Cloud Communications Migration” Best Practices for Mid-market CIOs

WHITEPAPER

8x8

What are the Cloud Communications Migration Pitfalls and How to Avoid Them

Mid-market CIOs today understand why business functions are moving to the cloud. The reasons range from better agility to dramatic savings on equipment and operational overhead. The trend towards increasing reliance on the cloud includes business phone systems. According to a Broadcom survey of global telecom providers, more than half of businesses will have moved to cloud communications by 2020. The survey also points to accelerated adoption of cloud contact centre and team collaboration services.

As you join these forward-looking IT leaders and consider retiring your on-premise PBX or contact centre system, it pays to understand the keys to a successful cloud migration. It is also extremely valuable to have insights from seasoned business leaders into some of the potential pitfalls associated with moving to the cloud before you begin the migration.

51% of businesses are expected to adopt cloud communications by 2020.
– Broadcom

From vendor to strategic partner

The success of any cloud migration starts with looking for a partner with deep experience and expertise as well as world-class technology. Many cloud-based SaaS applications like CRMs don't depend on your infrastructure or your IT staff to ensure quality and reliability. After all, offloading the costs of hardware, software and IT maintenance to the service provider was the key benefit that made cloud-based services like Salesforce and NetSuite popular. Using these services requires little more than a web browser or downloadable app and a relatively stable Internet connection. However, deploying cloud-based unified communications as a service (UCaaS) or contact centre as a service (CCaaS) is a major undertaking that relies on a complex interplay between the provider's infrastructure and your own. So, it requires a close strategic partnership with the cloud service provider.

While achieving a smooth transition is a shared responsibility, the cloud provider should take a significant portion of the burden off your shoulders and guide you through the process. Which makes it very important at the pre-sales and POC phases to look for tell-tale signs that reveal how detail-oriented the service provider is, or isn't—because you may need to rely heavily on their expertise. This includes judging how they examine the current workflows and requirements and how effectively they engage with you to understand your business and technical objectives.

It is also very important to understand that migrating to the proper cloud solution can take you well beyond your primary objectives, which might be switching from an Opex to a Capex model, gaining agility, replacing an end-of-life system or having greater functionality in your communications. For most CIOs, the real driver behind the move is not to simply replicate an existing system. They are looking for much more, including the potential for transformational benefits that dramatically increase efficiency, provide flexibility and offer practical business insights. Some visionary IT leaders may even be looking to create disruptive new services that embed communications and collaboration features.

The right partner can work with you to examine your individual business goals and current infrastructure, and then offer you benefits that you may have never realised were possible coming from an on-premise perspective. After defining your unique business objectives, the right service provider can guide you through a trouble-free transition to a cloud-based solution.

Avoiding the Most Common Pitfalls of a Cloud Migration

One of the key benefits you will gain from working with the right cloud partner is leveraging their experience and technical capabilities to sidestep common traps along the path to a successful migration. The four most common potential problems areas are: preparation, technical considerations, testing, and transitioning.

Preparation

Preparation at the pre-sales and POC phase is key to avoiding common cloud migration mistakes. The biggest error companies make in the cloud transition is investing in intermediary solutions and ending up with the same problems associated with legacy siloed applications. Rather than fulfilling the promise of a "modernised IT infrastructure," you could forsake the huge transformative benefits of a cloud solution for a mirror image of your old on-premise system and its fragmented point solution architecture.

Naturally, you should start by doing some key feature parity assessments. But it's important not to fixate on one-to-one feature parity because you don't want to limit your new system's potential or find yourself in an unnecessarily difficult position. You have your primary objectives and pragmatic reasons for moving to the cloud today, but you should also have a grand vision for how your systems are going to work in the future. Preparing well for a seamless transition between your different business systems and the different underlying communications helps you avoid unpleasant surprises later.

It is also important to keep an open mind about new functionality the cloud makes possible. For example, one 8x8 customer provides receptionists for clients in each of its locations. They take calls for clients on an individualised basis, essentially providing a "receptionist as a service" business. Viewed from a feature parity perspective, at the pre-sales phase the question would have been,"Does 8x8 have a comparable feature such as the switchboard application. The answer would have been "Yes," but looking for feature parity means missing the truly interesting business questions. For instance, with the legacy system the customer had issues with coverage—i.e., if a receptionist didn't show up for work it was hard to cover the calls.

