

Using Cloud Hosted Unified Communications to Create a Virtual Workplace.



The worker of the future is virtual. Far from wanting a 100% telecommuting, work from home experience, this new breed of worker wants to be plugged into the office 24 / 7 regardless of time or location and still be able to attend a communal office space where and when needed.

Introduction

There is a generational change underway in how we interact with technology. They've been called the 'millennials' but for many the preferred term has become 'digital natives'. This new type of individual is defined by having grown up with access to digital technology and the Internet. As early as 2011 there were detailed studies suggesting that the availability of the Internet was changing what and how we remember. In "Google Effects on Memory: Cognitive Consequences of Having Information at Our Fingertips" (Betsy Sparrow, 2011) it is posited that because the Internet eliminates the need for costly effort in the search for information, this in turn is reducing our ability to remember facts and figures. While fascinating this scarcely begins to describe the change in our society brought about by these digital natives. Where it concerns the workplace, this new generation has a completely different idea of how their work-life experience should happen, and the focus of this is around the concept of the virtual workplace.

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The Digital Native

The graphics below (fig 1) representing the survey results of a recent study by Tata Consultancy and Think Young illustrates many of the new and different expectations of the Digital Native at work.

If we examine each point in detail we discover a bit of why this shift in our workplace is so significant.

The first point of the results clearly shows that the digital native expects the digital enterprise to be one that is flexible, heavily reliant (focused) on online communication and not constrained by geographic boundaries. Immediately we begin to understand that the digital native does not perceive city, county or even national boundaries as something significant to their work. The Internet is global and so are they.

In the second point of the results we see that what they are looking for from the digital enterprise is not a job for life, high pay or defined pension. They are looking for their workplace to reflect their own attitudes towards the world: sustainable, user friendly, communicative and most importantly mobile.

The third point is perhaps what is most puzzling, or even surprising to those who tried and failed to predict this generation. As a whole, they want to work from an office! This is not a generation of couch-potatoes. In the fourth point we see their strongest message yet relating to communication. They cited their expectation that communication would be online; they cited that it should be mobile, now they state quite matter-of-factly that they expect their leadership to be people oriented. This poses a real challenge. When previous generations think about people oriented leadership they immediately think about the in-person, face-to-face time that a 'good manager' invests with his staff. Not the online, mobile, social and collaborative interaction the digital native expects.

The Workplace of the Future



Figure 1. TATA Consultancy Services.

In the fifth point they highlight that the institutions today are not adequately preparing them for the work-life they expect. Not surprising given how different this batch of individuals is.

In the sixth point we see again the focus on mobility, their keen desire to not only visit but immerse themselves in other countries and cultures.

In the seventh point they highlight what is most important to every business, how to get the most out of them. Clearly again there's the surprise that they do not want to be left alone, but put into an environment which actively schedules time for innovation, incentives the results, and of course provides access to the organisational information they require. We see here they're touching on the concept of gamification; applying the structured action - reward mechanisms of gaming to non-game concepts. This is key to understanding the Digital Native.

In point eight we have a strong vote for openness and transparency. This is certainly one of the key things that this new generation is highly passionate about. It is about moving beyond the 'open door policy' successful businesses have had for years to one where the organisation is totally open and transparent in the digital realm.

In the ninth point we have their tactic understanding that a more transparent business will be subject to more external influence. Far from

wishing as previous generations did to be able to carry on as they so choose without outside pressure or interference, this new generation sees the external influence as an important source of opportunity. This is key in the concepts around Web 2.0 and the 'fail fast' mentality.

Finally in the last point we understand that they are keen to be presented with opportunity. This is not a worker who is happy to stay in the same job, doing the same thing for an entire career.

“Given all of this, the question is simply how does the workplace adapt?”

“How does the workplace adapt to the digital native?”

It is clear that the digital native is not going to be well served by a traditional office phone service. What's more important is that the notion of connected and mobile suggest that any communication system tied to the office premises is also out of the question.

