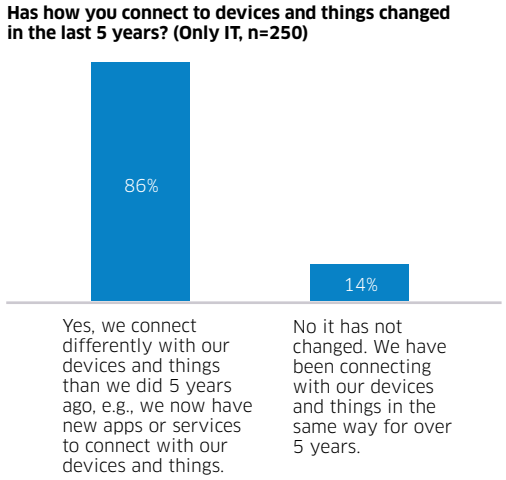
Figure 2. How organizations connect to things



Technology influences how we connect

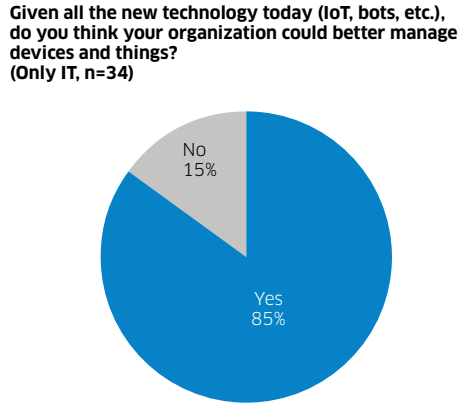
The ways in which people connect to things has changed over time, similar to how people connect to people. A significant 86% of respondents agree that the way they connect to things has changed over the last five years.

Figure 3. How organizations connect to objects is changing



Interestingly, 85% also believe that their organizations could use new technology to assist in better managing devices and things.

Figure 4. Managing connected things better



Object-driven communications

Today, there are more than 23 billion connected devices and that number will increase to 75 billion by 2025[1], far more than the earth's population. Some basic math indicates that a majority of communications in the future will no longer be between people, but will be initiated and/or terminated by objects such as, refrigerators, cameras, bath tubs, strollers, cars, bikes, paintings, sculptures… everything will be connected. Even rugby players' jerseys are now GPS equipped.

Each object can act as a sentinel and notify applications when an event occurs: Whether it is a flood, noise, or even movement detection. One thing most of the objects don't have, however, is intelligence. Being connected doesn't mean objects are intelligent enough to make decisions based on the information they have collected.

It is because of this lack of intelligence that connected objects need to be complemented with a platform that ensures information will be relayed to the right person at the right time. CPaaS provides that functionality.

Applications for object-driven communications are numerous and in every sector. A CPaaS environment can enable a presumably impossible dialogue between humans and objects.

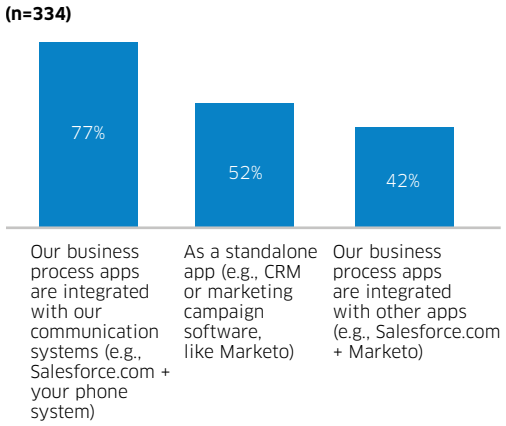
1 https://www.statista.com/statistics/471264/iot-number-of-connected-devices-worldwide/



Connecting with processes

When it comes to processes such as Customer Relationship Management, Enterprise Content Management and Supply Chain Management, we wanted to find out how people connect to these processes today. What we discovered was that 77% of survey respondents have apps that are integrated with their communication services and 52% use standalone apps, while 42% have apps integrated with other apps.