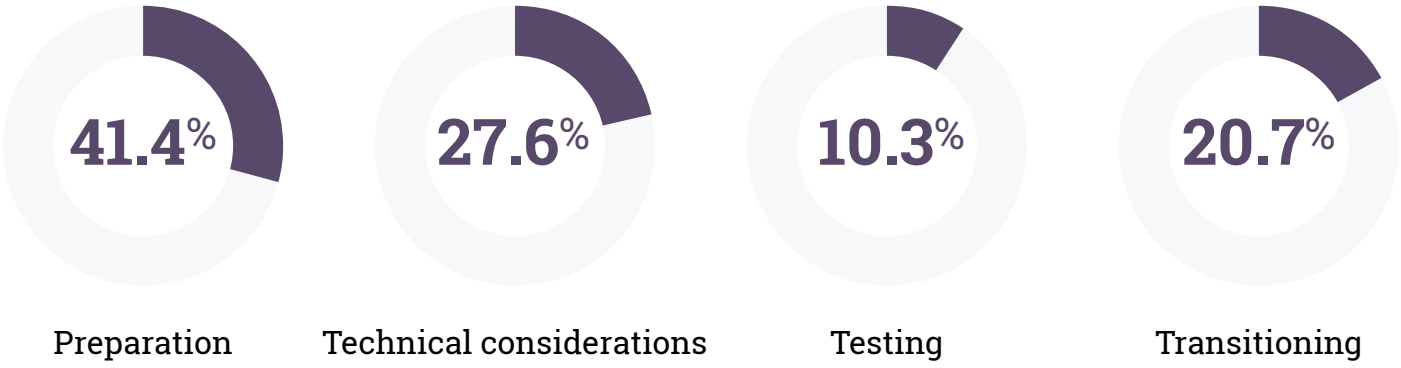
In planning the POC, 8x8 together with the company's CIO looked at this technical challenge from a business perspective—and as an opportunity. The company had five sites where receptionists were performing this service. It became clear that what the customer needed was not a phone system feature like the switchboard application, but rather a contact centre functionality. So 8x8 put this entire layer into a contact centre function. Each receptionist could take calls for any office and have all the information about the client instantly available, making it possible to personalise greetings and provide intelligent answers to callers' questions. This solved a larger business problem for our client, one that they didn't originally realise could be solved with communications technology.

By blurring the lines between the contact centre and telephony functionalities, the solution achieves significant efficiencies for the organisation. It also provides far better visibility into what is going on across the five locations. Now, for instance, they know exactly how many calls each receptionist takes. This enables the company to staff properly and provide much better SLAs and customer satisfaction, while actually reducing their workforce.

Technical considerations

When it comes to technical considerations, the cloud communications infrastructure—which really involves aligning the cloud provider's infrastructure with the customer's infrastructure—is the most important element in the success of any cloud migration. A cloud solution can provide all the additional benefits of Big Data, machine learning, AI and business analytics, but if call quality is poor nothing else matters. Which is why a focus on fundamentals should come first. It is even more important with non-integrated solutions. If you have a contact centre system from one vendor, an IP telephony solution from another and a collaboration system from someone else, the infrastructure requirements become even more complex.

In fact, in a recent survey of IT professionals conducted by 8x8, preparation and technical considerations ranked as their two top concerns.



So how do you meet these infrastructure requirements? You need to consider more than simple packet loss and latency issues; there are many different requirements when putting a cloud UCaaS/ cloud communications solution on top of your existing infrastructure in order to provide a seamless experience.

You also need a service provider that helps you deliver a quality experience to your users. This makes it important to select a partner that makes this task easy for you. Some vendors may simply give you a list of requirements, and then leave it to your IT teams to figure out how to meet all of them.

A less-than-satisfactory vendor relationship can catch up with you in the implementation phase because the real-time nature of voice and video communications makes them difficult applications to deliver over a network. Any other application has the luxury of retransmission or buffering. Netflix or YouTube can be buffered; any website can retransmit; but a solid infrastructure capable of ensuring good quality of service is critical for voice call and video collaboration. So you need a partner with the technology, tools and expertise necessary to take the burden of network engineering off your IT teams.