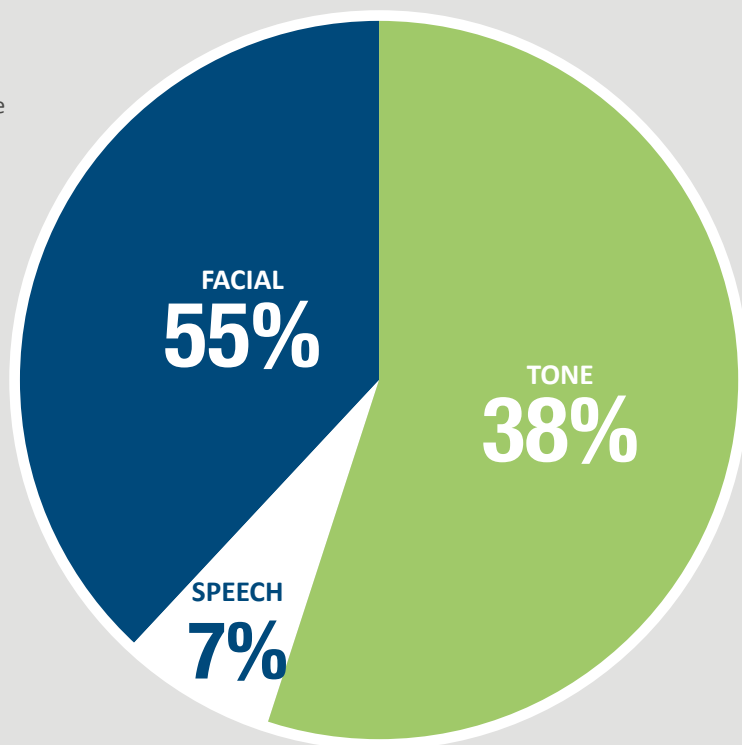
Vectors in Human Communication

Groundbreaking research was conducted in the 1960's by Albert Mehrabian which lead to the oft-misunderstood 7% - 38% - 55% rule (Mehrabian, 1971). The rule of course properly refers to the vectors of communication, not of subject content, but of feeling or 'like / dislike'.

This is illustrated by the graph in Figure 2:

What we see as a result of this study is that when expressing feelings, verbal communication on its own represents a tiny fraction of the ability to adequately convey the intended feeling to the other party. Even when we include very high-quality sound where tone is able to be heard and appreciated we have achieved only 45% of the message transference potential.

The key is in facial cues, those non-verbal and instinctive cues we all give off when communicating about emotional or sensitive topics. This is made plain to see when you encounter an emoji used in modern text chats and text-based messaging systems. The creation of those little faces is an attempt to make up for the lack of facial and body language in those systems.



Where people have misinterpreted the Mehrabian formula is in thinking that it applies to all communication. This was never the case. He writes: "Please note that this and other equations regarding relative importance of verbal and nonverbal messages were derived from experiments dealing with communications of feelings and attitudes (i.e., like-dislike). Unless a communicator is talking about their feelings or attitudes, these equations are not applicable."

Email, phone, text-chat and all of the other modern forms of synchronous and asynchronous communication are perfectly suited to the conveying of information. It is particular to the conveying of feelings and emotions that we must involve facial and body language.

Herein lies the frustration of the digital native when faced with

a situation where they are seeking information and they must communicate face-to-face, or on the phone rather than using one of the (in their eyes) more efficient modes of information exchange.

Likewise we have the failure of many managers who attempt, and inevitably fail, to use a non-visual (facial) mode of communication for emotional and sensitive topics.

The virtual workplace must embrace both, the multi-mode synchronous and asynchronous for information and the facial / interpersonal for emotions and sensitive topics. Further all of these systems must work across distance.

Synchronous & Asynchronous Communication

When considering the necessary modes and technologies of communication in the virtual workplace, consideration has to be taken to both time and location as shown in **Figure 3**.

Today's traditional manager in a traditional workplace will invariably favour one or more types of communication; however the digital native understands that communication is a tool, and like any tool must be fit for purpose. They will be insistent on using the best form of communication for the task at hand; and this will vary based on location, time sensitivity, and as previously detailed, on emotional content.