Figure 5. How people connect with processes

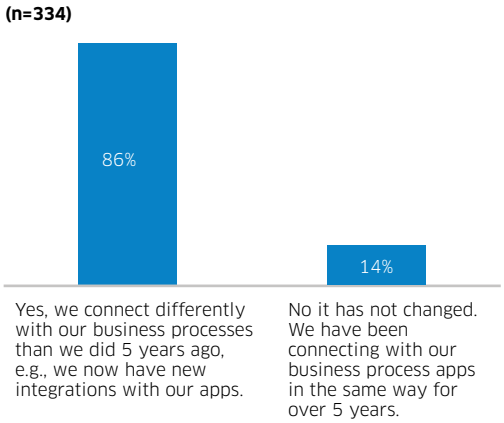


How organizations connect to their processes

We were curious about whether new technology has changed the way in which employees connect to enterprise processes in the last five years. We asked the question: "Are organizations evolving process integration for employees?"

What we found was that similar to connecting with people and things, 86% of respondents acknowledge that their organizations connect differently to enterprise processes than they did five years ago.

Figure 6. Connecting with processes is changing



Could your organization do better?

We were interested to learn that unlike connecting people and objects, connecting to processes gets a gets a better score with 23% claiming their organizations are doing okay (versus 15% for people and things). Still, 77% claim their organization could do even better with newer technology.

Connecting processes to reinvent the digital engagement

With the possibilities offered by digital transformation, customer service expands to include the whole organization and is no longer limited by the walls of a contact center. What we are talking about, is not just the next phase of call centers, contact centers and customer success departments. It's a totally new approach to customer engagement that fully harnesses the power of digital forces, with the imperative of serving customers and citizens, anytime from anywhere, to deliver the right solution to their challenges and questions.

To be successful and provide the expected business outcomes, digital engagement needs to follow some basic customer rules (such as intelligent routing, and first call resolution). It also needs to put conversations in context, which means providing the right information at the right moment. It needs to connect with business applications (such as Supply Chain or CRM) which help to make these conversations relevant. Historical information is made accessible to customer service representatives, enabling accurate answers and pertinent recommendations in cross selling situations.

Digital transformation

Digital transformation is revolutionizing the way enterprises do business. More devices and more mobility require more network resources than ever before. Digital Transformation represents the effort to convert legacy ways of connecting with people, things, and processes and replacing them with new, digital services that are faster, easier to use, less expensive, and more secure (e.g. moving to the cloud, use of artificial intelligence and machine learning and communicating with devices using IoT).

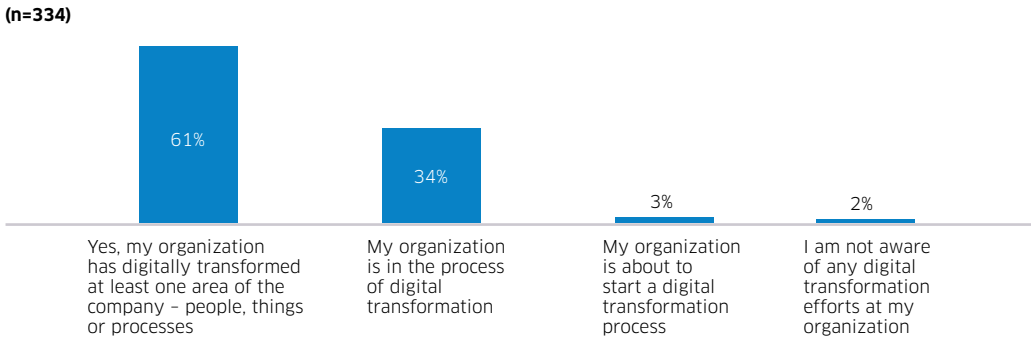
First and most importantly, we needed to find out if our survey respondents are indeed engaged in digitally transforming their environments.

We learned that most of the organizations surveyed (95%) indicate that they are in the process of, or have already completed their digital transformation. To break it down further:

- 61% say they have completed their digital transformation
- 34% say they are in process
- 3% indicate they are just beginning digital transformation

Only 2% claim that they have no digital transformation underway.

Figure 7. Where are you in your digital transformation?







Digital transformation leads to digital engagement

With the majority of our participants involved in digital transformation, we wanted to find out their reasons were for initiating a digital engagement strategy. We gave them five options and asked them to rank the top three drivers that lead them to begin using digital engagement. The options included:

- Make it easier and faster for my organization
- Remain competiive
- Reach a larger group of people at a lower cost
- Align with how clients like to engage
- Differentiate our services from competitors

The clear front runner was to make communications easier and faster for their internal organizations. Remaining competitive and reaching a larger group of people at a lower cost were tied for 2nd place, and client engagement and differentiation came in 4th and 5th respectively.