Another consideration is how well your cloud provider handles quality of service on third-party networks. The reality is that you will have remote and mobile users on networks that you don't control. In fact, one of the reasons you are moving to the cloud in the first place is for the flexibility to have users on any network, anywhere in the world. You want to deliver the same voice and video quality and access to your entire business communications system to remote and mobile users as if they are sitting in the office.

This makes the underlying technology extremely important. However, when it comes to providing service on less-than-ideal networks, there is significant variation in the cloud communications solutions available on the market today. Look for third-party validation around voice and video quality when evaluating a cloud partner.

Testing

The next potential pitfall is testing. Identifying key risk areas, and testing key flows and use cases that you have in your business as much and as early as possible in the migration process can help to avoid surprises later. It is analogous to agile software development or semiconductor design: you do not want to wait until the software is ready to ship or a chip is in silicon to test it. Likewise, with cloud communications you want to integrate testing at every stage as you implement the system.

One particular area where testing can help avoid problems or even system failure involves testing failover, disaster recovery and redundancy. While the cloud provider should handle building in and maintaining resiliency in the services they provide, there is a component on your network as well. For example, if the main Internet connection goes down and proper protocols are not in place, failover may not work. So, while it may seem obvious, you need to thoroughly test disaster recovery functions before you need them.

Another critical area where testing can eliminate problems is Wi-Fi. Getting wireless networking right requires a deep understanding of the technology because it is a "single-collision" domain, which means any user's connection is only as good as the worst connection to that endpoint. For example, if a device hangs onto the Wi-Fi access point while the user is walking out of a building and begins to lose connectivity, everyone connected to that access point will be adversely impacted.

Transitioning

There are no out-of-box solutions for rolling out a cloud-based UCaaS system on an enterprise-scale. If a vendor tells you a one-size-fits-all approach will work for you, you can anticipate complications. Every company needs a custom solution to move communications to the cloud. You also need to ensure your investment will meet your business requirements. If you have completed the first three steps correctly, with the guidance of an experienced partner, your cloud transition should be smooth. You will have already decided whether to roll out everything all at once or gradually release in phases. You will have a plan for how to train users to make the change as painless as possible. Finally, you will have vetted your short list of cloud service providers and chosen one who will work closely with you to define and support the transition strategy that best meets your business needs.

Choosing to Partner with 8x8

8x8 offers customers the experience gained in implementations in 157 countries, supporting more than 1 million business users. Our cloud communications platform serves anywhere from a few hundred users to 30,000 extensions in multiple countries (the largest UCaaS deployment anywhere in the world). 8x8 UCaaS and CCaaS technologies are built entirely in-house and backed by 170+ patents. 8x8 was recently recognised by Gartner as a Leader in the 2019 “Magic Quadrant for Unified Communications as a Service, Worldwide.”

The power of a single platform

8x8 is the only major pure cloud communications service provider that has its own UCaaS and CCaaS solutions—not OEMed or outsourced to a third party. From better access to data for analytics to more informed and engaged contact centre agents, the synergies and seamless integration between these two systems offer unrivaled benefits and new capabilities to 8x8 customers.

The previous example of the 8x8 customer operating a ‘receptionist as a service business’ illustrates this value of an integrated system well. Since 8x8 has an integrated UCaaS/CCaaS system, we could intercept the calls that were going to individuals within the contact centre layer, and still transfer the inbound call from the contact centre to the particular client using the same phone number.