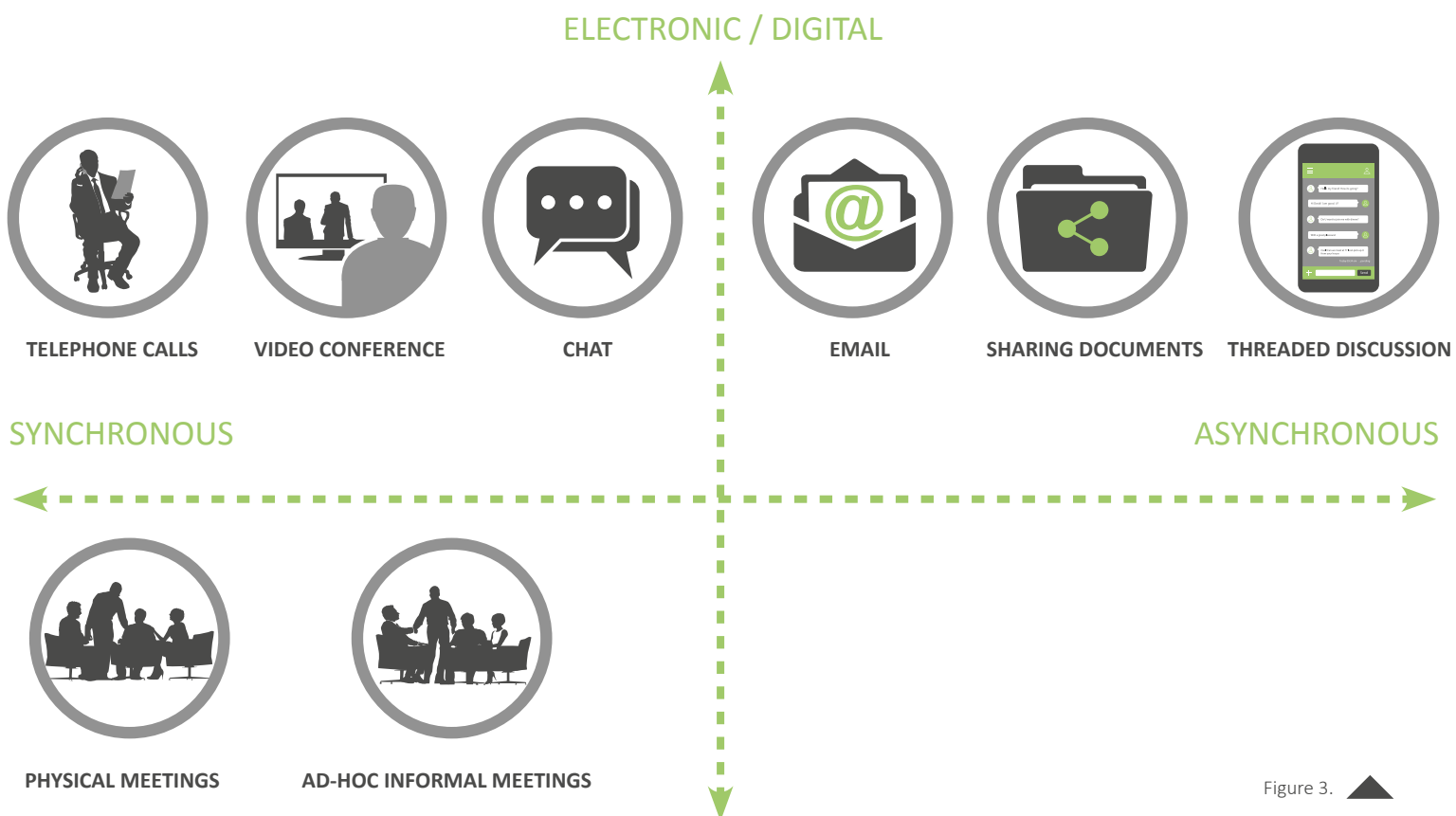


Figure 3. ▲

The Importance of Collaboration

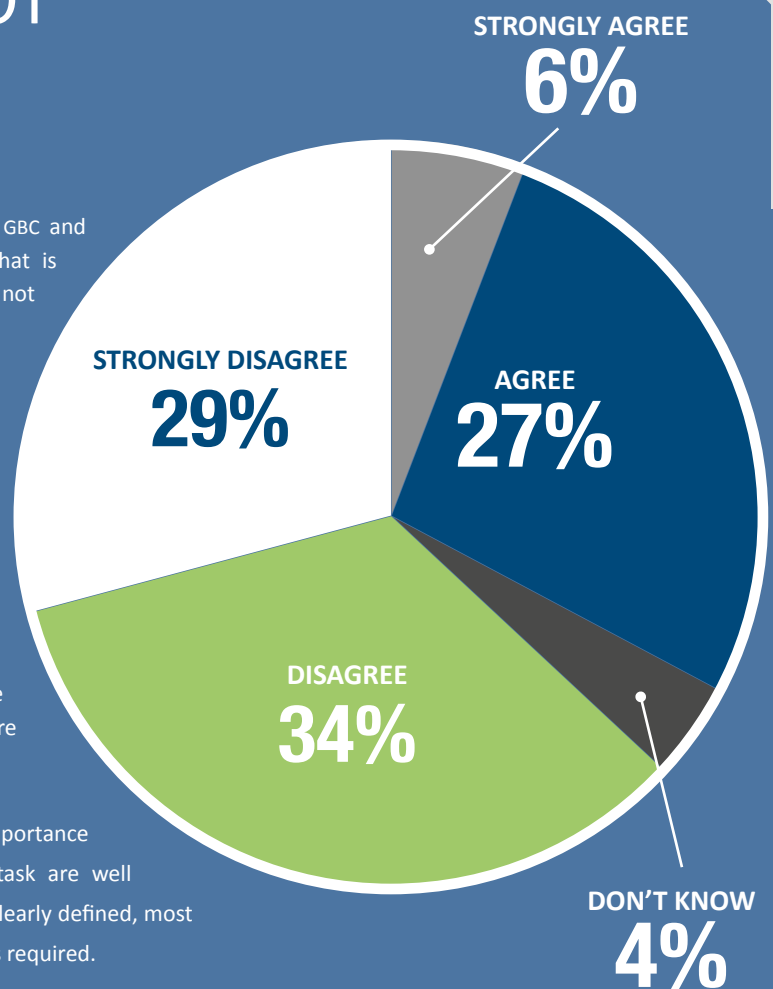
In their January 2015 study (Government Business Council, 2015) the GBC and Accenture examined within the government agencies of the USA what is impacting innovation and collaboration. They found many things that are not unexpected given what we know about the digital native.

To begin with, the physical layout of today's offices is not fit for purpose, with 63% of respondents either disagreeing or strongly disagreeing that the design of their office facilitates collaboration. The full results shown in **Figure 4**.

Much as expected the survey respondents were clear that their greatest source of innovation is their own co-workers, as shown in **Figure 5**.

When asked if the tools their workplace provides are up to the task of fostering the type of collaborative innovation that the digital native expects, the results unsurprisingly were that 42% of current staff are unsatisfied, shown in **Figure 6**:

We can see that while the expectations of the users are known,; the importance of appropriate methods of communication for each situation and task are well understood; and that the link between collaboration and innovation is clearly defined, most organisations, even in major governments, are failing to deliver the tools required.



