PLEXUS communications

Unified Communications and Collaboration strategy

The Plexus Guide to UC and Cloud PBX Transition

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Introduction

A telephony system is the heart of any business serving both external and internal communications and in many cases enabling remote office connectivity nationally or perhaps globally depending on the size of your organisation. Unlike the electrical supply we rely upon which can more easily be supported with a backup system, a complex enterprise telephone system does not usually have a fall back, so any downtime generally results in disruption to the business and lost revenue. It is not surprising then that transitioning such a core element of business operations to the cloud may seem a daunting and high risk task.

Through this guide we hope to illustrate that with the right planning this could be one of the easiest technology transitions to the cloud you are ever likely to experience as a business. A key reason for this is that your entire new telephone system can be built in the cloud with DDIs assigned plus ring groups and call routing setup and tested all ahead of the go-live date.

This means that your current system can remain fully operational alongside until you are ready to switch over to the new system. Our four step transition guide sets out the fundamental tasks and considerations to help you make the transition to Unified Communications (UC) and ultimately Unified Collaboration as smoothly and pain free as possible.

Strategic

Unified Communication and Collaboration Strategy

Unified Communication and Collaboration provides an interconnected world of staff, customers & partners all engaging with digital technology to deliver service and value.

Tactical

Operational

Core telephony		Agile workspace		Unified Communications		Unified Collaboration	
Activities	**Benefits**	**Activities**	**Benefits**	**Activities**	**Benefits**	**Activities**	**Benefits**
Digital lines	Opex saving	Softphone rollout	Greater mobility	Video conferencing	Simple environment	Team messaging	Greater productivity
Asset refresh	Reduced maintenance	Agile working	Flexible workspace	Consolidated technology	True mobility	File sharing	User focus
Network assessment	Foundations laid	Hot desk	Access not ownership	Telepresence refresh	Open platform	not sending	Lower cost
Number porting		MDM policly for BYOD			Reduced spend	Any device anywhere	Mobility allowed

Network fundamentals – UC strategic planning

Even if you already have an IP based telephone system you will need to consider network bandwidth implications. If your strategic vision is to embrace everything that UC can offer you may be adding video conferencing, real time collaboration tools and business process integrations to your existing IP data network workload. But let us first go down to basics and look at some of the general bandwidth requirements for voice telephony which are particularly important if this is your first move to an IP based voice system.

A HD quality voice call requires approximately 90KB/s of bandwidth, so a 1MB/s link could potentially allow 10 concurrent HD Calls. If network bandwidth is limited in your area it is possible on some IP based systems to drop calls down to analogue quality which only needs ~30KB/s per call, significantly increasing the number of calls that are possible. However, if you are running other business applications over the same network connection then this will impact on the available bandwidth, ideally you would allocate a specific amount dedicated to just voice, perhaps segregating this from your data network.

It is also important to consider that broadband download and upload speeds are different, standard ADSL and Fibre connections have a slower upload speed to download. This is a critical part of the scoping exercise since a voice conversation travels in both directions so you cannot have a delay in either direction. IP and cloud hosted telephony are excellent, robust and flexible technologies but if bandwidth is not properly considered before implementation it has the potential to undermine the entire solution. A network bandwidth assessment is an important task and one which should be offered free of charge by your selected UC provider.

A more basic point but a very practical one is to consider the number of network points you have for each desk. Do you have one for a laptop and a spare one for an IP Phone? If not you can always 'daisy chain' them effectively running both devices on the same network point. If you have power over Ethernet (POE) switches you can also eliminate the need for a power point for the phone since they will be powered by the network port.

Step 1 - Core telephony transition

Once we are confident that network bandwidth requirements have been met we move to the configuration of the new cloud based PBX system. The objective here is to replicate the current core telephony system including all routing and features in the background and in parallel with the existing platform such that users have little to no change in their daily operations. There are number of activities and considerations within this stage, all of which are fairly straightforward and can be actioned with help from your chosen UC provider. Essential and optional elements that should take place within this tactical implementation include the following:

Number Porting

Your business telephone phone numbers will need porting across to your new UC platform. In order to manage the porting process effectively you need to ensure you know exactly what numbers you have, where they are directed and also the business address to which they are registered. This is to ensure that number ports are not rejected by your previous provider and to ensure that all call routing currently set in place can continue to function.

This process can take 4-6 weeks to action from the date your request is submitted due to the administrative processes of the providers you are transitioning from and to. Some deployments can be time sensitive and such a delay is simply not viable, this may be due to support contracts ending or even more pressing issues such as an onsite PBX failure. In order to accommodate tighter time scales it is possible to simply issue temporary virtual numbers and setup forwards on your old numbers pointing them to your new cloud PBX. This enables your new system to be functional very quickly so that number porting can continue to be managed separately in the background.

On the date the number port has been scheduled the numbers will simply move across into your cloud PBX seamlessly with the number forwarding automatically being removed since the numbers are now live within your new UC platform. During this process, clients calling your business will not notice any difference or interruption to service. In addition, if you have DDIs that require porting it is important to ensure these have been documented and to which user each one should be assigned ahead of time. The same applies to extension numbers; to keep the user experience as positive and familiar as possible we recommend you adopt your existing extension formats. Of course your new UC provider should be on hand to give you full assistance and support with this entire process.