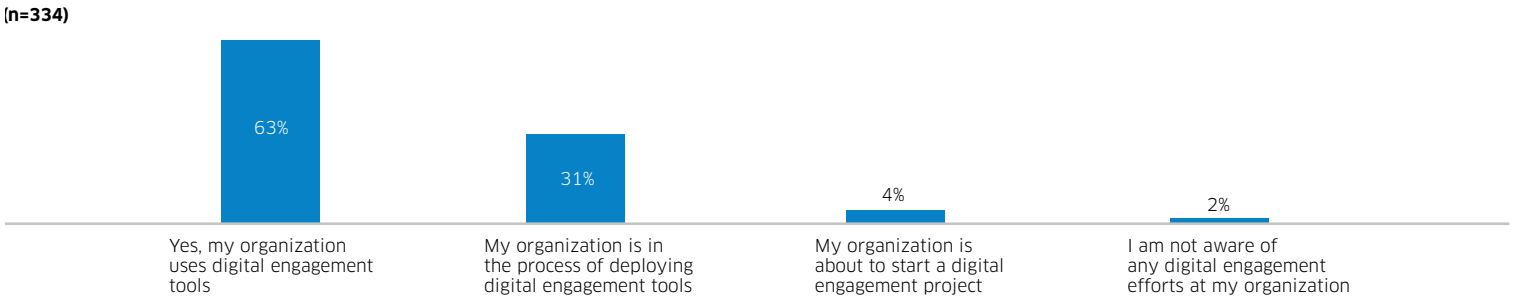
We probed a little deeper to find out if the survey respondents use digital engagement tools such as voice, video, web-based chat services, bots and analytics in their organizations.

Not surprisingly, the responses echoed those involved in digital transformation with, 94% claiming they either use, or are in the process of implementing digital engagement tools. Similarly, the breakdown aligns closely as well:

- 63% currently use digital engagement tools
- 31% are in-process
- 4% are just beginning

Only 2% claim no digital engagement at all.

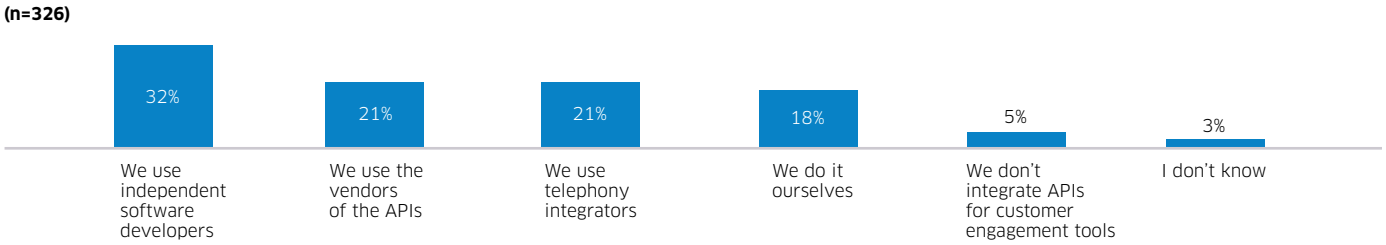
Figure 8. Who is using digital engagement tools?



Along that same vein, we wanted to know if the respondent organizations were integrating with other apps using APIs and if so, how were they doing it. In particular we were interested in which type of vendor organizations they were using for integration.

What we found was that many organizations (32%) used independent software developers, while the remaining were pretty evenly split across API vendors (21%), telephony integrators (21%), and DIY (18%).

Figure 9. Who is integrating your apps?



Defining digital engagement

First, let's try to define 'digital engagement'. It's not a moment, but rather a series of moments that, when experienced together, shape the digital experience and provide the positive engagement that every company and institution should seek. Delivering what the customer, citizen, or employee expects at each interaction can contribute to a positive experience that will hopefully impact the customer and help to build a solid reputation.

Of course, putting together the services that will create successful digital engagement doesn't happen overnight. It's a process of experiencing and learning to adapt and tailoring over time.

It starts with setting understanding where you are and setting expectations. Ask yourself these questions:

- What do you believe, as a company, you can deliver to your customers?
- Among the 4 pillars of digital transformation (internet, social, big data and cloud), what do you have already that you can use to engage customers?
- What interconnections do you see between the pillars and your business applications?
- What outcomes do you expect and how will you measure them?