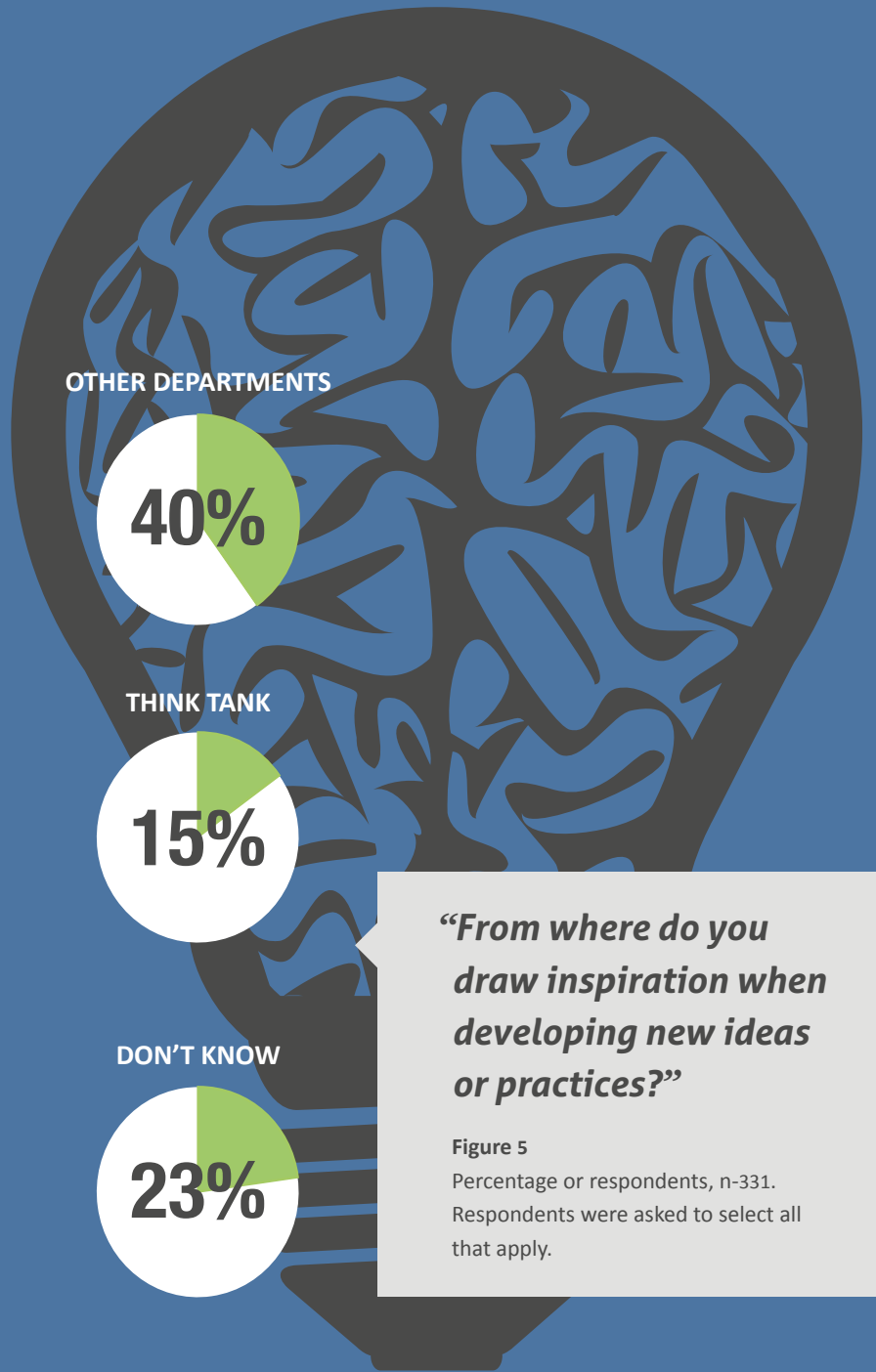
Making the case for Cloud hosted Unified Communications?

Having detailed the challenges faced by organisations making the transition from traditional to digital enterprises, we must now examine some of the solutions. Two factors in particular make the argument for Cloud based Unified Communications or 'UC as a Service'.

1. The need for mobility and non-geographic service mean that supporting users across the Internet will be just as important as supporting users inside offices and owned premises. More importantly the quality of experience must be the same as the digital native demands this work-life flexibility. Premise based systems rely on often under-performing, unreliable or inadequate Internet links for remote workers whereas Cloud hosted services are already directly connected with near infinite bandwidth to all Networks.
2. The ever changing nature of the technology and user expectation means that upgrades and feature response needs to be fast. The digital native is not accustomed to waiting years or months for new capabilities, they are expecting their experience to be constantly upgraded. In-house IT teams are simply too stressed and lack the experience in continuous integration and Development-Operations ('devops') to keep up.

“The Design of our office space facilitates collaboration among employees.”