Session Border Controller bridging – (Optional)

If you are moving away from an onsite legacy Voice over Internet Protocol (VoIP) system you may require a bridge in the interim to provide an interface between your existing Session Border Control (SBC) device and your new cloud PBX system. Your new UC provider should be able to advise and provide this bridging functionality if required. A SBC is a device regularly deployed in VoIP networks to exert control over the signalling and media streams involved in setting up, conducting, and tearing down telephone calls or other interactive media communications.

Support for existing telephone hardware – (Optional)

The move to a UC platform presents the perfect opportunity for a telephony hardware refresh and this may be essential if you wish to take full advantage of the capabilities that UC has to offer. During the transition period you may prefer to maintain use of existing hardware which can be facilitated. If your existing system uses hardware based on the Session Initiation Protocol (SIP) it is possible that that those handsets can be used with your new UC platform, again your new provider can advise here. If you do have analog telephones on premise these can be accommodated using an Analog Telephone Adapter (ATA) if you have a requirement to maintain their use.

Step 2 - Creating an Agile Workplace

One key benefit of a UC platform is the multitude of ways in which calls can be made and received. As the telephony system is now fully IP based with a PBX residing in the cloud we have the option to install softphone applications on devices such as laptops, PCs, tablets and smartphones. The softphone application will typically integrate with existing contact directories and make use of the audio and video capabilities of the device. This is a key step to mobilising the workforce and paves the way to establishing a 'bring your own device' policy (BYOD) which should be established in conjunction with a Master Data Management (MDM) plan. As previous stated, the move to a UC platform presents the perfect timing for a telephony hardware asset refresh such as the installation of new IP desk phones which allow for 'Hot Desking' within the workplace. The user can now move to a new physical office space and login to the end point device at that location which will pull across their unique internal extension number (and/or external DDI) with links to their contact directories, messages and all other UC telephony functions while they are logged in at that location.

Step 3 - Unified Communications

With our cloud PBX in place and all of our core telephony migrated to the new UC platform we can then start to look at simplifying the ways and methods of communication within the organisation. Whereas functions such as video conferencing would have previously been facilitated through a dedicated system or one of the many available 3rd party software applications or services, we will now have that capability built into our UC platform. This will simplify our communications environment and potentially save costs if those previous video conferencing services where chargeable. A good UC platform should allow you to offer voice and/or video conferencing capabilities easily and free of charge to people both inside and outside of your organisation such as customers and suppliers.

You may have noticed that in recent years we have all become victims to what is being called 'Messaging Application Sprawl'. We have so many tools to contact people all of which can carry voice, text and video. Skype, Facebook Messenger, WhatsApp and Google Hangouts is to name just a few and I'm sure you can think of many others, but more and more these applications are being used in the workplace to communicate both internally and externally. Not only does this have implications regarding company data security and our MDM policy but it also becomes difficult to locate that important piece of information or file attachment if we cannot remember which application was used to send or receive it. This leads us to now look at the final goal of UC which is to establish true Unified Collaboration in the workplace.

Step 4 - Unified Collaboration

For decades the telephone was the king of business communications in the days when the only 'e' in mail was the envelope. Then email arrived and today we could not image life without it, in fact some even take it with them to the beach. Email may have revolutionised business communications but it is particularly inefficient as a group collaboration tool. Have you ever spent time searching for that now vital email attachment sent by 'someone' in the team 'maybe' 4 weeks ago which you are sure that you saved locally at the time? A modern UC platform should provide state of the art collaboration tools that combine messaging, file and screen sharing plus voice and video capabilities together all in one place. The collaboration tool should at a minimum allow labelled group conversation threads to be established with all associated file attachments stored in the cloud, and readily available to group participants in a directory of files associated with that thread. No longer will you have to search desperately for that email file attachment, you should be able to locate it easily in the relevant group conversation.

Collaboration tools are just one way that a UC platform can greatly improve business efficiency, there are an endless number of business process application integrations that you can take advantage of to drive more value out of your business communications and operational data. Popular integrations include CRM, Marketing Automation and links into many existing communications tools if they are important to your business. In fact the list of available integrations is many and growing day by day.

Summary

Unlike many cloud based technology migrations, the move to cloud based telephony and Unified Communications is a lower risk operation as it allows for complete configuration and testing in parallel to your existing system. A phased implementation is also an option for added peace of mind. Clearly the on premise PBX is in its final days with many popular systems becoming end-of-life such that support and upgrades are no longer available. The widely distributed Avaya CS1000M is just one such example. So the shift to cloud based UC is coming and all will have to eventually make the transition. Plexus Communications exist to help you choose the best UC supplier for your business requirements. We are vendor agnostic with a deep knowledge of the Gartner UCaaS magic quadrant leaders (Figure 1.) and have decades of communications expertise in house that we are happy to share to help you choose the right provider. If you are planning the transition to cloud based UC, or perhaps are already there, but looking for a better option, please do not hesitate to contact us.

The Gartner UCaaS Magic Quadrant Leaders 2017

Figure 1. Magic Quadrant for Unified Communications as a Service, Worldwide

Source: Gartner (September 2017)