Proven, field-tested transition methodology

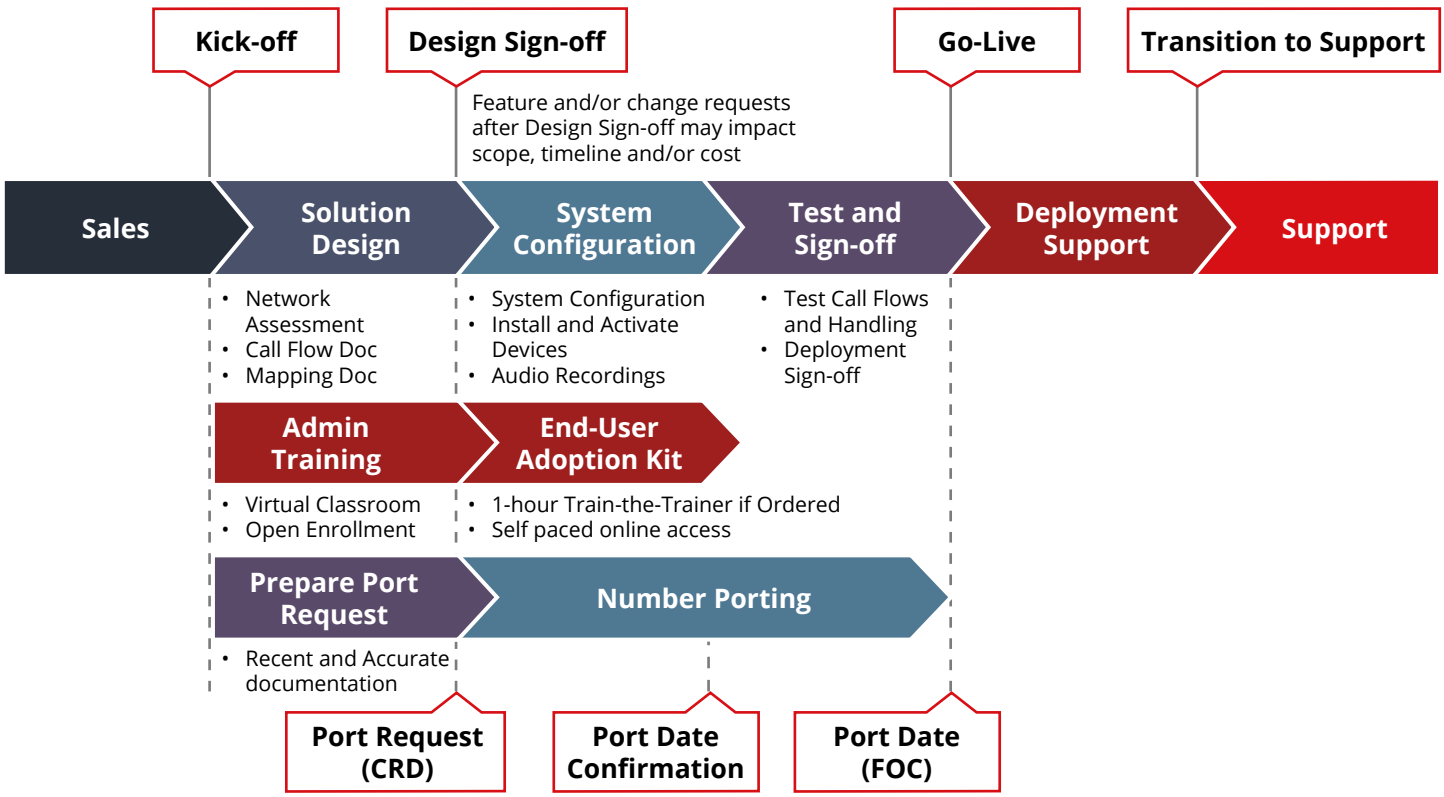
8x8 employs a proven transition methodology to ensure the best system design for each customer and a smooth migration experience. This approach has been developed and refined over the course of thousands of implementations around the world, and includes the following:

- Pre-Sales Consultation
- Scoping and Solution Design
- System Configuration
- Testing and Sign-off
- Development Support
- Ongoing Support

8x8 recommends this phased approach as opposed to rolling out everything all at once, across all offices. However, extenuating factors—a contract expiration or a dying system, for example—may require a more compressed approach. In one case, 8x8 helped a customer roll out a 1000-seat implementation, including number porting, in two weeks.

Regardless of your timeframe, the 8x8 transition team will work with you to define the right strategy, and then guide you through the entire process. This deep support begins at the critical pre-sales preparation phase. For example, if a customer were to ask about number porting in Italy, the team would not simply answer, "Yes, we support service in Italy." Instead, the 8x8 team would ask the customer for numbers to test in Italy to make sure local number porting is possible. This type of support helps to maintain consistency throughout the process. 8x8 also has extensive local number porting agreements with carriers in most major markets around the globe, which not only helps to ensure a fast and smooth migration but can also give your global offices a stronger regional presence by having local telephone numbers.