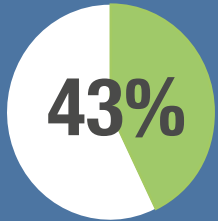
Figure 4



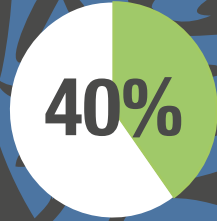
MY COWORKERS



PRIVATE SECTOR



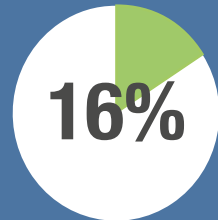
OTHER DEPARTMENTS



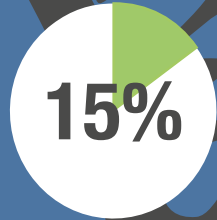
UNIVERSITIES



CITIZENS



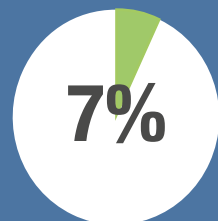
THINK TANK



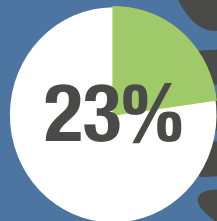
OTHER



NONE ABOVE



DON'T KNOW



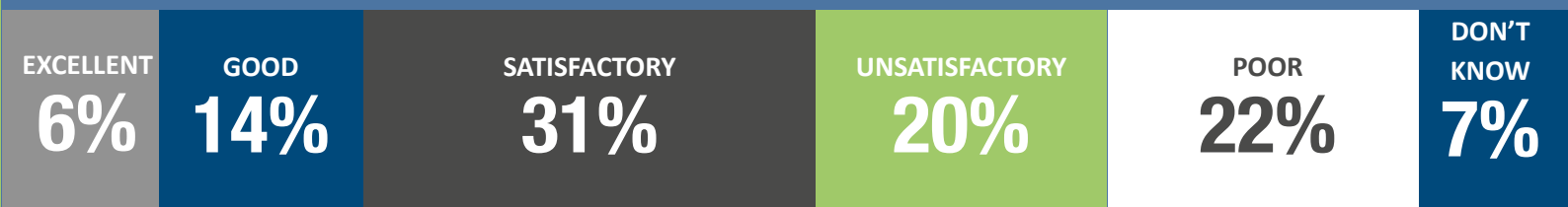
“From where do you draw inspiration when developing new ideas or practices?”

Figure 5

Percentage of respondents, n=331. Respondents were asked to select all that apply.

“How would you rate your department / agency’s digital collaboration tools (e.g. social media, mobile apps, Cloud-based live sharing tools)?”

Figure 6 - Percentage of respondents, n=333.



Beware the Dangers of Shadow IT

One thing which persists in today's era of Cloud is that the consumer world is often ahead both technologically and in terms of quality of experience of the enterprise world; however it also often lacks adequate security. One thing we know about the digital native is that if the tools are not provided (recalling the 43% dissatisfied with the tools) they will inevitably bring their own! Cloud UCaaS generally provides a far more dynamic, ever improving environment than anything that can be deployed and maintained in-house as the Cloud providers are forever trying to one-up each-other in features and capabilities. More importantly a properly designed business solution will provide the necessary security and confidentiality required.

When is UC not Enough?

If we think back to the consideration of digital vs physical and synchronous vs asynchronous there's clearly a need for more than just the voice, video and chat provided by UCaaS. Email and other forms of collaboration are still vitally important to most businesses. There have been several discussions about businesses 'banning email' (VOZZA, 2015) but the reality is not that simple. Once again the Cloud provides the answer. By integrating your UC with Cloud-hosted email and collaboration you provide a suite of additional management tools to your workers to aid in the internal innovative / collaborative process and also the external collaboration your customers and suppliers desire. New team-management tools such as Trello.com, Basecamp.com, Unison.com, or Teamwork.com provide a new dimension to managing projects, teams and deliverables. Cloud based applications can often then be federated so that activities occurring in one application can be automatically logged, recorded or shared in the other application. Certainly there is more to be done in this area, but it is developing fast.

Can the Desktop be Virtual?

Thus far all of the attention has been towards the applications for voice, video, chat, email, collaboration, team management and others that workers employ on a daily basis. Of course while these applications are all essential for communication and collaboration, for many organisations they do not address the actual product of works. Whether it's a spreadsheet, a document, a graphic or a CAD design, many workers are not just collaborating with each-other, they are collaborating on actual digital content.

For a number of years now we have become familiar with web conferences as adding another dimension to our ability to collaborate by allowing us to watch one or more people interact with something on their PC while discussing the topic. This capability is certainly one of the essential elements of any good UC solution. Where UCaaS takes this further is by eliminating the need for complex scheduling, codes and controls and making this screen sharing process easy and fast. In effect the UCaaS environment has become the new water-cooler where workers (regardless of location or device) can quickly grab colleagues for a chat, showing them what they are working on.

While excellent, screen sharing still falls down in two respects:

1. It's often impossible to change who's 'controlling' the interaction, especially if the data only exists in one users local system.
2. Screen sharing systems are not designed for multiple users to interact with the documents or data simultaneously.

When we think of multiple users working on the same set of data simultaneously, this of course has been a standard feature of most enterprise client-server software packages for many years. Accounting systems, CRM, CAD / CAM can all allow multiple simultaneous users to work on the same data file. The challenge of course is that this is only possible when those users are local to each-other and to the client-server system providing the functionality.