Once defined, you need to figure out how these elements can be orchestrated, with communications at the center, as they are instrumental in enabling the digital experience between people, objects and processes.



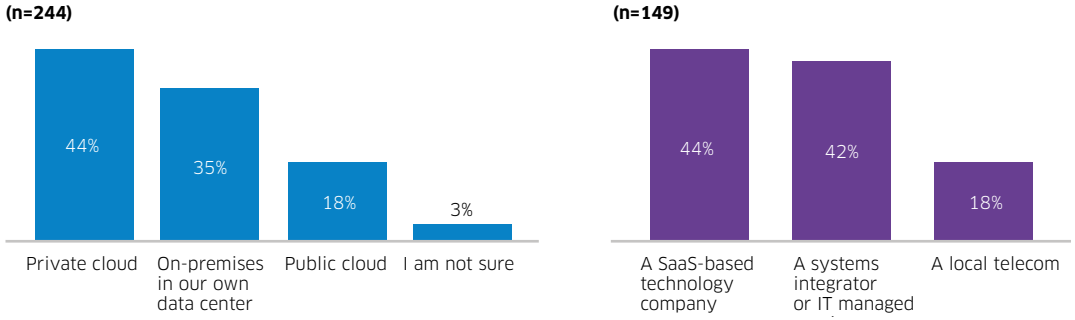
Deploying services



We were also curious to find out how the respondents currently using digital engagement tools, were deploying their services. The majority (79%) said they deployed either in a private cloud (44%), or client premises (35%). Only 18% said they deployed in a public cloud, and 3% were unsure of where their services were deployed.

Of those that host in either a private or a public cloud, almost equal percentages (44% ad 42% respectively) use a SaaS vendor or a systems integrator. Only 14% use their local Telco.

Figure 10. How and where are your digital engagement services deployed?



Leveraging the benefits of a hybrid cloud architecture

Hybrid communications are the combination of on-premises communication equipment together with services available from the cloud. With hybrid communications, organizations can benefit from the best of the both worlds. It enables them to continue to use their existing communications servers and devices (such as deskphones) while taking advantage of new services that they can consume and pay for on demand. There are two main areas where hybrid communications make a lot of sense and bring significant benefits: UCaaS (Unified Communications as a Service) and CPaaS (Communications Platform as a Service).

As mentioned earlier in this document UCaaS can be implemented as a standalone service to provide instant messaging, audio and video calls, file and screen sharing, group discussions among others. It can also be used alongside existing communication equipment to perform corporate telephony functions in a 'hybrid communications' environment.

In this case, organizations can continue to take advantage of their communications servers (PBXs), including On-net and integration of mobile devices, while benefiting from the latest technology 'as a Service' whereby a link is established between the ground and the cloud through WebRTC, an open-standard technology.

The same applies with CPaaS which enables cloud-based communications that facilitate business processes, using CPaaS capabilities such as APIs and SDKs to connect with business applications while leveraging existing on-premises (or cloud-based) communications equipment.

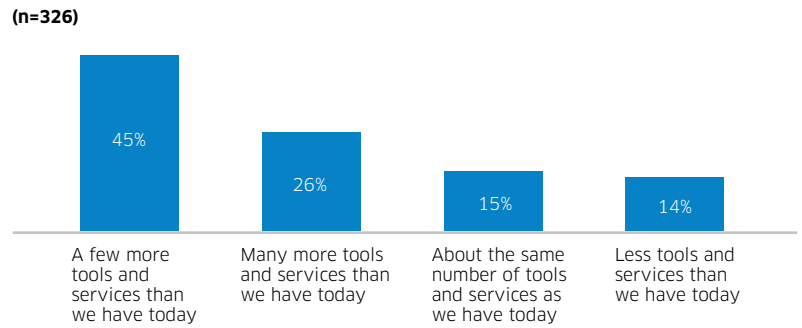


Engaged in the future

Planning for the future can be a bit of a challenge, however, it is important to understand where our survey respondents see themselves in the future, so we asked: “Where do you see your organization’s digital engagement in the next 2-3 years? Will you be using more, less, or about the same number of tools as prior years?”