8x8 path to a successful transition



Unsurpassed quality answers a key technical concern

8x8 is also the global leader when it comes to call quality. The Tolly Group, a leading global provider of testing and third-party validation and certification services, tested the voice quality of four leading cloud services across a variety of normal and less-than-ideal conditions.[2] They subjected the services to packet loss, jitter (delay), buffer bloat and other conditions that can potentially degrade voice quality. The 8x8 solution delivered the highest voice quality in the majority of the test cases—across various scenarios, client platforms and impairment conditions. In the few cases where 8x8 results were not the highest, they were close to highest.

This superior quality also rang true on less-than-optimal networks. Tolly evaluated the mobile solutions and soft clients of leading cloud providers, and 8x8 came out on top in every category when it came to providing the best quality on less-than-ideal network conditions. This industry-leading quality is the result of our innovative technology, including advanced algorithms to deal with issues such as buffer bloat and provide the best quality of service.

Superior global reach

Another technical consideration is global call quality. When you place a call on the 8x8 network, the system makes a number of real-time decisions regarding call setup and routing based on geographic location and network conditions.

Every VoIP call is comprised of two data types, a signal plane and a media plane. The signal plane deals with call setup, management and teardown while the media plane carries the actual digitised voice. Most cloud solutions route signaling and media data through the same data centre regardless of where a caller is located when their call is initiated. For instance, if a U.K.-based employee is traveling in Sydney, Australia and needs to make a call to a local business in Sydney, the call would still be routed back through his or her "home" data centre in the U.K. first. As you can imagine, routing all calls through only a few data centres or making unnecessarily long hops is less than optimal for real-time communications. Conversations can become frustratingly slow as latency and delay degrade the call. It is important to have data centres spread out strategically—that's why 8x8 has 15 data centres around the globe.

This global reach means not only experience deploying systems in 47 countries but also the ability to handle tactical details such as shipping phones internationally or local number porting. It also means having resources around the world, including 16 facilities for customer support with staff available to assist with your implementation.

Geo-Routing makes 8x8's global reach uniquely enterprise-grade

Many hosted VoIP solutions route call data through the same data centre regardless of the physical location of callers. 8x8 takes a very different and more sophisticated approach.

When an 8x8 end-user makes a call, our patented geo-routing technology seeks out the closest data centre. Media plane data is extremely sensitive to delays and 8x8 has patented technologies to ensure that this data latency is minimised. Current Internet and carrier network conditions are also taken into account for all routing decisions and the best route is determined in real time. The result of these and other innovations is the industry's best global call quality.

[2] Tolly Enterprises, "Analysis of Cloud Communications VoIP Quality Under Normal and Adverse Network Conditions," May, 2017.

Wi-Fi expertise solves the tricky problems of poor access point connectivity

Getting Wi-Fi technology right is a blend of art and science, and Wi-Fi problems are some of the most common “gotchas” in cloud communication migration. 8x8 has industry-leading experience in the critical area of Wi-Fi implementations.

8x8 also has expertise in maximising quality over Wi-Fi networks. Many of these techniques are handled at the audio processing level, but 8x8 also preserves the best quality voice connections when endpoints are moving across network boundaries (for instance, from Wi-Fi to 4G, or from one Wi-Fi connection to another Wi-Fi connection). As a result, users can seamlessly roam between cellular, 3G/4G LTE data and Wi-Fi connections. They can also easily flip a call from the mobile app to a desk phone and back again—without other parties on the call noticing the switch.

Network engineering support offloads work from your IT team

A key component of 8x8’s network engineering support is our “Networking Genie in a Box” tool. This technology goes far beyond the simple bandwidth testing tools typically offered by cloud service providers. It can do comprehensive testing of the requirements to see if the 8x8 cloud solution will work flawlessly on your infrastructure. One click with this tool can replace numerous hours of network engineering work performed by your IT team to gather the same data. For example, it can tell you if there is any packet fragmentation happening on your network, if the connectivity to 8x8 data centres is working properly, or if geo-routing is working properly.best global call quality.

8x8

8x8, Inc. (NYSE:EGHT) is a leading provider of cloud phone, meeting, collaboration and contact centre solutions with over a million business users worldwide. 8x8 helps enterprises engage at the speed of employee and customer expectations by putting the collective intelligence of the organisation in the hands of every employee. For additional information, visit www.8x8.com/uk, or follow 8x8 on LinkedIn, Twitter, and Facebook.