In the spirit of shadow IT, many users have for years relied on tools such as gotomypc.com so that they can work on a local system in the office even when they are not local as a way of bypassing the distance limitation of the multi-user systems. Like all shadow IT, this is extremely dangerous. It opens up multiple un-controlled, un-monitored and un-audited channels of access to the corporate Network, so many IT departments have setup to block or prevent these tools.



By integrating your UC with Cloud-hosted email and collaboration you provide a suite of additional management tools to your workers to aid in the internal innovative / collaborative process and also the external collaboration your customers and suppliers desire.

Can the Cloud provide the answer to the **desktop dilemma?**

A Cloud service that often goes hand-in-hand with UCaaS is the Cloud hosted desktop, or Desktop as a Service ('DaaS'). DaaS is essentially a service-based deliver of virtual desktops, but unlike traditional VDI bypasses all of the costly hardware purchase and the complex skillset required. DaaS provides a standard per-user, persistent dedicated 'virtual PC' hosted, like UCaaS, in an Internet connected Cloud. Perfect for remote workers, DaaS allows for any device to connect from anywhere and present the user with the identical "corporate" Windows

or Linux desktop. This means that the desktop environment becomes disconnected from the users' location and device; they have the exact same interactive experience in the office on a zero-client as they have working remote on an iPad.

When brought together with UCaaS and the other Cloud-based collaboration tools available we begin to see the realisation of the truly Virtual Workplace.

What is a flexible worker?
Generally this is an employee that has a working schedule outside of a normal working pattern. Their working hours and place of work may change from one day to the next.

The introduction of **'flexitime'** in many companies allows employees to choose when to begin and end work

What does flexitime mean?
This is when an employee has the ability to choose when they work their set hours, usually within a specific parameter set by their company.

62%
Employees feel they would have a better work/life balance with more access to flexible working too - with 62% agreeing

72%
72% of employees struggle with their company's flexible working policy due to technology issues.

Allowing them to be flexible and accommodate both **work and life**

The Virtual Workplace

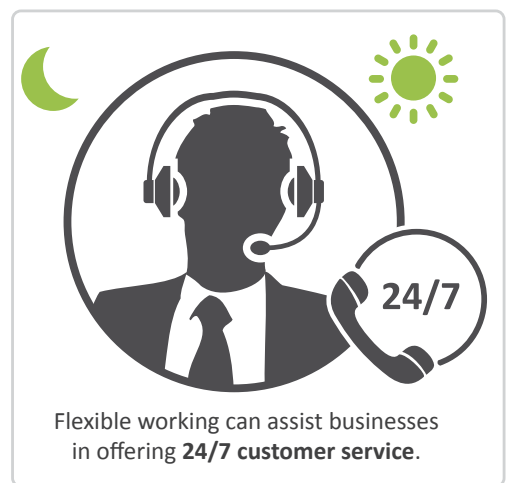
This infographic brought together by Exponential-e combines data from a 2013 RSA study (Truch, 2013), a 2014 Google survey (Deloitte, 2014) and a 2014 CIPD survey (Ksenia Zheltoukhova, 2014) to highlight some of the reasons why a Virtual Workplace is key to our future.

The conclusion is clear, that by supporting flexible working while also offering a creative, collaborative and intelligently designed office space organisations will both maximise employee satisfaction while also maximising innovation and productivity. Creating this virtual workplace is about combining together the benefits of web-based management tools, Cloud based Unified Communications and hosted Virtual Desktops.

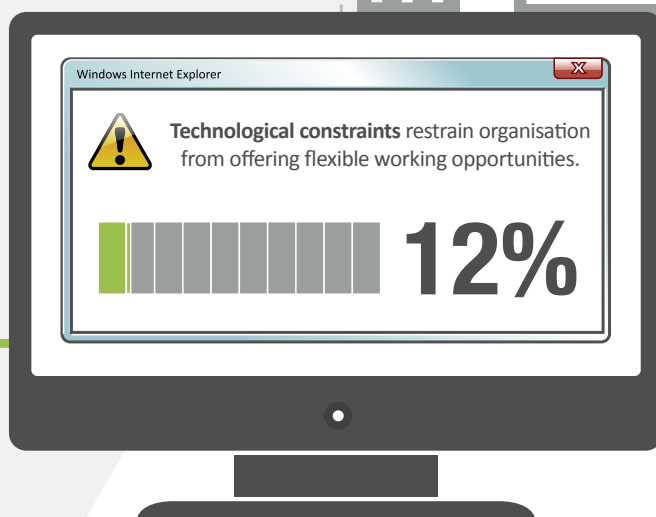


Make your employees happy ones with
Desktop-as-a-Service

64% of employees that are able to work flexibly feel this has **enhanced their job satisfaction**



Flexible working can assist businesses in offering **24/7 customer service**.