The good news is that 71% indicated that they would be onboarding more digital engagement tools. Of that, 45% said they would be using a few more tools, while 26% said they would be using many more tools. Fifteen percent responded that things would stay about the same, while 14% said they would probably have less tools and services.

Figure 11. Planning for digital engagement



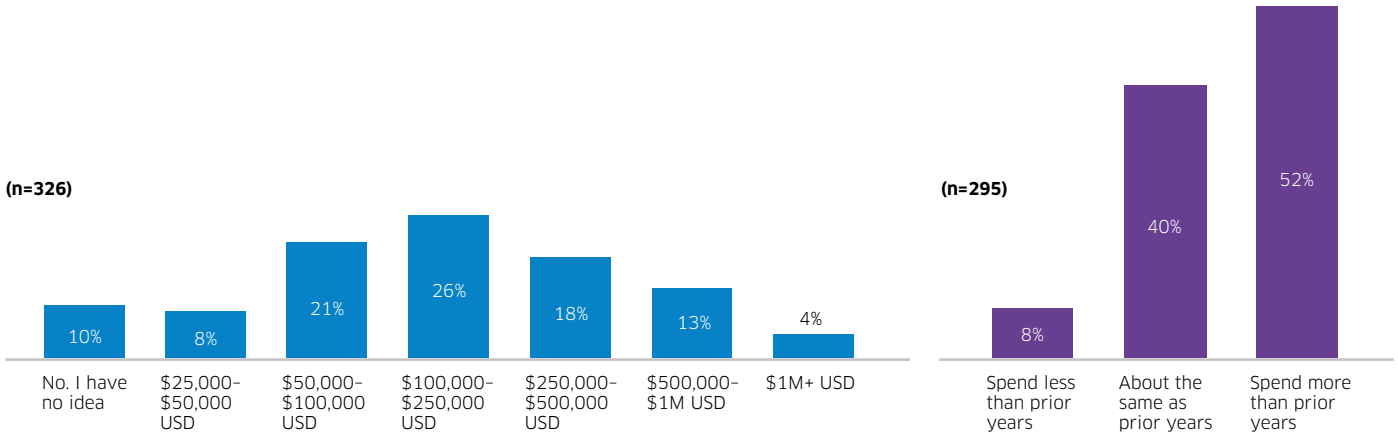
Setting priorities

As with most organizations, the challenge of prioritizing spending to meet today's needs, versus planning for the future can create a tug-of-war with the available dollars. To understand where organizations are headed we asked about their current spending as well as their plans for the near term future.

Of the mid-to-large sized organizations that were surveyed, currently 61% spend more than US$100,000 annually on digital engagement. However, 65% identified spending between US$50,000–US$500,000, with 26% of that coming in the US$100,000-250,000 range.

In terms of their plans for spending on digital engagement in the near term (i.e. the next 24 months), it seems that 52% expect to spend more, while 40% plan to spend about the same with only 8% planning to spend less.

Figure 12. Digital engagement spending now and into the future





What does this mean for CPaaS

Organizations can take a step-by-step approach and implement hybrid communications as their digital transformation unfolds. They can start with UCaaS (which is essentially a CPaaS application) as a standalone service to familiarize their users with the team workspace capabilities, such as group discussions, instant messaging, file exchange, and screen sharing. Next, they can connect to their PBXs to enable new features and services such as carrier-grade conferencing services.

CPaaS implementation is clearly a critical consideration for any company. Business priorities will drive CPaaS implementation. Organizations need to figure out what problem they want to solve—whether it is digital engagement with a customer, or enhancing operations in a company. People need to connect with other people who may be located outside of their business. As well, they may need to reach out to other companies, partners, or suppliers. Many organizations start by using CPaaS to reinvent their digital engagement with customers. Integration with CRMs, and chatbot implementation are a couple of examples of what can be done easily to introduce immediate business value.

One of the key factors in a successful CPaaS solution implementation is choosing the right partner. Organizations need to identify their priorities and find partners who can help them reach their goals.

With Alcatel-Lucent Rainbow™ organizations can evolve their services as required, to deliver a better customer experience, reduce decision-making lead times, and possibly increase revenue opportunities. Rainbow lets them expand their communications footprint beyond the enterprise walls and ultimately become a digital company

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We are ALE.

We make everything connect
by delivering technology
that works, for you.
On Premises. Hybrid. Cloud.



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