Conclusion

We have seen how the virtual workplace changes the very nature of what a workplace is. The physical space needs to be more collaborative, more social and should focus on areas where workers can get the physical time together in small groups that they crave. The virtual workplace means that the information systems, computers and software can be separated from the physical workplace and relocated into the Cloud. This ultimately allows for a consistent experience regardless of device or location.

Moving to the Virtual Workplace is as much about cultural and staff change as it is about technology. We've struggled with the technology for years, while also resisting the cultural change. In 2015 we have reached a stage of maturity where the reality of hosted Virtual Desktop, Unified Communications for real-time Voice, video, chat and screen sharing can combine together and be added to new easy-to-use web based tools for managing projects, staff and deliverables. What remains now is to overcome the cultural barriers to adopt this new mode of working.

Certainly the most important factor is getting away from a time and attendance system of staff evaluation to one of objectives and deliverables. The second most important factor is for managers to not underestimate the value of face-time but also to accept that this face-time can be on a screen - we do not need to be physically present to engage emotionally with our staff.

The outcome is not only the embracing of the ideals of the digital native, but also helping workers of all ages and technical competencies work more closely together. While the benefits for the workers are obvious, on balance, it is the workplace that stands to gain the most.

In today's hyper-competitive and global environment it is often the business which innovates first and fastest that is most successful, and nothing has been proven more influential to a business's ability to innovate than collaboration. Collaboration made possible by technologies like DaaS and UCaaS.

How Exponential-e can help you?

Professional Services:

Our highly qualified and experienced Professional Services team at Exponential-e will examine your existing infrastructure, consider your business' future needs and mitigate any risks to ensure a successful transition from Windows Server 2003. These practitioners are multi-skilled and uniquely placed to drive your business to an IT environment that will enable growth, flexibility, mobility of data, added security and compliance.

www.exponential-e.com/professional-services

IT Audit:

Avoid the headache of manually reviewing your IT estate with our IT Audit solution. Monitor all activity across your infrastructure with our single reporting tool, allowing you to see minute detail on things such as software installations and the utilisation statistics for individual users. The performance of individual machines will also not be affected due to the non-intrusive nature of the install.

www.exponential-e.com/it-audit



Works Cited: Betsy Sparrow, J. L. (2011). Google Effects on Memory: Cognitive Consequences of Having Information at Our Fingertips. Retrieved from Science Magazine: <http://www.sciencemag.org/content/333/6043/776.abstract#aff-2> • Deloitte. (2014, 10). <https://www2.deloitte.com/content/dam/Deloitte/global/Documents/Technology-Media-Telecommunications/gx-tmt-small-business-big-technology.pdf>. Retrieved from deloitte.com: <https://www2.deloitte.com/content/dam/Deloitte/global/Documents/Technology-Media-Telecommunications/gx-tmt-small-business-big-technology.pdf> • Government Business Council, A. (2015, January). Creating a Federal Innovation Process. Retrieved from GBC: <http://www.govexec.com/gbc/reports/creating-federal-innovation-process/103236/> • Ksenia Zheltoukhova. (2014, November). HR: Getting Smart about Agile Working. Retrieved from CIPD: http://www.cipd.co.uk/binaries/hr-getting-smart-agile-working_2014.pdf • Mehrabian, A. (1971). Silent Communication. Belmont, CA: Wadsworth. • Truch, R. (. (2013, July). The Flex Factor. Retrieved from thesa.org: <https://www.google.co.uk/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&cad=rja&uact=8&ved=0CCIQFjAA&url=https%3A%2F%2Fwww.thesa.org%2Fdiscover%2Fpublications-and-articles%2Freports%2Fthe-flex-factor-realising-the-value-of-flexible-working%2FDownload&ei=rM-RVc> • VOZZA, S. (2015, February). Why your company should consider banning email. Retrieved from Fast Company: <http://www.fastcompany.com/3042541/why-your-company-should-consider-banning-email>